IOWA DEPARTMENT OF NATURAL RESOURCES

Land Application of Solid Waste

Additional Sites

Application to add sites to an existing solid waste land application permit must be accompanied by the information required by the applicable solid waste rules under Iowa Administrative Code 567 Chapter 121.

Send completed applications with attached information to:

Iowa Department of Natural Resources
Land Quality Bureau
Solid Waste Section
502 East Ninth Street
Des Moines, IA 50319-0034

For questions concerning this application please contact the Department at (515) 281-8646.

SECTION 1. FACILITY CONTACT INFORMATION

Permit # 00 -SDP- 07 - 14P -LAN

Solid Waste Generator Name/Address:

Cargill, Inc., 650 Industrial Road, Blair, NE 68008

Phone #: 402-533-4100 **Fax #:** 402-533-1700

SECTION 2. PERMIT APPLICATION CHECKLIST

Checking the appropriate boxes below certifies that the documents submitted in conjunction with this application form are complete and in compliance with the applicable chapters of the Iowa Administrative Code. One (1) copy of each document shall be submitted. If an application is found by the department to be incomplete, it may be denied and returned to the applicant.

Required Documents			Attached
	Document/Information	**Administrative Code**	
Section A	List of all the sites being added. For each site include: • Name of site • Legal description of the site • Total acres in the site • Acres to be used for disposal • Name of landowner or tenant		X
Section B	Financial Assurance. **If** the additional site(s) will include additional storage of materials, include a revised cost estimate and proof of financial assurance in the revised amount.	IAC 567 121.8	*Checklist

For each site attach the following:			
Section C	Site map or aerial photo of the site showing the following: • The specific area where the material will be applied • Buildings, lakes, ponds, watercourses, wetlands, dry runs, rock outcroppings, roads, and other applicable details. • Soil types and slope • Location of wells *Please remember that the area to be used for land disposal:* • *may not have a slope of greater than 9%,* • *may not be within 200 feet of an occupied residence* • *may not be within 500 feet of a well* ***If the specific area requested includes any of the above the entire field will not be approved.***	IAC 567 121.7(1)"a"(1) IAC 567 121.7(1)"a"(1) IAC 567 121.7(1)"a"(2) IAC 567 121.7(1)"a"(1)	X
Section D	Soil testing	IAC 567 121.7(1)"a"(9)	*Checklist
Section E	Water table levels	IAC 567121.7(1)"a"(10)	X
Section F	Review by Soil Conservation District that includes the following: • Soil loss limits applicable to the site • Design soil loss levels for the site • Estimated current soil loss levels *The review may be done by the Natural Resources Conservation Service or a Professional Agronomist in lieu of the Soil Conservation District.*	IAC 567 121.7(1)"a"(3) IAC 567 121.7(1)"a"(6) IAC 567 121.7(1)"a"(7) IAC 567 121.7(1)"a"(8)	X
Section G	Proof of ownership or legal entitlement to use the site. (Agreement with landowner or tenant) *One document may be submitted for multiple sites with the same landowner or tenant.*	IAC 567 121.7(1)"b"(6)	X

SECTION 3. APPLICANT CERTIFICATION

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I further certify that the construction and operation of the above described facility will be in accordance with the plans, specifications, reports and related communications accepted by the Iowa Department of Natural Resources and on file in its office; and in accordance with conditions imposed in the permit issued by the Iowa Department of Natural Resources.

Signature: _____ **Date:** 5/19/26

Printed Name: Matt Gutzmann **Title:** Facility Manager

Cargill Corn Milling, Blair, NE

Iowa DNR Land Application Permit # 00-SDP-07-14P
Additional Sites Application Checklist: Sections A-G

A. List of All Sites Being Added

1. See attached Additional Sites List and Table 1 Master Site List including additional land application site and all previously approved land application sites. Each site list includes:
    - i. Name of Site
    - ii. Legal Description of Site
    - iii. Total Acres in the Site
    - iv. Acres to be used for disposal / Suitable Acres
    - v. Name of Landowner or Tenant

B. Financial Assurance

1. Financial assurance will not be updated or changed due to this being a new site addition with no additional volumes expected.

C. Site Map or Aerial Photo of Sites

1. See attached aerial site map of each additional site detailing:
    - i. The specific area where the material will be applied
        1. Site boundaries outlined on each aerial map
    - ii. Buildings, lakes, ponds, watercourses, wetlands, dry runs, rock outcroppings, roads, and other applicable details
        1. Site features and setbacks detailed on aerial maps
    - iii. Soil types and slope
        1. NRCS soil maps attached for each site
    - iv. Location of wells
        1. IDNR Well Search information attached for each site and active wells highlighted on aerial maps by 500 foot circular setback

D. Soil Testing

1. Soil testing will be completed as soon as possible prior to application of the site. Additional site soil sampling will be completed each time site is used for application and discussed in annual agronomist reports.

E. Water Table Levels

1. See attached Depth to Water Table outline for each specific site provided by NRCS.

F. Review by Professional Agronomist

1. See attached land application site suitability review performed by Extended Ag Services discussing soil loss levels through erosion and flooding potential.
    i. Extended Ag Services - Jim Nesseth, Certified Agronomist, License # 17118 and Andy Nesseth, Environmental Consultant.
2. See attached T Factor erosion potential outlines for each specific site provided by NRCS.

G. Proof of Ownership or Legal Entitlement to Use the Site

1. See attached Contractual Consent of Landowner, Lessee and/or Land Operator for the specific individual with this additional sites application.

Cargill Corn Milling Blair: Permit # 00-SDP-07-14P - IDNR Master Site List Table 1

Site Name	Operator	Section Information / Site Detail	Township	County	State	Spreadable Acres	Operator Address	Operator Phone
71	Lynn Mether	S 1/4 Sec 24	morgan	harrison	IA	94	106 Linden Dr, Woodbine, IA 51579	402-301-8223
72	Lynn Mether	NE 1/4 Sec 20, NW 1/4 Sec 21	raglan	harrison	IA	116	106 Linden Dr, Woodbine, IA 51579	402-301-8223
73	Lynn Mether	SW 1/4 Sec 20	raglan	harrison	IA	152	106 Linden Dr, Woodbine, IA 51579	402-301-8223
74	Michael Heistand	W 1/4 Sec 8, SE 1/4 Sec 7	union	crawford	IA	224	1298 O'Banion Rd., Dunlap, IA 51529	712-269-2938
75	Michael Heistand	Sec 16,17,19, 20, 21, 27, 28	union	crawford	IA	1750	1298 O'Banion Rd., Dunlap, IA 51529	712-269-2938
76	Michael Heistand	SE 1/4 Sec 8; SW 1/4 Sec 9	harrison	harrison	IA	235	1298 O'Banion Rd., Dunlap, IA 51529	712-269-2938
77	Michael Heistand	E 1/2 Sec 28, NE 1/4 Sec 29, S 1/4 Sec 21	harrison	harrison	IA	747	1298 O'Banion Rd., Dunlap, IA 51529	712-269-2938
78	Michael Heistand	Sec 13, SW 1/4 Sec 18, NW 1/4 Sec 19, N 1/4 Sec 24	boyer	crawford	IA	480	1298 O'Banion Rd., Dunlap, IA 51529	712-269-2938
79	Michael Heistand	nw1/4 sec 5, ne1/4 sec 6	douglas	harrison	IA	157	1298 O'Banion Rd., Dunlap, IA 51529	712-269-2938
80	Michael Heistand	sw1/4 sec 10	douglas	harrison	IA	197	1298 O'Banion Rd., Dunlap, IA 51529	712-269-2938
81	Michael Heistand	nw1/4 sec 25	douglas	harrison	IA	156	1298 O'Banion Rd., Dunlap, IA 51529	712-269-2938
82	Curtis Mether	sw1/4 sec 21	raglan	harrison	IA	53	2030 Laredo Ave, Logan, IA 51546	712-648-2159
97	Randy Williams	se1/4 sec 4, ne1/4 sec 9	crescent	pottawattamie	IA	234	27233 145th St, Crescent, IA 51526-4012	402-677-3217
98	Randy Williams	s1/2 sec 16, ne1/4 sec 21	crescent	pottawattamie	IA	234	27233 145th St, Crescent, IA 51526-4012	402-677-3217
101	Ed Olsen	w1/2 sec 24	calhoun	harrison	IA	351	2756 Loess Hills Trail, Mo. Valley, IA 51555	402-981-6090
102	Ed Olsen	se1/4 sec 10	cincinnati	harrison	IA	150	2756 Loess Hills Trail, Mo. Valley, IA 51555	712-642-4342
103	Ed Olsen	nw1/4 sec 8	la grange	harrison	IA	51	2756 Loess Hills Trail, Mo. Valley, IA 51555	712-642-4342
104	Ed Olsen	nw1/4 sec 7	morgan	harrison	IA	157	2756 Loess Hills Trail, Mo. Valley, IA 51555	712-642-4342
105	Ed Olsen	se1/4 sec 23, ne1/4 sec 26	taylor	harrison	IA	200	2756 Loess Hills Trail, Mo. Valley, IA 51555	712-642-4342
106	Ed Olsen	se1/4 sec 26	taylor	harrison	IA	77	2756 Loess Hills Trail, Mo. Valley, IA 51555	712-642-4342
107	Danny Stanislav	sec 18, nw1/4 sec 17, nw1/4 sec 19	sioux	monona	IA	908	27054 CO Hwy E60, Blencoe, IA 51523	712-420-3519
179	Chad Gorham	nw1/4 sec 5	willow	monona	IA	168	42555 State Hwy 37, Dunlap, IA 51529	712-592-1123
180	Chad Gorham	w1/2 and se1/4 sec 10	willow	monona	IA	339	42555 State Hwy 37, Dunlap, IA 51529	712-592-1123
181	Chad Gorham	n1/2 sec 13	soldier	monona	IA	318	42555 State Hwy 37, Dunlap, IA 51529	712-592-1123
182	Chad Gorham	ne1/4 sec 32, nw1/4 sec 33	soldier	monona	IA	258	42555 State Hwy 37, Dunlap, IA 51529	712-592-1123
183	Chad Gorham	sw1/4 sec 32	soldier	monona	IA	76	42555 State Hwy 37, Dunlap, IA 51529	712-592-1123
184	Chad Gorham	nw1/4 sec 34	soldier	monona	IA	72	42555 State Hwy 37, Dunlap, IA 51529	712-592-1123
185	Dean Klindt	sec 1	shelby	shelby	IA	742	534 Ironwood Rd, Harlan, IA 51537	712-579-0431
186	Dean Klindt	e1/2 sec 12	shelby	shelby	IA	318	534 Ironwood Rd, Harlan, IA 51537	712-579-0431
187	Dean Klindt	nw1/4 sec 32	shelby	shelby	IA	160	534 Ironwood Rd, Harlan, IA 51537	712-579-0431
188	Dean Klindt	n1/2 sec 1	valley	pottawattamie	IA	114	534 Ironwood Rd, Harlan, IA 51537	712-579-0431
189	Dean Klindt	e1/2 sec 10	pleasant	pottawattamie	IA	395	534 Ironwood Rd, Harlan, IA 51537	712-579-0431
190	Dean Klindt	nw1/4 sec 6	fairview	shelby	IA	165	534 Ironwood Rd, Harlan, IA 51537	712-579-0431
191	Dean Klindt	nw1/4 sec 7	fairview	shelby	IA	110	534 Ironwood Rd, Harlan, IA 51537	712-579-0431
192	Dean Klindt	sw1/4 sec 19	fairview	shelby	IA	133	534 Ironwood Rd, Harlan, IA 51537	712-579-0431
211	John Buman	sw1/4 sec 34	lincoln	shelby	IA	157	800 Road M16, Harlan, IA 51537-2508	712-579-8268
212	Danny Martens	se1/4 sec 26, sw1/4 sec 25	minden	pottawattamie	IA	74	33315 Lombardy Rd, Minden, IA 51553	402-250-2842
213	Danny Martens	se1/4 sec 15, n1/2 sec 22	york	pottawattamie	IA	252	33315 Lombardy Rd, Minden, IA 51553	402-250-2842
214	Danny Martens	s1/2 sec 22, n1/2 sec 27	york	pottawattamie	IA	166	33315 Lombardy Rd, Minden, IA 51553	402-250-2842
215	Danny Martens	sec 23, se1/4 sec 22	washington	harrison	IA	321	33315 Lombardy Rd, Minden, IA 51553	402-250-2842
216	Danny Martens	n1/2 sec 9, nw1/4 sec 10	washington	pottawattamie	IA	310	33315 Lombardy Rd, Minden, IA 51553	402-250-2842
217	Danny Martens	n2/3 sec 20	james	pottawattamie	IA	278	33315 Lombardy Rd, Minden, IA 51553	402-250-2842
239	Leland Kaufmann	se1/4 sec 23, s1/2 sec 27, sec 33	westphalia	shelby	IA	470	1303 Ironwood Rd, Harlan, IA 51537	712-579-0370
240	Leland Kaufmann	sw1/4 sec 34	westphalia	shelby	IA	134	1303 Ironwood Rd, Harlan, IA 51537	712-579-0370
245	Arvin Eichstadt	sw1/4 sec 15	crescent	pottawattamie	IA	107	1613 Old Lincoln Hwy, Crescent, IA 51526	402-651-2292
246	Arvin Eichstadt	nw1/4 sec 14	crescent	pottawattamie	IA	90	1613 Old Lincoln Hwy, Crescent, IA 51526	402-651-2292
254	Anthony Salter	ne1/4 sec 6	st johns	harrison	IA	123	1776 250th St, Modale, IA 51556	402 651 3133
255	Anthony Salter	nw1/4 sec 3	taylor	harrison	IA	72	1776 250th St, Modale, IA 51556	402 651 3133
256	Alan Oltmanns	nw1/4 sec 22	union	harrison	IA	292	3377 335th St, Neola, IA 51559	712-485-2404
257	Alan Oltmanns	se1/4 sec 20	union	harrison	IA	143	3377 335th St, Neola, IA 51559	712-485-2404
258	Alan Oltmanns	s1/2 sec 27	union	harrison	IA	213	3377 335th St, Neola, IA 51559	712-485-2404
270	Troy Rath	sw1/4 sec 9	allen	harrison	IA	90	1175 Madison Lane, Pisgah, IA 51564	712-456-2200
272	Frank Moran	e1/2 sec 17	nonwalk	pottawattamie	IA	301	25843 Old Lincoln Hwy, Honey Creek, IA 51542	402-681-3871
273	Frank Moran	e1/2 sec 19	nonwalk	pottawattamie	IA	237	25843 Old Lincoln Hwy, Honey Creek, IA 51542	402-681-3871
274	Frank Moran	ne1/4 sec 18, nw1/4 sec 17	neola	pottawattamie	IA	238	25843 Old Lincoln Hwy, Honey Creek, IA 51542	402-681-3871
275	Frank Moran	n1/2 sec 28	boomer	pottawattamie	IA	152	25843 Old Lincoln Hwy, Honey Creek, IA 51542	402-681-3871
276	Frank Moran	w1/2 sec 33, ne 1/4 sec 5	boomer, hazel dell	pottawattamie	IA	200	25843 Old Lincoln Hwy, Honey Creek, IA 51542	402-681-3871
277	Frank Moran	s1/2 sec 31, w1/2 sec 32	boomer	pottawattamie	IA	321	25843 Old Lincoln Hwy, Honey Creek, IA 51542	402-681-3871
278	Frank Moran	n1/2 sec 7	hazel dell	pottawattamie	IA	87	25843 Old Lincoln Hwy, Honey Creek, IA 51542	402-681-3871
279	Frank Moran	sec 18, sw1/4 sec 17	hazel dell	pottawattamie	IA	538	25843 Old Lincoln Hwy, Honey Creek, IA 51542	402-681-3871
280	Frank Moran	ne1/4 sec 12	crescent	pottawattamie	IA	153	25843 Old Lincoln Hwy, Honey Creek, IA 51542	402-681-3871
281	Frank Moran	ne1/4 sec 14, n1/2 sec 13	crescent	pottawattamie	IA	494	25843 Old Lincoln Hwy, Honey Creek, IA 51542	402-681-3871
282	Frank Moran	se1/4 sec 14	crescent	pottawattamie	IA	78	25843 Old Lincoln Hwy, Honey Creek, IA 51542	402-681-3871
283	Frank Moran	s2/3 sec 23	crescent	pottawattamie	IA	281	25843 Old Lincoln Hwy, Honey Creek, IA 51542	402-681-3871
288	Ed Olsen	nw1/4 sec 23	taylor	harrison	IA	160	2756 Loess Hills Trail, Mo. Valley, IA 51555	712-642-4342
289	Ed Olsen	se1/4 sec 4	st johns	harrison	IA	145	2756 Loess Hills Trail, Mo. Valley, IA 51555	712-642-4342
290	Ed Olsen	se1/4 sec 21	st johns	harrison	IA	67	2756 Loess Hills Trail, Mo. Valley, IA 51555	712-642-4342
291	Ed Olsen	sec 21, nw1/4 sec 28, w1/2 sec 22	clay	harrison	IA	702	2756 Loess Hills Trail, Mo. Valley, IA 51555	712-642-4342
292	Ed Olsen	n1/4 sec 19	cincinnati	harrison	IA	128	2756 Loess Hills Trail, Mo. Valley, IA 51555	712-642-4342
316	Larry Kay	sec 13, nw1/4 sec24	layton	pottawattamie	IA	709	233 Pearl St, Walnut, IA 51577	712-249-2433
317	Larry Kay	sec 5,6,7,8	brighton	cass	IA	860	233 Pearl St, Walnut, IA 51577	712-249-2433
377	Danny Stanislav	s1/2 sec 1, n1/2 sec 12, ne1/4 sec 2	sherman	monona	IA	535	27054 CO Hwy E60, Blencoe, IA 51523	712-420-3519
378	Danny Stanislav	e1/2 sec 13	sherman	monona	IA	117	27054 CO Hwy E60, Blencoe, IA 51523	712-420-3519
379	Danny Stanislav	sw1/4 sec 10	sherman	monona	IA	62	27054 CO Hwy E60, Blencoe, IA 51523	712-420-3519
380	Danny Stanislav	sw1/4 sec 23	franklin	monona	IA	237	27054 CO Hwy E60, Blencoe, IA 51523	712-420-3519
381	Danny Stanislav	se1/4 sec 35	franklin	monona	IA	77	27054 CO Hwy E60, Blencoe, IA 51523	712-420-3519
382	Danny Stanislav	sw1/4 sec 22	franklin	monona	IA	75	27054 CO Hwy E60, Blencoe, IA 51523	712-420-3519
383	Brit Liljedahl	nw1/4, s1/2 sec 15	taylor	harrison	IA	393	1776 250th St, Modale, IA 51556	402 651 3133
384	Brit Liljedahl	w1/2 sec 27	taylor	harrison	IA	383	1776 250th St, Modale, IA 51556	402 651 3133
385	Brit Liljedahl	sw1/4 sec 26	taylor	harrison	IA	150	1776 250th St, Modale, IA 51556	402 651 3133
386	Del Hasz	n1/2 sec 17	lewis e	pottawattamie	IA	147	16185 State orchard Rd, Council Bluffs, IA 51503	402-651-7604
387	Del Hasz	e1/2 sec 19, sec 20, n1/2 sec 29	lewis e	pottawattamie	IA	1105	16185 State orchard Rd, Council Bluffs, IA 51503	402-651-7604
388	Del Hasz	se1/4 sec 29, s1/2 sec 28,n1/2 sec 33	lewis e	pottawattamie	IA	660	16185 State orchard Rd, Council Bluffs, IA 51503	402-651-7604
389	Del Hasz	sw1/4 sec 32	lewis e	pottawattamie	IA	56	16185 State orchard Rd, Council Bluffs, IA 51503	402-651-7604
393	Dean Klindt	sw1/4 sec 12	pleasant	pottawattamie	IA	156	534 Ironwood Rd, Harlan, IA 51537	712-579-0431
439	John Buman	nw 1/4 sec 34, s 1/4 sec 27	union	shelby	IA	286	800 Road M16, Harlan, IA 51537-2508	712-579-8268
456	Gene Gochenour	sw 1/4 sec 1	raglan	harrison	IA	200	2075 174th Trl, Mondamin, IA	712-592-1215
457	Gene Gochenour	nw 1/4 sec 10	lincoln	harrison	IA	80	2075 174th Trl, Mondamin, IA	712-592-1215
458	Lynn Mether	sw 1/4 sec 3	lincoln	harrison	IA	80	106 Linden Dr, Woodbine, IA 51579	402-301-8223
459	Dave Pickle	nw 1/4 sec 6	willow	monona	IA	80	PO Box 208, Logan, IA 51546	712-644-3300
460	Dave Pickle	sw 1/4 sec 29	spring valley	monona	IA	80	PO Box 208, Logan, IA 51546	712-644-3300
511	Ed Olsen	e 1/2 sec 29	calhoun	harrison	IA	188	2756 Loess Hills Trail, Mo. Valley, IA 51555	712-642-4342
512	Ed Olsen	w 1/2 of sw 1/4 sec 20	calhoun	harrison	IA	70	2756 Loess Hills Trail, Mo. Valley, IA 51555	712-642-4342
513	Ed Olsen	ne 1/4 sec 20, nw 1/4 sec 21, sw 1/4 sec 16, se 1/4 sec 17	calhoun	harrison	IA	330	2756 Loess Hills Trail, Mo. Valley, IA 51555	712-642-4342
514	Ed Olsen	e 1/2 of nw 1/4 sec 10	taylor	harrison	IA	72	2756 Loess Hills Trail, Mo. Valley, IA 51555	712-642-4342
515	Ed Olsen	e 1/2 of nw 1/4, ne 1/4 of sw 1/4 sec 31	calhoun	harrison	IA	132	2756 Loess Hills Trail, Mo. Valley, IA 51555	712-642-4342
552	John Buman	e 1/2, n 1/2 sec 31	lincoln	shelby	IA	468	800 Road M16, Harlan, IA 51537-2508	712-579-8268
628	Kim Bertelson	sw1/4 sec 6, se1/4 sec 1	Cincinnati	harrison	IA	333	2211 Highway 30, Missouri Valley, IA 51555	712-642-3463
629	Kim Bertelson	e1/2 sec 5, nw1/4 sec 4	Clay	harrison	IA	236	2211 Highway 30, Missouri Valley, IA 51555	712-642-3463
630	Kim Bertelson	w1/2 sec 26, e1/4 sec 27	Clay	harrison	IA	517	2211 Highway 30, Missouri Valley, IA 51555	712-642-3463
755	Brit Liljedahl	S 1/2 Sec 11	Cincinnati	Harrison	IA	306	2907 Ridge Road, Missouri Valley, IA 51555	712-642-5260
756	Brit Liljedahl	SW 1/4 Sec 33	Taylor	Harrison	IA	170	2907 Ridge Road, Missouri Valley, IA 51555	712-642-5260
757	Brit Liljedahl	SW 1/4 Sec 6	St. Johns	Harrison	IA	126	2907 Ridge Road, Missouri Valley, IA 51555	712-642-5260
758	Brit Liljedahl	SE 1/4 Sec 27, E 1/2 Sec 34	Taylor	Harrison	IA	462	2907 Ridge Road, Missouri Valley, IA 51555	712-642-5260
759	Brit Liljedahl	SE 1/4 Sec 28	Taylor	Harrison	IA	78	2907 Ridge Road, Missouri Valley, IA 51555	712-642-5260
760	Brit Liljedahl	N 1/4 Sec 6	Cincinnati	Harrison	IA	126	2907 Ridge Road, Missouri Valley, IA 51555	712-642-5260
761	Gene Gochenour	SW 1/4 Sec 9, NW 1/4 Sec 16	Magnolia	Harrison	IA	230	2075 174th Trl, Mondamin, IA	712-592-1215
762	Gene Gochenour	SW 1/4 Sec 10	Magnolia	Harrison	IA	149	2075 174th Trl, Mondamin, IA	712-592-1215
763	Gene Gochenour	SE 1/4 Sec 32	Allen	Harrison	IA	178	2075 174th Trl, Mondamin, IA	712-592-1215
764	Kim Bertelson	SE 1/4 Sec 2	Cincinnati	Harrison	IA	65	2211 Highway 30, Missouri Valley, IA 51555	712-642-3463
765	Kim Bertelson	SW 1/4 Sec 23, SE 1/4 Sec 22	Clay	Harrison	IA	235	2211 Highway 30, Missouri Valley, IA 51555	712-642-3463
766	Kim Bertelson	NE 1/4 Sec 18	Cincinnati	Harrison	IA	85	2211 Highway 30, Missouri Valley, IA 51555	712-642-3463
767	Kim Bertelson	SE 1/4 Sec 4, E 1/2 Sec 9, NE 1/4 Sec 16	Rockford	Pottawattamie	IA	375	2211 Highway 30, Missouri Valley, IA 51555	712-642-3463
768	Kim Bertelson	SE 1/4 Sec 30	St. Johns	Harrison	IA	152	2211 Highway 30, Missouri Valley, IA 51555	712-642-3463
769	Kim Bertelson	SW 1/4 Sec 33	St. Johns	Harrison	IA	91	2211 Highway 30, Missouri Valley, IA 51555	712-642-3463
770	Kim Bertelson	SE 1/4 Sec 11, N 1/2 Sec 14	Taylor	Harrison	IA	172	2211 Highway 30, Missouri Valley, IA 51555	712-642-3463
771	Kim Bertelson	W 1/2 Sec 5	Cincinnati	Harrison	IA	244	2211 Highway 30, Missouri Valley, IA 51555	712-642-3463
772	Kim Bertelson	SE 1/4 Sec 12, NE 1/4 Sec 13	Clay	Harrison	IA	150	2211 Highway 30, Missouri Valley, IA 51555	712-642-3463
773	Kim Bertelson	NE 1/4 Sec 12	Taylor	Harrison	IA	168	2211 Highway 30, Missouri Valley, IA 51555	712-642-3463
774	Kim Bertelson	SE 1/4 Sec 13, SW 1/4 Sec 18	Clay, Taylor	Harrison	IA	194	2211 Highway 30, Missouri Valley, IA 51555	712-642-3463
775	Kim Bertelson	SE 1/4 Sec 31, SW 1/4 Sec 32	Taylor	Harrison	IA	138	2211 Highway 30, Missouri Valley, IA 51555	712-642-3463
776	Kim Bertelson	SE 1/4 Sec 9	Cincinnati	Harrison	IA	116	2211 Highway 30, Missouri Valley, IA 51555	712-642-3463
901	Bruce Thomas	E 1/4 Section 17	Cincinnati	Harrison	IA	139	3082 Austin Ave., Missouri Valley, IA 51555	402-510-5099
902	Bruce Thomas	SW 1/4 Section 20, NW 1/4 Section 29, E 1/4 Section 30	Cincinnati	Harrison	IA	179	3082 Austin Ave., Missouri Valley, IA 51555	402-510-5099
903	Bruce Thomas	SW 1/4 Section 17, S 1/2 Section 18	Cincinnati	Harrison	IA	386	3082 Austin Ave., Missouri Valley, IA 51555	402-510-5099
904	Bruce Thomas	SW 1/4 Section 8, NW 1/4 Section 17	Cincinnati	Harrison	IA	146	3082 Austin Ave., Missouri Valley, IA 51555	402-510-5099
928	Brit Liljedahl	E 1/2 of SE 1/4 Sec 2, SW 1/4 Sec 1	Cincinnati	Harrison	IA	212	2907 Ridge Road, Missouri Valley, IA 51555	712-642-5260
963	Malcom Farms - Rich Malcom	SE 1/4 Sec 17	Cook	Sac	IA	148	2568 Cory Ave, Schaller, IA 51053	712-371-2476
964	Malcom Farms - Rich Malcom	S 1/2 Sec 20	Cook	Sac	IA	267	2568 Cory Ave, Schaller, IA 51053	712-371-2476
987	Noah Fedders	NW 1/4 Sec 34	Holland	Sioux	IA	70	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
988	Noah Fedders	NW 1/4 Sec 26	Center	Sioux	IA	64	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
989	Noah Fedders	SE 1/4 Sec 8, SW 1/4 Sec 9	Washington	Sioux	IA	97	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
990	Michael Heistand	SE 1/4 Sec 11, NE 1/4 Sec 14, Sec 13, NW 1/4 Sec 24	Harrison	Harrison	IA	383	1298 O'Banion Rd., Dunlap, IA 51529	712-269-2938
991	Michael Heistand	N 1/2 Sec 20	Willow	Monona	IA	296	1298 O'Banion Rd., Dunlap, IA 51529	712-269-2938
992	Michael Heistand	W 1/2 Sec 31, SW 1/4 Sec 30, NE 1/4 Sec 36, SW 1/4 Sec 25	Paradise, Boyer	Crawford	IA	485	1298 O'Banion Rd., Dunlap, IA 51529	712-269-2938
993	Michael Heistand	W 1/2 Sec 6, Sec 1, E 1/2 Sec 2	Union, Boyer	Crawford	IA	765	1298 O'Banion Rd., Dunlap, IA 51529	712-269-2938
994	Michael Heistand	W 1/4 Sec 8	Boyer	Crawford	IA	152	1298 O'Banion Rd., Dunlap, IA 51529	712-269-2938
995	Michael Heistand	N 1/2 Sec 32, SE 1/4 Sec 28, W 1/2 Sec 33	Willow	Crawford	IA	609	1298 O'Banion Rd., Dunlap, IA 51529	712-269-2938
996	Michael Heistand	SW 1/4 Sec 15	Willow	Monona	IA	148	1298 O'Banion Rd., Dunlap, IA 51529	712-269-2938
997	Mark Tierney	SE 1/2 Sec 12, SW 1/4 Sec 7	St. John	Harrison	IA	188	2461 280th St, Logan, IA 51546	402-659-5776
1000	Andrew Cronin	SE 1/4 Sec 15	Amherst	Cherokee	IA	5	5122 K Ave, Meriden, IA 51037	712-261-3151
1001	Andrew Cronin	SW 1/4 Sec 15	Pitcher	Cherokee	IA	69	5122 K Ave, Meriden, IA 51037	712-261-3151
1002	Andrew Cronin	SE 1/4 Sec 8, SW 1/4 Sec 9	Spring	Cherokee	IA	138	5122 K Ave, Meriden, IA 51037	712-261-3151
1003	Andrew Cronin	SE 1/4 Sec 18, NE 1/4 Sec 19	Spring	Cherokee	IA	66	5122 K Ave, Meriden, IA 51037	712-261-3151
1004	Andrew Cronin	nw 1/4 Sec 18	Pitcher	Cherokee	IA	112	5122 K Ave, Meriden, IA 51037	712-261-3151
1005	Andrew Cronin	NE 1/4 Sec 15	Pilot	Cherokee	IA	84	5122 K Ave, Meriden, IA 51037	712-261-3151
1006	Andrew Cronin	NW 1/4 Sec 19	Pitcher	Cherokee	IA	156	5122 K Ave, Meriden, IA 51037	712-261-3151
1007	Andrew Cronin	NW 1/4 Sec 24	Pilot	Cherokee	IA	74	5122 K Ave, Meriden, IA 51037	712-261-3151
1008	Andrew Cronin	SW 1/4 Sec 22	Pitcher	Cherokee	IA	149	5122 K Ave, Meriden, IA 51037	712-261-3151
1009	Andrew Cronin	SW 1/4 Sec 25, NW 1/4 Sec 36	Pilot	Cherokee	IA	189	5122 K Ave, Meriden, IA 51037	712-261-3151
1010	Andrew Cronin	SW 1/4 Sec 6	Pilot	Cherokee	IA	153	5122 K Ave, Meriden, IA 51037	712-261-3151
1011	Andrew Cronin	E 1/4 Sec 22, NW 1/4 Sec 23	Sheridan	Cherokee	IA	209	5122 K Ave, Meriden, IA 51037	712-261-3151
1012	Andrew Cronin	SE 1/4 Sec 8	Sheridan	Cherokee	IA	164	5122 K Ave, Meriden, IA 51037	712-261-3151
1013	Andrew Cronin	SW 1/4 Sec 31	Liberty	Cherokee	IA	35	5122 K Ave, Meriden, IA 51037	712-261-3151
1014	Andrew Cronin	Sec 16	Lincoln	Cherokee	IA	581	5122 K Ave, Meriden, IA 51037	712-261-3151
1015	Andrew Cronin	SE 1/4 Sec 30	Barnes	Buena Vista	IA	158	5122 K Ave, Meriden, IA 51037	712-261-3151
1016	Andrew Cronin	NW 1/4 Sec 17	Scott	Buena Vista	IA	78	5122 K Ave, Meriden, IA 51037	712-261-3151
1017	Andrew Cronin	SE 1/4 Sec 13	Pilot	Cherokee	IA	191	5122 K Ave, Meriden, IA 51037	712-261-3151

1018	Andrew Cronin	N 1/4 Sec 9	Sheridan	Cherokee	IA	111	5122 K Ave, Meriden, IA 51037	712-261-3151
1019	Andrew Cronin	NW 1/4 Sec 13	Pilot	Cherokee	IA	144	5122 K Ave, Meriden, IA 51037	712-261-3151
1020	Andrew Cronin	W 1/2 Sec 7	Pitcher	Cherokee	IA	234	5122 K Ave, Meriden, IA 51037	712-261-3151
1021	Andrew Cronin	NW 1/4 Sec 11, NE 1/4 Sec 10	Rock	Cherokee	IA	234	5122 K Ave, Meriden, IA 51037	712-261-3151
1022	Andrew Cronin	NW 1/4 Sec 4	Elk	Buena Vista	IA	152	5122 K Ave, Meriden, IA 51037	712-261-3151
1023	Andrew Cronin	NW 1/4 Sec 15	Elk	Buena Vista	IA	148	5122 K Ave, Meriden, IA 51037	712-261-3151
1024	Andrew Cronin	NW 1/4 Sec 35	Afton	Cherokee	IA	192	5122 K Ave, Meriden, IA 51037	712-261-3151
1025	Andrew Cronin	SW 1/4 Sec 13	Afton	Cherokee	IA	151	5122 K Ave, Meriden, IA 51037	712-261-3151
1026	Andrew Cronin	NW 1/4 Sec 21	Sheridan	Cherokee	IA	75	5122 K Ave, Meriden, IA 51037	712-261-3151
1027	Andrew Cronin	S 1/2 Sec 16, W 1/2 Sec 15	Brooke	Buena Vista	IA	311	5122 K Ave, Meriden, IA 51037	712-261-3151
1028	Andrew Cronin	NE 1/4 Sec 2	Pilot	Cherokee	IA	149	5122 K Ave, Meriden, IA 51037	712-261-3151
1029	Andrew Cronin	S 1/2 Sec 27	Pitcher	Cherokee	IA	226	5122 K Ave, Meriden, IA 51037	712-261-3151
1030	Matt Ohlson	SE 1/4 Sec 21	Cedar	Cherokee	IA	76	1248 470th St, Meriden, IA 51037	712-229-2460
1031	Matt Ohlson	NE 1/4 Sec 28	Cedar	Cherokee	IA	71	1248 470th St, Meriden, IA 51037	712-229-2460
1032	Matt Ohlson	NE 1/4 Sec 36, SE 1/4 Sec 25	Liberty	Cherokee	IA	201	1248 470th St, Meriden, IA 51037	712-229-2460
1033	Matt Ohlson	SW 1/4 Sec 25, SE 1/4 Sec 26, N 1/2 Sec 35	Liberty	Cherokee	IA	364	1248 470th St, Meriden, IA 51037	712-229-2460
1034	Matt Ohlson	SW 1/4 Sec 36	Liberty	Cherokee	IA	23	1248 470th St, Meriden, IA 51037	712-229-2460
1035	Matt Ohlson	S 1/2 Sec 33	Liberty	Cherokee	IA	267	1248 470th St, Meriden, IA 51037	712-229-2460
1036	Matt Ohlson	NW 1/4 Sec 14	Liberty	Cherokee	IA	78	1248 470th St, Meriden, IA 51037	712-229-2460
1037	Matt Ohlson	N 1/2 Sec 31, S 1/2 Sec 30	Cedar	Cherokee	IA	171	1248 470th St, Meriden, IA 51037	712-229-2460
1038	Dave Todd	SE 1/4 Sec 7	Willow	Cherokee	IA	153	929 610th St, Quimby, IA 51049	712-830-2993
1039	Dave Todd	NW 1/4 Sec 2	Willow	Cherokee	IA	119	929 610th St, Quimby, IA 51049	712-830-2993
1040	Dave Todd	NW 1/4 Sec 9, SW 1/4 Sec 9	Willow	Cherokee	IA	54	929 610th St, Quimby, IA 51049	712-830-2993
1041	Dave Todd	NE 1/4 Sec 17, E 1/2 Sec 8	Willow	Cherokee	IA	397	929 610th St, Quimby, IA 51049	712-830-2993
1042	Adam Pigott	SW 1/4 Sec 30, SE 1/4 Sec 25	Cherokee, Sheridan	Cherokee	IA	228	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1043	Adam Pigott	N 1/2 Sec 25, SE 1/4 Sec 24	Sheridan	Cherokee	IA	295	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1044	Adam Pigott	NE 1/4 Sec 34	Sheridan	Cherokee	IA	109	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1045	Adam Pigott	SW 1/4 Sec 23	Sheridan	Cherokee	IA	35	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1046	Adam Pigott	S 1/2 Sec 22, NW 1/4 Sec 22, NE 1/4 Sec 27	Sheridan	Cherokee	IA	319	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1047	Adam Pigott	SE 1/4 Sec 18	Cherokee	Cherokee	IA	85	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1048	Adam Pigott	SE 1/4 Sec 9	Sheridan	Cherokee	IA	5	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1049	Bob Johnston	NE 1/4 Sec 5	Douglas	Ida	IA	133	5122 K Ave, Meriden, IA 51037	712-261-3151
1050	Nate Graham	NW 1/4 Sec 18, SE 1/4 Sec 12	Douglas, Union	Ida, Woodbury	IA	103	1072 570 St, Cherokee, IA 51012	712-225-2207
1051	Andrew Cronin	NW 1/4 Sec 18, SE 1/4 Sec 12	Union	Woodbury	IA	108	5122 K Ave, Meriden, IA 51037	712-261-3151
1052	Andrew Cronin	Sec 24	Willow	Cherokee	IA	157	5122 K Ave, Meriden, IA 51037	712-261-3151
1053	Andrew Cronin	SE 1/4 Sec 18, SE 1/4 Sec 17	Silver	Cherokee	IA	20	5122 K Ave, Meriden, IA 51037	712-261-3151
1054	Andrew Cronin	SE Sec 18	Douglas	Ida	IA	146	5122 K Ave, Meriden, IA 51037	712-261-3151
1055	Andrew Cronin	NE 1/4 Sec 24	Willow	Cherokee	IA	589	5122 K Ave, Meriden, IA 51037	712-261-3151
1056	Andrew Cronin	Sec 34	Douglas	Ida	IA	56	5122 K Ave, Meriden, IA 51037	712-261-3151
1057	Andrew Cronin	SE 1/4 Sec 4	Willow	Cherokee	IA	112	5122 K Ave, Meriden, IA 51037	712-261-3151
1058	Andrew Cronin	NE 1/4 Sec 26	Silver	Cherokee	IA	145	5122 K Ave, Meriden, IA 51037	712-261-3151
1059	Andrew Cronin	SE 1/4 Sec 20	Douglas	Ida	IA	105	5122 K Ave, Meriden, IA 51037	712-261-3151
1060	Brian Rupp	SW 1/4 Sec 24	Sheridan	Cherokee	IA	102	5388 K Ave, Cherokee, IA 51012	712-540-0771
1061	Brian Rupp	SE 1/4 Sec 3, SW 1/4 Sec 2, SE 1/4 Sec 34	Rock, Sheridan	Cherokee	IA	332	5388 K Ave, Cherokee, IA 51012	712-540-0771
1062	Brian Rupp	SE 1/4 Sec 27	Sheridan	Cherokee	IA	133	5388 K Ave, Cherokee, IA 51012	712-540-0771
1063	Noah Fedders	Sec 15, W 1/4 Sec 14, 82N 45W	Sherman	Monona	IA	767	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1064	Noah Fedders	SE 1/4 Sec 15, 94N 47W	Washington	Sioux	IA	144	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1065	Noah Fedders	NW 1/4 Sec 9, 97N 47W	Lincoln	Sioux	IA	61	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1066	Noah Fedders	NW 1/4 Sec 16, 97N 47W	Lincoln	Sioux	IA	121	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1067	Noah Fedders	NE Sec 29, 95N 46W	Center	Sioux	IA	39	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1068	Noah Fedders	NE 1/4 Sec 25, 96N 44W	Capel	Sioux	IA	74	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1069	Nate Graham	Sec 23, NE 1/4 Sec 26, W 1/2 Sec 25, SW 1/4 Sec 14, 91N 41W	Rock	Cherokee	IA	1029	1072 570 St, Cherokee, IA 51012	712-225-2207
1070	Bruce Husman	SE 1/4 Sec 24, 91N 41W	Rock	Cherokee	IA	69	5753 M Ave, Quimby, IA 51049	712-539-0112
1071	Bruce Husman	NE 1/4 Sec 26, 91N 41W	Rock	Cherokee	IA	59	5753 M Ave, Quimby, IA 51049	712-539-0112
1072	Noah Fedders	NW 1/4 Sec 21, 94N 47W	Washington	Sioux	IA	77	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1073	Kelby Wulf	S 1/2 Sec 16, N 1/2 Sec 21, 89N 40W	Griggs	Ida	IA	347	1326 Eagle Ave, Holstein, IA 51025	712-368-2274
1074	Kelby Wulf	NW 1/4 Sec 2, 90N 40W	Silver	Cherokee	IA	223	1326 Eagle Ave, Holstein, IA 51025	712-368-2274
1075	Kelby Wulf	SE 1/4 Sec 18, 91N 39W	Pitcher	Cherokee	IA	62	1326 Eagle Ave, Holstein, IA 51025	712-368-2274
1076	Kory Mortenson	NE 1/4 Sec 4, 90N 40W	Silver	Cherokee	IA	133	1554 600th St, Cherokee, IA 51012	712-539-1980
1077	Kory Mortenson	Sec 3, NE 1/4 Sec 10, 90N 40W	Silver	Cherokee	IA	452	1554 600th St, Cherokee, IA 51012	712-539-1980
1078	Kory Mortenson	E 1/2 Sec 6, W 1/2 Sec 5, 91N 39W	Pitcher	Cherokee	IA	358	1554 600th St, Cherokee, IA 51012	712-539-1980
1079	Kory Mortenson	S 1/2 Sec 32, 92N 39W	Afton	Cherokee	IA	180	1554 600th St, Cherokee, IA 51012	712-539-1980
1080	Kory Mortenson	Sec 32, 92N 39W	Afton	Cherokee	IA	445	1554 600th St, Cherokee, IA 51012	712-539-1980
1081	Kory Mortenson	SW 1/4 Sec 4, 90N 40W	Silver	Cherokee	IA	60	1554 600th St, Cherokee, IA 51012	712-539-1980
1082	Kory Mortenson	N 1/4 Sec 11, 90N 40W	Silver	Cherokee	IA	91	1554 600th St, Cherokee, IA 51012	712-539-1980
1083	Adam Pigott	NW 1/4 Sec 31, 93N 40W	Cedar	Cherokee	IA	54	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1084	Adam Pigott	SE 1/4 Sec 5, E 1/4 Sec 8, NW 1/4 Sec 9, SW 1/4 Sec 4, 91N 43W	Henry	Plymouth	IA	544	1072 570 St, Cherokee, IA 51012	712-225-2207
1085	Nate Graham	SE 1/4 Sec 15, NE 1/4 Sec 22, 91N 41W	Rock	Cherokee	IA	170	1072 570 St, Cherokee, IA 51012	712-225-2207
1086	Nate Graham	S 1/2 Sec 21, 91N 41W	Rock	Cherokee	IA	224	1072 570 St, Cherokee, IA 51012	712-225-2207
1087	Nate Graham	NW 1/4 Sec 36, 91N 41W	Rock	Cherokee	IA	115	1072 570 St, Cherokee, IA 51012	712-225-2207
1088	Nate Graham	SW 1/4 Sec 30, 91N 40W	Pilot	Cherokee	IA	147	1072 570 St, Cherokee, IA 51012	712-225-2207
1089	Steve Pitts	SW 1/4 Sec 8, 90N 41W	Willow	Cherokee	IA	134	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1090	Steve Pitts	NW 1/4 Sec 32, 92N 41W	Sheridan	Cherokee	IA	37	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1091	Steve Pitts	SE 1/4 Sec 36, NE 1/4 Sec 1, NW 1/4 Sec 6	Rock, Amherst	Cherokee	IA	162	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1092	Ashley Hulstein	NW 1/4 Sec 20, 97N 44W	Sheridan	Sioux	IA	143	3020 Ironwood Ave, Hull, IA 51239	712-541-7553
1093	Derek Willendorf	SW 1/4 Sec 4, 97N 44W	Sheridan	Sioux	IA	19	3726 280th St, Boyden, IA 51234	712-439-2068
1094	Adam Pigott	W 1/2 Sec 13, 84N 38W	Milford	Crawford	IA	199	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1095	Adam Pigott	SW 1/4 Sec 8, 90N 41W	Willow	Cherokee	IA	135	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1096	Adam Pigott	NE 1/4 Sec 1, 91N 42W	Tilden	Cherokee	IA	121	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1097	Adam Pigott	SW 1/4 Sec 15, 94N 38W	Petersen	Clay	IA	70	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1098	Adam Pigott	SW 1/4 Sec 1, 88N 41W	Battle	Ida	IA	137	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1099	Adam Pigott	SE 1/4 Sec 13, 88N 41W	Battle	Ida	IA	120	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1100	Adam Pigott	N 1/2 Sec 34, 89N 41W	Douglas	Ida	IA	271	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1159	Robert Arkfeld	E 1/2 Sec 21, NW 1/4 Sec 22, NW 1/4 Sec 28	Fairview	Shelby	IA	594	2411 Hwy 59, Defiance, IA 51527	712-269-2902
1160	Noah Fedders	SE 1/4 Sec 31	Eagle	Sioux	IA	104	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1161	Noah Fedders	NW 1/4 Sec 34	Eagle	Sioux	IA	117	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1162	Noah Fedders	Sec 10	Washington	Sioux	IA	415	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1163	Kim Bertelson	SW 1/4 Sec 5, SE 1/4 Sec 4	Cincinnati	Harrison	IA	217	2211 Highway 30, Missouri Valley, IA 51555	712-642-3463
1191	Robert Arkfeld	NE 1/4 Sec 20, 80N 38W	Douglas	Shelby	IA	174	216 Highway 59, Avoca, IA 51521	712-269-2902
1192	Robert Arkfeld	NW 1/4 Sec 29, S 1/2 Sec 20, 79N 37W	Jackson	Shelby	IA	298	216 Highway 59, Avoca, IA 51521	712-269-2902
1193	Robert Arkfeld	SE 1/4 Sec 32, 79N 37W, NW 1/4 Sec 1, NE 1/4 Sec 2, 78N 38W	Jackson, Monroe	Shelby	IA	167	216 Highway 59, Avoca, IA 51521	712-269-2902
1194	Robert Arkfeld	NW 1/4 Sec 1, 78N 38W	Monroe	Shelby	IA	57	216 Highway 59, Avoca, IA 51521	712-269-2902
1195	Robert Arkfeld	N 1/2 Sec 1, 78N 38W, NW 1/4 Sec 6, 78N 37W, SW 1/4 Sec 33 79N 37W	Jackson, Clay, Monroe	Shelby	IA	501	216 Highway 59, Avoca, IA 51521	712-269-2902
1196	Robert Arkfeld	NW 1/4 Sec 3, 74N 39W	Grove	Pottawattamie	IA	105	216 Highway 59, Avoca, IA 51521	712-269-2902
1197	Robert Arkfeld	SE 1/4 Sec 34, 76N 39W	Valley	Pottawattamie	IA	142	216 Highway 59, Avoca, IA 51521	712-269-2902
1198	Robert Arkfeld	SE 1/4 Sec 16, NE 1/4 Sec 21, 74N 39W	Grove	Pottawattamie	IA	284	216 Highway 59, Avoca, IA 51521	712-269-2902
1199	Robert Arkfeld	SW 1/4 Sec 18, 77N 38W	Layton	Pottawattamie	IA	160	216 Highway 59, Avoca, IA 51521	712-269-2902
1200	Robert Arkfeld	SE 1/4 Sec 33, SW 1/4 Sec 34, 74N 39W	Grove	Pottawattamie	IA	204	216 Highway 59, Avoca, IA 51521	712-269-2902
1201	Robert Arkfeld	SW 1/4 Sec 28, 74N 39W	Grove	Pottawattamie	IA	55	216 Highway 59, Avoca, IA 51521	712-269-2902
1202	Robert Arkfeld	SE 1/4 Sec 27, NE 1/4 Sec 34, 74N 39W	Grove	Pottawattamie	IA	221	216 Highway 59, Avoca, IA 51521	712-269-2902
1203	Robert Arkfeld	NE 1/4 Sec 7, 75N 40W	Belknap	Pottawattamie	IA	136	216 Highway 59, Avoca, IA 51521	712-269-2902
1300	Adam Pigott	SE 1/4 Sec 26, NW 1/4 Sec 36, 89N 40W	Griggs	Ida	IA	163	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1301	Adam Pigott	SE 1/4 Sec 13, 97N 44W	Sheridan	Sioux	IA	75	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1302	Adam Pigott	SE 1/4 Sec 30, 97N 43W	Grant	Sioux	IA	75	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1303	Erdman Farms	SE 1/4 Sec 20, 96N 43W	Lynn	Sioux	IA	99	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1304	Adam Pigott	NE 1/4 Sec 22, SE 1/4 Sec 15, 92N 42W	Amherst	Cherokee	IA	121	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1305	Adam Pigott	NE 1/4 Sec 3, 97N 44W	Sheridan	Sioux	IA	69	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1306	Adam Pigott	Sec 30, 92N 40W	Cherokee	Cherokee	IA	218	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1307	Adam Pigott	SE 1/4 Sec 33, 92N 42W	Amherst	Cherokee	IA	23	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1308	Adam Pigott	SE 1/4 Sec 9, 92N 42W	Amherst	Cherokee	IA	73	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1309	John Tiederman	NE 1/4 Sec 19, 100N 43W	Elgin	Lyon	IA	59	4968 J Ave, Cleghorn, IA 51014	712-436-2277
1310	Noah Fedders	SW 1/4 Sec 22, 95N 46W	Center	Sioux	IA	109	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1311	Noah Fedders	NW 1/4 Sec 27, 95N 46W	Center	Sioux	IA	36	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1312	Noah Fedders	NE 1/4 Sec 17, NW 1/4 Sec 16, 95N 46W	Center	Sioux	IA	269	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1313	Noah Fedders	NE 1/4 Sec 5, 94N 47W	Washington	Sioux	IA	107	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1314	Noah Fedders	SW 1/4 Sec 2, 94N 47W	Washington	Sioux	IA	119	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1315	Noah Fedders	SW 1/4 Sec 33, 97N 44W	Sheridan	Sioux	IA	133	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1316	Noah Fedders	SW 1/4 Sec 5, 96N 44W	Capel	Sioux	IA	78	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1317	Noah Fedders	NW 1/4 Sec 9, 96N 44W	Capel	Sioux	IA	79	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1318	Noah Fedders	SW 1/4 Sec 2, 97N 44W	Sheridan	Sioux	IA	77	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1319	Noah Fedders	NW 1/4 Sec 10, 97N 44W	Sheridan	Sioux	IA	82	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1320	Noah Fedders	SE 1/4 Sec 10, N 1/2 Sec 15, 97N 44W	Sheridan	Sioux	IA	211	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1321	Dan Hueser	NW 1/4 Sec 30, 93N 41W	Liberty	Cherokee	IA	125	4539 Highway 143, Marcus, IA 51035	712-376-2077
1322	Dan Hueser	SE 1/4 Sec 32, 93N 42W	Marcus	Cherokee	IA	57	4539 Highway 143, Marcus, IA 51035	712-376-2077
1323	Dan Hueser	NW 1/4 Sec 22, 93N 42W	Marcus	Cherokee	IA	108	4539 Highway 143, Marcus, IA 51035	712-376-2077
1324	Dan Hueser	NW 1/4 Sec 18, 93N 42W	Marcus	Cherokee	IA	286	4539 Highway 143, Marcus, IA 51035	712-376-2077
1325	Dan Hueser	NE 1/4 Sec 27, 93N 42W	Marcus	Cherokee	IA	148	4539 Highway 143, Marcus, IA 51035	712-376-2077
1326	Dan Hueser	SE 1/4 Sec 29, 93N 42W	Marcus	Cherokee	IA	155	4539 Highway 143, Marcus, IA 51035	712-376-2077
1327	Brian Reinhart	NW 1/4 Sec 18, 95N 45W	West Branch	Sioux	IA	66	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1328	Brian Reinhart	NW 1/4 Sec 35, 81N 24W	Lincoln	Polk	IA	176	7701 NW 158th St, Polk City, IA 50226	515-208-5770
1329	Brian Reinhart	SW 1/4 Sec 22, SE 1/4 Sec 21, NE 1/4 Sec 28, 80N 26W	Grant	Dallas	IA	232	7701 NW 158th St, Polk City, IA 50226	515-208-5770
1330	Brian Reinhart	SE 1/4 Sec 29, Sec 20, 80N 26W	Grant	Dallas	IA	276	7701 NW 158th St, Polk City, IA 50226	515-208-5770
1331	Brian Reinhart	SW 1/4 Sec 5, NE 1/4 Sec 8, 82N 23W	Union	Story	IA	117	7701 NW 158th St, Polk City, IA 50226	515-208-5770
1332	Brian Reinhart	NW 1/4 Sec 4, 81N 25W	Union	Polk	IA	105	7701 NW 158th St, Polk City, IA 50226	515-208-5770
1334	Brian Reinhart	NE 1/4 Sec 18, 80N 26W	Grant	Dallas	IA	43	7701 NW 158th St, Polk City, IA 50226	515-208-5770
1335	Brian Reinhart	NE 1/4 Sec 7, NW 1/4 Sec 8, 80N 25W	Jefferson	Polk	IA	118	7701 NW 158th St, Polk City, IA 50226	515-208-5770
1336	Brian Specht	Sec 31, 92N 41W - SE 1/4 Sec 25, 92N 42W	Amherst	Cherokee	IA	692	5330 G Ave, Cleghorn, IA 51014	712-436-2257
1337	Brian Specht	SW 1/4 Sec 22, 91N 42W	Tilden	Cherokee	IA	142	5330 G Ave, Cleghorn, IA 51014	712-436-2257
1338	Brian Specht	NE 1/4 Sec 36, 92N 42W	Amherst	Cherokee	IA	66	5330 G Ave, Cleghorn, IA 51014	712-436-2257
1339	Dave Todd	NE 1/4 Sec 15, 89N 42W	Union	Woodbury	IA	71	929 610th St, Quimby, IA 51049	712-830-2993
1340	Dave Todd	SW 1/4 Sec 33, 96N 46W	Plato	Sioux	IA	138	929 610th St, Quimby, IA 51049	712-830-2993
1341	Dave Todd	NE 1/4 Sec 34, 96N 46W	Plato	Sioux	IA	155	929 610th St, Quimby, IA 51049	712-830-2993
1342	Dibbet Farm - Noah Fedders	SE 1/4 Sec 33, 95N 47W	Eagle	Sioux	IA	141	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1343	Dibbet Farm - Noah Fedders	SE 1/4 Sec 34, 95N 47W	Eagle	Sioux	IA	78	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1344	Greg Vander Sluis	E 1/2 Sec 25, 96N 42W	Carroll	O'Brien	IA	282	245 Rainbow Dr., Sheldon, IA 51201	712-723-5616
1345	Greg Vander Sluis	NW 1/4 Sec 14, 95N 42W	Baker	O'Brien	IA	159	245 Rainbow Dr., Sheldon, IA 51201	712-723-5616
1346	Greg Vander Sluis	SW 1/4 Sec 10, 96N 42W	Carroll	O'Brien	IA	72	245 Rainbow Dr., Sheldon, IA 51201	712-723-5616
1347	Greg Vander Sluis	NE 1/4 Sec 19, 96N 41W	Summit	O'Brien	IA	105	245 Rainbow Dr., Sheldon, IA 51201	712-723-5616
1348	Greg Vander Sluis	SW 1/4 Sec 20, 96N 41W	Summit	O'Brien	IA	70	245 Rainbow Dr., Sheldon, IA 51201	712-723-5616
1349	Kory Mortenson	SE 1/4 Sec 33, 91N 40W	Pilot	Cherokee	IA	11	1554 600th St, Cherokee, IA 51012	712-539-1980
1350	Phil Bush	NE 1/4 Sec 31, 92N 39W	Afton	Cherokee	IA	102	979 530th St., Cleghorn, IA 51014	712-225-3807
1351	Phil Bush	NE 1/4 Sec 33, 92N 39W	Afton	Cherokee	IA	38	979 530th St., Cleghorn, IA 51014	712-225-3807
1352	Phil Bush	NW 1/4 Sec 25, 93N 41W	Liberty	Cherokee	IA	77	979 530th St., Cleghorn, IA 51014	712-225-3807
1353	Phil Bush	NW 1/4 Sec 31, 93N 41W	Liberty	Cherokee	IA	135	979 530th St., Cleghorn, IA 51014	712-225-3807
1354	Phil Bush	SE 1/4 Sec 24, 92N 41W	Sheridan	Cherokee	IA	219	979 530th St., Cleghorn, IA 51014	712-225-3807
1355	Phil Bush	NE 1/4 Sec 29, 92N 41W	Sheridan	Cherokee	IA	65	979 530th St., Cleghorn, IA 51014	712-225-3807
1356	Phil Bush	NE 1/4 Sec 32, 92N 41W	Sheridan	Cherokee	IA	41	979 530th St., Cleghorn, IA 51014	712-225-3807
1357	Al Harnack	SW 1/4 Sec 29 92N 43W, NW 1/4 Sec 32 92N 43W	Remsen	Plymouth	IA	265	44283 C38, Remsen, IA 51050	712-501-1013
1358	Brian Rupp	N 1/2 NW 1/4 Sec. 3 91N 41W	Rock	Cherokee	IA	75	5388 K Ave., Cherokee, IA 51012	712-540-0726
1359	Bruce Husman	E 1/2 NE 1/4 Sec 25, 91N 41W	Rock	Cherokee	IA	65	5753 M Ave., Quimby, IA 51049	712-539-0112
1360	Dean Rupp	NE 1/4 Sec 33, W 1/2 Sec 34 - 92N 41W	Sheridan	Cherokee	IA	208	5375 J Ave., Cherokee, IA 51012	712-229-0415
1361	Tom Lehnoff	S 1/2 SE 1/4 Sec 2 91N 42W, N 1/2 NW 1/4 Sec 1 91N 42W, W 1/2 SW 1/4 Sec 1 91N 42W	Tilden	Cherokee	IA	383	5463 F Ave., Marcus, IA 51035	712-579-3013
1362	Tom Lehnoff	SE 1/4 Sec 1 - 91N 42W	Tilden	Cherokee	IA	95	5463 F Ave., Marcus, IA 51035	712-579-3013
1363	Tom Lehnoff	E 1/2 SE 1/4 Sec 11 91N 42W	Tilden	Cherokee	IA	143	5463 F Ave., Marcus, IA 51035	712-579-3013

1364	Tom Lehnoff	W 1/2 SW 1/4 Sec 23 92N 42W	Tilden	Cherokee	IA	72	5463 F Ave., Marcus, IA 51035	712-579-3013
1365	Tom Lehnoff	SE 1/4 Sec 23 - 92N 42W	Amherst	Cherokee	IA	59	5463 F Ave., Marcus, IA 51035	712-579-3013
1366	Steve Pitts	SW 1/4 Sec 3 90N 39W	Diamond	Cherokee	IA	119	823 540th St, Cleghorn, IA 51014	712-225-5958
1367	Steve Pitts	NW 1/4 Sec 32 - 92N 41W	Sheriden	Cherokee	IA	35	823 540th St, Cleghorn, IA 51014	712-225-5958
1368	Steve Pitts	SW 1/4 Sec 8 - 90N 41W	Willow	Cherokee	IA	144	823 540th St, Cleghorn, IA 51014	712-225-5958
1369	Steve Pitts	NE 1/4 Sec 1 - 91N 42W, SE 1/4 Sec 36 - 92N 42W	Tilden	Cherokee	IA	78	823 540th St, Cleghorn, IA 51014	712-225-5958
1370	Dan Pitts	NE 1/4 NE 1/4 Sec 6 92N 40W	Cherokee	Cherokee	IA	45	923 570th St, Cherokee, IA 51012	712-225-6476
1371	Dan Pitts	E 1/2 SE 1/4 Sec 5 92N 39W	Afton	Cherokee	IA	77	923 570th St, Cherokee, IA 51012	712-225-6476
1372	Dan Pitts	NW 1/4 Sec 8 92N 39W	Afton	Cherokee	IA	152	923 570th St, Cherokee, IA 51012	712-225-6476
1373	Cave Ag Production	S 1/2 NE 1/4 Sec 19 & NW 1/4 Sec. 20 90N 40W	Cherokee	Cherokee	IA	226	5139 B Ave, Marcus, IA 51035	712-376-2521
1374	Nate Foresman	NE 1/4 Sec 30 91N 41W	Rock	Cherokee	IA	298	5806 J Ave, Cherokee, IA 51012	712-225-5523
1375	Nate Foresman	NE 1/2 Sec. 30 91N 41W	Rock	Cherokee	IA	129	5806 J Ave, Cherokee, IA 51012	712-225-5523
1376	Nate Foresman	S 1/2 SW 1/4 Sec 18 91N 41W	Rock	Cherokee	IA	65	5806 J Ave, Cherokee, IA 51012	712-225-5523
1377	Nate Foresman	S 14/ Sec 26 91N 41W	Rock	Cherokee	IA	133	5806 J Ave, Cherokee, IA 51012	712-225-5523
1378	Nate Foresman	N 1/2 NE 1/4 Sec 25 91N 42W	Tilden	Cherokee	IA	74	5806 J Ave, Cherokee, IA 51012	712-225-5523
1379	Nate Graham	NW 1/4 Sec. 1 90N 41W	Rock	Cherokee	IA	62	1072 570th St, Cherokee, IA 51012	712-225-2207
1380	Bart Cavanaugh	SW 1/4 Sec 7 92N 36W	Lincoln	Buena Vista	IA	106	14001 500th St, Rembrandt, IA 50576	712-730-4976
1381	Bart Cavanaugh	NW 1/4 Sec 17 92N 36W	Lincoln	Buena Vista	IA	158	14001 500th St, Rembrandt, IA 50576	712-730-4976
1382	Jeff Lundquist	S 1/4 NE 1/4 Sec 1 92N 41W	Sheridan	Cherokee	IA	144	701 Maple Street, Atlantic, IA 50022	712-243-8258
1383	Jeff Lundquist	NE 1/4 Sec 27 - 93N 40W	Cedar	Cherokee	IA	65	701 Maple Street, Atlantic, IA 50022	712-243-8258
1384	Jeff Lundquist	SE 1/4 SW 1/3 Sec 21 - 93N 40W	Cedar	Cherokee	IA	35	701 Maple Street, Atlantic, IA 50022	712-243-8258
1385	Jeff Lundquist	SE 1/4 Sec 36 93N 41W	Liberty	Cherokee	IA	149	701 Maple Street, Atlantic, IA 50022	712-243-8258
1386	Jeff Lundquist	NE 1/4 Sec 7 92N 40W	Cherokee	Cherokee	IA	117	701 Maple Street, Atlantic, IA 50022	712-243-8258
1387	Jeff Lundquist	Se 1/4 Sec. 31 SW 1/4 Sec 32 93N 40W	Cedar	Cherokee	IA	179	701 Maple Street, Atlantic, IA 50022	712-243-8258
1388	Joe Schlenger	Middle 1/3 N 1/2 Sec 12 91N 42W	Tilden	Cherokee	IA	110	PO Box 52, Cleghorn, IA 51014	712-436-2499
1389	Joe Schlenger	NW 1/4 and SE 1/4 Sec 15 91N 42W	Tilden	Cherokee	IA	329	PO Box 52, Cleghorn, IA 51014	712-436-2499
1390	Joe Schlenger	S 1/2 NE 1/4 Sec 25 91N 42W	Tilden	Cherokee	IA	72	PO Box 52, Cleghorn, IA 51014	712-436-2499
1391	David Howe	NE 1/4 Sec 3 90N 45W	Lincoln	Plymouth	IA	119	31202 K49, Hinton, IA 51024	712-947-4073
1392	David Howe	SE 1/4 Sec 19 - 90N 45W	Lincoln	Plymouth	IA	138	31202 K49, Hinton, IA 51024	712-947-4073
1393	David Howe	NW 1/4 Sec 21 - 90N 45W	Lincoln	Plymouth	IA	193	31202 K49, Hinton, IA 51024	712-947-4073
1394	Bryan Petersen, Darren Stowater	S 1/2 NW 1/4 Sec 8 92N 41W, NE 1/4 Sec 16 NW 1/4 Sec. 15 & SW 1/4 Sec 10 92N 40W	Sherden, Cherokee	Cherokee	IA	75	795 500th St, Cleghorn, IA 51014	712-436-2560
1395	Darren Stowater	Sec 10, 15, 16 - 92N 40W	Cherokee	Cherokee	IA	87	4781 High County Rd, Cherokee, IA 51012	712-437-2525
1396	Jordan Plendl	SW 1/2 SE 1/4 Sec 22 90N 44W	Elkhorn	Plymouth	IA	110	33924 Quest Ave, Kingsley, IA 51028	712-378-2165
1397	Jordan Plendl	W 1/2 Sec 22 - 90N 43W	Garfield	Cherokee	IA	317	33924 Quest Ave, Kingsley, IA 51028	712-378-2165
1398	Myles Wurth	NE 1/4 Sec 28 - 92N 42W	Amherst	Cherokee	IA	78	52318 D Ave, Marcus, IA 51035	712-376-4755
1399	John Tiederman	NE 1/4 Sec 34 - 98N 44W	Wheeler	Lyon	IA	98	3661 270th St, Hull, IA 51239	712-470-0343
1400	Andrew Cronin	NE 1/4 Sec 1, 92N 42W; NE 1/4 Sec 6, 92N 41W; SE 1/4 Sec 36, 93N 42W	Amherst, Sheridan, Marcus	Cherokee	IA	331	5122 K Ave, Meriden, IA 51037	712-261-3151
1431	Jason McIntosh	N 1/2 Sec 16; 79N 44W	Calhoun	Harrison	IA	286	2160 280th Ln, Missouri Valley, IA 55155	402-690-4454
1432	Jason McIntosh	E 1/2 Sec 30, W 1/2 Sec 29; 79N 43W	Calhoun	Harrison	IA	213	2160 280th Ln, Missouri Valley, IA 55155	402-690-4454
1433	Jason McIntosh	E 1/2 Sec 23, NW 1/4 Sec 24, 79N 45W	Clay	Harrison	IA	169	2160 280th Ln, Missouri Valley, IA 55155	402-690-4454
1434	Jason McIntosh	NW 1/4 Sec 23, S 1/2 Sec 14, 79N 45W	Clay	Harrison	IA	156	2160 280th Ln, Missouri Valley, IA 55155	402-690-4454
1435	Jason McIntosh	W 1/2 Sec 13, SW 1/4 Sec 12, 79N 45W	Clay	Harrison	IA	229	2160 280th Ln, Missouri Valley, IA 55155	402-690-4454
1436	Jason McIntosh	SW 1/4 Sec 7, 79N 44W	Calhoun	Harrison	IA	73	2160 280th Ln, Missouri Valley, IA 55155	402-690-4454
1437	Jason McIntosh	NW 1/4 Sec 23, 78N 44W	St Johns	Harrison	IA	39	2160 280th Ln, Missouri Valley, IA 55155	402-690-4454
1438	Jason McIntosh	NE 1/4 Sec 9, 78N 44W	St Johns	Harrison	IA	121	2160 280th Ln, Missouri Valley, IA 55155	402-690-4454
1439	Jason McIntosh	SE 1/4 Sec 6, SW 1/4 Sec 5, 78N 43W	La Grange	Harrison	IA	125	2160 280th Ln, Missouri Valley, IA 55155	402-690-4454
1440	Jason McIntosh	SE 1/4 Sec 14, SW 1/4 Sec 13, 79N 45W	Clay	Harrison	IA	154	2160 280th Ln, Missouri Valley, IA 55155	402-690-4454
1441	Jason McIntosh	NW 1/4 Sec 9, 77N 44W	Rockford	Harrison	IA	91	2160 280th Ln, Missouri Valley, IA 55155	402-690-4454
1442	Jason McIntosh	SE 1/4 Sec 10, 79N 44W	Taylor	Harrison	IA	68	2160 280th Ln, Missouri Valley, IA 55155	402-690-4454
1443	Jason McIntosh	S 1/2 Sec 4, 78N 44W	St Johns	Harrison	IA	138	2160 280th Ln, Missouri Valley, IA 55155	402-690-4454
1446	Bruce Thomas	E 1/4 Sec 19, Sec 20 - 78N 46W	Cincinnati	Harrison	IA	353	3082 Austin Ave., Missouri Valley, IA 51555	402-510-5099
1447	Rod Wonder	NE 1/4 Sec 6 - 85N 41W	Soldier	Crawford	IA	145	1360 B Ave., Danbury, IA 51019	712-840-9813
1451	Mark Wohlers	1/4 Sec 3, 77N 44W - W 1/2 Sec 34, 78N 44W - SE 1/4 Sec 27, 78N	Rockford, St. Johns	Ison, Pottawatta	IA	442	3372 Loess Hills Trl, Missouri Valley, IA 51555	712-642-2533
1452	Mark Wohlers	NW 1/4 Sec 26, 78N 44W	St. Johns	Harrison	IA	35	3372 Loess Hills Trl, Missouri Valley, IA 51555	712-642-2533
1453	Mark Wohlers	N 1/2 Sec 17, NW 1/4 Sec 16, 78N 44W	St. Johns	Harrison	IA	396	3372 Loess Hills Trl, Missouri Valley, IA 51555	712-642-2533
1454	Mark Wohlers	NW 1/4 Sec 28 and SW 1/4 Sec 21 and SE 1/4 Sec 20, 74N 43W	Lewis	Pottawattamie	IA	196	3372 Loess Hills Trl, Missouri Valley, IA 51555	712-642-2533
1455	Mark Wohlers	NW 1/4 Sec 17, 74N 43W	Lewis	Pottawattamie	IA	23	3372 Loess Hills Trl, Missouri Valley, IA 51555	712-642-2533
1456	Danny Stanislav	NE 1/4 Sec 8, 82N 45W	Sherman	Monona	IA	61	27054 CO Hwy E60, Blencoe, IA 51523	712-420-3519
1500	Zoch Farms	SE 1/4 Sec 6 - 92N 40W	Cherokee	Cherokee	IA	119	1346 520th St, Cherokee, IA 51012	712-225-5637
1501	Zoch Farms	NW 1/4 Sec 19 - 92N 40W	Cherokee	Cherokee	IA	75	1346 520th St, Cherokee, IA 51012	712-225-5637
1502	Zoch Farms	SW 1/4 Sec 16 - 93N 40W	Cedar	Cherokee	IA	74	1346 520th St, Cherokee, IA 51012	712-225-5637
1503	Zoch Farms	NW 1/4 Sec 30, S 1/2 Sec 19 - 92N 40W	Cherokee	Cherokee	IA	260	1346 520th St, Cherokee, IA 51012	712-225-5637
1504	Zoch Farms	Sec 9 - 92N 40W	Cherokee	Cherokee	IA	221	1346 520th St, Cherokee, IA 51012	712-225-5637
1505	Zoch Farms	E 1/4 Sec 20, NW 1/4 Sec 21, SE 1/4 Sec 17, SW 1/4 Sec 16 - 92N 40	Cherokee	Cherokee	IA	439	1346 520th St, Cherokee, IA 51012	712-225-5637
1506	Zoch Farms	NE 1/4 Sec 18 - 93N 40W	Cedar	Cherokee	IA	75	1346 520th St, Cherokee, IA 51012	712-225-5637
1507	Zoch Farms	SW 1/4 Sec 13 - 92N 41W	Sheridan	Cherokee	IA	76	1346 520th St, Cherokee, IA 51012	712-225-5637
1508	Zoch Farms	SW 1/4 Sec 17 - 92N 40W	Cherokee	Cherokee	IA	77	1346 520th St, Cherokee, IA 51012	712-225-5637
1509	Zoch Farms	SW 1/4 Sec 32 - 93 N 40W	Cedar	Cherokee	IA	86	1346 520th St, Cherokee, IA 51012	712-225-5637
1510	Zoch Farms	NW 1/4 Sec 17 - 92N 40W	Cherokee	Cherokee	IA	26	1346 520th St, Cherokee, IA 51012	712-225-5637
1511	Brian Reinhart	SE 1/4 Sec 26, NE 1/4 Sec 35 - 81N 24W	Lincoln	Buena Vista	IA	147	600 NE 126th Ave, Alleman, IA 50007	515-965-6958
1512	Prairie Hills	Sec 26, 27, 28 - 98N 48W	Lyon	Lyon	IA	649	909 Morningside St., Boyden, IA 51234	712-278-2702
1513	Prairie Hills	NW 1/4 Sec 33 - 98N 48W	Lyon	Lyon	IA	35	909 Morningside St., Boyden, IA 51234	712-278-2702
1514	Phillips Ag	NW 1/4 Sec 23 - 87N 36W	Wall Lake	Sac	IA	33	3141 Rolf Ave, Lake View, IA 51450	712-660-5169
1517	Phillips Ag	SW 1/4 Sec 17 - 87N 36W	Wall Lake	Sac	IA	113	3141 Rolf Ave, Lake View, IA 51450	712-660-5169
1518	Phillips Ag	SE 1/4 Sec 23 - 87N 36W	Wall Lake	Sac	IA	110	3141 Rolf Ave, Lake View, IA 51450	712-660-5169
1519	Phillips Ag	NE 1/4 Sec 18 - 87N 38W	Richland	Sac	IA	114	3141 Rolf Ave, Lake View, IA 51450	712-660-5169
1520	Phillips Ag	SE 1/4 Sec 3, SW 1/4 Sec 2, NW 1/4 Sec 11 - 87N 40W	Corwin	Ida	IA	249	3141 Rolf Ave, Lake View, IA 51450	712-660-5169
1521	Grant Aschinger	SW 1/4 Sec 18, NE 1/4 Sec 19 - 92N 41W	Sheridan	Cherokee	IA	158	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1522	Grant Aschinger	NE 1/4, N1/2 SE 1/4, SE 1/4 NW1/4,	Pitcher	Cherokee	IA	255	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1523	Grant Aschinger	SE 1/4 Sec 36 - 93N 35W	Poland	Buena Vista	IA	157	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1524	Grant Aschinger	W1/2NE1/4, E 1/2NW 1/4, Sec 10	Diamond	Cherokee	IA	292	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1525	Grant Aschinger	NW 1/4 Sec 26 - 91N 39W	Pitcher	Cherokee	IA	77	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1526	Grant Aschinger	NE1/4, 29 & W1/2NW1/4, 28	Silver	Cherokee	IA	225	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1527	Grant Aschinger	N 1/2 NE 1/4, Sec 34	Pilot	Cherokee	IA	69	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1528	Grant Aschinger	W 1/2 Sec 34 - 91N 35W, NW 1/4 Sec 3 - 90N 35W	Coon	Buena Vista	IA	393	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1529	Grant Aschinger	S 1/2 Sec 15, N 1/2 Sec 22 - 93N 37W	Barnes	Buena Vista	IA	426	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1530	Grant Aschinger	S 1/2 Sec 7, NE 1/4 Sec 18 - 91N 36W	Grant	Buena Vista	IA	362	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1531	Grant Aschinger	W 1/2 Sec 2 - 88N 33W	Twin Lakes	Calhoun	IA	179	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1532	Grant Aschinger	N 1/2 Sec 27 - 89N 40W	Griggs	Ida	IA	276	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1533	Grant Aschinger	NE 1/4 Sec 17 - 86N 33W	Lake City	Calhoun	IA	150	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1534	Grant Aschinger	Sec 3 - 87N 33W, SE 1/4 Sec 34 - 88N 33W	Twin Lakes	Calhoun	IA	556	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1535	Grant Aschinger	N 1/2 Sec 28 - 89N 33W	Butler	Calhoun	IA	301	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1536	Grant Aschinger	NW 1/4 Sec 10 - 93N 42W	Marcus	Cherokee	IA	75	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1537	Grant Aschinger	NW 1/4 Sec 16 - 91N 36W	Grant	Buena Vista	IA	107	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1538	Grant Aschinger	NW 1/4 Sec 26 - 91 N 35W	Coon	Buena Vista	IA	149	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1539	Grant Aschinger	SW 1/4 Sec 12 - 92N 42W	Amherst	Cherokee	IA	114	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1540	Grant Aschinger	SE 1/4 Sec 13 - 93N 40W, SW 1/4 Sec 18 - 93N 39W	Spring	Cherokee	IA	104	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1541	Grant Aschinger	NE 1/4 Sec 18 - 93 N 39W	Spring	Cherokee	IA	87	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1542	Grant Aschinger	SE 1/4 Sec 23 - 89N 36W	Delaware	Sac	IA	152	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1543	Grant Aschinger	SW 1/4 Sec 27 - 93N 42W	Marcus	Cherokee	IA	75	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1544	Grant Aschinger	W 1/2 Sec 13 - 88N 33W	Twin Lakes	Calhoun	IA	301	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1545	Grant Aschinger	W 1/2 Sec 34 - 89N 35W	Douglas	Sac	IA	299	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1546	Grant Aschinger	Sec 20, 28, 29, 30, 32 - 90N 30W	Jackson	Webster	IA	628	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1547	Grant Aschinger	NW 1/4 Sec 15 - 91N 41W	Rock	Cherokee	IA	149	306 South Lubeck St, Holstein, IA 51025	712-368-6195
1548	Noah Fedders	SW 1/4 Sec 10 - 96N 46W	Plato	Sioux	IA	35	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1549	Noah Fedders	SE 1/4 Sec 14 - 96N 46W	Plato	Sioux	IA	207	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1550	Noah Fedders	S 1/2 Sec 18, N 1/2 Sec 19 - 96N 45W	Welcome	Sioux	IA	393	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1551	Noah Fedders	S 1/2 Sec 1 - 95N 42W	Baker	O'Brien	IA	286	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1552	Noah Fedders	SE 1/4 Sec 30 - 95N 46W	Center	Sioux	IA	77	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1553	Noah Fedders	NE 1/4 Sec 32 - 95N 46W	Center	Sioux	IA	61	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1554	Noah Fedders	NE 1/4 Sec 28 - 95N 46W	Center	Sioux	IA	72	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1555	Noah Fedders	SW 1/4 Sec 15 - 97N 44W	Sheridan	Sioux	IA	103	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1556	Noah Fedders	NE 1/4 Sec 10 - 97N 44W	Sheridan	Sioux	IA	147	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1557	Noah Fedders	NE 1/4 Sec 1 - 96N 44W	Capel	Sioux	IA	83	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1558	Darryl Huls	NE 1/4 Sec 30 - 100N 43W	Elgin	Lyon	IA	148	1010 Aurora St, Boyden, IA 51234	712-725-2341
1559	Pat Probst	SE 1/4 Sec 13 - 94N 44W, S 1/2 Sec 16, SW 1/4 Sec 20 - 94N 43W	East Orange	Sioux	IA	758	4860 Kiwi Ave, Alton, IA 51003	712-756-4529
1560	Jerry Renes	SE 1/4 Sec 15 - 96N 46W	Plato	Sioux	IA	107	2690 360th St, Rock Valley, IA 51247	712-722-1126
1561	Ryan Van Beek	SE 1/4 Sec 18 - 95N 44W	Holland	Sioux	IA	138	3881 Ironwood Ave, Orange City, IA 51041	712-449-8150
1562	John Tiedeman	SE 1/4 Sec 33 - 98N 44W	Wheeler	Lyon	IA	287	3661 270th St, Hull, IA 51239	712-470-0343
1563	Phillips Ag	NW 1/4 Sec 23 - 87N 36W	Wall Lake	Sac	IA	15	3141 Rolf Ave, Lake View, IA 51450	712-660-5169
1564	Noah Fedders	SE 1/4 Sec 6 - 80N 25W	Jefferson	Polk	IA	148	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446
1565	Brian Reinhart	W 1/2 Sec 26 - 81N 24W	Lincoln	Polk	IA	95	600 NE 126th Ave, Alleman, IA 50007	515-965-6958
1566	Brian Reinhart	SW 1/4 Sec 24, SE 1/4 Sec 23 - 81N 23W	Elkhart	Polk	IA	127	600 NE 126th Ave, Alleman, IA 50007	515-965-6958
1567	Brian Reinhart	NW 1/4 Sec 14 - 81N 23W	Elkhart	Polk	IA	192	600 NE 126th Ave, Alleman, IA 50007	515-965-6958
1568	Brian Reinhart	NE 1/4 Sec 27, NW 1/4 Sec 26 - 82N 25W	Garden	Boone	IA	132	600 NE 126th Ave, Alleman, IA 50007	515-965-6958
1569	Brian Reinhart	SW 1/4 Sec 2 - 81N 25W	Madison	Polk	IA	41	600 NE 126th Ave, Alleman, IA 50007	515-965-6958
1570	Rolling View Farms	SE 1/4 Sec 22, SW 1/4 Sec 23, Sec 26, SE 1/4 Sec 27 - 96N 44W	Capel	Sioux	IA	898	3798 Jefferson Ave, Orange City, IA 51041	712-441-6042
1571	Rolling View Farms	SE 1/4 Sec 25, Sec 36 - 96N 44W	Capel	Sioux	IA	230	3798 Jefferson Ave, Orange City, IA 51041	712-441-6042
1572	Pete Crew	Sec 6 - 94N 35W	Garfield	Clay	IA	750	3230 260th Ave, Spencer, IA 51301	712-262-4391
1573	Pete Crew	NW 1/4 Sec 12 - 94N 36W	Herdland	Clay	IA	181	3230 260th Ave, Spencer, IA 51301	712-262-4391
1574	Pete Crew	NW 1/4 Sec 2 - 95N 37W	Lincoln	Clay	IA	74	3230 260th Ave, Spencer, IA 51301	712-262-4391
1575	Craig Moss	SW 1/4 Sec 28 - 97N 45W	Lincoln	Sioux	IA	180	3172 320th St, Hull, IA 51239	712-439-6704
1576	Schoulten Farms	NW 1/4 Sec 14 - 96N 44W	Capel	Sioux	IA	155	2299 Beech Ave, Inwood, IA 51240	712-753-4644
1577	Chris Winter	NW 1/4 Sec 24 - 97N 44W, NE 1/4 Sec 19 - 97N 43W	Sheridan	Sioux	IA	120	4081 300th St, Boyden, IA 51234	616-844-6989
1578	Wilson Farms	NE 1/4 Sec 16 - 95N 41W	Dale	O'Brien	IA	74	600 NE 126th Ave, Alleman, IA 50007	712-253-9087
1579	Wilson Farms	NE 1/4 Sec 33 - 96N 41W	Summit	O'Brien	IA	79	600 NE 126th Ave, Alleman, IA 50007	712-253-9087
1580	BJB Farms	N 1/2 Sec 11 - 97N 43W	Grant	Sioux	IA	224	3798 Jefferson Ave, Orange City, IA 51041	712-324-3528
1581	BJB Farms	W 1/2 Sec 16 - 97N 43W	Grant	Sioux	IA	301	3798 Jefferson Ave, Orange City, IA 51041	712-324-3528
1582	Noah Fedders	E 1/2 Sec 36, 96N 46W	Plato	Sioux	IA	263	3230 260th Ave, Spencer, IA 51301	712-441-5446
1583	Nate Foresman	Sec 28 - 91N 41W	Rock	Cherokee	IA	154	3172 320th St, Hull, IA 51239	712-229-2633
1584	Nate Foresman	E 1/2 Sec 32, SE 1/4 Sec 29 - 90N 41W	Willow	Cherokee	IA	199	3172 320th St, Hull, IA 51239	712-229-2633
1585	Nate Foresman	NW 1/4 Sec 30 - 91N 41W	Rock	Cherokee	IA	48	3172 320th St, Hull, IA 51239	712-229-2633
1586	Nate Foresman	SE 1/4 Sec 28 - 90N 41W	Willow	Cherokee	IA	95	3172 320th St, Hull, IA 51239	712-229-2633
1587	Nate Foresman	SE 1/4 Sec 10 - 90N 42W	Grand Meadow	Cherokee	IA	121	3172 320th St, Hull, IA 51239	712-229-2633
1588	Nate Foresman	NE 1/4 Sec 21 - 91N 41W	Rock	Cherokee	IA	146	5806 J Ave, Cherokee IA 51012	712-229-2637
1589	Nate Foresman	E 1/2 Sec 24 - 91N 42W	Tilden	Cherokee	IA	288	5806 J Ave, Cherokee IA 51012	712-229-2637
1590	Nate Foresman	NE 1/4 Sec 19 - 91N 41W	Rock	Cherokee	IA	91	5806 J Ave, Cherokee IA 51012	712-229-2637
1591	Andrew Cronin	SW 1/4 Sec 8 - 92N 41W	Sheridan	Cherokee	IA	99	5585 K Ave, Cherokee, IA 51012	712-261-3151
1592	Andrew Cronin	NE 1/4 Sec 6 - 91N 40W	Pilot	Cherokee	IA	78	5585 K Ave, Cherokee, IA 51012	712-261-3151
1593	Andrew Cronin	NE 1/4 Sec 14 - 91N 41W	Rock	Cherokee	IA	146	5585 K Ave, Cherokee, IA 51012	712-261-3151
1594	Greg Vander Sluis	SE 1/4 Sec 28 - 95N 42W	Baker	O'Brien	IA	41	5365 360th St, Archer, IA 51231	712-723-5616
1595	Greg Vander Sluis	NW 1/4 Sec 34 - 96N 42W	Carroll	O'Brien	IA	142	5365 360th St, Archer, IA 51231	712-723-5616
1596	Greg Vander Sluis	NW 1/4 Sec 28 - 97N 42W	Floyd	O'Brien	IA	43	5365 360th St, Archer, IA 51231	712-723-5616
1597	Greg Vander Sluis	Sec 24 - 96N 42W, NW 1/4 Sec 19 - 96N 41W	Carroll	O'Brien	IA	490	5365 360th St, Archer, IA 51231	712-723-5616
1598	Steve Rupp	NW 1/4 Sec 5 - 91N 40W	Pilot	Cherokee	IA	38	1494 540th St, Cherokee, IA 51012	712-225-2402
1599	Matt Ohlson	NW 1/4 Sec 30, 85N 46W	Lake-West Fork	Monona	IA	39	1248 470th St, Meriden, IA 51037	712-229-2460
1691	Lee Wisecup	SE 1/4 Sec 34 - 81N 43W	Allen	Harrison	IA	149	2152 Westridge Dr, Missouri Valley, IA 51555	402-981-7675
1692	Lee Wisecup	NE 1/4 Sec 13 - 78N 45W	Cincinnati	Harrison	IA	136	2152 Westridge Dr, Missouri Valley, IA 51555	402-981-7675
1693	Lee Wisecup	N 1/2 Sec 5 - 78N 44W	St John	Harrison	IA	84	2152 Westridge Dr, Missouri Valley, IA 51555	402-981-7675

1694	Lee Wisecup	SE 1/4 Sec 9 - 78N 44W	St John	Harrison	IA	102	2152 Westridge Dr, Missouri Valley, IA 51555	402-981-7675	
1695	Lee Wisecup	NE 1/4 Sec 18 - 78N 44W	St John	Harrison	IA	138	2152 Westridge Dr, Missouri Valley, IA 51555	402-981-7675	
1696	Lee Wisecup	SE 1/4 Sec 20 - 78N 44W	St John	Harrison	IA	72	2152 Westridge Dr, Missouri Valley, IA 51555	402-981-7675	
1697	Lee Wisecup	SW 1/4 Sec 28 - 78N 44W	St John	Harrison	IA	86	2152 Westridge Dr, Missouri Valley, IA 51555	402-981-7675	
1698	Lee Wisecup	S 1/2 Sec 21 - 78N 44W	St John	Harrison	IA	41	2152 Westridge Dr, Missouri Valley, IA 51555	402-981-7675	
1699	Lee Wisecup	N 1/2 Sec 21 - 79N 44W	Taylor	Harrison	IA	155	2152 Westridge Dr, Missouri Valley, IA 51555	402-981-7675	
1700	Jeff Lundquist	N 1/2 Sec 2 - 92N 41W	Sheridan	Cherokee	IA	208	4787 M Ave, Meriden, IA 51037	(712) 243-9644	
1701	Jeff Lundquist	SE 1/4 Sec 5, NW 1/4 Sec 8 - 92N 40W	Cherokee	Cherokee	IA	112	4787 M Ave, Meriden, IA 51037	(712) 243-9644	
1702	Jeff Lundquist	SW 1/4 Sec 21 - 93N 40W	Cedar	Cherokee	IA	146	4787 M Ave, Meriden, IA 51037	(712) 243-9644	
1703	Jeff Lundquist	NE 1/4 Sec 6 - 92N 40W	Cherokee	Cherokee	IA	65	4787 M Ave, Meriden, IA 51037	(712) 243-9644	
1704	Jeff Lundquist	N 1/2 Sec 1, NE 1/4 Sec 2 - 92N 41W	Sheridan	Cherokee	IA	156	4787 M Ave, Meriden, IA 51037	(712) 243-9644	
1705	Jeff Lundquist	SE 1/4 Sec 20 - 92N 40W	Cherokee	Cherokee	IA	145	4787 M Ave, Meriden, IA 51037	(712) 243-9644	
1706	Bruce Husman	N 1/2 Sec 24, SE 1/4 Sec 13 - 91N 41W	Rock	Cherokee	IA	164	5753 M Ave, Quimby, IA 51049	(712) 539-0112	
1707	Cave Ag Production	NE 1/4 Sec 19 - 92N 40W	Cherokee	Cherokee	IA	97	5144 N Ave, Cherokee, IA 51012	(712)225-3303	
1708	Cave Ag Production	SW 1/4 Sec 17 - 92N 40W	Cherokee	Cherokee	IA	142	5144 N Ave, Cherokee, IA 51012	(712)225-3303	
1709	Bob Ferris	NW 1/4 Sec 17 - 92N 41W	Sheridan	Cherokee	IA	228	5017 M Ave., Meriden, IA 51037	(712) 443-8393	
1710	RBF Farms	NE 1/4 Sec 29 - 95N 46W	Center	Sioux	IA	84	1203 8th St SE, Orange City, IA 51041	712-737-3307	
1711	RBF Farms	NW 1/4 Sec 32 - 95N 46W	Center	Sioux	IA	60	1203 8th St SE, Orange City, IA 51041	712-737-3307	
1712	RBF Farms	NE 1/4 Sec 32 - 95N 46W	Center	Sioux	IA	71	1203 8th St SE, Orange City, IA 51041	712-737-3307	
1713	Brent Lawrey	Sec 20 - 93N 40W	Cedar	Cherokee	IA	138	1266 510th St., Meriden, IA 51037	712-443-8258	
1714	Joe Schlenger	SE 1/4 Sec 18 - 91N 41W	Rock	Cherokee	IA	96	PO Box 52, Cleghorn, IA 51014	712-436-2499	
1715	Joe Schlenger	SW 1/4 Sec 14 - 91N 42W	Tilden	Cherokee	IA	138	PO Box 52, Cleghorn, IA 51014	712-436-2499	
1716	Bart Cavanaugh	SE 1/4 Sec 7 - 92N 36W	Lincoln	Buena Vista	IA	79	4976 Hwy 71, Rembrandt, IA 50576	712-730-1478	
1717	Jerry Weiler	SE 1/4 Sec 15 - 93N 44W	Fredonia	Plymouth	IA	108	13054 L-12, Remsen, IA 51050	712-786-2766	
1718	Jerry Weiler	SW 1/4 Sec 13, NW 1/4 Sec 24 - 93N 44W	Fredonia	Plymouth	IA	138	13054 L-12, Remsen, IA 51050	712-786-2766	
1719	Bob Johnston	SW 1/4 Sec 10 - 92N 41W	Sheridan	Cherokee	IA	131	PO Box 73, Aurelia, IA 51005	712-229-0044	
1720	Ray Means	NW 1/4 Sec 33, NE 1/4 Sec 32 - 93N 42W	Marcus	Cherokee	IA	277	4635 C Ave., Marcus, IA 51035	712-376-2154	
1721	Ray Means	NE 1/4 Sec 29, SE 1/4 Sec 20, NW 1/4 Sec 28 - 93N 42W	Marcus	Cherokee	IA	305	4635 C Ave., Marcus, IA 51035	712-376-2154	
1722	Farmer's National	S 1/2 Sec 1 - 90N 42W	Grand Meadow	Cherokee	IA	101	PO Box 631, Paullina, IA 51046	712-448-2112	
1723	Steve Pitts	W 1/2 Sec 32 - 93N 41W	Liberty	Cherokee	IA	309	823 540th St, Cleghorn, IA 51014	712-225-5958	
1724	Tye Steffen	SW 1/4 Sec 14, SE 1/4 Sec 15 - 93N 39W	Spring	Cherokee	IA	148	1501 Shaw Ave, Milford, IA 51351	712-260-2369	
1725	Tye Steffen	SE 1/4 Sec 10 - 94N 37W	Douglas	Clay	IA	68	1501 Shaw Ave, Milford, IA 51351	712-260-2369	
1726	Tye Steffen	SE 1/4 Sec 33 - 95N 37W	Lincoln	Clay	IA	58	1501 Shaw Ave, Milford, IA 51351	712-260-2369	
1727	Green Cattle Co	Sec 13 - 97N 44W	Sheridan	Sioux	IA	394	2937 Kingbird Ave, Boyden, IA 51234	712-725-1920	
1728	Tyler Menz	SE 1/4 Sec 32 - 81N 28W	Spring Valley	Dallas	IA	233	12599 Houston Ave., Perry, IA	515-465-5086	
1729	Brian Rupp	NE 1/4 Sec 3 - 91N 41W	Rock	Cherokee	IA	63	5388 K Ave, Cherokee, IA 51012	712-246-2277	
1730	Jordan Plendl	Sec 20 - 87N 47W	Liberty	Woodbury	IA	306	33041 Quest Ave., Kingsley, IA 51028	712-251-7682	
1731	Kyle Puhrmann	SE 1/4 Sec 9 - 92N 41W	Sheridan	Cherokee	IA	81	4367 Polk Ave, Paullina, IA 51046	712-870-9789	
1732	Tom Stanton	NE 1/4 Sec 22 - 90N 42W	Grand Meadow	Cherokee	IA	72	3411 Wanamaker Way, Sioux City, IA 51106	254-751-0703	
1733	Tom Stanton	NE 1/4 Sec 2 - 90N 42W	Grand Meadow	Cherokee	IA	84	3411 Wanamaker Way, Sioux City, IA 51106	254-751-0703	
1734	Noah Fedders	SE 1/4 Sec 6 - 96N 45W	Welcome	Sioux	IA	112	3758 Kingbird Ave, Sheldon IA 51201	712-441-5446	
1735	Noah Fedders	NE 1/4 Sec 22 - 94N 47W	Washington	Sioux	IA	78	3758 Kingbird Ave, Sheldon IA 51201	712-441-5446	
1736	Noah Fedders	SE 1/4 Sec 4, NE 1/4 Sec 9 - 95N 46W	Center	Sioux	IA	168	3758 Kingbird Ave, Sheldon IA 51201	712-441-5446	
1737	Noah Fedders	SE 1/4 Sec 31 - 96N 44W	Capel	Sioux	IA	51	3758 Kingbird Ave, Sheldon IA 51201	712-441-5446	
1738	Noah Fedders	SW 1/4 Sec 34 - 96N 41W	Summit	O'Brien	IA	73	3758 Kingbird Ave, Sheldon IA 51201	712-441-5446	
1739	Noah Fedders	Sec 7, NW 1/4 Sec 18 - 94N 45W	Sherman	Sioux	IA	437	3758 Kingbird Ave, Sheldon IA 51201	712-441-5446	
1740	Grant Ashinger	NE 1/4 Sec 5 - 87N 32W	Logan	Calhoun	IA	67	PO Box 67, Storm Lake, IA 50588	712-732-4811	
1741	Grant Ashinger	SE 1/4 Sec 31, SW 1/4 Sec 32 -	Sherman	Calhoun	IA	230	PO Box 67, Storm Lake, IA 50588	712-732-4811	
1742	Grant Ashinger	NW 1/4 Sec 24, W 1/2 Sec 13 - 88N 33W	Twin Lakes	Calhoun	IA	429	PO Box 67, Storm Lake, IA 50588	712-732-4811	
1743	Grant Ashinger	SW 1/4 Sec 12 - 88N 34W	Garfield	Calhoun	IA	81	PO Box 67, Storm Lake, IA 50588	712-732-4811	
1744	Grant Ashinger	N 1/2 Sec 30, W 1/2 Sec 29 - 89N 32W	Sherman	Calhoun	IA	256	PO Box 67, Storm Lake, IA 50588	712-732-4811	
1745	Joe Schlenger	NE 1/4 Sec 28 - 91N 42W	Tilden	Cherokee	IA	74	PO Box 52, Cleghorn, IA 51014	712-436-2499	
1746	Joe Schlenger	NE 1/4 Sec 34 - 91N 42W	Tilden	Cherokee	IA	80	PO Box 52, Cleghorn, IA 51014	712-436-2499	
1747	Al Harnack	NW 1/4 Sec 29 - 92N 43W	Remsen	Plymouth	IA	152	44283 C38, Remsen, IA 51050	712-501-1013	
1748	Brian Reinhart	SE 1/4 Sec 10 - 81N 25W	Union	Buena Vista	IA	115	600 NE 126th Ave, Alleman, IA 50007	515-965-6958	
1749	Brian Reinhart	E 1/2 Sec 11 - 81N 25W	Union	Buena Vista	IA	67	600 NE 126th Ave, Alleman, IA 50007	515-965-6958	
1750	Brian Reinhart	SW 1/4 Sec 27 - 81N 24W	Lincoln	Buena Vista	IA	156	600 NE 126th Ave, Alleman, IA 50007	515-965-6958	
1751	Brian Reinhart	NW 1/4 Sec 8 - 81N 25W	Union	Buena Vista	IA	89	600 NE 126th Ave, Alleman, IA 50007	515-965-6958	
1752	Noah Fedders	NE 1/4 Sec 3 - 97N 47W	Sioux	Sioux	IA	162	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446	
1753	Noah Fedders	SE 1/4 Sec 20 - 98N 41W	Goewey	Osceola	IA	67	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446	
1754	Noah Fedders	NE 1/4 Sec 29 - 98N 41W	Goewey	Osceola	IA	129	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446	
1755	Noah Fedders	NW 1/4 Sec 28 - 98N 41W	Goewey	Osceola	IA	70	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446	
1756	Noah Fedders	NE 1/4 Sec 8 - 96N 41W	Summit	O'Brien	IA	147	3758 Kingbird Ave, Sheldon, IA 51201	712-441-5446	
1757	Cave Ag Production	SE Sec 6 - 91N 40W	Pilot	Cherokee	IA	139	5144 N Ave, Cherokee, IA 51012	712-225-3303	
1758	Nate Foresman	NW 1/4 Sec 19 - 91N 41W	Rock	Cherokee	IA	98	5806 J Ave, Cherokee, IA 51012	712-229-2637	
1759	Nate Foresman	SE 1/4 Sec 6 - 90N 41W	Willow	Cherokee	IA	153	5806 J Ave, Cherokee, IA 51012	712-229-2637	
1760	Adam Pigott	NE 1/4 Sec 26 - 92N 41W	Sheridan	Cherokee	IA	68	4968 J Ave, Cleghorn, IA 51014	712-436-2277	
1761	Adam Pigott	N 1/2 Sec 25 - 92N 41W	Sheridan	Cherokee	IA	160	4968 J Ave, Cleghorn, IA 51014	712-436-2277	
1762	Adam Pigott	SE 1/4 Sec 20 - 92N 40W	Cherokee	Cherokee	IA	62	4968 J Ave, Cleghorn, IA 51014	712-436-2277	
1763	Adam Pigott	SW 1/4 Sec 23 - 92N 41W	Sheridan	Cherokee	IA	74	4968 J Ave, Cleghorn, IA 51014	712-436-2277	
1764	Adam Pigott	NW 1/4 Sec 24 - 92N 41W	Sheridan	Cherokee	IA	83	4968 J Ave, Cleghorn, IA 51014	712-436-2277	
1765	C&D Farms	NE 1/4 Sec 3 - 90N 40W	Silver	Cherokee	IA	14	6316 R Ave, Cherokee, IA 51012	712-368-2895	
1766	C&D Farms	SE 1/4 Sec 33 - 91N 40W	Pilot	Cherokee	IA	15	6316 R Ave, Cherokee, IA 51012	712-368-2895	
1767	C&D Farms	SW 1/4 Sec 27, SE 1/4 Sec 28, NE 1/4 Sec 33 - 91N 40W	Pilot	Cherokee	IA	54	6316 R Ave, Cherokee, IA 51012	712-368-2895	
1768	John Tiederman	E 1/2 Sec 28 - 98N 44W	Wheeler	Lyon	IA	185	3661 270th St, Hull, IA 51239	712-470-0343	
1769	Jeff Lundquist	N 1/2 Sec 6 - 91N 41W	Rock	Cherokee	IA	154	4787 M Ave, Meriden, IA 51037	712-243-9644	
1770	Adam Schroeder	SW 1/4 Sec 32 - 92N 43W	Remsen	Plymouth	IA	45	23868 Pioneer Ave, Remsen, IA 51050	712-546-6392	
1771	O'Brien County Ag	E 1/2 Sec 33 - 96N 41W	Summit	O'Brien	IA	135	6640 280th St, Hartley, IA 51346	712-728-2597	
1772	O'Brien County Ag	SW 1/4 Sec 23 - 97N 39W	Hartley	O'Brien	IA	66	6640 280th St, Hartley, IA 51346	712-728-2597	
1773	O'Brien County Ag	NE 1/4 Sec 28 - 97N 40W	Lincoln	O'Brien	IA	75	6640 280th St, Hartley, IA 51346	712-728-2597	
1774	O'Brien County Ag	NW 1/4 Sec 18 - 97N 40W	Lincoln	O'Brien	IA	69	6640 280th St, Hartley, IA 51346	712-728-2597	
1775	Ryan Husman	SW 1/4 Sec 8, NW 1/4 Sec 17 - 92N 39W	Afton	Cherokee	IA	219	5743 M Avenue, Quimby, IA 51049	712-229-0965	
1776	Ryan Husman	NW 1/4 Sec 17 - 91N 41W	Rock	Cherokee	IA	158	5743 M Avenue, Quimby, IA 51049	712-229-0965	
1777	Ryan Husman	S 1/2 Sec 17, N 1/2 Sec 19 - 91N 41W	Rock	Cherokee	IA	154	5743 M Avenue, Quimby, IA 51049	712-229-0965	
1778	Ryan Husman	NW 1/4 Sec 19 - 91N 40W	Pilot	Cherokee	IA	150	5743 M Avenue, Quimby, IA 51049	712-229-0965	
1779	Tom Lehnhoff	NE 1/4 Sec 14 - 91N 42W	Tilden	Cherokee	IA	54	5463 F Ave., Marcus, IA 51035	712-579-3013	
1780	Peterson Farms	W 1/2 Sec 34, SE 1/4 Sec 33 - 91N 40W	Pilot	Cherokee	IA	250	795 500th St, Cleghorn, IA 51014	712-436-2560	
1781	Peterson Farms	N 1/2 Sec 3 - 91N 42W	Tilden	Cherokee	IA	250	795 500th St, Cleghorn, IA 51014	712-436-2560	
1782	Peterson Farms	N 1/2 Sec 22 - 91N 42W	Tilden	Cherokee	IA	125	795 500th St, Cleghorn, IA 51014	712-436-2560	
1783	Peterson Farms	NW 1/4 Sec 22, NE 1/4 Sec 21 - 93N 40W	Cedar	Cherokee	IA	91	795 500th St, Cleghorn, IA 51014	712-436-2560	
1784	Peterson Farms	NW 1/4 Sec 4 - 90N 40W	Silver	Cherokee	IA	49	795 500th St, Cleghorn, IA 51014	712-436-2560	
1785	Peterson Farms	NW 1/4 Sec 17 - 92N 39W	Afton	Cherokee	IA	53	795 500th St, Cleghorn, IA 51014	712-436-2560	
1786	Peterson Farms	NE 1/4 Sec 35 - 92N 41W	Sheridan	Cherokee	IA	143	795 500th St, Cleghorn, IA 51014	712-436-2560	
1787	Peterson Farms	SE 1/4 Sec 29 - 93N 39W	Spring	Cherokee	IA	99	795 500th St, Cleghorn, IA 51014	712-436-2560	
1788	Peterson Farms	N 1/2 Sec - 90N 42W	Grand Meadow	Cherokee	IA	306	795 500th St, Cleghorn, IA 51014	712-436-2560	
1789	Peterson Farms	NW 1/4 Sec 20 - 92N 39W	Afton	Cherokee	IA	149	795 500th St, Cleghorn, IA 51014	712-436-2560	
1790	Peterson Farms	W 1/2 Sec 18 - 90N 40W	Silver	Cherokee	IA	178	795 500th St, Cleghorn, IA 51014	712-436-2560	
1791	Steve Pitts	SE 1/4 Sec 32 - 92N 41W	Sheridan	Cherokee	IA	162	823 540th St, Cleghorn, IA 51014	712-225-5958	
1792	Bruce Husman	SW 1/4 Sec 19 - 91N 40W	Pilot	Cherokee	IA	84	5753 M Ave, Quimby, IA 51049	712-539-0112	
1793	Bruce Husman	SE 1/4 Sec 5, NW 1/4 Sec 8 - 90N 40W	Silver	Cherokee	IA	183	5753 M Ave, Quimby, IA 51049	712-539-0112	
1794	Bruce Husman	SW 1/4 Sec 13 - 91N 41W	Rock	Cherokee	IA	92	5753 M Ave, Quimby, IA 51049	712-539-0112	
1795	Bruce Husman	NW 1/4 Sec 31 - 91N 40W	Pilot	Cherokee	IA	91	5753 M Ave, Quimby, IA 51049	712-539-0112	
1796	Darren Stowater	SE 1/4 Sec 13 - 92N 40W	Cherokee	Cherokee	IA	112	4781 High County Rd, Cherokee, IA 51012	712-437-2525	
1797	Mike Vondrak	NW 1/4 Sec 26 - 91N 39W	Pitcher	Cherokee	IA	118	30345 Granite Ave, Hinton, IA 51024	712-229-6423	
1798	Ben Sand	SW 1/4 Sec 24 - 90N 38W	Maple Valley	Buena Vista	IA	147	6567 50th Ave, Alta, IA 51002	712-275-4642	
1799	Ben Sand	N 1/2 Sec 3 - 89N 38W	Eureka	Sac	IA	271	6567 50th Ave, Alta, IA 51002	712-275-4642	
1800	Fordyce Family Farms	N 1/2 Sec 30 - 92N 38W, NE 1/4 Sec 25 - 92N 39W	Elk	Cherokee	IA	179	5242 10th Ave, Aurelia, IA 51005	712-434-5762	
1801	Jordan Plendl	NE 1/4 Sec 12 - 89N 44W	Arlington	Woodbury	IA	34	33041 Quest Ave., Kingsley, IA 51028	712-251-7682	
1802	Jordan Plendl	NE 1/4 Sec 29 - 90N 45W	Lincoln	Plymouth	IA	96	33041 Quest Ave., Kingsley, IA 51028	712-251-7682	
1803	Jordan Plendl	Sec 8 - 86N 43W	Oto	Woodbury	IA	205	33041 Quest Ave., Kingsley, IA 51028	712-251-7682	
1804	Phillips Ag	NE 1/4 Sec 27 - 88N 36W	Jackson	Sac	IA	42	3141 Rolf Ave, Lake View, IA 51450	712-660-5169	
1805	Phillips Ag	NE 1/4 Sec 20 - 87N 36W	Wall Lake	Sac	IA	75	3141 Rolf Ave, Lake View, IA 51450	712-660-5169	
1806	Brian Reinhart	SW 1/4 Sec 16 - 81N 22W	Washington	Buena Vista	IA	120	600 NE 126th Ave, Alleman, IA 50007	515-965-6958	
1807	Brian Reinhart	NW 1/4 Sec 1 - 81N 24W	Lincoln	Buena Vista	IA	83	600 NE 126th Ave, Alleman, IA 50007	515-965-6958	
1808	Brian Reinhart	NW 1/4 Sec 14 - 81N 22W	Washington	Buena Vista	IA	105	600 NE 126th Ave, Alleman, IA 50007	515-965-6958	
1809	Brian Reinhart	SW 1/4 Sec 30, NW 1/4 Sec 31 - 81N 25W	Jefferson	Buena Vista	IA	104	600 NE 126th Ave, Alleman, IA 50007	515-965-6958	
1810	Brian Reinhart	W 1/2 Sec 5 - 80N 25W	Jefferson	Buena Vista	IA	129	600 NE 126th Ave, Alleman, IA 50007	515-965-6958	
1811	Brian Reinhart	NW 1/4 Sec 10 - 80N 26W	Grant	Buena Vista	IA	51	600 NE 126th Ave, Alleman, IA 50007	515-965-6958	
1812	Katie Jorgensen	SW 1/4 Sec 1 - 87N 48W	Liberty	Woodbury	IA	29	12325 Cedar Ave, Whiting, IA 51063	712-870-4670	
1813	Katie Jorgensen	NE 1/4 Sec 2 - 87N 48W	Liberty	Woodbury	IA	24	12325 Cedar Ave, Whiting, IA 51063	712-870-4670	
1814	Katie Jorgensen	NE 1/4 Sec 29, SE 1/4 Sec 20 - 86N 46W	Sloan	Woodbury	IA	291	12325 Cedar Ave, Whiting, IA 51063	712-870-4670	
1815	Katie Jorgensen	NE 1/4 Sec 23 - 86N 47W	Lakeport	Woodbury	IA	146	12325 Cedar Ave, Whiting, IA 51063	712-870-4670	
1816	Katie Jorgensen	NE 1/4 Sec 12, S 1/2 Sec 1 - 86N 47W	Lakeport	Woodbury	IA	247	12325 Cedar Ave, Whiting, IA 51063	712-870-4670	
1817	Katie Jorgensen	SW 1/4 Sec 24, SE 1/4 Sec 23 - 86N 47W	Lakeport	Woodbury	IA	174	12325 Cedar Ave, Whiting, IA 51063	712-870-4670	
1818	Katie Jorgensen	NE 1/4 Sec 30 - 86N 46W	Sloan	Woodbury	IA	18	12325 Cedar Ave, Whiting, IA 51063	712-870-4670	
1819	Katie Jorgensen	SE 1/4 Sec 27, SW 1/4 Sec 26 - 88N 47W	Woodbury	Woodbury	IA	156	12325 Cedar Ave, Whiting, IA 51063	712-870-4670	
1820	Katie Jorgensen	SE 1/4 Sec 33 - 86N 46W	Sloan	Woodbury	IA	77	12325 Cedar Ave, Whiting, IA 51063	712-870-4670	
1821	Bar K Cattle	SW 1/4 Sec 35 - 96N 45W	Welcome	Sioux	IA	91	1397 270th St, Inwood, IA 51240	712-786-0005	
1822	Bar K Cattle	NW 1/4 Sec 3 - 97N 48W, SW 1/4 Sec 34 - 98N 48W	Lyon	Sioux	IA	312	1397 270th St, Inwood, IA 51240	712-786-0005	
1823	Grant Ashinger	NE 1/4 Sec 12 - 90N 40W	Silver	Cherokee	IA	112	PO Box 67, Storm Lake, IA 50588	712-732-4811	
1824	Grant Ashinger	SW 1/4 Sec 13, NW 1/4 Sec 24 - 90N 40W	Silver	Cherokee	IA	175	PO Box 67, Storm Lake, IA 50588	712-732-4811	
1825	J Brothers Custom	NE 1/4 Sec 24 - 95N 43W	Floyd	Sioux	IA	141	4734 100th St, Granville, IA 51022	712-541-9243	
1826	J Brothers Custom	NW 1/4 Sec 3, NE 1/4 Sec 4 - 93N 43W	Meadow	Plymouth	IA	356	4734 100th St, Granville, IA 51022	712-541-9243	
1827	J Brothers Custom	N 1/2 Sec 24 - 94N 43W	East Orange	Sioux	IA	187	4734 100th St, Granville, IA 51022	712-541-9243	
1828	Paul Wilkins	S 1/2 Sec 2 - 77N 45W	Rockford	Pottawattamie	IA	275	32072 185th St, Missouri Valley, IA 51555	402-891-2001	
1829	Paul Wilkins	Sec 11, Sec 13 - 77N 45W	Rockford	Pottawattamie	IA	583	32072 185th St, Missouri Valley, IA 51555	402-891-2001	
1830	Paul Wilkins	W 1/2 Sec 7, NW 1/4 Sec 18 - 77N 43W	Boomer	Pottawattamie	IA	132	32072 185th St, Missouri Valley, IA 51555	402-891-2001	
1831	Paul Wilkins	Sec 16 - 70 N 43W	Scott	Fremont	IA	246	32072 185th St, Missouri Valley, IA 51555	402-891-2001	
1832	Andrew Cronin	S 1/2 Sec 14 - 91N 41W	Rock	Cherokee	IA	151	5122 K Ave, Meriden, IA 51037	712-261-3151	
1833	Andrew Cronin	NW 1/4 Sec 1 - 92N 42W	Amherst	Cherokee	IA	30	5122 K Ave, Meriden, IA 51037	712-261-3151	
1834	Andrew Cronin	E 1/2 Sec 13 - 93N 41W	Liberty	Cherokee	IA	223	5122 K Ave, Meriden, IA 51037	712-261-3151	
1835	Andrew Cronin	SE 1/4 Sec 21 - 92N 41W	Sheridan	Cherokee	IA	74	5122 K Ave, Meriden, IA 51037	712-261-3151	
1836	Andrew Cronin	SW 1/4 Sec 32 - 94N 42W	Caledonia	O'Brien	IA	73	5122 K Ave, Meriden, IA 51037	712-261-3151	
1837	Andrew Cronin	NW 1/4 Sec 22 - 92N 39W	Afton	Cherokee	IA	125	5122 K Ave, Meriden, IA 51037	712-261-3151	
1838	Keldby Wulf	NE 1/4 Sec 29 - 89N 40W	Griggs	Ida	IA	60	1326 Eagle Ave, Holstein, IA 51025	712-368-2274	
1839	Andrew Cronin	NW 1/4 Sec 3 - 92N 41W	Sheridan	Cherokee	IA	127	5122 K Ave, Meriden, IA 51037	712-261-3151	
1906	Kim Bertelson	SE 1/4 Sec 4 - 78N 45W	Cincinnati	Harrison	IA	75	2211 Highway 30, Missouri Valley, IA 51555	712-203-0235	
1907	Mark Wohlers	Sec 12, 13, 14 - 77N 45W	York	Pottawattamie	IA	612	3358 Loess Hills Trail, Missouri Valley, IA 51555	712-642-2533	
1912	Clark Brothers	NE 1/4 Sec 24 - 78N 45W, NW 1/4 Sec 19 - 78N 44W	Cincinatti, St John	Harrison	IA	200	3323 Overton Ave, Logan, IA 51546	402-990-2094	
1913	Clark Brothers	N 1/2 Sec 35 - 78N 43W SE 1/4 Sec 14, SW 1/4 Sec 13, NE 1/4 Sec 23, Sec 24, NW 1/4 Sec	LaGrange	Harrison	IA	137	3323 Overton Ave, Logan, IA 51546	402-990-2094	
1914	Clark Brothers	25, NE 1/4 Sec 26 - 78N 43W	LaGrange	Harrison	IA	820	3323 Overton Ave, Logan, IA 51546	402-990-2094	
1915	Clark Brothers	Sec 23 - 78N 44W	St John	Harrison	IA	86	3323 Overton Ave, Logan, IA 51546	402-990-2094	
1916	Clark Brothers	NW 1/4 Sec 31 - 79N 41W	Cass	Harrison	IA	118	3323 Overton Ave, Logan, IA 51546	402-990-2094	
1917	Clark Brothers	W 1/2 Sec 27 - 79N 43W	Calhoun	Harrison	IA	141	3323 Overton Ave, Logan, IA 51546	402-990-2094	
1918	Clark Brothers	W 1/2 Sec 25, NE 1/4 Sec 26 - 79N 42W	Jefferson	Harrison	IA	301	3323 Overton Ave, Logan, IA 51546	402-990-2094	
1919	Clark Brothers	Sec 22, W 1/2 Sec 26, NE 1/4 Sec 27 - 78N 43W	LaGrange	Harrison	IA	366	3323 Overton Ave, Logan, IA 51546	402-990-2094	
1920	Clark Brothers	SW 1/4 Sec 19, Sec 24 - 78N 44W	St John	Harrison	IA	78	3323 Overton Ave, Logan, IA 51546	402-990-2094	
1921	Clark Brothers	NE 1/2 Sec 2 - 77N 43W	Boomer	Pottawattamie	IA	113	3323 Overton Ave, Logan, IA 51546	402-990-2094	

Cargill Corn Milling Blair: Permit # 00-SDP-07-14P - IDNR New Site List P1-P8 5.14.26

Site Name	Section Information/Site Detail	Township	County	State	Acres	Slope Acceptable Acres	Operator
1760	NE 1/4 Sec 26 - 92N 41W	Sheridan	Cherokee	IA	68	68	Adam Pigott
1761	N 1/2 Sec 25 - 92N 41W	Sheridan	Cherokee	IA	160	160	Adam Pigott
1762	SE 1/4 Sec 20 - 92N 40W	Cherokee	Cherokee	IA	62	62	Adam Pigott
1763	SW 1/4 Sec 23 - 92N 41W	Sheridan	Cherokee	IA	74	74	Adam Pigott
1764	NW 1/4 Sec 24 - 92N 41W	Sheridan	Cherokee	IA	83	83	Adam Pigott
1765	NE 1/4 Sec 3 - 90N 40W	Silver	Cherokee	IA	14	14	C&D Farms
1766	SE 1/4 Sec 33 - 91N 40W	Pilot	Cherokee	IA	15	15	C&D Farms
1767	SW 1/4 Sec 27, SE 1/4 Sec 28, NE 1/4 Sec 33 - 91N 40W	Pilot	Cherokee	IA	54	54	C&D Farms
1768	E 1/2 Sec 28 - 98N 44W	Wheeler	Lyon	IA	185	185	John Tiederman
1769	N 1/2 Sec 6 - 91N 41W	Rock	Cherokee	IA	154	142	Jeff Lundquist
1770	SW 1/4 Sec 32 - 92N 43W	Remsen	Plymouth	IA	45	45	Adam Schroeder
1771	E 1/2 Sec 33 - 96N 41W	Summit	O'Brien	IA	135	135	O'Brien County Ag
1772	SW 1/4 Sec 23 - 97N 39W	Hartley	O'Brien	IA	66	66	O'Brien County Ag
1773	NE 1/4 Sec 28 - 97N 40W	Lincoln	O'Brien	IA	75	75	O'Brien County Ag
1774	NW 1/4 Sec 18 - 97N 40W	Lincoln	O'Brien	IA	69	69	O'Brien County Ag
1775	SW 1/4 Sec 8, NW 1/4 Sec 17 - 92N 39W	Afton	Cherokee	IA	219	219	Ryan Husman
1776	NW 1/4 Sec 17 - 91N 41W	Rock	Cherokee	IA	158	158	Ryan Husman
1777	S 1/2 Sec 17, N 1/2 Sec 19 - 91N 41W	Rock	Cherokee	IA	154	154	Ryan Husman
1778	NW 1.4 Sec 19 - 91N 40W	Pilot	Cherokee	IA	150	112	Ryan Husman
1779	NE 1/4 Sec 14 - 91N 42W	Tilden	Cherokee	IA	54	54	Tom Lehnhoff
1780	W 1/2 Sec 34, SE 1/4 Sec 33 - 91N 40W	Pilot	Cherokee	IA	250	250	Peterson Farms
1781	N 1/2 Sec 3 - 91N 42W	Tilden	Cherokee	IA	250	250	Peterson Farms
1782	N 1/2 Sec 22 - 91N 42W	Tilden	Cherokee	IA	125	125	Peterson Farms
1783	NW 1/4 Sec 22, NE 1/4 Sec 21 - 93N 40W	Cedar	Cherokee	IA	91	91	Peterson Farms
1784	NW 1/4 Sec 4 - 90N 40W	Silver	Cherokee	IA	49	44	Peterson Farms
1785	NW 1/4 Sec 17 - 92N 39W	Afton	Cherokee	IA	53	53	Peterson Farms
1786	NE 1/4 Sec 35 - 92N 41W	Sheridan	Cherokee	IA	143	143	Peterson Farms
1787	SE 1/4 Sec 29 - 93N 39W	Spring	Cherokee	IA	99	99	Peterson Farms
1788	N 1/2 Sec 1 - 90N 42W	Grand Meadow	Cherokee	IA	306	273	Peterson Farms
1789	NW 1/4 Sec 20 - 92N 39W	Afton	Cherokee	IA	149	149	Peterson Farms
1790	W 1/2 Sec 18 - 90N 40W	Silver	Cherokee	IA	178	178	Peterson Farms
1791	SE 1/4 Sec 32 - 92N 41W	Sheridan	Cherokee	IA	162	162	Steve Pitts
1792	SW 1/4 Sec 19 - 91N 40W	Pilot	Cherokee	IA	84	84	Bruce Husman
1793	SE 1/4 Sec 5, NW 1/4 Sec 8 - 90N 40W	Silver	Cherokee	IA	183	183	Bruce Husman
1794	SW 1/4 Sec 13 - 91N 41W	Rock	Cherokee	IA	92	92	Bruce Husman
1795	NW 1/4 Sec 31 - 91N 40W	Pilot	Cherokee	IA	91	91	Bruce Husman
1796	SE 1/4 Sec 13 - 92N 40W	Cherokee	Cherokee	IA	112	112	Darren Stowater
1797	NW 1/4 Sec 26 - 91N 39W	Pitcher	Cherokee	IA	118	118	Mike Vondrak
1798	SW 1/4 Sec 24 - 90N 38W	Maple Valley	Buena Vista	IA	147	147	Ben Sand
1799	N 1/2 Sec 3 - 89N 38W	Eureka	Sac	IA	271	266	Ben Sand
1800	N 1/2 Sec 30 - 92N 38W, NE 1/4 Sec 25 - 92N 39W	Elk	Cherokee	IA	179	179	Fordyce Family Farms
1801	NE 1/4 Sec 12 - 89N 44W	Arlington	Woodbury	IA	34	34	Jordan Plendl
1802	NE 1/4 Sec 29 - 90N 45W	Lincoln	Plymouth	IA	96	72	Jordan Plendl
1803	Sec 8 - 86N 43W	Oto	Woodbury	IA	205	204	Jordan Plendl
1804	NE 1/4 Sec 27 - 88N 36W	Jackson	Sac	IA	42	42	Phillips Ag
1805	NE 1/4 Sec 20 - 87N 36W	Wall Lake	Sac	IA	75	75	Phillips Ag
1806	SW 1/4 Sec 16 - 81N 22W	Washington	Buena Vista	IA	120	120	Brian Reinhart
1807	NW 1/4 Sec 1 - 81N 24W	Lincoln	Buena Vista	IA	83	83	Brian Reinhart
1808	NW 1/4 Sec 14 - 81N 22W	Washington	Buena Vista	IA	105	105	Brian Reinhart
1809	SW 1/4 Sec 30, NW 1/4 Sec 31 - 81N 25W	Jefferson	Buena Vista	IA	104	104	Brian Reinhart
1810	W 1/2 Sec 5 - 80N 25W	Jefferson	Buena Vista	IA	129	129	Brian Reinhart
1811	NW 1/4 Sec 10 - 80N 26W	Grant	Buena Vista	IA	51	51	Brian Reinhart
1812	SW 1/4 Sec 1 - 87N 48W	Liberty	Woodbury	IA	29	29	Katie Jorgensen
1813	NE 1/4 Sec 2 - 87N 48W	Liberty	Woodbury	IA	24	24	Katie Jorgensen
1814	NE 1/4 Sec 29, SE 1/4 Sec 20 - 86N 46W	Sloan	Woodbury	IA	291	291	Katie Jorgensen
1815	NE 1/4 Sec 23 - 86N 47W	Lakeport	Woodbury	IA	146	146	Katie Jorgensen
1816	NE 1/4 Sec 12, S 1/2 Sec 1 - 86N 47W	Lakeport	Woodbury	IA	247	247	Katie Jorgensen
1817	SW 1/4 Sec 24, SE 1/4 Sec 23 - 86N 47W	Lakeport	Woodbury	IA	174	174	Katie Jorgensen
1818	NE 1/4 Sec 30 - 86N 46W	Sloan	Woodbury	IA	18	18	Katie Jorgensen
1819	SE 1/4 Sec 27, SW 1/4 Sec 26 - 88N 47W	Woodbury	Woodbury	IA	156	156	Katie Jorgensen
1820	SE 1/4 Sec 33 - 86N 46W	Sloan	Woodbury	IA	77	77	Katie Jorgensen
1821	SW 1/4 Sec 35 - 96N 45W	Welcome	Sioux	IA	91	91	Bar K Cattle
1822	NW 1/4 Sec 3 - 97N 48W, SW 1/4 Sec 34 - 98N 48W	Lyon	Sioux	IA	312	289	Bar K Cattle
1823	NE 1/4 Sec 12 - 90N 40W	Silver	Cherokee	IA	112	112	Grant Ashinger
1824	SW 1/4 Sec 13, NW 1/4 Sec 24 - 90N 40W	Silver	Cherokee	IA	175	175	Grant Ashinger
1825	NE 1/4 Sec 24 - 95N 43W	Floyd	Sioux	IA	141	141	J Brothers Custom
1826	NW 1/4 Sec 3, NE 1/4 Sec 4 - 93N 43W	Meadow	Plymouth	IA	356	356	J Brothers Custom
1827	N 1/2 Sec 24 - 94N 43W	East Orange	Sioux	IA	187	187	J Brothers Custom
1828	S 1/2 Sec 2 - 77N 45W	Rockford	Pottawattamie	IA	275	275	Paul Wilkins
1829	Sec 11, Sec 13 - 77N 45W	Rockford	Pottawattamie	IA	583	583	Paul Wilkins
1830	W 1/2 Sec 7, NW 1/4 Sec 18 - 77N 43W	Boomer	Pottawattamie	IA	132	132	Paul Wilkins
1831	Sec 16 - 70 N 43W	Scott	Fremont	IA	246	246	Paul Wilkins
1832	S 1/2 Sec 14 - 91N 41W	Rock	Cherokee	IA	151	151	Andrew Cronin
1833	NW 1/4 Sec 1 - 92N 42W	Amherst	Cherokee	IA	30	30	Andrew Cronin
1834	E 1/2 Sec 13 - 93N 41W	Liberty	Cherokee	IA	223	219	Andrew Cronin
1835	SE 1/4 Sec 21 - 92N 41W	Sheridan	Cherokee	IA	74	74	Andrew Cronin
1836	SW 1/4 Sec 32 - 94N 42W	Caledonia	O'Brien	IA	73	73	Andrew Cronin
1837	NW 1/4 Sec 22 - 92N 39W	Afton	Cherokee	IA	125	125	Andrew Cronin
1838	NE 1/4 Sec 29 - 89N 40W	Griggs	Ida	IA	60	60	Keldby Wulf
1839	NW 1/4 Sec 3 - 92N 41W	Sheridan	Cherokee	IA	127	127	Andrew Cronin

Operator	Address	Phone
Adam Pigott	4968 J Ave, Cleghorn, IA 51014	712-436-2277
C&D Farms	6316 R Ave, Cherokee, IA 51012	712-368-2895
John Tiederman	3661 270th St, Hull, IA 51239	712-470-0343
Jeff Lundquist	4787 M Ave, Meriden, IA 51037	712-243-9644
Adam Schroeder	23868 Pioneer Ave, Remsen, IA 51050	712-546-6392
O'Brien County Ag	6640 280th St, Hartley, IA 51346	712-728-2597
Ryan Husman	5743 M Avenue, Quimby, IA 51049	712-229-0965
Tom Lehnhoff	5463 F Ave., Marcus, IA 51035	712-579-3013
Peterson Farms	795 500th St, Cleghorn, IA 51014	712-436-2560
Steve Pitts	823 540th St, Cleghorn, IA 51014	712-225-5958
Bruce Husman	5753 M Ave, Quimby, IA 51049	712-539-0112
Darren Stowater	4781 High County Rd, Cherokee, IA 51012	712-437-2525
Mike Vondrak	30345 Granite Ave, Hinton, IA 51024	712-229-6423
Ben Sand	6567 50th Ave, Alta, IA 51002	712-275-4642
Fordyce Family Farms	5242 10th Ave, Aurelia, IA 51005	712-434-5762
Jordan Plendl	33041 Quest Ave., Kingsley, IA 51028	712-251-7682
Phillips Ag	3141 Rolf Ave, Lake View, IA 51450	712-660-5169
Brian Reinhart	600 NE 126th Ave, Alleman, IA 50007	515-965-6958
Katie Jorgensen	12325 Cedar Ave, Whiting, IA 51063	712-870-4670
Bar K Cattle	1397 270th St, Inwood, IA 51240	712-786-0005
Grant Ashinger	PO Box 67, Storm Lake, IA 50588	712-732-4811
J Brothers Custom	4734 100th St, Granville, IA 51022	712-541-9243
Paul Wilkins	32072 185th St, Missouri Valley, IA 51555	402-891-2001
Andrew Cronin	5122 K Ave, Meriden, IA 51037	712-261-3151
Kelby Wulf	1326 Eagle Ave, Holstein, IA 51025	712-368-2274

EXTended Ag Services, Inc.

202 South Highway 86
Lakefield, MN 56150
507.662.5005 phone
507.662.5105 fax
info@extendedag.com

November 6, 2025

Environmental Land Management

1602 11th Drive NE

Austin, MN 55912

RE: Review of Potential Land Application Sites – Cargill Blair: Monona & Cherokee County

Michael,

We have completed our review of the proposed land application sites for the Cargill facility in Blair, Nebraska. Thank you for the opportunity to provide our input on this project. The following field was included in this review, all acres are approximate:

Site Name	Acres
1760	77.4
1761	159.7
1762	78.0
1763	77.2
1764	88.2
1765	17.5
1766	18.6
1767	56.5
1769	154.0
[redacted]	[redacted]
Grand Total	**2,726.6**

Imagery provided by the National Ag Imagery Program (2021) was utilized to determine whether land application sites were in crop production, pasture/hay or non-farmed land. Overall, the land application sites have some limitations regarding slope steepness and length and general erosion potential.

There are approximately 2,726.6 acres available for land application of the industrial by-product. The land application site is dominated by silt clay, silty clay loams, and silt loams. Approximately 239.1 acres of soil are classified as loamy fine sand or a very fine sandy loam. Those soils should be investigated to determine if they have an acceptable soil texture for land application.

According to the NRCS, 99.5% of the sites have acceptable slopes for the land application of the Cargill byproducts (0-9%). According to the NRCS. 2.7% of the soils are classified as moderately eroded and 22.7% as slightly eroded.

Field specific planning and/or residue management should be utilized when applying the byproduct to reduce the potential for movement offsite, on all sites. Application can and should be limited to areas with the lowest slope first and then be directed to areas the furthest from sensitive features such as water. The application of the byproduct is not expected to conflict with any Conservation Plans associated with the observed soils. A summary of slope ratings for the potential land application sites is included below:

Slop Range	Acres
0-1%	44.1
0-2%	2,053.2
1-4%	90.2
0-5%	11.3
2-5%	316.9
3-5%	3.2
2-9%	15.4
5-9%	178.0
9-14%	9.7
9-18%	1.1
14-25%	1.4
25-40%	1.3
20-50%	0.7
Grand Total	**2,726.6**

Approximately 2.1% of the soils identified as potential land application sites are listed by the NRCS soil survey as ponded, commonly or frequently flooded. It is assumed that agricultural drain tile has been installed, to varying degrees, on soils with poor or somewhat poor drainage. Flooding frequency is not expected to be a limiting factor for land application. However, land application on saturated soils should be avoided at all times. Further, land application on fields with higher slope ranges and predicted rainfall within 24 hours should be limited. A complete breakdown of flooding frequency ratings is shown below:

NRCS Flooding Frequency	Acres
NONE	664.3
OCCASSIONAL	2,003.4
PONDED	44.1
FREQUENT	14.7
Grand Total	**2,726.6**

Determining appropriate land application rates for any by-product is dependent on the most restrictive variable. This can be either slope, erosivity, flooding potential, soil fertility levels, soil texture or byproduct characteristics, to name a few. The recommendations given herein are independent of any byproduct reviews and only consider the known field characteristics discussed in this review.

Application rates of approximately 15 Wet Tons per acre are appropriate for the field conditions of the land application sites discussed in this review. Appropriate measures should be taken to ensure minimal movement of the waste respect to adequate setbacks from sensitive features (surface water, karst features, conduits to water and high slopes) and land application rates. Special care should be given to applying wastes no less than 48 hours prior to rainfall events of greater than 0.5 inches. Wastes should be incorporated whenever possible, if such practices do not conflict with existing NRCS conservation plans. Applications of organic by-products can result in improved soil fertility, tilth and structure, if properly managed. The soils and parent material on the proposed land application site are naturally acidic in nature. Agricultural lime should be applied to ensure the soil pH is above 6.0 prior to land application of any byproducts.

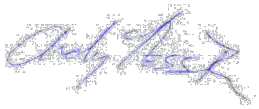
Summary

The specified land application material should be evaluated for constituents that pose a risk to the general health and welfare of the public. In general, land utilized for the land application of solid waste containing nutrients needed for pasture or crop production will benefit from such applications. Careful consideration should be taken to ensure nutrients are not applied at levels greater than crop need, once soils have reached the high fertility range as defined by Iowa State University.

In summary, we believe the field conditions are suitable for land application of solid wastes if done in accordance with all applicable rules, permits and laws. If you have any questions, please do not hesitate to contact us.

Sincerely,





Jim Nesseth
Certified Agronomist
License #: 17118

Andrew Nesseth
Environmental Consultant
NRCS Technical Service Provider

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1760



Unsuitable for Land Application

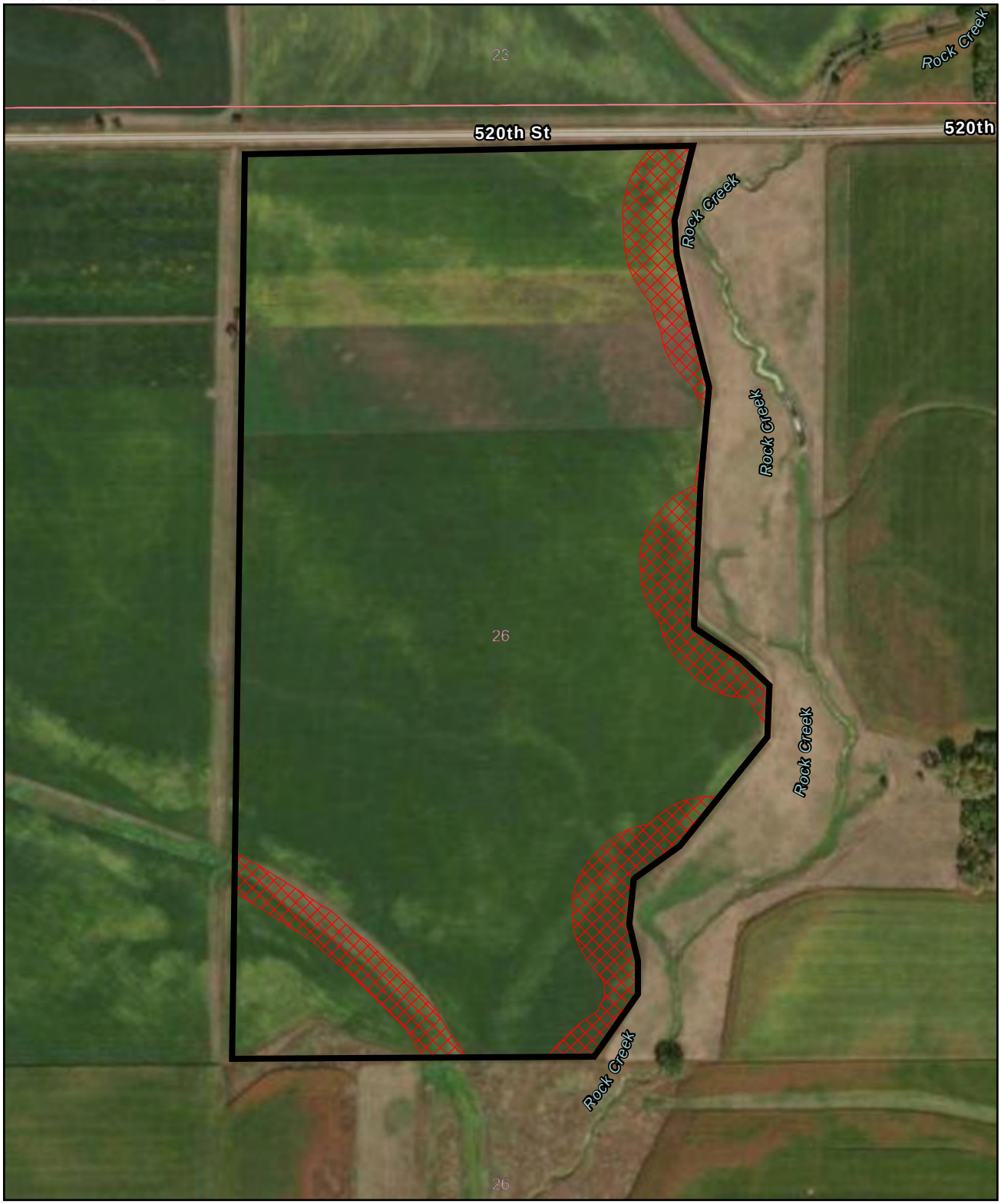
Adam Pigott Phone: (712)261-3151 Spreadable Acres: 68 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1760



Unsuitable for Land Application

Adam Pigott Phone: (712)261-3151 Gypsum Only

Permitted Acres: 68 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1760)



Map Scale: 1:4,780 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cherokee County, Iowa
Survey Area Data: Version 35, Sep 8, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 5, 2021—Oct 14, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	1.5	1.9%
33D	Steinauer clay loam, 9 to 14 percent slopes	0.3	0.4%
91B	Primghar silty clay loam, 2 to 5 percent slopes	14.4	18.0%
92	Marcus silty clay loam, 0 to 2 percent slopes	1.0	1.3%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	6.3	7.9%
310	Galva silty clay loam, 0 to 2 percent slopes	9.8	12.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	41.5	51.7%
310C	Galva silty clay loam, 5 to 9 percent slopes	5.3	6.6%
Totals for Area of Interest		**80.2**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	1.5	1.9%
33D	Steinauer clay loam, 9 to 14 percent slopes	5	0.3	0.4%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	14.4	18.0%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	1.0	1.3%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	6.3	7.9%
310	Galva silty clay loam, 0 to 2 percent slopes	5	9.8	12.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	41.5	51.7%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	5.3	6.6%
Totals for Area of Interest			**80.2**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	1.5	1.9%
33D	Steinauer clay loam, 9 to 14 percent slopes	>200	0.3	0.4%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	14.4	18.0%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	1.0	1.3%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	6.3	7.9%
310	Galva silty clay loam, 0 to 2 percent slopes	>200	9.8	12.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	41.5	51.7%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	5.3	6.6%
Totals for Area of Interest			**80.2**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Having issues? A prototype of a new version of Facility Explorer is available at https://facilityexplorer.iowadnr.gov/FacilityExplorer4/ x

Well Search

Well Search Report Site: 1760

Included in search	No. of wells	Database
X	1	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	6	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	2	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 283143/4737715
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
179918	10782	T92N, R41W, 23, SE SE NE	Calc. +/- 470 ft.	853 (m)	379	10/19/1958	Steele, R.T.	Bedrock Depth: 318 Well Type: Private

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
4745	53054	T92N, R41W, Sec. 26, SW, SE, NE	Calc. +/- 285m.	1132 (m)	40	1956	Eischen, Leo	Drilling method: Bored; Known well depth
4755	18707	T92N, R41W, Sec. 26, SW, SE, SE	Calc. +/- 285m.	1143 (m)	40	1956	Eischen, Leo J.	Drilling method: Bored; Estimated well depth
4866	59830	T92N, R41W, Sec. 35, NE, NE, SW	Calc. +/- 285m.	1531 (m)	20	1965	Kohns, Paul	Drilling method: Augered; Known well depth
4867	53082	T92N, R41W, Sec. 35, NE, NE, SW	Calc. +/- 285m.	1535 (m)	20	1950	Kohns, Paul	Drilling method: Bored; Estimated well depth
4571	12743	T92N, R41W, Sec. 26, NW, NW, NW	Calc. +/- 285m.	795 (m)	50	1939	Pigott, Larry	Drilling method: Bored;
4649	27636	T92N, R41W, Sec. 27, SE, SE, NW	Calc. +/- 285m.	1600 (m)	70	unkn	Rupp, Ralph	Drilling method: Bored; Known well depth

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
4951	2389	T92N, R41W, Sec. 25, SE, SW, SW	Calc. +/- 140m.	(m)	17	n.a.	Peterson, Roger	Well plugged: 11/30/1989; Well type: < 18" dia.
4956	127	T92N, R41W, Sec. 25, SE, SW, SW	Calc. +/- 140m.	(m)	35	n.a.	Peterson, Roger	Well plugged: nil; Well type: > 18" dia.

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes

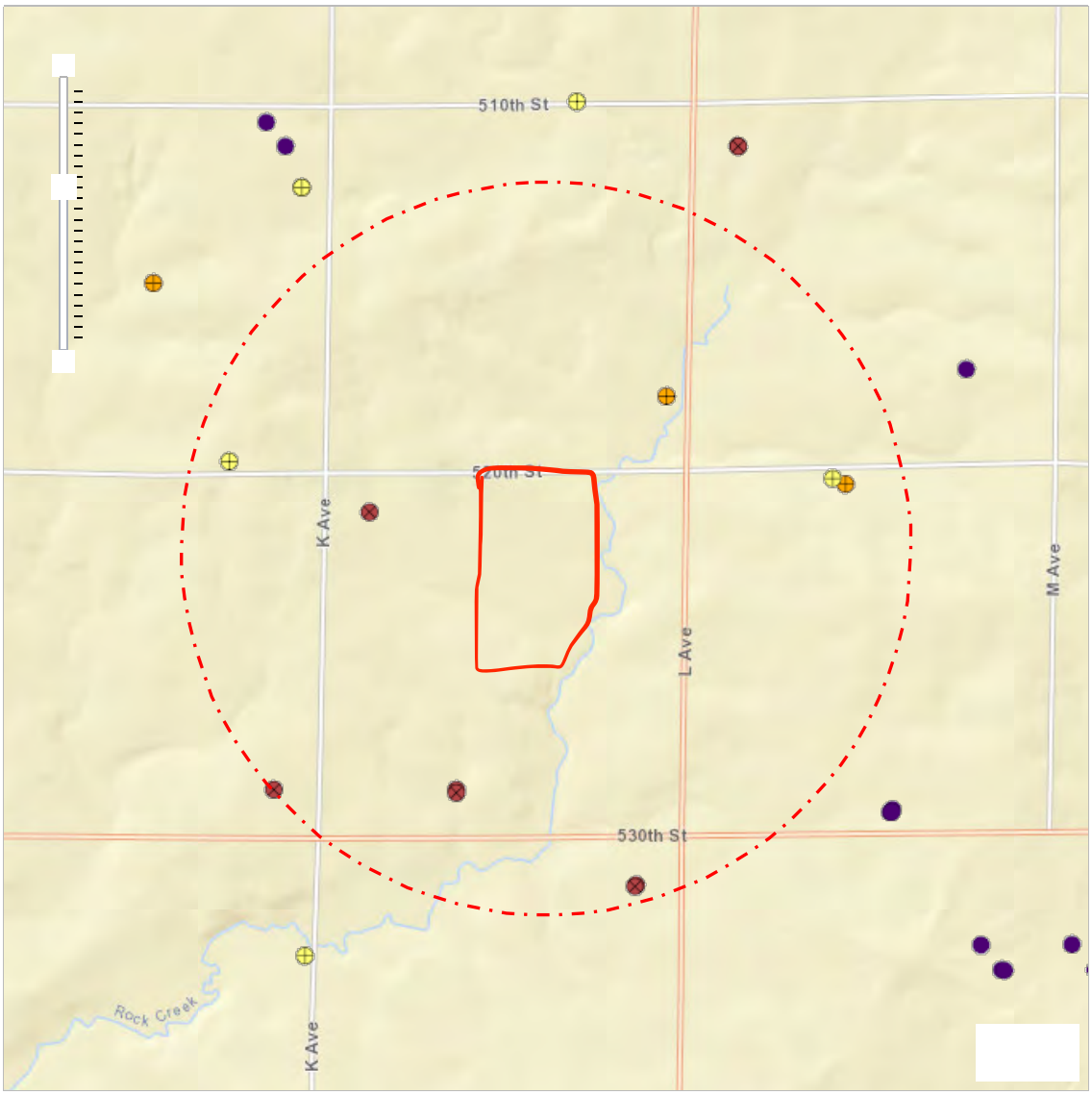
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 283143/4737715
Search Radius (mi): 1

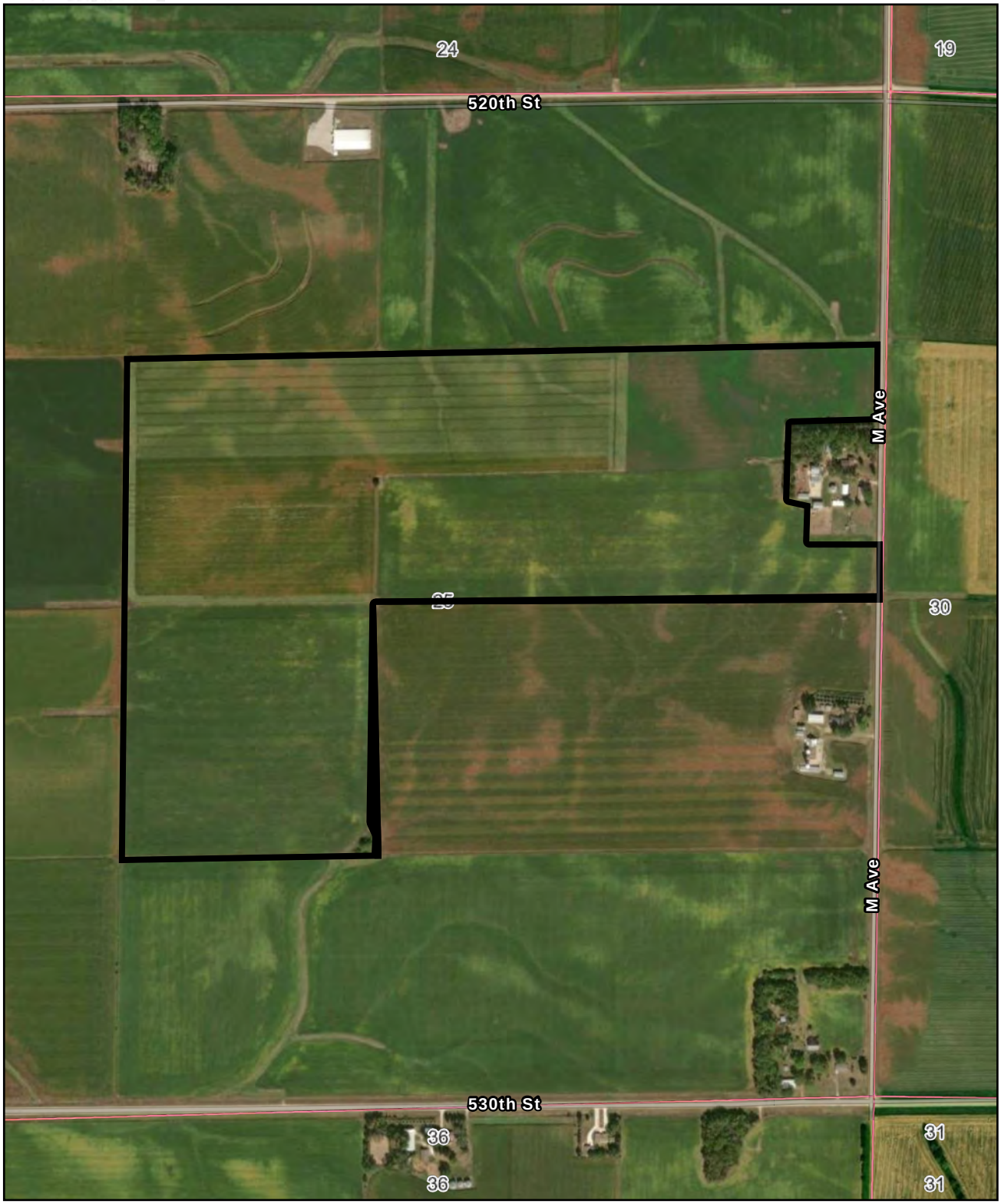


Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1761



Unsuitable for Land Application

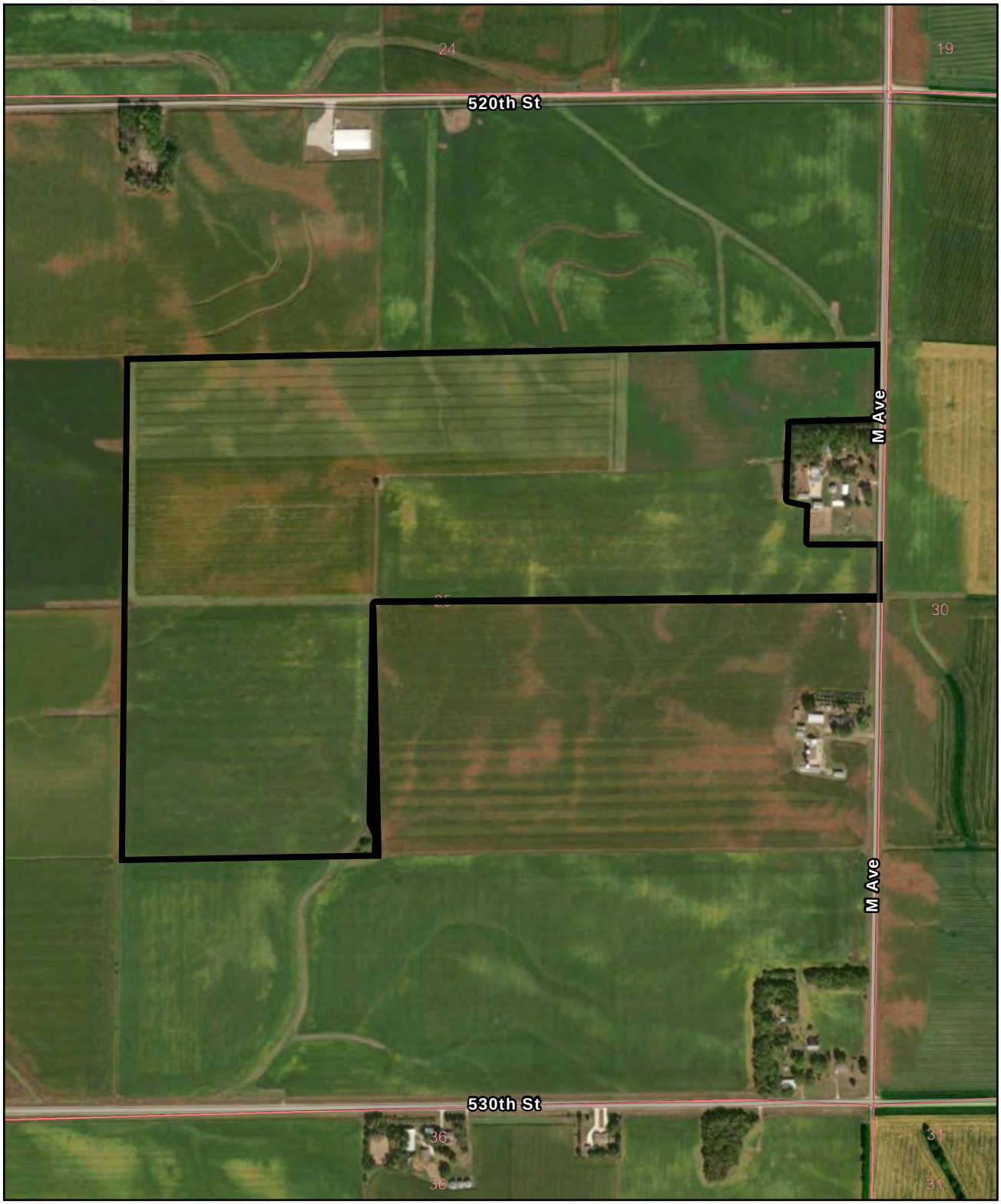
Adam Pigott Phone: (712)261-3151 Spreadable Acres: 160 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1761



Unsuitable for Land Application

Adam Pigott Phone: (712)261-3151 Gypsum Only

Permitted Acres: 160 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1761)



Map Scale: 1:7,280 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 100 200 400 600

Feet
0 350 700 1400 2100

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	6.4	3.6%
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	3.2	1.8%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	0.0	0.0%
91B	Primghar silty clay loam, 2 to 5 percent slopes	20.5	11.7%
92	Marcus silty clay loam, 0 to 2 percent slopes	7.9	4.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	96.1	54.8%
310C	Galva silty clay loam, 5 to 9 percent slopes	41.4	23.6%
Totals for Area of Interest		**175.5**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	6.4	3.6%
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	5	3.2	1.8%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	5	0.0	0.0%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	20.5	11.7%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	7.9	4.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	96.1	54.8%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	41.4	23.6%
Totals for Area of Interest			**175.5**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	6.4	3.6%
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	0	3.2	1.8%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	122	0.0	0.0%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	20.5	11.7%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	7.9	4.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	96.1	54.8%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	41.4	23.6%
Totals for Area of Interest			**175.5**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Having issues? A prototype of a new version of Facility Explorer is available at https://facilityexplorer.iowadnr.gov/FacilityExplorer4/ x

Well Search

Print | Help

Well Search Report Site: 1761

Included in search	No. of wells	Database
X	1	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	2	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	7	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 284631/4737465
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
179918	10782	T92N, R41W, 23, SE SE NE	Calc. +/- 470 ft.	1299 (m)	379	10/19/1958	Steele, R.T.	Bedrock Depth: 318 Well Type: Private

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
4867	53082	T92N, R41W, Sec. 35, NE, NE, SW	Calc. +/- 285m.	(m)	20	1950	Kohns, Paul	Drilling method: Bored; Estimated well depth
5139	53076	T92N, R40W, Sec. 30, SW, SE, SE	Calc. +/- 285m.	1587 (m)	20	unkn	Paulsen, Karen	Drilling method: Bored; Estimated well depth

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information

5106	125	T92N, R41W, Sec. 36, NE, SE, NW	Calc. +/- 140m.	1597 (m)	15	n.a.	Chapman, Esther	Well plugged: nil; Well type: > 18" dia.
4795	17468	T92N, R41W, Sec. 24, SE, NE, SW	Calc. +/- 570m.	(m)	30	n.a.	Graves, F.R.	Well plugged: 4/27/1995; Well type: > 18" dia.
5069	16565	T92N, R40W, Sec. 30, SW, SE, NW	Calc. +/- 140m.	1319 (m)	77	n.a.	Henke, Richard	Well plugged: 5/25/1994; Well type: > 18" dia.
4950	128	T92N, R41W, Sec. 25, SE, SW, SW	Calc. +/- 140m.	946 (m)	17	n.a.	Peterson, Roger	Well plugged: nil; Well type: > 18" dia.
4951	2389	T92N, R41W, Sec. 25, SE, SW, SW	Calc. +/- 140m.	955 (m)	17	n.a.	Peterson, Roger	Well plugged: 11/30/1989; Well type: < 18" dia.
4954	2388	T92N, R41W, Sec. 25, SE, SW, SW	Calc. +/- 140m.	956 (m)	35	n.a.	Peterson, Roger	Well plugged: 11/30/1989; Well type: < 18" dia.
4956	127	T92N, R41W, Sec. 25, SE, SW, SW	Calc. +/- 140m.	956 (m)	35	n.a.	Peterson, Roger	Well plugged: nil; Well type: > 18" dia.

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes

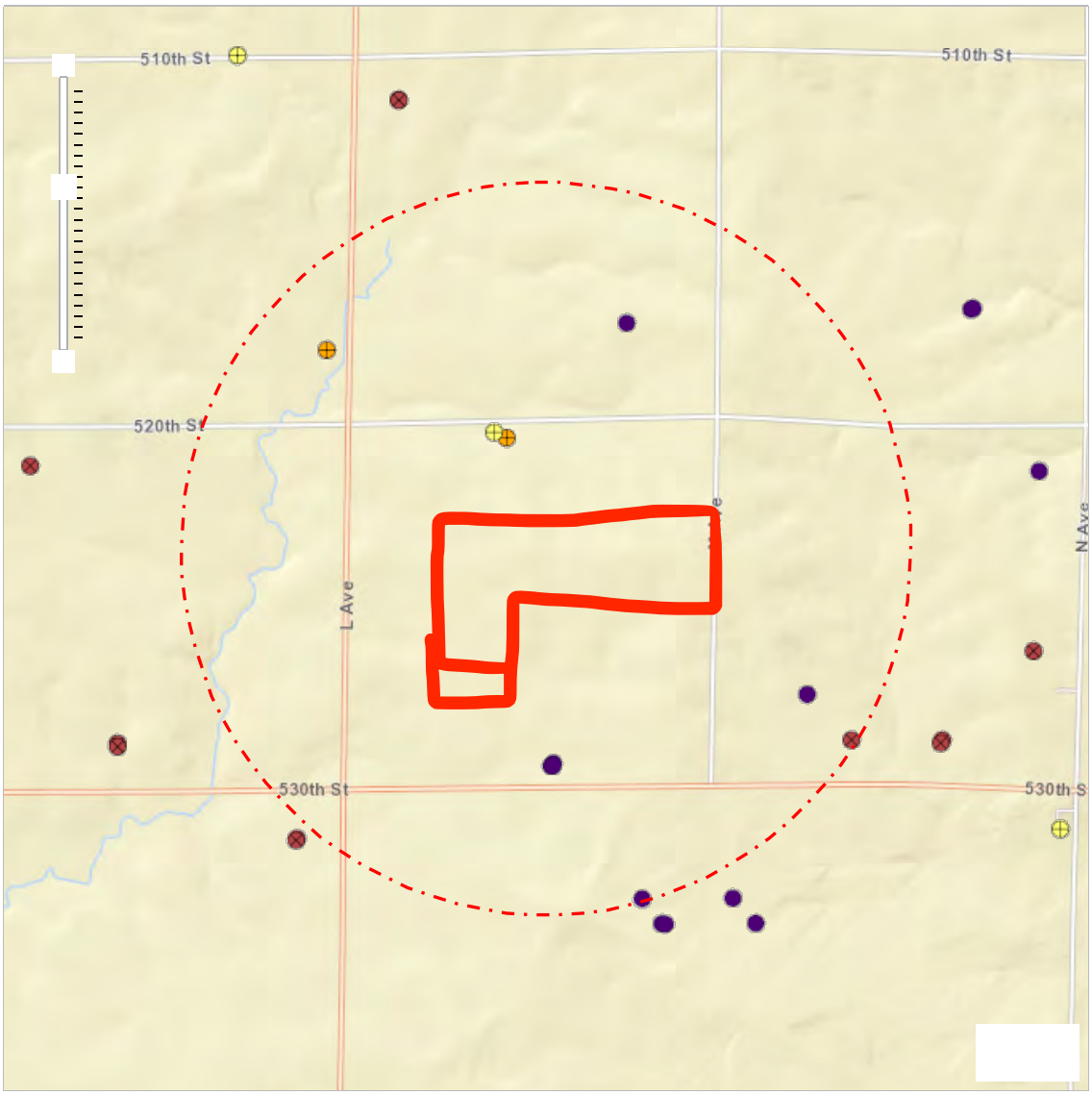
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 284631/4737465
Search Radius (mi): 1



Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1762



Unsuitable for Land Application

Adam Pigott Phone: (712)261-3151 Spreadable Acres: 62 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1762



Unsuitable for Land Application

Adam Pigott Phone: (712)261-3151 Gypsum Only

Permitted Acres: 62 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1762)



Map Scale: 1:4,500 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	2.1	2.5%
33D	Steinauer clay loam, 9 to 14 percent slopes	4.6	5.5%
33F	Steinauer clay loam, 14 to 25 percent slopes	1.3	1.6%
91B	Primghar silty clay loam, 2 to 5 percent slopes	7.9	9.5%
92	Marcus silty clay loam, 0 to 2 percent slopes	4.1	4.9%
310B	Galva silty clay loam, 2 to 5 percent slopes	10.8	12.9%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5.3	6.4%
310C	Galva silty clay loam, 5 to 9 percent slopes	18.3	22.0%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	7.1	8.6%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	0.0	0.0%
438C	Terril-Coland, occasionally flooded complex, 2 to 9 percent slopes	14.9	17.9%
577C	Everly clay loam, 5 to 9 percent slopes	4.4	5.3%
739G	Steinauer-Hawick complex, 25 to 40 percent slopes	1.1	1.3%
740E	Hawick sandy loam, 9 to 18 percent slopes	1.2	1.5%
Totals for Area of Interest		**83.3**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	2.1	2.5%
33D	Steinauer clay loam, 9 to 14 percent slopes	5	4.6	5.5%
33F	Steinauer clay loam, 14 to 25 percent slopes	5	1.3	1.6%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	7.9	9.5%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	4.1	4.9%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	10.8	12.9%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5	5.3	6.4%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	18.3	22.0%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	7.1	8.6%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	5	0.0	0.0%
438C	Terril-Coland, occasionally flooded complex, 2 to 9 percent slopes	5	14.9	17.9%
577C	Everly clay loam, 5 to 9 percent slopes	5	4.4	5.3%
739G	Steinauer-Hawick complex, 25 to 40 percent slopes	5	1.1	1.3%
740E	Hawick sandy loam, 9 to 18 percent slopes	5	1.2	1.5%
Totals for Area of Interest			**83.3**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	2.1	2.5%
33D	Steinauer clay loam, 9 to 14 percent slopes	>200	4.6	5.5%
33F	Steinauer clay loam, 14 to 25 percent slopes	>200	1.3	1.6%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	7.9	9.5%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	4.1	4.9%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	10.8	12.9%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	>200	5.3	6.4%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	18.3	22.0%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	7.1	8.6%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	>200	0.0	0.0%
438C	Terril-Coland, occasionally flooded complex, 2 to 9 percent slopes	122	14.9	17.9%
577C	Everly clay loam, 5 to 9 percent slopes	152	4.4	5.3%
739G	Steinauer-Hawick complex, 25 to 40 percent slopes	>200	1.1	1.3%
740E	Hawick sandy loam, 9 to 18 percent slopes	>200	1.2	1.5%
Totals for Area of Interest			**83.3**	**100.0%**

Having issues? A prototype of a new version of Facility Explorer is available at https://facilityexplorer.iowadnr.gov/FacilityExplorer4/ x

Well Search

Well Search Report Site: 1762

Included in search	No. of wells	Database
X	1	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	10	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	5	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 287439/4738190
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
189935	19841	T92N, R40W, 20, NE NE SW NW	Calc. +/- 230 ft.	1239 (m)	351	5/1/1967	Aurelia Pig Hatchery	Bedrock Depth: 310 Well Type: Private

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
4896	99	T92N, R40W, Sec. 17, SW, SE, NE	Calc. +/- 285m.	1561 (m)	35	1960	Cave, Diana	Drilling method: Bored; Estimated well depth
4897	67660	T92N, R40W, Sec. 17, SW, SE, NE	Calc. +/- 285m.	1564 (m)	35	1960	Cave, Duane	Drilling method: Bored; Known well depth
5148	67668	T92N, R40W, Sec. 20, NE, SE, NE	Calc. +/- 285m.	1253 (m)	30	1940	Lundquist, Bob	Drilling method: Unknown; Estimated well depth
5217	24537	T92N, R40W, Sec. 20, NE, SE, SE	Calc. +/- 140m.	1265 (m)	30	1960	Lundquist, Bob	Drilling method: Bored;
5240	53080	T92N, R40W, Sec. 30, SE, NE, SW	Calc. +/- 285m.	1415 (m)	15	1960	Mcdonald, Gail	Drilling method: Bored; Estimated well depth
5377	56650	T92N, R40W, Sec. 29, NE, SW, NW	Calc. +/- 285m.	1042 (m)	40	1940	Patterson, Ken	Drilling method: Bored; Estimated well depth

4895	67719	T92N, R40W, Sec. 17, SW, SE, NW	Calc. +/- 285m.	(m)	35	1960	Skaggs, Opal	Drilling method: Bored; Estimated well depth
5484	67666	T92N, R40W, Sec. 29, SE, NE, NW	Calc. +/- 285m.	1598 (m)	75	1965	Thompson, Martin	Drilling method: Bored; Known well depth
5485	67720	T92N, R40W, Sec. 29, SE, NE, SW	Calc. +/- 285m.	1601 (m)	75	1965	Thompson, Martin	Drilling method: Bored; Estimated well depth
5014	56513	T92N, R40W, Sec. 17, SE, SE, NE	Calc. +/- 285m.	(m)	70	1979	Zeck, Marvin	Drilling method: Bored; Known well depth

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
5079	24527	T92N, R40W, Sec. 30, NE, NE, SE	Calc. +/- 285m.	772 (m)	20	n.a.	Henke Sr., Richard J.	Well plugged: 5/22/1996; Well type: > 18" dia.
5077	14662	T92N, R40W, Sec. 20, SW, SW, NE	Calc. +/- 140m.	131 (m)	330	n.a.	Waterbury, Richard	Well plugged: 5/5/1992; Well type: not reported
5078	5811	T92N, R40W, Sec. 20, SW, NW, SE	Calc. +/- 570m.	134 (m)	330	n.a.	Waterbury, Richard C	Well plugged: 5/5/1992; Well type: < 18" dia.
4913	93	T92N, R40W, Sec. 19, SE, NW, SE	Calc. +/- 140m.	943 (m)	10	n.a.	Zoch, Marvin	Well plugged: nil; Well type: > 18" dia.
4914	2402	T92N, R40W, Sec. 19, SE, NW, SE	Calc. +/- 140m.	934 (m)	10	n.a.	Zoch, Marvin	Well plugged: 10/17/1989; Well type: < 18" dia.

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

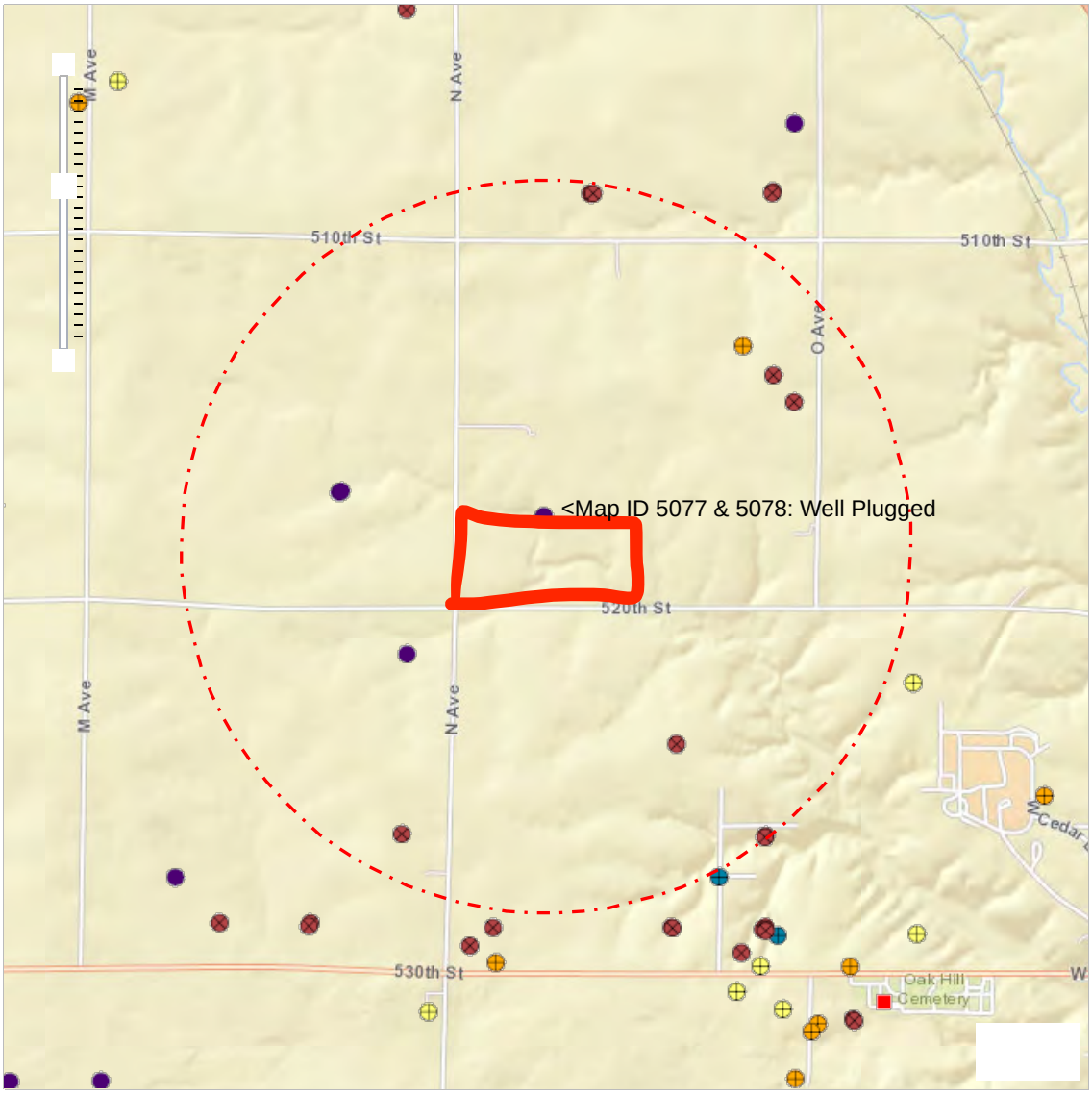
Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information

No records found from this data source

Well Search Buffered Map

Subject: XY UTM Coordinates: 287439/4738190
Search Radius (mi): 1



Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1763



Unsuitable for Land Application

Adam Pigott Phone: (712)261-3151 Spreadable Acres: 74 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1763



Unsuitable for Land Application

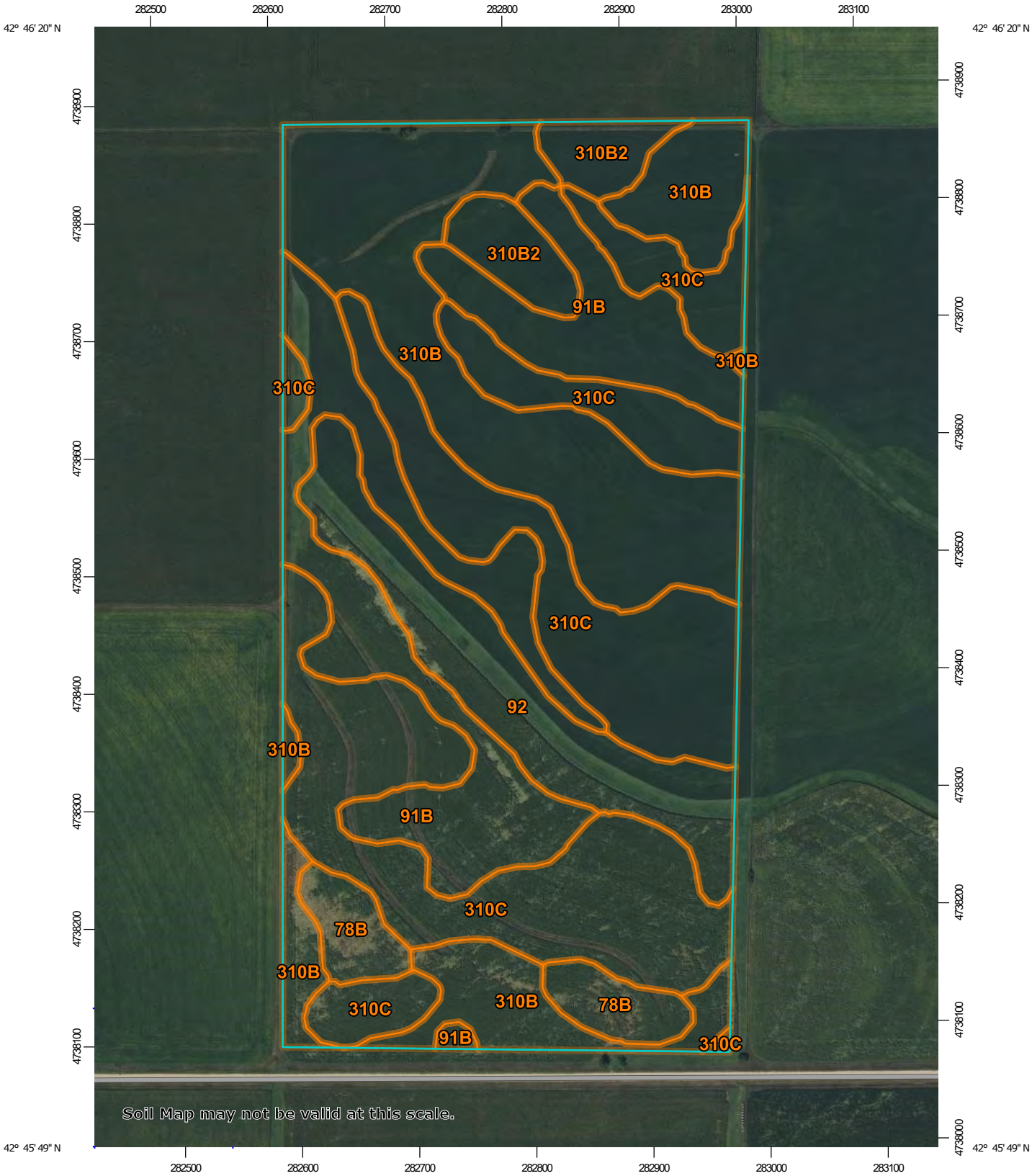
Adam Pigott Phone: (712)261-3151 Gypsum Only

Permitted Acres: 74 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1763)



Map Scale: 1:4,640 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
78B	Sac silty clay loam, 2 to 5 percent slopes	2.9	3.9%
91B	Primghar silty clay loam, 2 to 5 percent slopes	15.5	20.3%
92	Marcus silty clay loam, 0 to 2 percent slopes	7.6	10.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	20.7	27.2%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	3.1	4.1%
310C	Galva silty clay loam, 5 to 9 percent slopes	26.4	34.6%
Totals for Area of Interest		**76.2**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
78B	Sac silty clay loam, 2 to 5 percent slopes	5	2.9	3.9%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	15.5	20.3%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	7.6	10.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	20.7	27.2%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5	3.1	4.1%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	26.4	34.6%
Totals for Area of Interest			**76.2**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
78B	Sac silty clay loam, 2 to 5 percent slopes	122	2.9	3.9%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	15.5	20.3%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	7.6	10.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	20.7	27.2%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	>200	3.1	4.1%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	26.4	34.6%
Totals for Area of Interest			**76.2**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Having issues? A prototype of a new version of Facility Explorer is available at https://facilityexplorer.iowadnr.gov/FacilityExplorer4/ x

Well Search

Well Search Report Site: 1763

Included in search	No. of wells	Database
X	2	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	3	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	2	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 282748/4738559
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
160322	91110	T92N, R41W, 22, NW	Calc. +/- 3730 ft.	1349 (m)	0		Lucas-181	Bedrock Depth: 0 Well Type:
179918	10782	T92N, R41W, 23, SE SE NE	Calc. +/- 470 ft.	967 (m)	379	10/19/1958	Steele, R.T.	Bedrock Depth: 318 Well Type: Private

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
4567	17525	T92N, R41W, Sec. 24, NW, NW, SW	Calc. +/- 285m.	1576 (m)	35	unkn	Neustrom, Tom	Drilling method: Bored;
4568	53074	T92N, R41W, Sec. 24, NW, NW, SE	Calc. +/- 285m.	1575 (m)	35	unkn	Neustrom, Tom	Drilling method: Bored; Estimated well depth
4571	12743	T92N, R41W, Sec. 26, NW, NW, NW	Calc. +/- 285m.	760 (m)	50	1939	Pigott, Larry	Drilling method: Bored;

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
4297	113	T92N, R41W, Sec. 22, NE, NE, NW	Calc. +/- 140m.	1320 (m)	30	n.a.	Cronin, Timothy	Well plugged: nil; Well type: > 18" dia.
4308	2380	T92N, R41W, Sec. 22, NE, NE, NW	Calc. +/- 285m.	1183 (m)	30	n.a.	Cronin, Timothy	Well plugged: 11/16/1989; Well type: < 18" dia.

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes

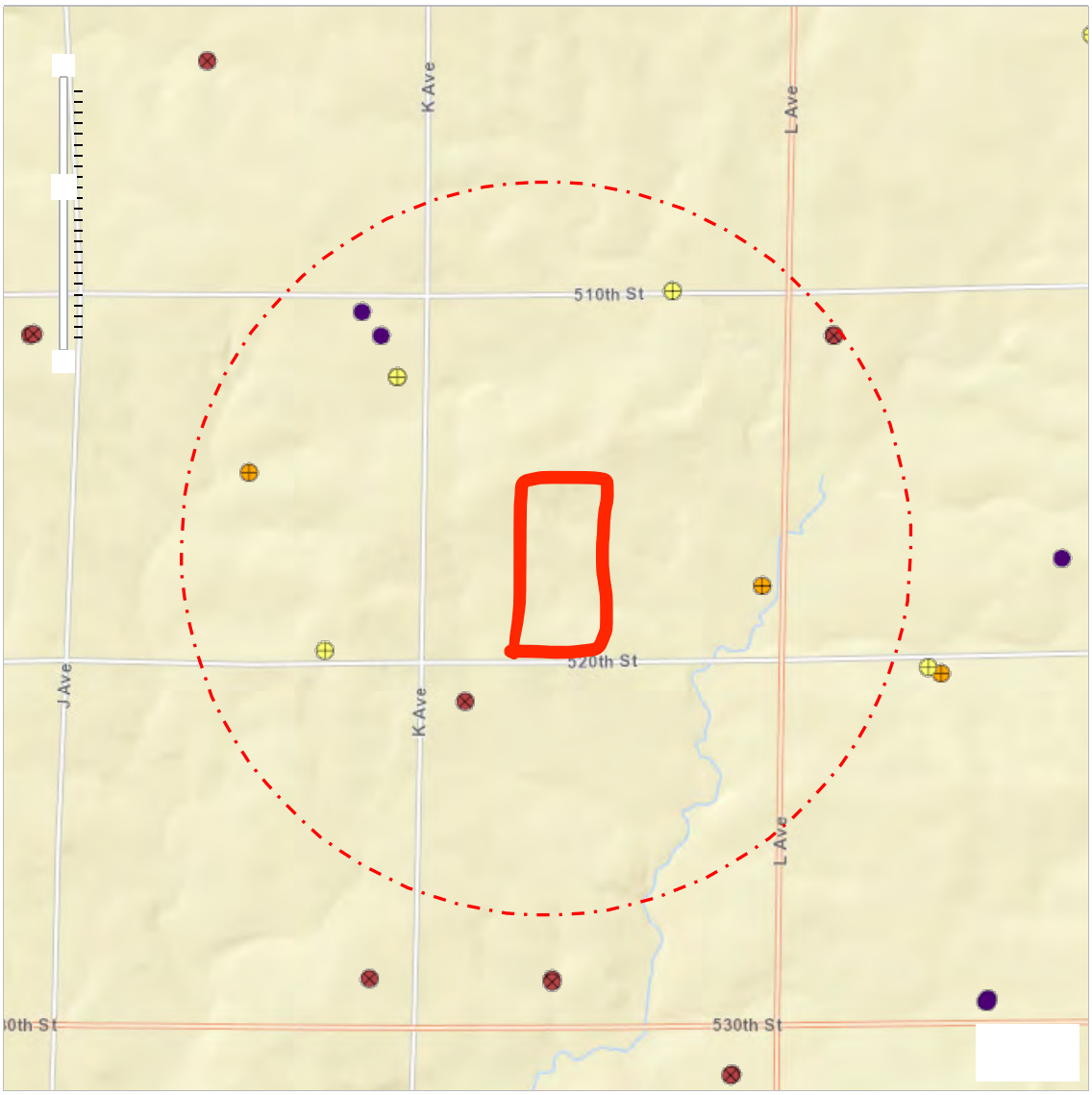
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 282748/4738559
Search Radius (mi): 1

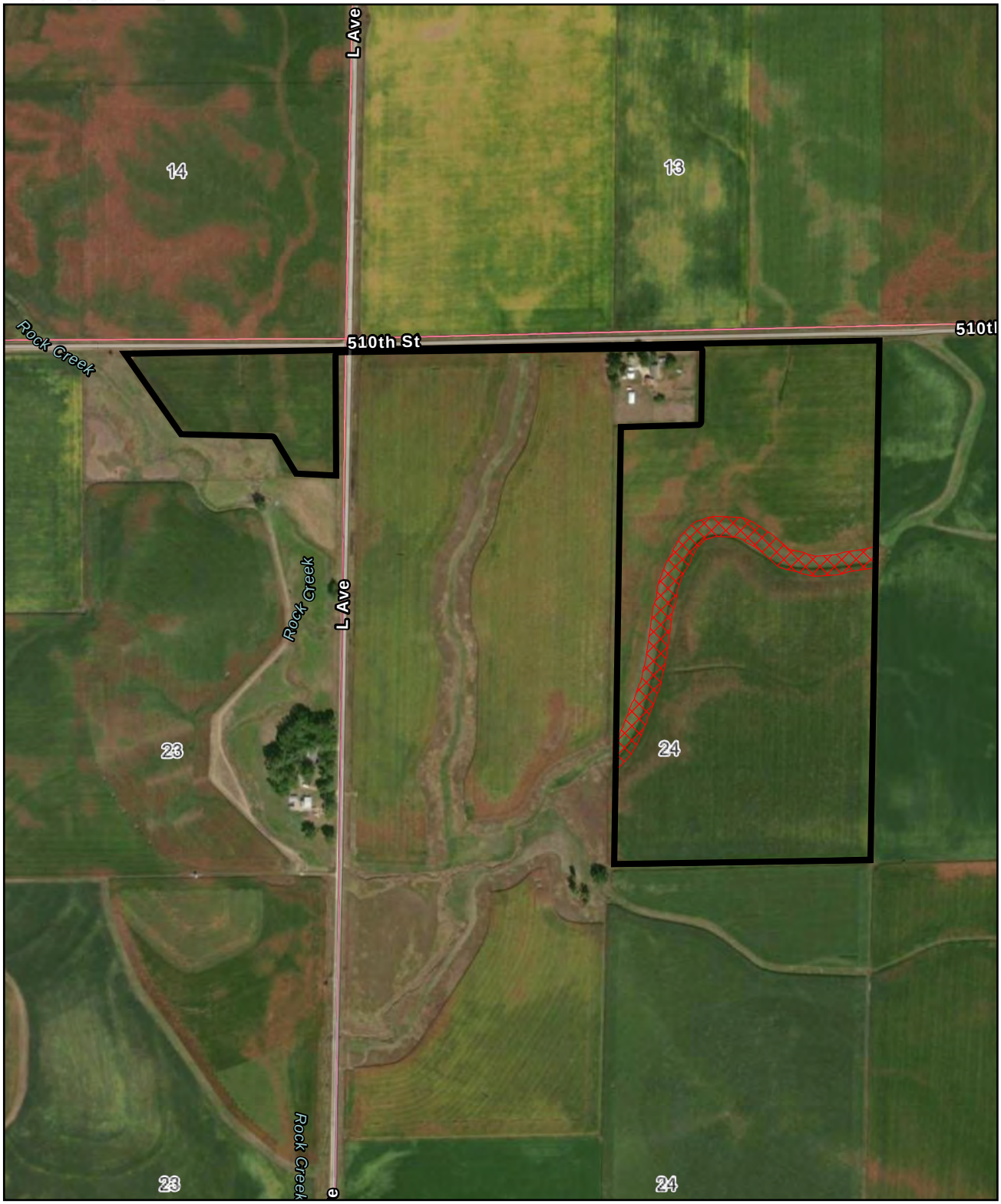


Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1764



Unsuitable for Land Application

Adam Pigott Phone: (712)261-3151 Spreadable Acres: 83 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1764



Unsuitable for Land Application

Adam Pigott Phone: (712)261-3151 Gypsum Only

Permitted Acres: 83 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1764)



Map Scale: 1:6,810 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	15.4	16.0%
91	Primghar silty clay loam, 0 to 2 percent slopes	6.0	6.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	15.5	16.0%
92	Marcus silty clay loam, 0 to 2 percent slopes	12.3	12.8%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0.2	0.3%
310	Galva silty clay loam, 0 to 2 percent slopes	16.9	17.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	30.1	31.2%
878C2	Ocheyedan loam, 5 to 9 percent slopes, moderately eroded	0.0	0.0%
Totals for Area of Interest		**96.5**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	5	15.4	16.0%
91	Primghar silty clay loam, 0 to 2 percent slopes	5	6.0	6.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	15.5	16.0%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	12.3	12.8%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	0.2	0.3%
310	Galva silty clay loam, 0 to 2 percent slopes	5	16.9	17.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	30.1	31.2%
878C2	Ocheyedan loam, 5 to 9 percent slopes, moderately eroded	5	0.0	0.0%
Totals for Area of Interest			**96.5**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	0	15.4	16.0%
91	Primghar silty clay loam, 0 to 2 percent slopes	30	6.0	6.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	15.5	16.0%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	12.3	12.8%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	0.2	0.3%
310	Galva silty clay loam, 0 to 2 percent slopes	>200	16.9	17.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	30.1	31.2%
878C2	Ocheyedan loam, 5 to 9 percent slopes, moderately eroded	122	0.0	0.0%
Totals for Area of Interest			**96.5**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Having issues? A prototype of a new version of Facility Explorer is available at https://facilityexplorer.iowadnr.gov/FacilityExplorer4/ x

Well Search Report Site: 1764

Included in search	No. of wells	Database
X	2	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	2	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	1	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 284504/4739195
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
177577	8125	T92N, R41W, 13, SE NE SE NE	Calc. +/- 230 ft.	1376 (m)	555	11/17/1956	Mcdonald, John	Bedrock Depth: 350 Well Type: Private
179918	10782	T92N, R41W, 23, SE SE NE	Calc. +/- 470 ft.	1160 (m)	379	10/19/1958	Steele, R.T.	Bedrock Depth: 318 Well Type: Private

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
4567	17525	T92N, R41W, Sec. 24, NW, NW, SW	Calc. +/- 285m.	529 (m)	35	unkn	Neustrom, Tom	Drilling method: Bored;
4568	53074	T92N, R41W, Sec. 24, NW, NW, SE	Calc. +/- 285m.	526 (m)	35	unkn	Neustrom, Tom	Drilling method: Bored; Estimated well depth

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information

4795	17468	T92N, R41W, Sec. 24, SE, NE, SW	Calc. +/- 570m.	910 (m)	30	n.a.	Graves, F.R.	Well plugged: 4/27/1995; Well type: > 18" dia.

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes

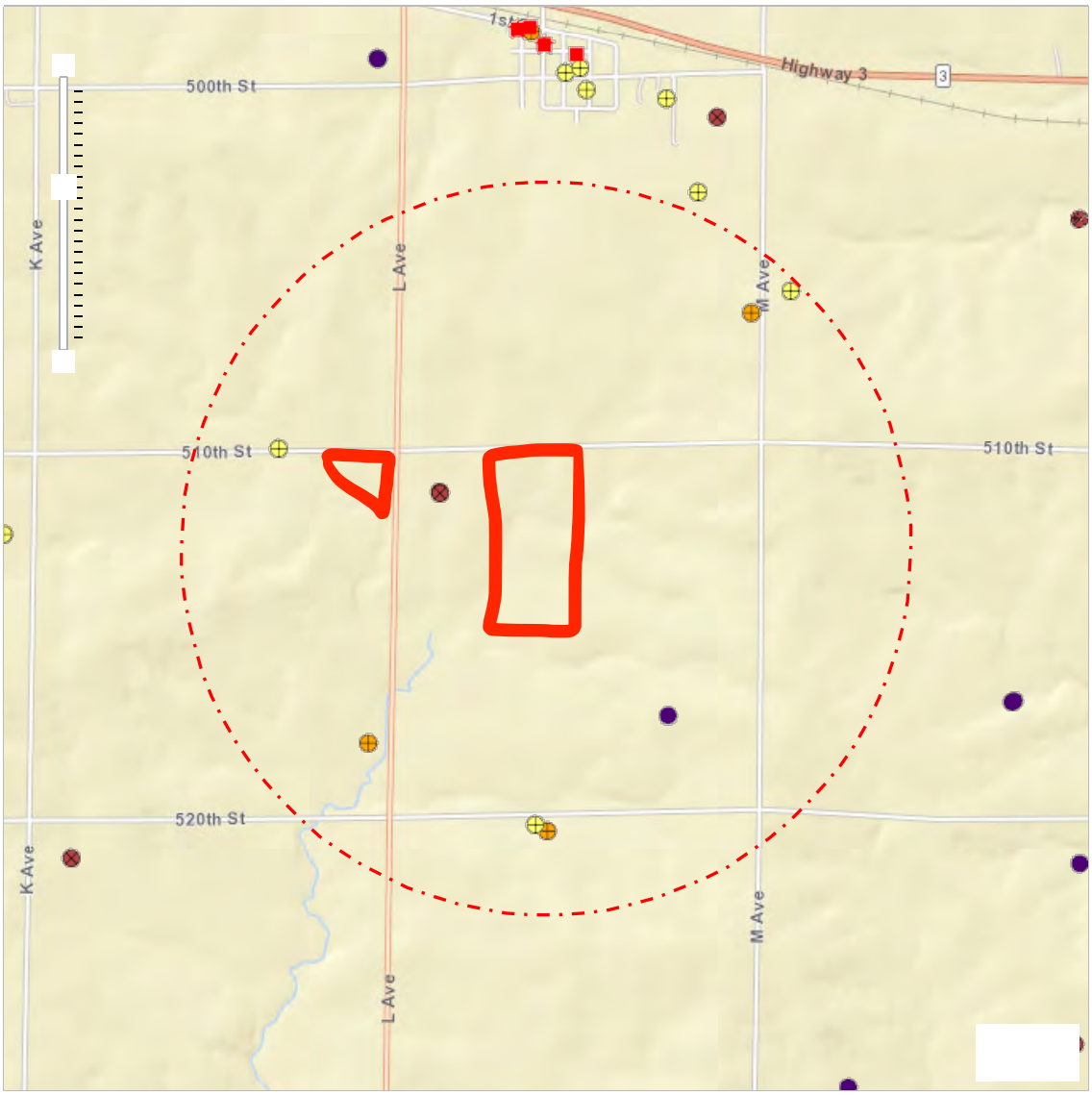
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 284504/4739195
Search Radius (mi): 1

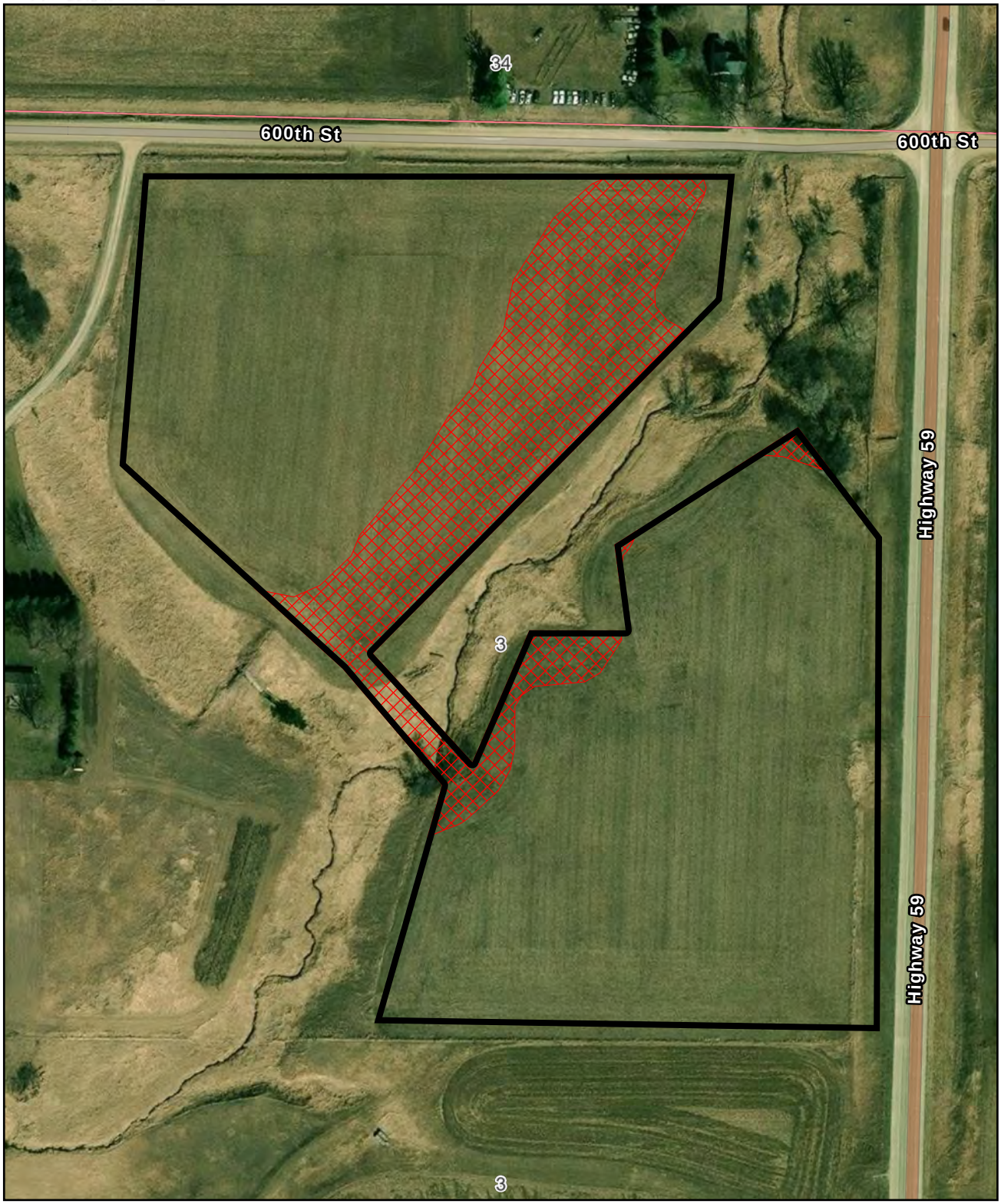


Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1765



Unsuitable for Land Application

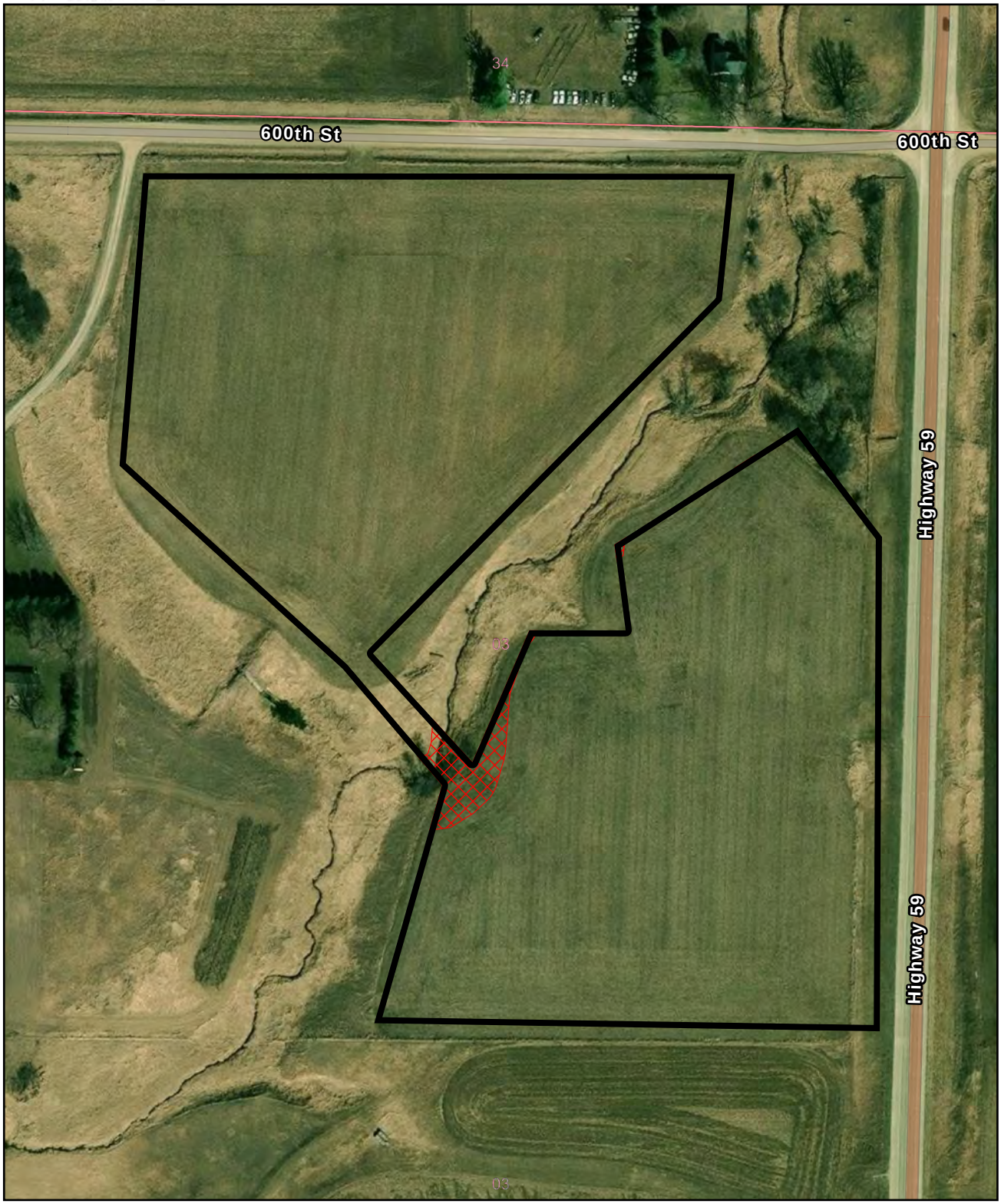
C&D Farms Phone: (712)261-3151 Spreadable Acres: 14 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1765



Unsuitable for Land Application

C&D Farms Phone: (712)261-3151 Gypsum Only

Permitted Acres: 14 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1765)



Map Scale: 1:2,620 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 35 70 140 210

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	1.7	6.9%
310B	Galva silty clay loam, 2 to 5 percent slopes	4.0	16.3%
310C	Galva silty clay loam, 5 to 9 percent slopes	12.0	48.6%
438C	Terril-Coland, occasionally flooded complex, 2 to 9 percent slopes	0.1	0.3%
577D2	Everly clay loam, 9 to 14 percent slopes, moderately eroded	6.9	27.9%
Totals for Area of Interest		**24.7**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	1.7	6.9%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	4.0	16.3%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	12.0	48.6%
438C	Terril-Coland, occasionally flooded complex, 2 to 9 percent slopes	5	0.1	0.3%
577D2	Everly clay loam, 9 to 14 percent slopes, moderately eroded	5	6.9	27.9%
Totals for Area of Interest			**24.7**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	1.7	6.9%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	4.0	16.3%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	12.0	48.6%
438C	Terril-Coland, occasionally flooded complex, 2 to 9 percent slopes	122	0.1	0.3%
577D2	Everly clay loam, 9 to 14 percent slopes, moderately eroded	152	6.9	27.9%
Totals for Area of Interest			**24.7**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Having issues? A prototype of a new version of Facility Explorer is available at https://facilityexplorer.iowadnr.gov/FacilityExplorer4/ x

Well Search

Print | Help

Well Search Report Site: 1765

Included in search	No. of wells	Database
X	3	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	8	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	1	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	5	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 290338/4724725
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
186959	17303	T90N, R40W, 4, NW NE NE SE	Calc. +/- 230 ft.	1425 (m)	295	10/12/1964	Koch, Fred	Bedrock Depth: 275 Well Type: Private
189232	19388	T91N, R40W, 34, SE NW SE SW	Calc. +/- 230 ft.	(m)	30	10/10/1966	Simons, W.W.	Bedrock Depth: 0 Well Type: Private
189261	19286	T90N, R40W, 2, SW SW NW NW	Calc. +/- 230 ft.	1478 (m)	320	10/17/1966	Vollmar, Bruce	Bedrock Depth: 287 Well Type: Private

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
8490	11047	T90N, R40W, Sec. 10, NE, NW, NW	Calc. +/- 140m.	1502 (m)	60	1940	Bobolz, Elsie	Drilling method: Augered;
8261	11059	T90N, R40W, Sec. 3, NW, NW, NW	Calc. +/- 140m.	487 (m)	300	1960	C-Lect Pigs	Drilling method: Drilled;
8307	56889	T91N, R40W, Sec. 34, SE, NE, NW	Calc. +/- 285m.	1149 (m)	38	1989	Lechner, Dick	Drilling method: Bored; Known well depth
8312	57265	T91N, R40W, Sec. 34, SE, NE, SE	Calc. +/- 285m.	1147 (m)	38	1989	Lechner, Dick	Drilling method: Bored; Known well depth

8310	56887	T91N, R40W, Sec. 34, SE, NE, SW	Calc. +/- 285m.	1141 (m)	38	1989	Lochner, Dick	Drilling method: Bored; Known well depth
8264	11058	T90N, R40W, Sec. 4, NE, NE, SE	Calc. +/- 140m.	696 (m)	15	1940	Mortenson, Robert	Drilling method: Augered;
8391	11073	T90N, R40W, Sec. 3, NE, NE, NE	Calc. +/- 140m.	934 (m)	30	1983	Mortenson, Walt	Drilling method: Augered;
8489	11055	T90N, R40W, Sec. 10, NE, NW, NW	Calc. +/- 140m.	1505 (m)	27	1948	Torrey, Robert	Drilling method: Augered;

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
8306	14687	T91N, R40W, Sec. 34, SE, NE, NW	Calc. +/- 285m.	1152 (m)	50	6/16/1989	Unknown	Primary use: Domestic/ household

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
8308	90	T91N, R40W, Sec. 34, SE, NE, SW	Calc. +/- 140m.	1009 (m)	24	n.a.	Lochner, Richard	Well plugged: nil; Well type: > 18" dia.
8311	2400	T91N, R40W, Sec. 34, SE, NE, SE	Calc. +/- 285m.	1149 (m)	24	n.a.	Lochner, Richrd	Well plugged: 10/7/1990; Well type: < 18" dia.
8210	2398	T90N, R40W, Sec. 4, NE, NW, NE	Calc. +/- 285m.	1170 (m)	240	n.a.	Martenson, Robert	Well plugged: 9/26/1989; Well type: < 18" dia.
8368	3987	T90N, R40W, Sec. 3, NE, NE, NW	Calc. +/- 140m.	729 (m)	30	n.a.	Mortenson, Walter	Well plugged: 12/5/1990; Well type: > 18" dia.
8373	14653	T90N, R40W, Sec. 3, NE, NE, NW	Calc. +/- 140m.	743 (m)	30	n.a.	Mortenson, Walter	Well plugged: 12/5/1990; Well type: > 18" dia.

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes

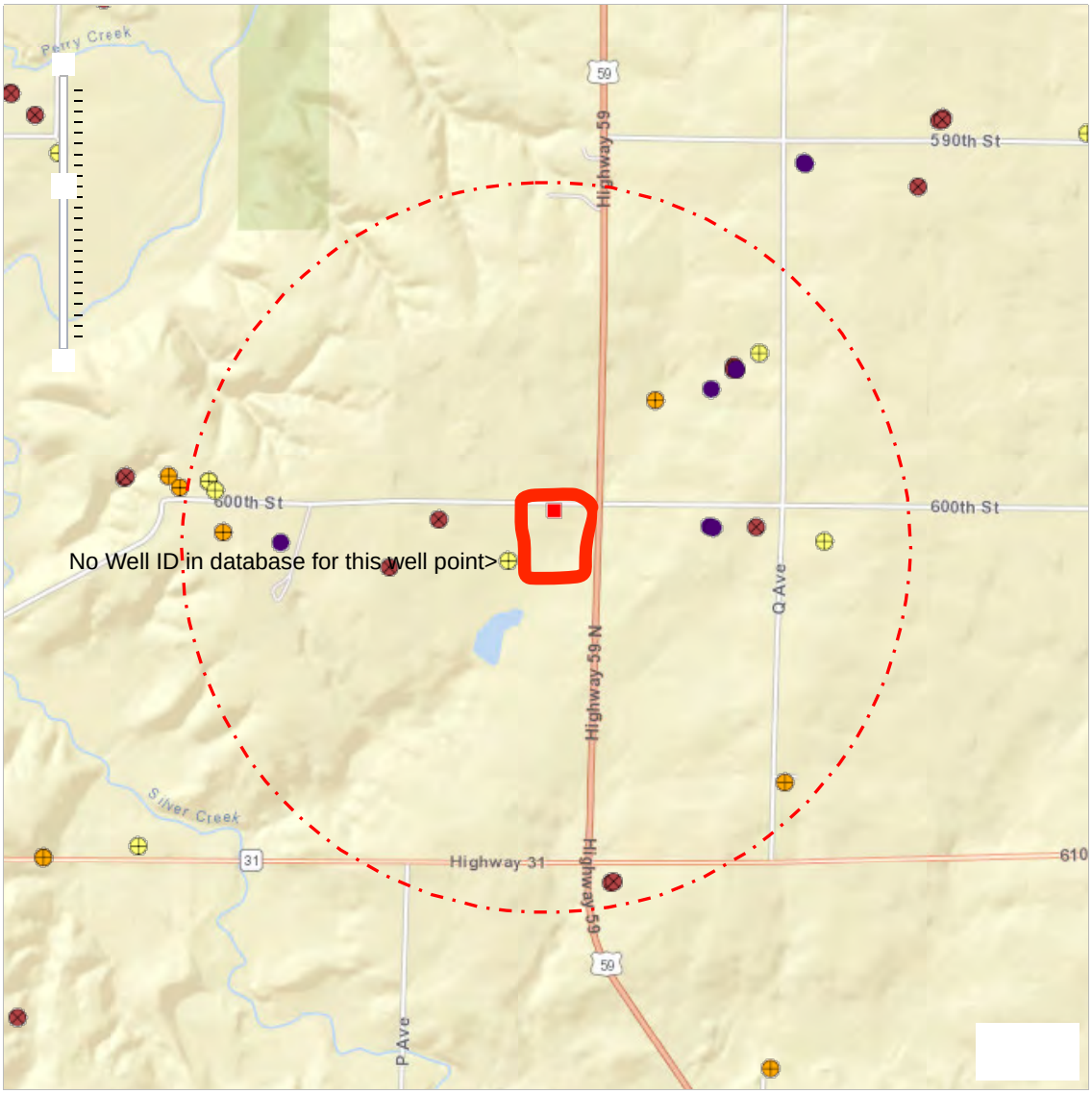
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 290338/4724725
Search Radius (mi): 1



Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1766



Unsuitable for Land Application

C&D Farms Phone: (712)261-3151 Spreadable Acres: 15 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1766



Unsuitable for Land Application

C&D Farms Phone: (712)261-3151 Gypsum Only

Permitted Acres: 15 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1766)



Map Scale: 1:2,630 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 35 70 140 210

Feet
0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
33G	Steinauer clay loam, 25 to 40 percent slopes	0.4	2.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	14.2	72.0%
310C	Galva silty clay loam, 5 to 9 percent slopes	5.0	25.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	0.2	0.8%
Totals for Area of Interest		**19.8**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
33G	Steinauer clay loam, 25 to 40 percent slopes	5	0.4	2.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	14.2	72.0%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	5.0	25.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	0.2	0.8%
Totals for Area of Interest			**19.8**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
33G	Steinauer clay loam, 25 to 40 percent slopes	>200	0.4	2.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	14.2	72.0%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	5.0	25.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	0.2	0.8%
Totals for Area of Interest			**19.8**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Having issues? A prototype of a new version of Facility Explorer is available at https://facilityexplorer.iowadnr.gov/FacilityExplorer4/ x

Well Search

Print Help

Well Search Report

Included in search	No. of wells	Database
X	2	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	7	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	1	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 288794/4725290
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
186959	17303	T90N, R40W, 4, NW NE NE SE	Calc. +/- 230 ft.	473 (m)	295	10/12/1964	Koch, Fred	Bedrock Depth: 275 Well Type: Private
176237	7123	T91N, R40W, 33, SW SE SW SE	Calc. +/- 230 ft.	260 (m)	253	1/1/1955	Perrin Fur Farms	Bedrock Depth: 0 Well Type: Livestock

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
8002	12684	T91N, R40W, Sec. 32, SE, SW, SW	Calc. +/- 140m.	1322 (m)	25	1970	Cherokee Co. Cons. Bd., C/O Silver Sioux Rec	Drilling method: Bored;
8261	11059	T90N, R40W, Sec. 3, NW, NW, NW	Calc. +/- 140m.	1158 (m)	300	1960	C-Lect Pigs	Drilling method: Drilled;
7799	16361	T91N, R40W, Sec. 29, SE, SE, SE	Calc. +/- 140m.	(m)	35	unkn	Mahler, Richard	Drilling method: Augered;
7607	3496	T91N, R40W, Sec. 29, SE, SW, NW	Calc. +/- 285m.	(m)	28	1970	Mahler, Richard	Drilling method: Bored; Known well depth
8264	11058	T90N, R40W, Sec. 4, NE, NE, SE	Calc. +/- 140m.	1060 (m)	15	1940	Mortenson, Robert	Drilling method: Augered;
8116	12682	T91N, R40W, Sec. 33, SW, SW, SE	Calc. +/- 140m.	369 (m)	340	unkn	Perrin Fur Farm, C/O Kelly Perrin	Drilling method: Drilled;
8117	11120	T91N, R40W, Sec. 33, SW, SW, SE	Calc. +/- 140m.	359 (m)	340	1975	Perrinfur Farm	Drilling method: Drilled;

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
8210	2398	T90N, R40W, Sec. 4, NE, NW, NE	Calc. +/- 285m.	(m)	240	n.a.	Martenson, Robert	Well plugged: 9/26/1989; Well type: < 18" dia.

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes

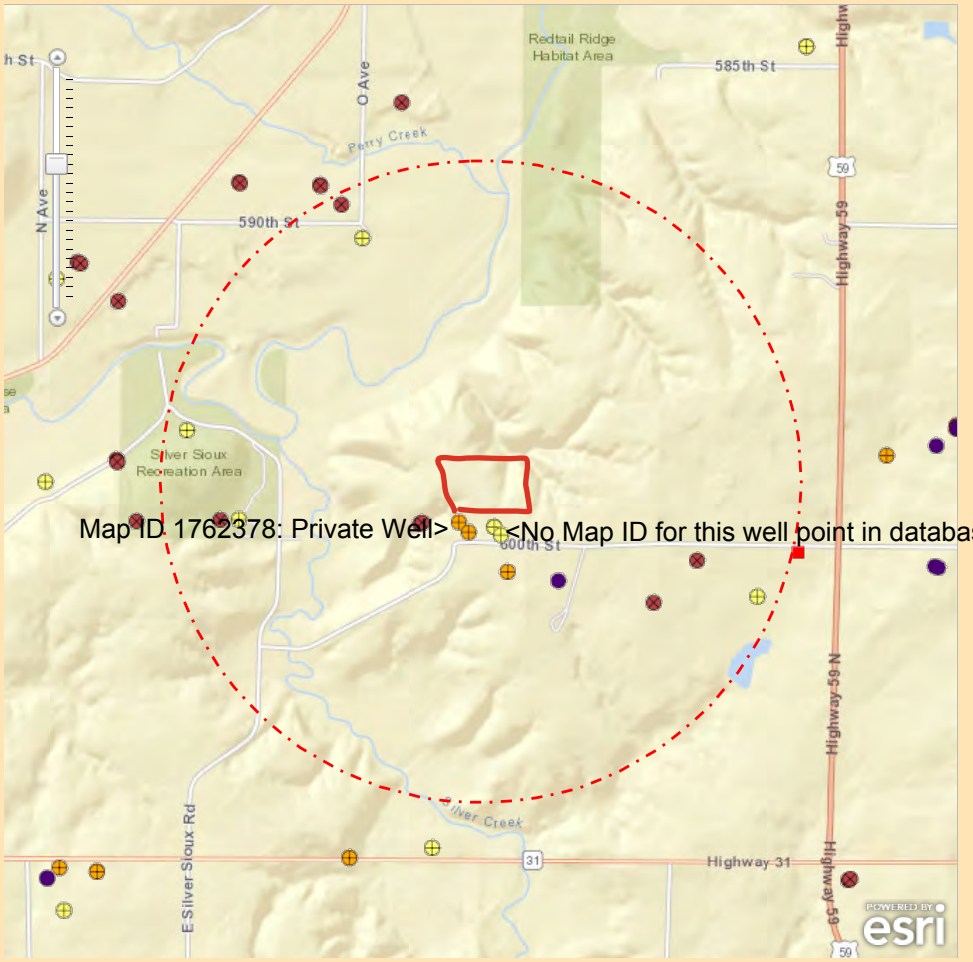
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 288794/4725290
Search Radius (mi): 1



Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1767



Unsuitable for Land Application

C&D Farms Phone: (712)261-3151 Spreadable Acres: 54 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1767



Unsuitable for Land Application

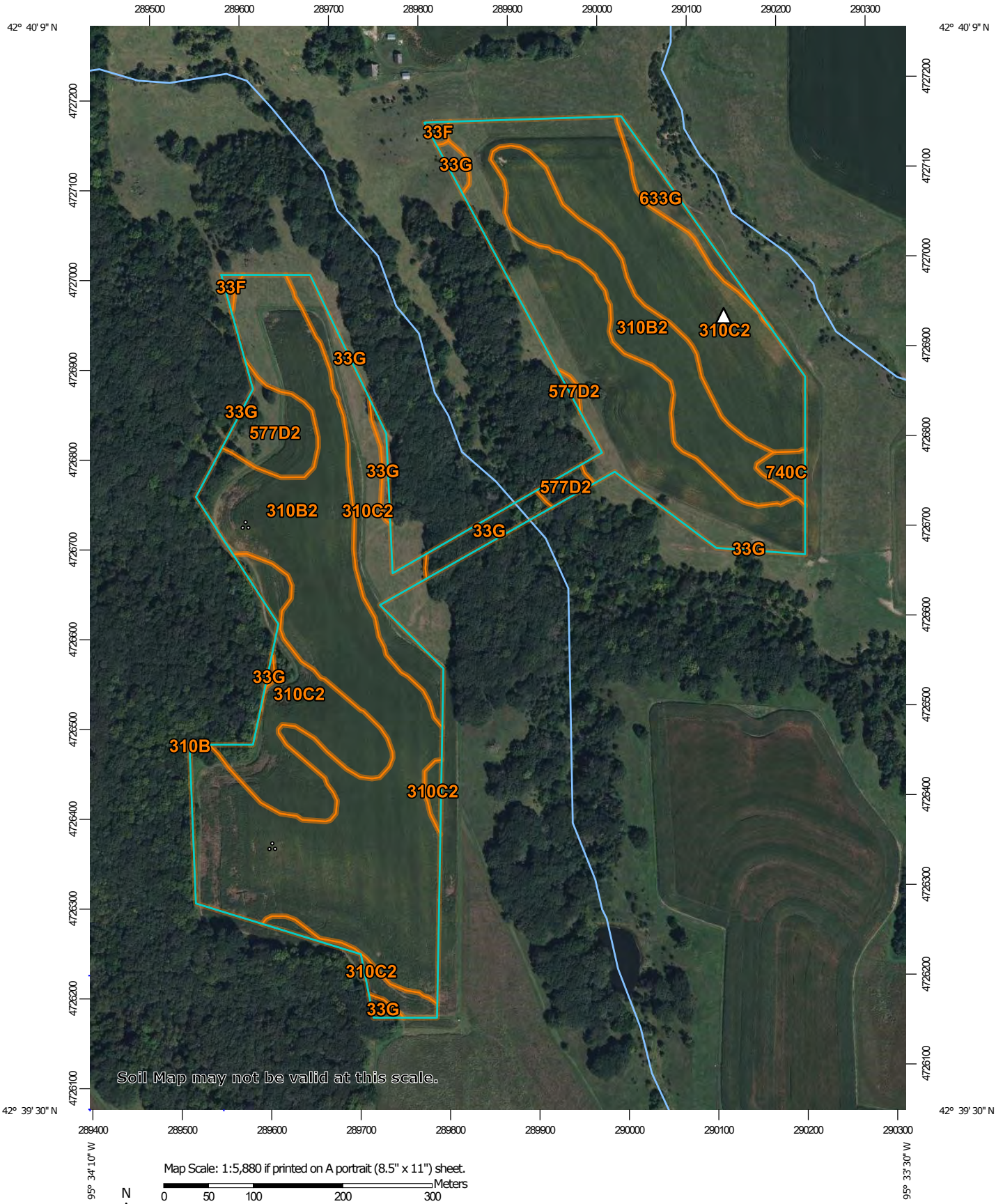
C&D Farms Phone: (712)261-3151 Gypsum Only

Permitted Acres: 54 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1767)



Map Scale: 1:5,880 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
33F	Steinauer clay loam, 14 to 25 percent slopes	0.2	0.3%
33G	Steinauer clay loam, 25 to 40 percent slopes	1.6	2.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	0.0	0.0%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	30.5	46.0%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	30.0	45.1%
577D2	Everly clay loam, 9 to 14 percent slopes, moderately eroded	2.4	3.6%
633G	Steinauer-Steinauer variant clay loams, 20 to 50 percent slopes	1.1	1.7%
740C	Hawick sandy loam, 2 to 9 percent slopes	0.5	0.8%
Totals for Area of Interest		**66.3**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
33F	Steinauer clay loam, 14 to 25 percent slopes	5	0.2	0.3%
33G	Steinauer clay loam, 25 to 40 percent slopes	5	1.6	2.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	0.0	0.0%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5	30.5	46.0%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	30.0	45.1%
577D2	Everly clay loam, 9 to 14 percent slopes, moderately eroded	5	2.4	3.6%
633G	Steinauer-Steinauer variant clay loams, 20 to 50 percent slopes	5	1.1	1.7%
740C	Hawick sandy loam, 2 to 9 percent slopes	5	0.5	0.8%
Totals for Area of Interest			**66.3**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
33F	Steinauer clay loam, 14 to 25 percent slopes	>200	0.2	0.3%
33G	Steinauer clay loam, 25 to 40 percent slopes	>200	1.6	2.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	0.0	0.0%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	>200	30.5	46.0%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	30.0	45.1%
577D2	Everly clay loam, 9 to 14 percent slopes, moderately eroded	152	2.4	3.6%
633G	Steinauer-Steinauer variant clay loams, 20 to 50 percent slopes	>200	1.1	1.7%
740C	Hawick sandy loam, 2 to 9 percent slopes	>200	0.5	0.8%
Totals for Area of Interest			**66.3**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Having issues? A prototype of a new version of Facility Explorer is available at https://facilityexplorer.iowadnr.gov/FacilityExplorer4/ x

Well Search Report Site: 1767

Included in search	No. of wells	Database
X	4	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	3	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	1	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 289739/4726561
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
204392	27692	T91N, R40W, 21, SE SE SE SE	GPS +/- 10 m.	(m)	76	7/24/1986	Igs	Bedrock Depth: 0 Well Type: Exploration (Other)
204395	71670	T91N, R40W, 21, SE SE SE SE	GPS +/- 10 m.	1604 (m)	19	7/24/1986	Igs	Bedrock Depth: 0 Well Type: Exploration (Other)
176237	7123	T91N, R40W, 33, SW SE SW SE	Calc. +/- 230 ft.	(m)	253	1/1/1955	Perrin Fur Farms	Bedrock Depth: 0 Well Type: Livestock
189232	19388	T91N, R40W, 34, SE NW SE SW	Calc. +/- 230 ft.	(m)	30	10/10/1966	Simons, W.W.	Bedrock Depth: 0 Well Type: Private

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
8312	57265	T91N, R40W, Sec. 34, SE, NE, SE	Calc. +/- 285m.	(m)	38	1989	Lechner, Dick	Drilling method: Bored; Known well depth
7799	16361	T91N, R40W, Sec. 29, SE, SE, SE	Calc. +/- 140m.	(m)	35	unkn	Mahler, Richard	Drilling method: Augered;
7669	67710	T91N, R40W, Sec. 28, SW, NW, NE	Calc. +/- 285m.	1431 (m)	90	1965	Stammer, Barbara	Drilling method: Drilled; Estimated well depth

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
8308	90	T91N, R40W, Sec. 34, SE, NE, SW	Calc. +/- 140m.	(m)	24	n.a.	Lochner, Richard	Well plugged: nil; Well type: > 18" dia.

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes

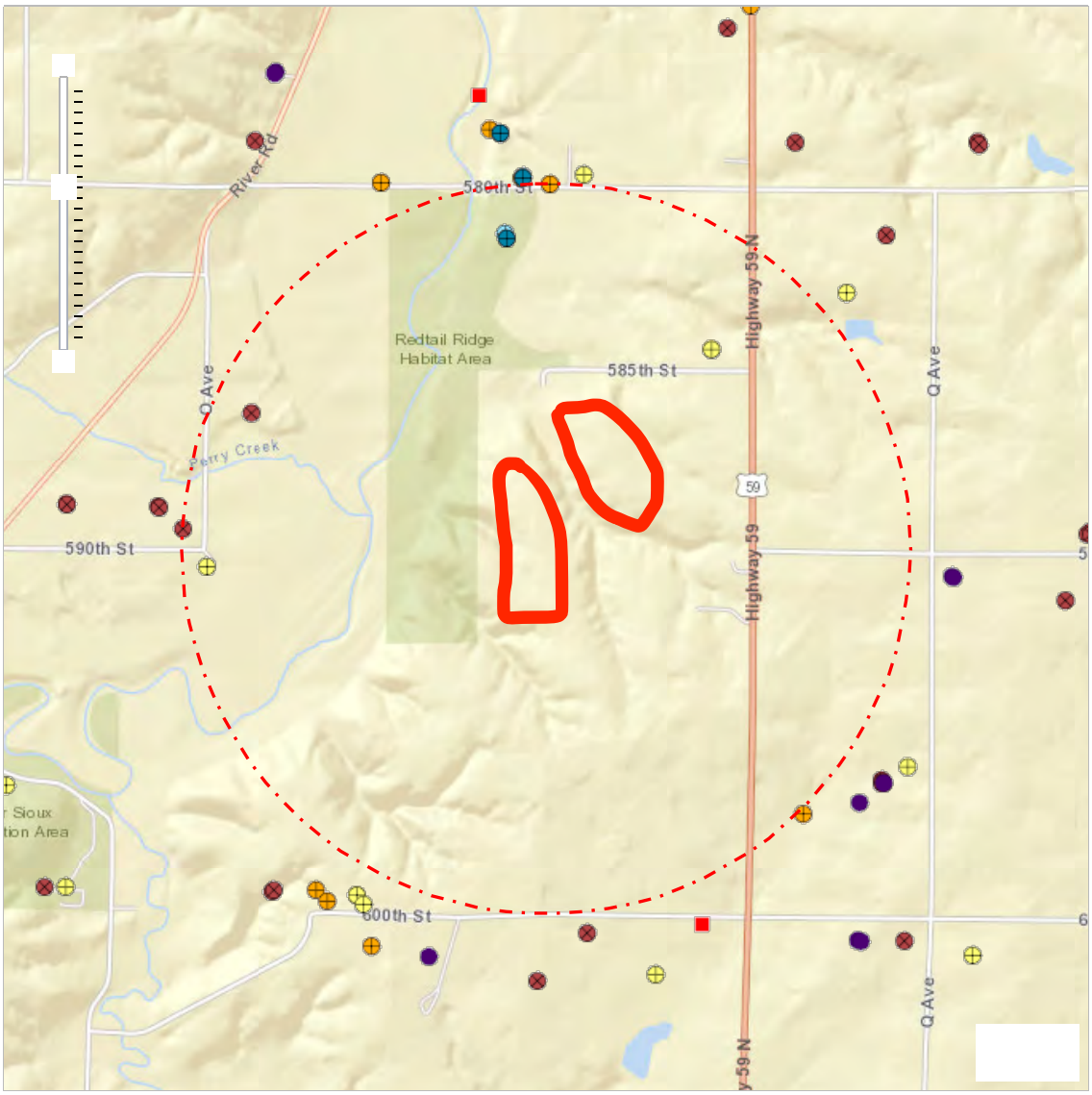
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 289739/4726561
Search Radius (mi): 1



Map Notes:

- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1768



Unsuitable for Land Application

John Tiederman Phone: (712)261-3151 Spreadable Acres: 185 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1768



Unsuitable for Land Application

John Tiederman Phone: (712)261-3151 Gypsum Only

Permitted Acres: 185 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Lyon County, Iowa
(Site 1768)



Map Scale: 1:8,300 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 100 200 400 600

Feet
0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
27B	Terril loam, 2 to 5 percent slopes	0.5	0.2%
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	2.3	1.1%
33D	Steinauer clay loam, 9 to 14 percent slopes	0.1	0.1%
77D2	Sac silty clay loam, loam substratum, 9 to 14 percent slopes, eroded	1.0	0.5%
91B	Primghar silty clay loam, 2 to 5 percent slopes	7.1	3.4%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	12.6	6.1%
174B	Bolan loam, 2 to 5 percent slopes	1.3	0.6%
259	Biscay clay loam, deep, 0 to 2 percent slopes	2.5	1.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	32.8	15.9%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	22.2	10.7%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	23.8	11.5%
311	Galva silty clay loam, stratified substratum, 0 to 2 percent slopes	8.0	3.9%
311B	Galva silty clay loam, stratified substratum, 2 to 5 percent slopes	68.9	33.3%
430	Ackmore silt loam, 0 to 2 percent slopes, occasionally flooded	9.4	4.6%
541D	Estherville-Salida complex, 9 to 14 percent slopes	1.3	0.6%
785	Spillco loam, 0 to 2 percent slopes, occasionally flooded	1.2	0.6%
808	Dempster silt loam, 0 to 2 percent slopes	2.0	1.0%
808B	Dempster silt loam, 2 to 6 percent slopes	0.9	0.4%
899	Davis silt loam, 0 to 2 percent slopes	4.7	2.3%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
P733	Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded	4.2	2.0%
Totals for Area of Interest		**206.9**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
27B	Terril loam, 2 to 5 percent slopes	5	0.5	0.2%
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	5	2.3	1.1%
33D	Steinauer clay loam, 9 to 14 percent slopes	5	0.1	0.1%
77D2	Sac silty clay loam, loam substratum, 9 to 14 percent slopes, eroded	5	1.0	0.5%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	7.1	3.4%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	12.6	6.1%
174B	Bolan loam, 2 to 5 percent slopes	3	1.3	0.6%
259	Biscay clay loam, deep, 0 to 2 percent slopes	3	2.5	1.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	32.8	15.9%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5	22.2	10.7%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	23.8	11.5%
311	Galva silty clay loam, stratified substratum, 0 to 2 percent slopes	5	8.0	3.9%
311B	Galva silty clay loam, stratified substratum, 2 to 5 percent slopes	5	68.9	33.3%
430	Ackmore silt loam, 0 to 2 percent slopes, occasionally flooded	5	9.4	4.6%
541D	Estherville-Salida complex, 9 to 14 percent slopes	2	1.3	0.6%
785	Spillco loam, 0 to 2 percent slopes, occasionally flooded	5	1.2	0.6%

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
808	Dempster silt loam, 0 to 2 percent slopes	3	2.0	1.0%
808B	Dempster silt loam, 2 to 6 percent slopes	3	0.9	0.4%
899	Davis silt loam, 0 to 2 percent slopes	5	4.7	2.3%
P733	Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded	5	4.2	2.0%
Totals for Area of Interest			**206.9**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
27B	Terril loam, 2 to 5 percent slopes	122	0.5	0.2%
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	0	2.3	1.1%
33D	Steinauer clay loam, 9 to 14 percent slopes	>200	0.1	0.1%
77D2	Sac silty clay loam, loam substratum, 9 to 14 percent slopes, eroded	122	1.0	0.5%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	7.1	3.4%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	12.6	6.1%
174B	Bolan loam, 2 to 5 percent slopes	>200	1.3	0.6%
259	Biscay clay loam, deep, 0 to 2 percent slopes	0	2.5	1.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	32.8	15.9%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	>200	22.2	10.7%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	23.8	11.5%
311	Galva silty clay loam, stratified substratum, 0 to 2 percent slopes	>200	8.0	3.9%
311B	Galva silty clay loam, stratified substratum, 2 to 5 percent slopes	>200	68.9	33.3%
430	Ackmore silt loam, 0 to 2 percent slopes, occasionally flooded	30	9.4	4.6%
541D	Estherville-Salida complex, 9 to 14 percent slopes	>200	1.3	0.6%
785	Spillco loam, 0 to 2 percent slopes, occasionally flooded	122	1.2	0.6%
808	Dempster silt loam, 0 to 2 percent slopes	>200	2.0	1.0%

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
808B	Dempster silt loam, 2 to 6 percent slopes	>200	0.9	0.4%
899	Davis silt loam, 0 to 2 percent slopes	122	4.7	2.3%
P733	Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded	0	4.2	2.0%
Totals for Area of Interest			**206.9**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Having issues? A prototype of a new version of Facility Explorer is available at https://facilityexplorer.iowadnr.gov/FacilityExplorer4/ x

Well Search Report Site 1768

Included in search	No. of wells	Database
X	1	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	2	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	1	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 252840/4796283
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
161375	27261	T98N, R44W, 28, NE SE SE NE	Calc. +/- 230 ft.	589 (m)	1325		Matlock	Bedrock Depth: 0 Well Type: Exploration (Other)

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
525	16738	T98N, R44W, Sec. 28, SE, SW, SW	Calc. +/- 140m.	556 (m)	unkn	unkn	Plambeck, Shirley	Drilling method: Dug;
485	16772	T98N, R44W, Sec. 28, NW, NW, NW	Calc. +/- 140m.	1297 (m)	70	1992	Wisecup, Charles	Drilling method: Drilled;

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information

521	23469	T98N, R44W, Sec. 28, SW, SE, SE	Calc. +/- 140m.	662 (m)	32	n.a.	Vogts, Dulcie	Well plugged: nil; Well type: > 18" dia.

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes

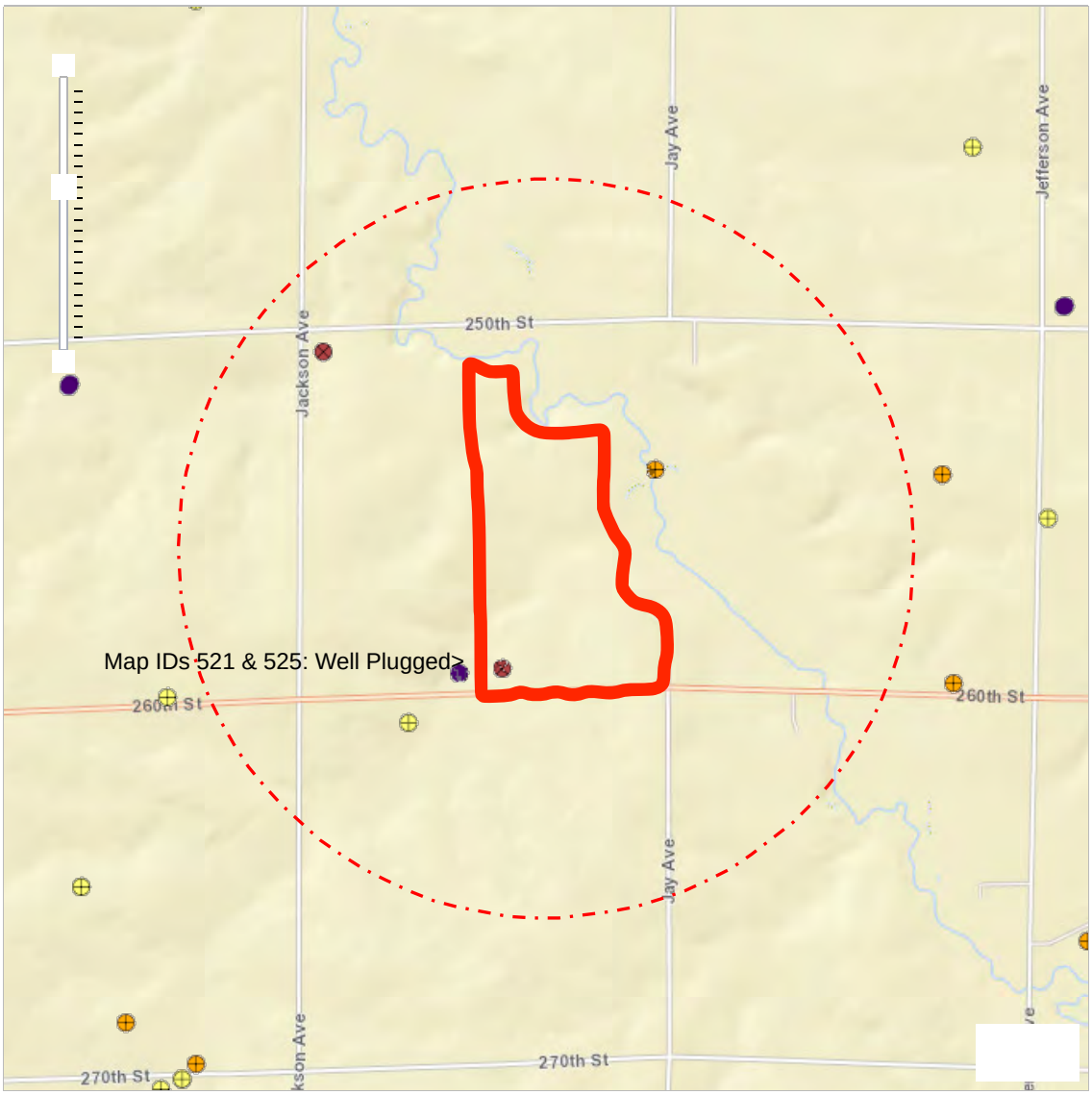
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 252840/4796283
Search Radius (mi): 1

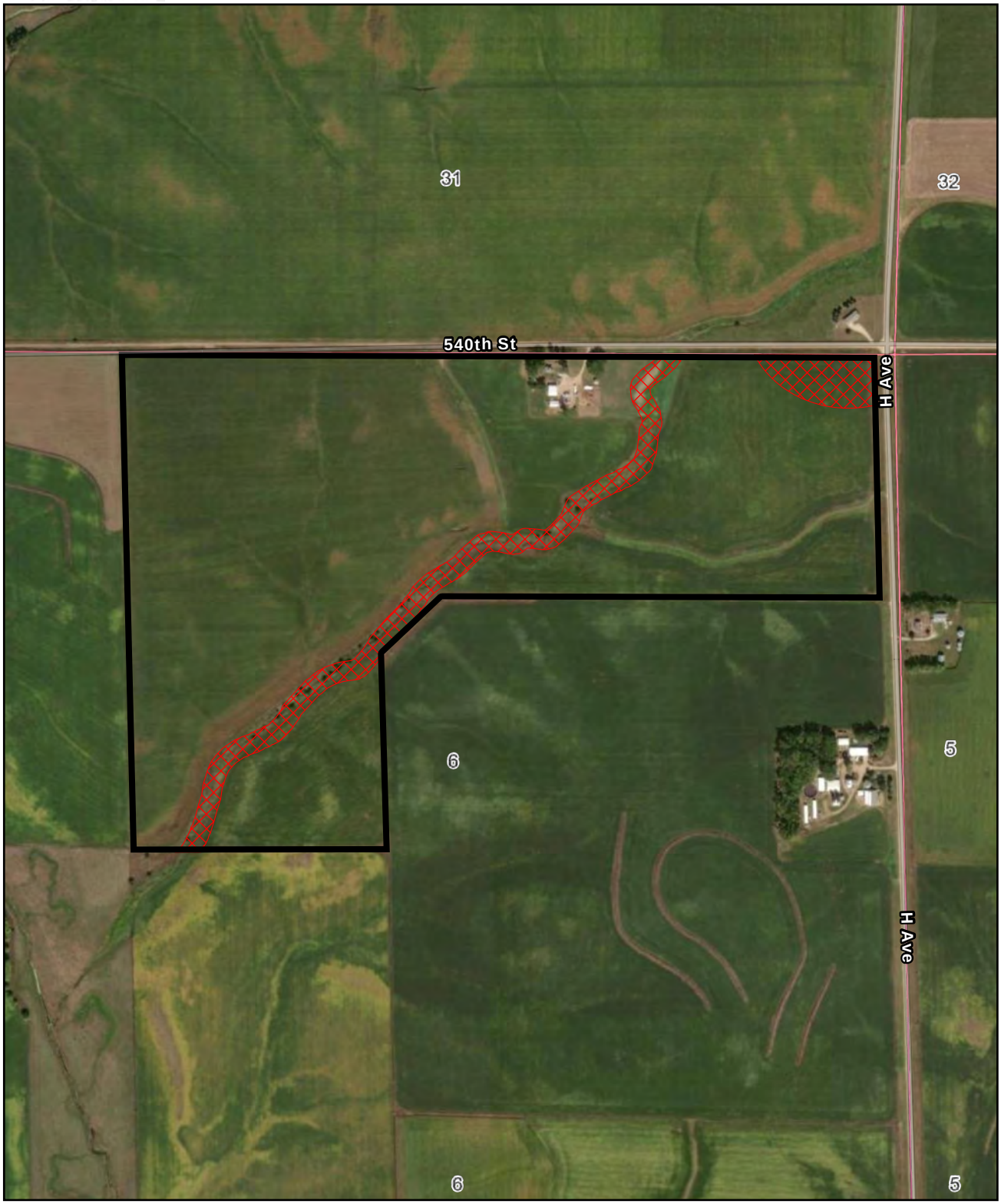


Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1769



Unsuitable for Land Application

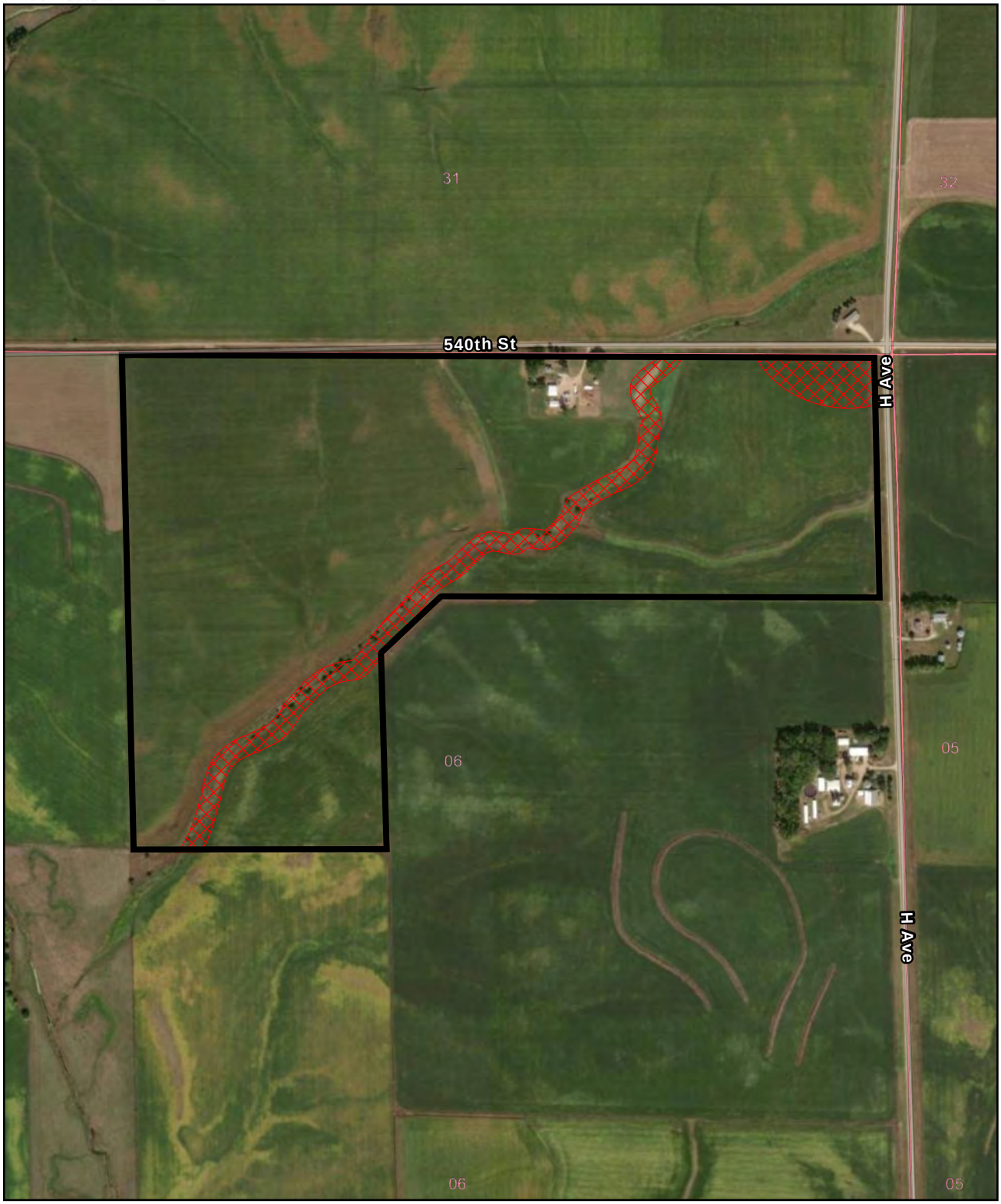
Jeff Lundquist Phone: (712)261-3151 Spreadable Acres: 142 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1769



Unsuitable for Land Application

Jeff Lundquist Phone: (712)261-3151 Gypsum Only

Permitted Acres: 142 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1769)



Map Scale: 1:6,630 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	3.1	1.9%
91B	Primghar silty clay loam, 2 to 5 percent slopes	23.4	14.7%
92	Marcus silty clay loam, 0 to 2 percent slopes	0.7	0.4%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	11.5	7.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	78.0	48.8%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	0.4	0.2%
310C	Galva silty clay loam, 5 to 9 percent slopes	42.5	26.6%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	0.1	0.1%
Totals for Area of Interest		**159.7**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	3.1	1.9%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	23.4	14.7%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	0.7	0.4%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	11.5	7.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	78.0	48.8%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5	0.4	0.2%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	42.5	26.6%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	0.1	0.1%
Totals for Area of Interest			**159.7**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	3.1	1.9%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	23.4	14.7%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	0.7	0.4%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	11.5	7.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	78.0	48.8%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	>200	0.4	0.2%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	42.5	26.6%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	0.1	0.1%
Totals for Area of Interest			**159.7**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Having issues? A prototype of a new version of Facility Explorer is available at https://facilityexplorer.iowadnr.gov/FacilityExplorer4/ x

Well Search Report Site: 1769

Included in search	No. of wells	Database
X	1	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	5	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	2	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 276270/4734669
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
185486	15933	T91N, R41W, 5, NW SW NW NW	Calc. +/- 230 ft.	994 (m)	80	8/10/1963	Goodburn, Gerald	Bedrock Depth: 0 Well Type: Private

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
4431	767	T91N, R41W, Sec. 6, NE, SE, SW	Calc. +/- 285m.	772 (m)	25	unkn	Lundquist, Gary	Drilling method: Bored; Known well depth
4343	1840	T92N, R41W, Sec. 32, SW, SW, NW	Calc. +/- 285m.	(m)	70	1920	Pitts, Steve	Drilling method: Drilled; Known well depth
4231	67769	T92N, R41W, Sec. 31, SW, SW, SE	Calc. +/- 285m.	745 (m)	20	unkn	Specht, `Steve	Drilling method: Bored; Estimated well depth
4332	12736	T92N, R41W, Sec. 31, SE, SE, SE	Calc. +/- 140m.	943 (m)	60	1995	Specht, Robert	Drilling method: Bored;
4229	1842	T92N, R41W, Sec. 31, SW, SW, NE	Calc. +/- 285m.	757 (m)	20	unkn	Specht, Steve	Drilling method: Bored; Estimated well depth

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information

No records found from this data source

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
4267	17882	T92N, R41W, Sec. 31, SE, NE, SE	Calc. +/- 285m.	1219 (m)	25	n.a.	Specht, Viviann	Well plugged: 7/10/1995; Well type: > 18" dia.
4269	17881	T92N, R41W, Sec. 31, SE, NE, SE	Calc. +/- 285m.	1219 (m)	38	n.a.	Specht, Viviann	Well plugged: 7/10/1995; Well type: > 18" dia.

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information

No records found from this data source

Municipal Wells And Intakes

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information

No records found from this data source

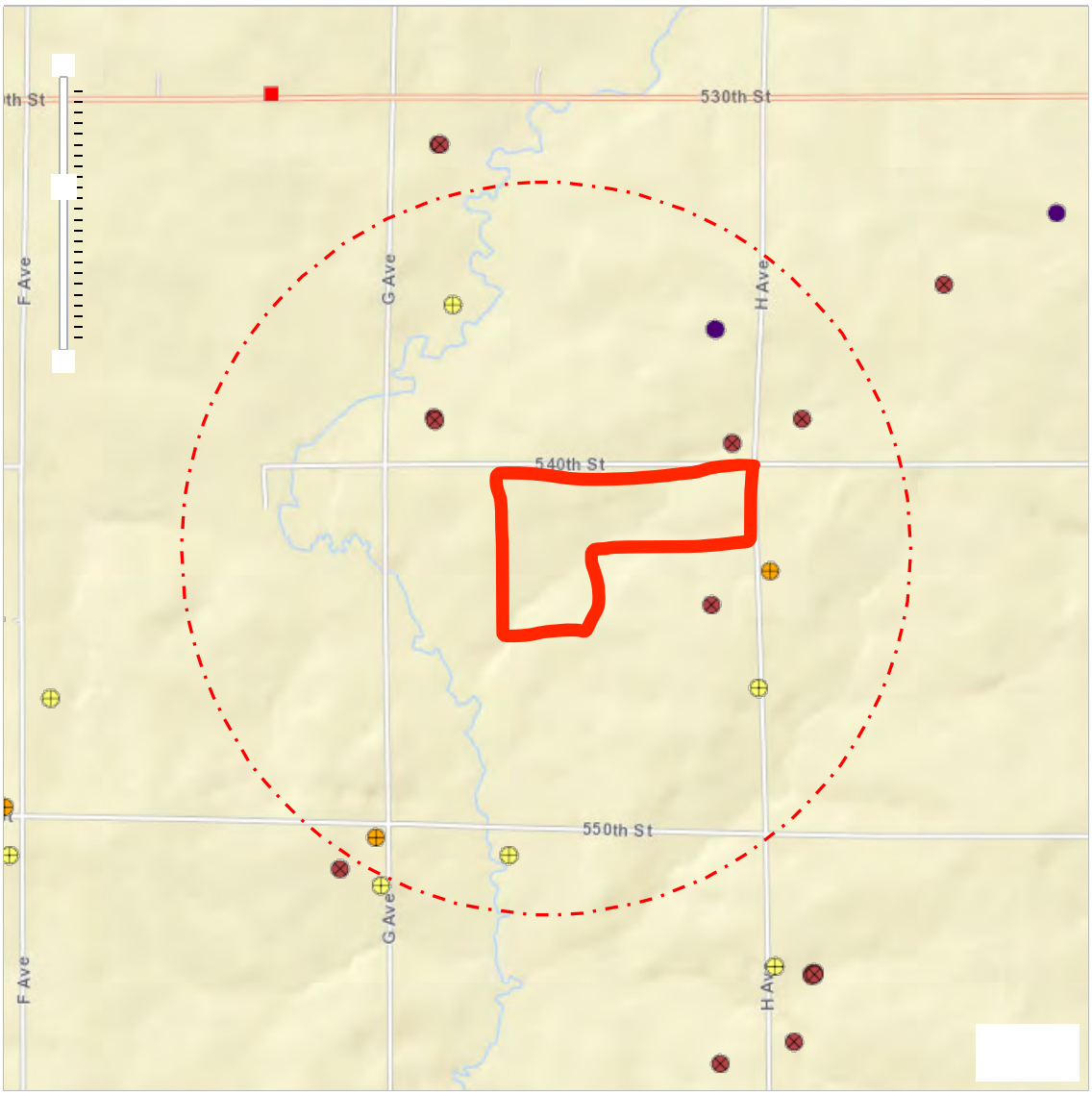
Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information

No records found from this data source

Well Search Buffered Map

Subject: XY UTM Coordinates: 276270/4734669
Search Radius (mi): 1



Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Adam Pigott
Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
******Analysis is not guaranteed for agronomic value. Byproduct output will be variable.***

Total Solids	50.9	%	Arsenic	none detected
pH	2.3		Barium	11.4 mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected
Ammonia Nitrogen	0.02	%	Chromium	none detected
Phosphorus	0.1	%	Copper	none detected
Phosphate	0.2	%	Iron	444.1 mg/kg
Potassium	0.03	%	Lead	none detected
Potash	0.03	%	Manganese	5 mg/kg
Calcium	0.4	%	Mercury	0.42 mg/kg
Magnesium	0.02	%	Molybdenum	none detected
Sodium	0.2	%	Nickel	none detected
Sulfur	0.4	%	Selenium	none detected
Zinc	0.0004	%	Silver	none detected

Analysis of **scrap feed** byproduct on a "dry" basis:
******Analysis is not guaranteed for agronomic value. Byproduct output will be variable.***

Total Solids	51.0	%	Arsenic	none detected
pH	4.8		Barium	0.7 mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected
Ammonia Nitrogen	0.2	%	Chromium	none detected
Phosphorus	0.4	%	Copper	2.7 mg/kg
Phosphate	1.0	%	Iron	59.3 mg/kg
Potassium	0.5	%	Lead	none detected
Potash	0.6	%	Manganese	3.8 mg/kg
Calcium	2.5	%	Mercury	none detected
Magnesium	0.3	%	Molybdenum	none detected
Sodium	0.1	%	Nickel	none detected
Sulfur	0.3	%	Selenium	none detected
Zinc	0.01	%	Silver	none detected

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Signed: _____ Date: 7-29-21

Environmental Land Management, LLC.
Contractual Consent of Landowner

C & D Farms

Landowner, Lessee and/or Landoperator: _____

Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.

Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected
pH	2.3		Barium	11.4 mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected
Ammonia Nitrogen	0.02	%	Chromium	none detected
Phosphorus	0.1	%	Copper	none detected
Phosphate	0.2	%	Iron	444.1 mg/kg
Potassium	0.03	%	Lead	none detected
Potash	0.03	%	Manganese	5 mg/kg
Calcium	0.4	%	Mercury	0.42 mg/kg
Magnesium	0.02	%	Molybdenum	none detected
Sodium	0.2	%	Nickel	none detected
Sulfur	0.4	%	Selenium	none detected
Zinc	0.0004	%	Silver	none detected

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected
pH	4.8		Barium	0.7 mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected
Ammonia Nitrogen	0.2	%	Chromium	none detected
Phosphorus	0.4	%	Copper	2.7 mg/kg
Phosphate	1.0	%	Iron	59.3 mg/kg
Potassium	0.5	%	Lead	none detected
Potash	0.6	%	Manganese	3.8 mg/kg
Calcium	2.5	%	Mercury	none detected
Magnesium	0.3	%	Molybdenum	none detected
Sodium	0.1	%	Nickel	none detected
Sulfur	0.3	%	Selenium	none detected
Zinc	0.01	%	Silver	none detected

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Adam Pigott - Agronomist for C&D Farms

Signed: Adam Pigott _____ Date: _____

Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: John Tiederman
Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Signed: Adam Pigott Adam Pigott - Agronomist for John Tiedeman Date: _____

Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Jeff Lundquist
Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Signed: Adam Pigott Adam Pigott - Agronomist for Jeff Lundquist Date: _____

Cargill Corn Milling Blair: Permit # 00-SDP-07-14P - IDNR New Site List P7 5.18.26

Site Name	Section Information/Site Detail	Township	County	State	Acres	Slope Acceptable Acres	Operator
1821	SW 1/4 Sec 35 - 96N 45W	Welcome	Sioux	IA	91	91	Bar K Cattle
1822	NW 1/4 Sec 3 - 97N 48W, SW 1/4 Sec 34 - 98N 48W	Lyon	Sioux	IA	312	289	Bar K Cattle
1823	NE 1/4 Sec 12 - 90N 40W	Silver	Cherokee	IA	112	112	Grant Ashinger
1824	SW 1/4 Sec 13, NW 1/4 Sec 24 - 90N 40W	Silver	Cherokee	IA	175	175	Grant Ashinger
1825	NE 1/4 Sec 24 - 95N 43W	Floyd	Sioux	IA	141	141	J Brothers Custom
1826	NW 1/4 Sec 3, NE 1/4 Sec 4 - 93N 43W	Meadow	Plymouth	IA	356	356	J Brothers Custom
1827	N 1/2 Sec 24 - 94N 43W	East Orange	Sioux	IA	187	187	J Brothers Custom
1828	S 1/2 Sec 2 - 77N 45W	Rockford	Pottawattamie	IA	275	275	Paul Wilkins
1829	Sec 11, Sec 13 - 77N 45W	Rockford	Pottawattamie	IA	583	583	Paul Wilkins
1830	W 1/2 Sec 7, NW 1/4 Sec 18 - 77N 43W	Boomer	Pottawattamie	IA	132	132	Paul Wilkins
1831	Sec 16 - 70 N 43W	Scott	Fremont	IA	246	246	Paul Wilkins

EXTended Ag Services, Inc.
202 South Highway 86
Lakefield, MN 56150
507.662.5005 phone
507.662.5105 fax
info@extendedag.com

April 24, 2026

Environmental Land Management

1602 11th Drive NE

Austin, MN 55912

RE: Review of Potential Land Application Sites – Cargill Blair: Lyon, Cherokee, Plymouth, Sioux, Pottawomie County

Michael,

We have completed our review of the proposed land application sites for the Cargill facility in Blair, Nebraska. Thank you for the opportunity to provide our input on this project. The following field was included in this review, all acres are approximate:

COUNTY: Site Name	Acres
Lyon	**105.46**
Cargill Blair 1822	105.46
Cherokee	**313.27**
Cargill Blair 1823	117.95
Cargill Blair 1824	195.32
Plymouth	**366.26**
Cargill Blair 1826	366.26
Sioux	**685.00**
Cargill Blair 1821	91.20
Cargill Blair 1822	218.66
Cargill Blair 1825	157.16
Cargill Blair 1827	217.97
Pottawomie	**1196.07**
Cargill Blair 1828	282.09
Cargill Blair 1829	599.20
Cargill Blair 1830	314.78
Grand Total	**2666.06**

Imagery provided by the National Ag Imagery Program (2024) was utilized to determine whether land application sites were in crop production, pasture/hay or non-farmed land. Overall, the land application sites have some limitations regarding slope steepness and length and general erosion potential.

There are approximately 2,666.1 acres available for land application of the industrial by-product. The land application site is dominated silty clay loams, silt loams, silty clays, and clays. There are approximately 81.9 acres of loamy fine sands. These soils are present in Cargill 1828 and 1829 and should be investigated to ensure suitability prior to any land application activities.

According to the NRCS, 91.7% of the sites have acceptable slopes for the land application of Cargill byproducts (0-9%). According to the NRCS, 22.2% of the soils are classified as moderately or severely eroded and 35.9% as slightly eroded. The NRCS classifies 17.9% of the soils as Highly Erodible.

Field specific planning and/or residue management should be utilized when applying the byproduct to reduce the potential for movement offsite, on all sites. Application can and should be limited to areas with the lowest slope first and then be directed to areas the furthest from sensitive features such as water. The application of the byproduct is not expected to conflict with any Conservation Plans associated with the observed soils. A summary of slope ratings for the potential land application sites is included below:

Slope Range	Acres
0-1%	174.20
0-2%	1054.91
0-3%	81.90
0-5%	38.64
1-4%	18.57
2-4%	33.10
2-5%	819.34
5-9%	225.16
6-10%	74.78
9-14%	20.97
10-15%	3.95
14-18%	0.53
14-20%	118.98
18-25%	0.58
18-40%	0.45
Grand Total	**2666.06**

Approximately 3.2% of the soils identified as potential land application sites are listed by the NRCS soil survey as ponded, commonly or frequently flooded. It is assumed that agricultural drain tile has been installed, to varying degrees, on soils with poor or somewhat poor drainage. Flooding frequency is not expected to be a limiting factor for land application. However, land application on saturated soils should be avoided at all times. Further, land application on fields with higher slope ranges and predicted rainfall within 24 hours should be limited. A complete breakdown of flooding frequency ratings is shown below:

NRCS Flooding Frequency	Acres
------	0.24
NONE	1609.37
RARE	637.40
OCCAS	333.31
COMMON	20.32
FREQ	65.41
Grand Total	**2666.06**

Determining appropriate land application rates for any by-product is dependent on the most restrictive variable. This can be either slope, erosivity, flooding potential, soil fertility levels, soil texture or byproduct characteristics, to name a few. The recommendations given herein are independent of any byproduct reviews and only consider the known field characteristics discussed in this review.

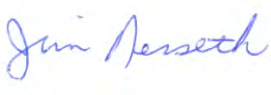
Application rates of approximately 15 Wet Tons per acre are appropriate for the field conditions of the land application sites discussed in this review. Appropriate measures should be taken to ensure minimal movement of the waste respect to adequate setbacks from sensitive features (surface water, karst features, conduits to water and high slopes) and land application rates. Special care should be given to applying wastes no less than 48 hours prior to rainfall events of greater than 0.5 inches. Wastes should be incorporated whenever possible, if such practices do not conflict with existing NRCS conservation plans. Applications of organic by-products can result in improved soil fertility, tilth and structure, if properly managed. The soils and parent material on the proposed land application site are naturally acidic in nature. Agricultural lime should be applied to ensure the soil pH is above 6.0 prior to land application of any byproducts.

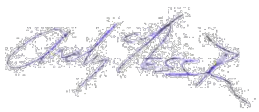
Summary

The specified land application material should be evaluated for constituents that pose a risk to the general health and welfare of the public. In general, land utilized for the land application of solid waste containing nutrients needed for pasture or crop production will benefit from such applications. Careful consideration should be taken to ensure nutrients are not applied at levels greater than crop need, once soils have reached the high fertility range as defined by Iowa State University.

In summary, we believe the field conditions are suitable for land application of solid wastes if done in accordance with all applicable rules, permits and laws. If you have any questions, please do not hesitate to contact us.

Sincerely,





Jim Nesseth
Certified Agronomist
License #: 17118

Andrew Nesseth
Environmental Consultant
NRCS Technical Service Provider

ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1821



Unsuitable for Land Application

Bar K Cattle Phone: (712)261-3151 Spreadable Acres: 91 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1821



Unsuitable for Land Application

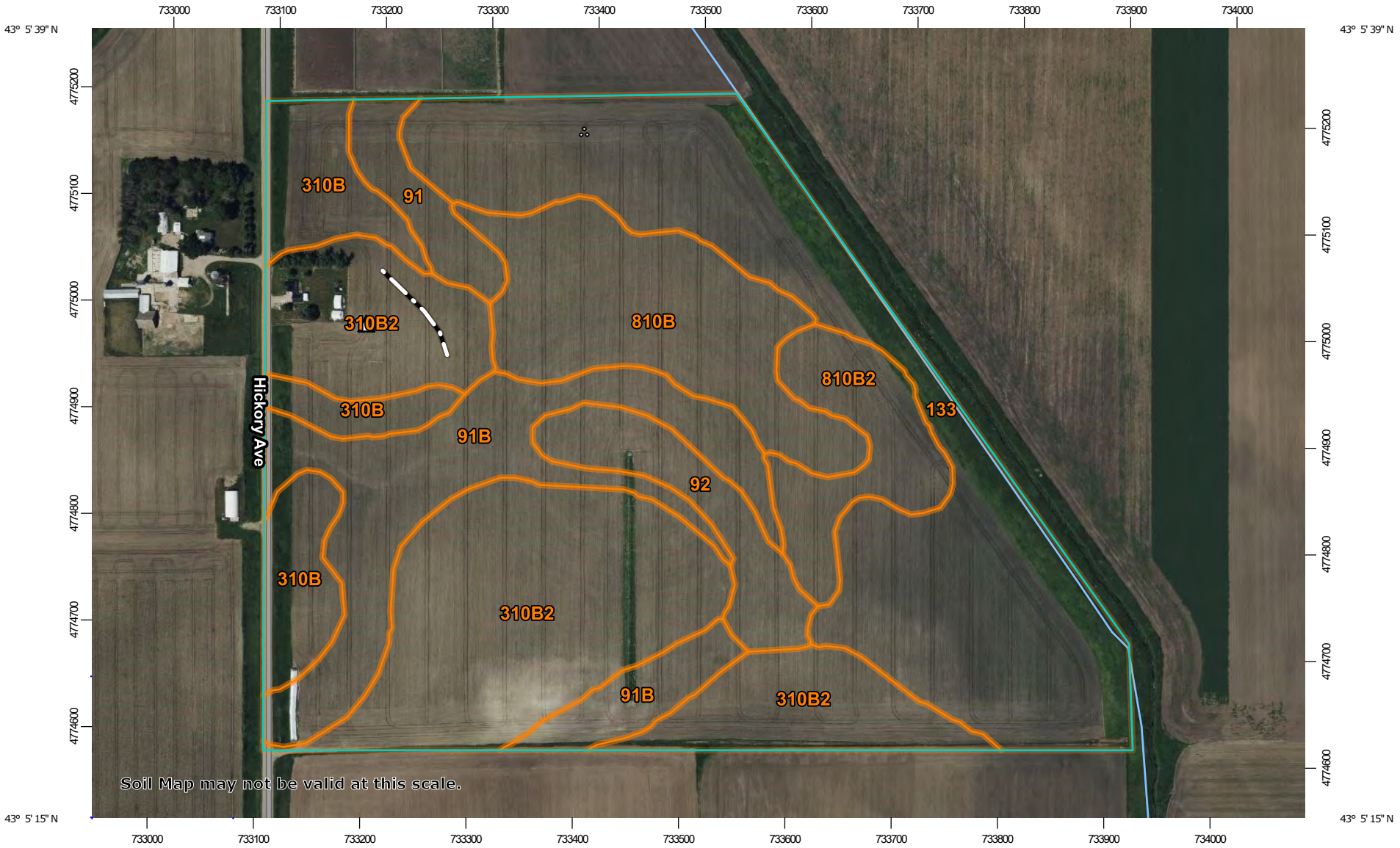
Bar K Cattle Phone: (712)261-3151 Gypsum Only

Permitted Acres: 91 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Sioux County, Iowa
(Site 1821)



Map Scale: 1:5,220 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
91	Primghar silty clay loam, 0 to 2 percent slopes	2.6	2.6%
91B	Primghar silty clay loam, 2 to 5 percent slopes	14.4	14.4%
92	Marcus silty clay loam, 0 to 2 percent slopes	4.4	4.4%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	26.6	26.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	8.0	8.0%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	27.4	27.3%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	11.4	11.3%
810B2	Galva silty clay loam, terrace, 2 to 5 percent slopes, eroded	5.5	5.5%
Totals for Area of Interest		**100.3**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
91	Primghar silty clay loam, 0 to 2 percent slopes	5	2.6	2.6%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	14.4	14.4%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	4.4	4.4%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	26.6	26.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	8.0	8.0%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5	27.4	27.3%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	5	11.4	11.3%
810B2	Galva silty clay loam, terrace, 2 to 5 percent slopes, eroded	5	5.5	5.5%
Totals for Area of Interest			**100.3**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
91	Primghar silty clay loam, 0 to 2 percent slopes	30	2.6	2.6%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	14.4	14.4%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	4.4	4.4%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	26.6	26.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	8.0	8.0%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	>200	27.4	27.3%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	>200	11.4	11.3%
810B2	Galva silty clay loam, terrace, 2 to 5 percent slopes, eroded	>200	5.5	5.5%
Totals for Area of Interest			**100.3**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Well Search Report Site: 1821

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
186963	17497	T96N, R45W, 34, NE SE SE SE	Calc. +/- 230 ft.	532	10/12/1964	Vanderburg, Ralph
228444	56468	T95N, R45W, 2, NW NW NE	Calc. +/- 470 ft.	34	9/26/2002	Schut, Wayne
230629	84115	T95N, R45W, 2, NE NW NW	Calc. +/- 470 ft.	34	10/16/2003	Schut Feedlot
258873	100908	T95N, R45W, 2, NW SW SW	NULL	480	7/5/2022	Hulstein, Kelly

Statistics: IGS Well Database

Count: 4

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
719	32596	T96N, R45W, Sec. 35, NW, NW, SW	Calc. +/- 140m.	15	n.a.	Rensink, Wilmer
725	32595	T96N, R45W, Sec. 35, NW, NW, SE	Calc. +/- 140m.	12	n.a.	Rensink, Wilmer

Statistics: Registered abandoned wells

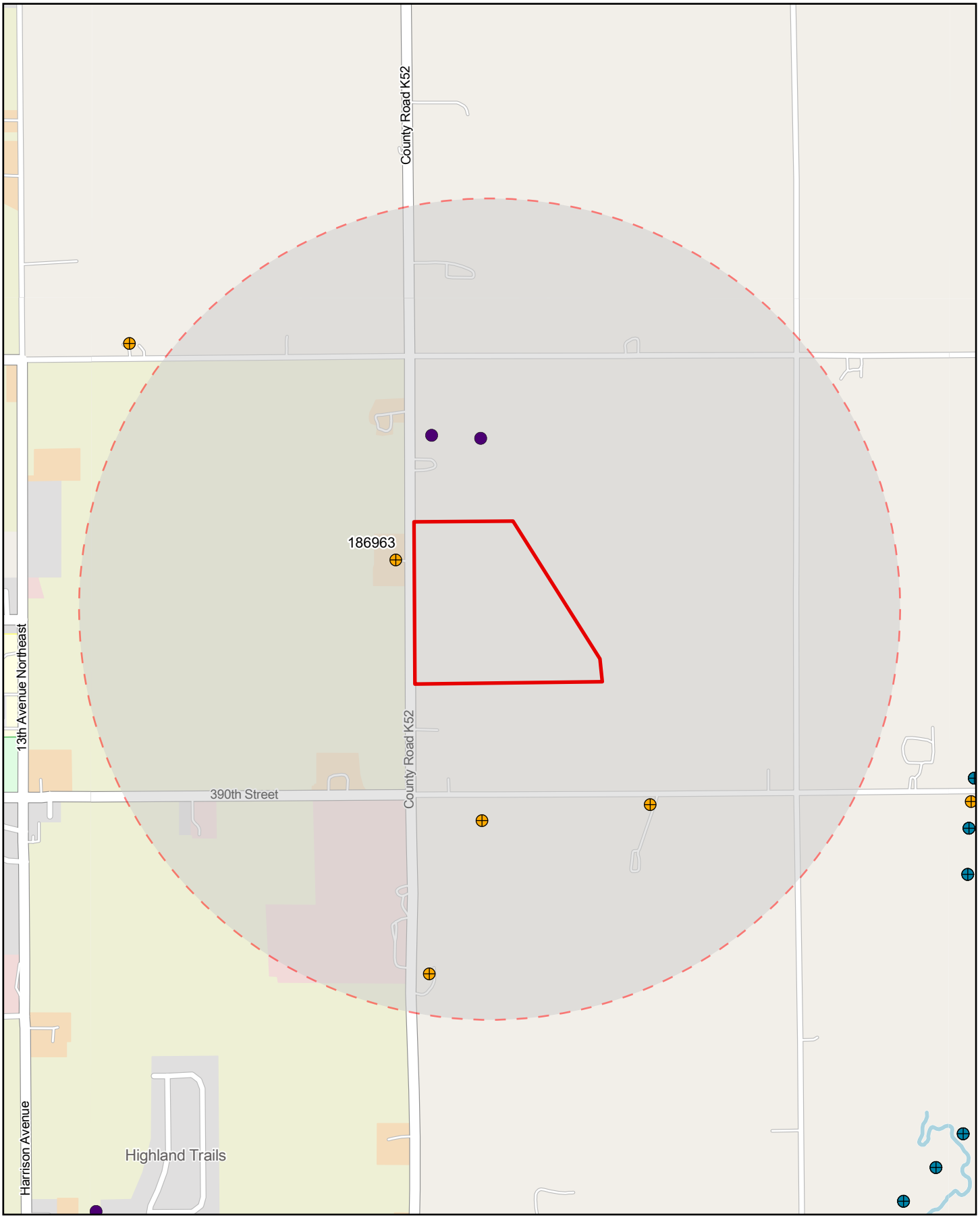
Count: 2

Report Totals

Count: 6

Date Exported: 5/12/2026 9:34 AM

Site: 1821
Subject: XY UTM Coordinates: 14T 733434 4774876
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1822



Unsuitable for Land Application

Bar K Cattle Phone: (712)261-3151 Spreadable Acres: 289 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1822



Unsuitable for Land Application

Bar K Cattle Phone: (712)261-3151 Gypsum Only

Permitted Acres: 312 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Lyon County, Iowa, and Sioux County, Iowa
(Site 1822)



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
33E	Steinauer clay loam, 14 to 18 percent slopes	0.8	0.2%
33F	Steinauer clay loam, 18 to 25 percent slopes	14.6	3.8%
33G	Steinauer clay loam, 25 to 40 percent slopes	0.6	0.2%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	24.4	6.4%
401D2	Crofton silt loam, 9 to 14 percent slopes, eroded	23.0	6.1%
401E2	Crofton silt loam, 12 to 20 percent slopes, eroded	4.4	1.2%
410B	Moody silty clay loam, cool, 2 to 6 percent slopes	47.6	12.6%
410B2	Moody silty clay loam, cool, 2 to 6 percent slopes, eroded	9.8	2.6%
410C2	Moody silty clay loam, cool, 6 to 11 percent slopes, eroded	31.5	8.3%
Subtotals for Soil Survey Area		**156.8**	**41.4%**
Totals for Area of Interest		**378.9**	**100.0%**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
33G	Steinauer clay loam, 18 to 40 percent slopes	0.3	0.1%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5.0	1.3%
401B2	Crofton silt loam, 2 to 6 percent slopes, eroded	32.3	8.5%
401D2	Crofton silt loam, 9 to 14 percent slopes, eroded	7.6	2.0%
401E2	Crofton silt loam, 12 to 20 percent slopes, eroded	0.6	0.2%
410B	Moody silty clay loam, cool, 2 to 6 percent slopes	67.6	17.8%
410B2	Moody silty clay loam, cool, 2 to 6 percent slopes, eroded	55.8	14.7%
410C2	Moody silty clay loam, cool, 6 to 11 percent slopes, eroded	23.6	6.2%
428B	Ely silty clay loam, shallow loess, 2 to 5 percent slopes	5.7	1.5%
910	Trent silty clay loam, 0 to 3 percent slopes	23.7	6.3%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Subtotals for Soil Survey Area		**222.1**	**58.6%**
Totals for Area of Interest		**378.9**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
33E	Steinauer clay loam, 14 to 18 percent slopes	5	0.8	0.2%
33F	Steinauer clay loam, 18 to 25 percent slopes	5	14.6	3.8%
33G	Steinauer clay loam, 25 to 40 percent slopes	5	0.6	0.2%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	24.4	6.4%
401D2	Crofton silt loam, 9 to 14 percent slopes, eroded	5	23.0	6.1%
401E2	Crofton silt loam, 12 to 20 percent slopes, eroded	5	4.4	1.2%
410B	Moody silty clay loam, cool, 2 to 6 percent slopes	5	47.6	12.6%
410B2	Moody silty clay loam, cool, 2 to 6 percent slopes, eroded	5	9.8	2.6%
410C2	Moody silty clay loam, cool, 6 to 11 percent slopes, eroded	5	31.5	8.3%
Subtotals for Soil Survey Area			**156.8**	**41.4%**
Totals for Area of Interest			**378.9**	**100.0%**

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
33G	Steinauer clay loam, 18 to 40 percent slopes	5	0.3	0.1%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	5.0	1.3%
401B2	Crofton silt loam, 2 to 6 percent slopes, eroded	5	32.3	8.5%
401D2	Crofton silt loam, 9 to 14 percent slopes, eroded	5	7.6	2.0%

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
401E2	Crofton silt loam, 12 to 20 percent slopes, eroded	5	0.6	0.2%
410B	Moody silty clay loam, cool, 2 to 6 percent slopes	5	67.6	17.8%
410B2	Moody silty clay loam, cool, 2 to 6 percent slopes, eroded	5	55.8	14.7%
410C2	Moody silty clay loam, cool, 6 to 11 percent slopes, eroded	5	23.6	6.2%
428B	Ely silty clay loam, shallow loess, 2 to 5 percent slopes	5	5.7	1.5%
910	Trent silty clay loam, 0 to 3 percent slopes	5	23.7	6.3%
Subtotals for Soil Survey Area			**222.1**	**58.6%**
Totals for Area of Interest			**378.9**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
33E	Steinauer clay loam, 14 to 18 percent slopes	>200	0.8	0.2%
33F	Steinauer clay loam, 18 to 25 percent slopes	>200	14.6	3.8%
33G	Steinauer clay loam, 25 to 40 percent slopes	>200	0.6	0.2%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	24.4	6.4%
401D2	Crofton silt loam, 9 to 14 percent slopes, eroded	>200	23.0	6.1%
401E2	Crofton silt loam, 12 to 20 percent slopes, eroded	>200	4.4	1.2%
410B	Moody silty clay loam, cool, 2 to 6 percent slopes	>200	47.6	12.6%
410B2	Moody silty clay loam, cool, 2 to 6 percent slopes, eroded	>200	9.8	2.6%
410C2	Moody silty clay loam, cool, 6 to 11 percent slopes, eroded	>200	31.5	8.3%
Subtotals for Soil Survey Area			**156.8**	**41.4%**
Totals for Area of Interest			**378.9**	**100.0%**

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
33G	Steinauer clay loam, 18 to 40 percent slopes	>200	0.3	0.1%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	5.0	1.3%
401B2	Crofton silt loam, 2 to 6 percent slopes, eroded	>200	32.3	8.5%
401D2	Crofton silt loam, 9 to 14 percent slopes, eroded	>200	7.6	2.0%
401E2	Crofton silt loam, 12 to 20 percent slopes, eroded	>200	0.6	0.2%

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
410B	Moody silty clay loam, cool, 2 to 6 percent slopes	>200	67.6	17.8%
410B2	Moody silty clay loam, cool, 2 to 6 percent slopes, eroded	>200	55.8	14.7%
410C2	Moody silty clay loam, cool, 6 to 11 percent slopes, eroded	>200	23.6	6.2%
428B	Ely silty clay loam, shallow loess, 2 to 5 percent slopes	30	5.7	1.5%
910	Trent silty clay loam, 0 to 3 percent slopes	130	23.7	6.3%
Subtotals for Soil Survey Area			**222.1**	**58.6%**
Totals for Area of Interest			**378.9**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1822

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
165595	80938	T98N, R48W, 33, SE SE SE	Calc. +/- 470 ft.	272		Bar K Cattle

Statistics: IGS Well Database

Count: 1

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
116	16099	T97N, R48W, Sec. 4, SW, NE, NE	Calc. +/- 1135m.	550	unkn	Unknown

Statistics: Permitted private wells

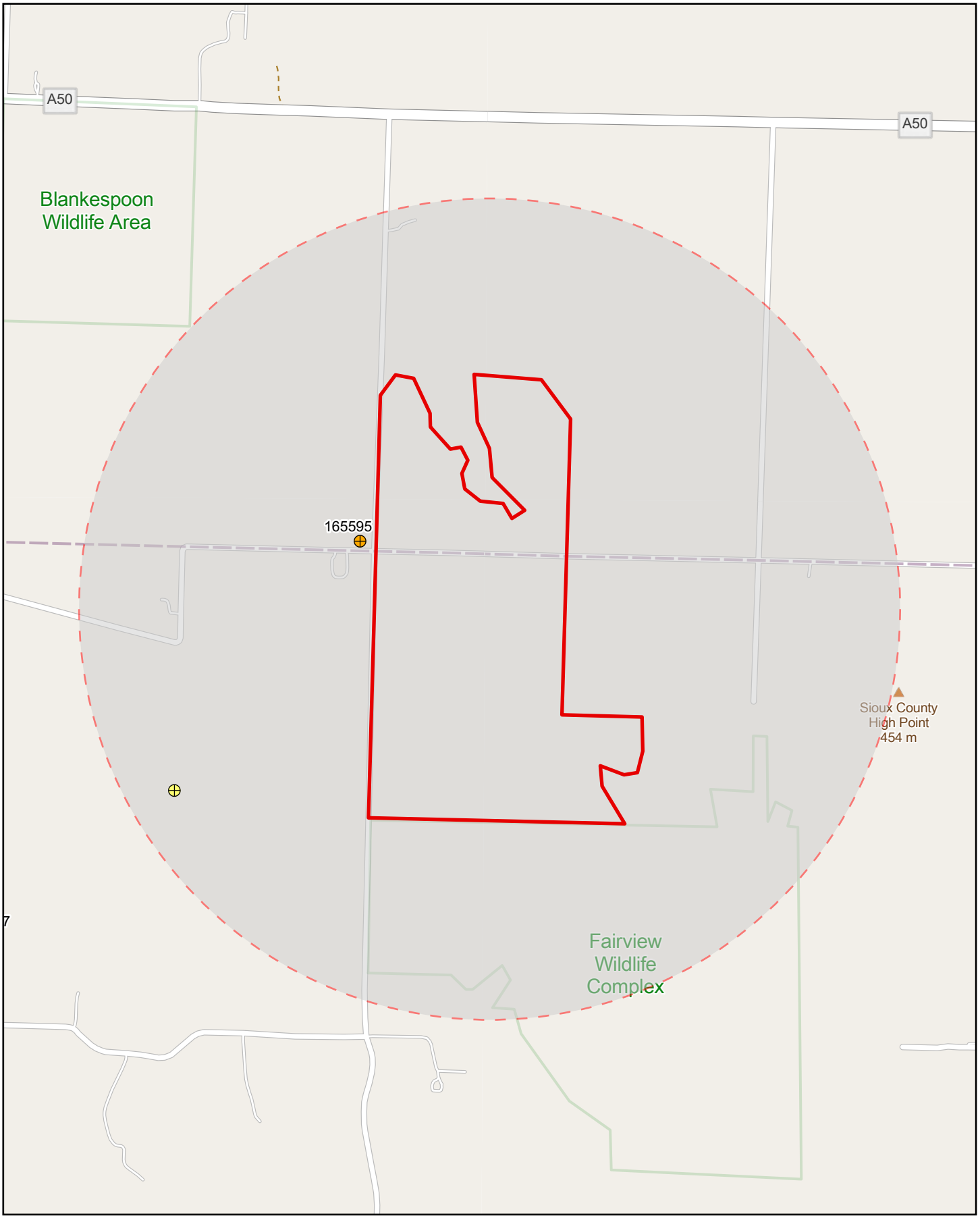
Count: 1

Report Totals

Count: 2

Date Exported: 5/12/2026 9:41 AM

Site: 1822
Subject: XY UTM Coordinates: 14T 702625 4792443
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1823



Unsuitable for Land Application

Grant Ashinger Phone: (712)261-3151 Spreadable Acres: 112 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1823



Unsuitable for Land Application

Grant Ashinger Phone: (712)261-3151 Gypsum Only

Permitted Acres: 112 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1823)



Map Scale: 1:7,110 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 100 200 400 600

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	17.4	14.3%
78B	Sac silty clay loam, 2 to 5 percent slopes	6.0	4.9%
91	Primghar silty clay loam, 0 to 2 percent slopes	1.6	1.3%
91B	Primghar silty clay loam, 2 to 5 percent slopes	11.6	9.5%
92	Marcus silty clay loam, 0 to 2 percent slopes	20.8	17.1%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	1.3	1.0%
310	Galva silty clay loam, 0 to 2 percent slopes	5.2	4.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	49.6	40.8%
310C	Galva silty clay loam, 5 to 9 percent slopes	8.2	6.8%
Totals for Area of Interest		**121.7**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	17.4	14.3%
78B	Sac silty clay loam, 2 to 5 percent slopes	5	6.0	4.9%
91	Primghar silty clay loam, 0 to 2 percent slopes	5	1.6	1.3%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	11.6	9.5%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	20.8	17.1%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	1.3	1.0%
310	Galva silty clay loam, 0 to 2 percent slopes	5	5.2	4.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	49.6	40.8%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	8.2	6.8%
Totals for Area of Interest			**121.7**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	17.4	14.3%
78B	Sac silty clay loam, 2 to 5 percent slopes	122	6.0	4.9%
91	Primghar silty clay loam, 0 to 2 percent slopes	30	1.6	1.3%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	11.6	9.5%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	20.8	17.1%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	1.3	1.0%
310	Galva silty clay loam, 0 to 2 percent slopes	>200	5.2	4.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	49.6	40.8%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	8.2	6.8%
Totals for Area of Interest			**121.7**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Well Search Report Site: 1823

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
184255	15303	T90N, R39W, 7, SW NW SW NW	Calc. +/- 230 ft.	327	7/24/1962	Ohlson, Clarence
184416	14608	T90N, R40W, 13, NW NE NE SE	Calc. +/- 230 ft.	320	9/6/1962	Hahn, Gerald
189275	19311	T90N, R39W, 6, SW NW SW NW	Calc. +/- 230 ft.	349	10/21/1966	Ohlson, Lloyd
230194	83544	T90N, R39W, 7, NW NW SW	Calc. +/- 470 ft.	318	8/14/2003	Ohlson, Kent

Statistics: IGS Well Database

Count: 4

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
8751	15787	T90N, R40W, Sec. 12, NW, NE, NE	Calc. +/- 140m.	46	n.a.	Johnson, Lillian
8752	15788	T90N, R40W, Sec. 12, NW, NE, NE	Calc. +/- 140m.	36	n.a.	Johnson, Lillian
8797	15786	T90N, R40W, Sec. 12, SW, NW, NE	Calc. +/- 140m.	22	n.a.	Johnson, Lillian
8810	12060	T90N, R40W, Sec. 1, SE, SE, SE	Calc. +/- 140m.	200	n.a.	Lenz, Nancy
8834	25592	T90N, R39W, Sec. 6, SW, SW, SW	Calc. +/- 140m.	250	n.a.	Ohlson, Kenneth

Statistics: Registered abandoned wells

Count: 5

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
8720	67682	T90N, R40W, Sec. 11, NE, SE, SW	Calc. +/- 285m.	310	1977	Johnson, Jim
8809	11305	T90N, R39W, Sec. 6, SW, SW, NW	Calc. +/- 140m.	300	1960	Ohlson, Kenneth
8980	11306	T90N, R39W, Sec. 7, SW, NW, NW	Calc. +/- 140m.	300	1960	Ohlson, Kenneth

Statistics: Wells registered for testing

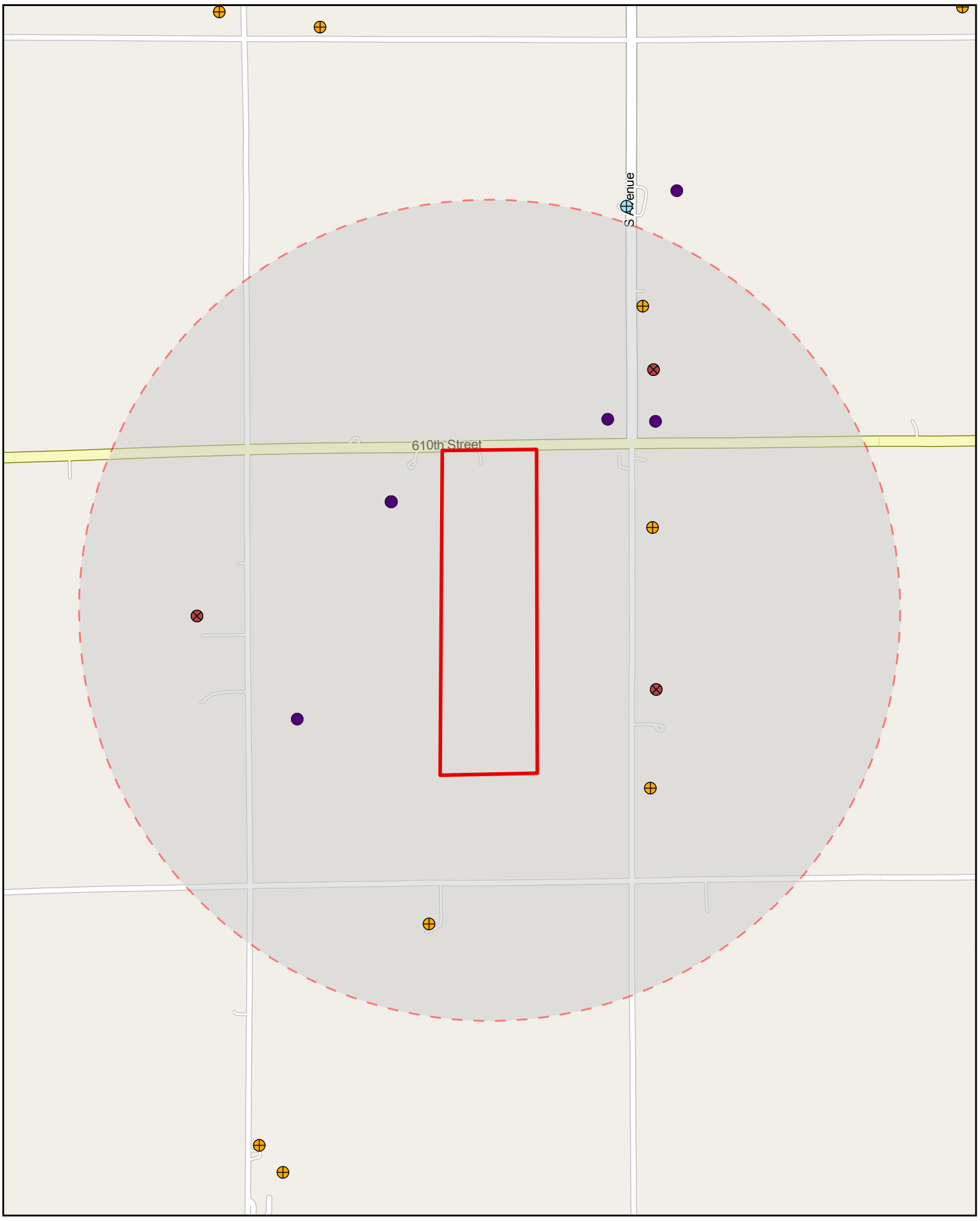
Count: 3

Report Totals

Count: 12

Date Exported: 5/12/2026 9:45 AM

Site: 1823
Subject: XY UTM Coordinates: 15T 293935 4722675
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1824



Unsuitable for Land Application

Grant Ashinger Phone: (712)261-3151 Spreadable Acres: 175 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1824



Unsuitable for Land Application

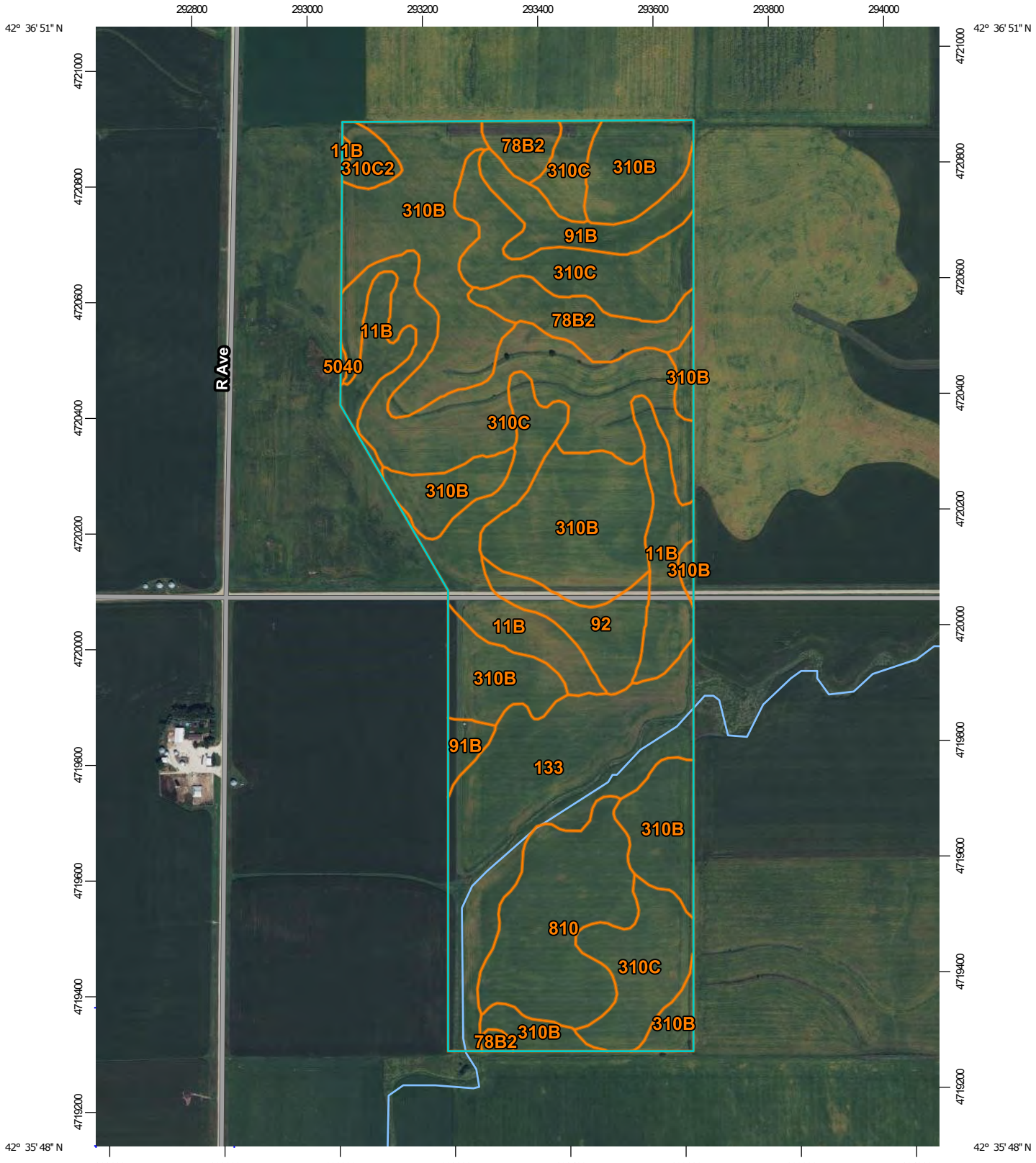
Grant Ashinger Phone: (712)261-3151 Gypsum Only

Permitted Acres: 175 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1824)



Map Scale: 1:9,430 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 100 200 400 600

Feet
0 450 900 1800 2700

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	22.2	11.1%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	9.5	4.8%
91B	Primghar silty clay loam, 2 to 5 percent slopes	7.9	4.0%
92	Marcus silty clay loam, 0 to 2 percent slopes	6.2	3.1%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	26.9	13.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	60.9	30.5%
310C	Galva silty clay loam, 5 to 9 percent slopes	47.1	23.6%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	2.0	1.0%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	16.9	8.5%
5040	Udorthents, loamy	0.1	0.1%
Totals for Area of Interest		**199.8**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	22.2	11.1%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	5	9.5	4.8%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	7.9	4.0%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	6.2	3.1%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	26.9	13.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	60.9	30.5%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	47.1	23.6%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	2.0	1.0%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	5	16.9	8.5%
5040	Udorthents, loamy	5	0.1	0.1%
Totals for Area of Interest			**199.8**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	22.2	11.1%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	122	9.5	4.8%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	7.9	4.0%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	6.2	3.1%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	26.9	13.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	60.9	30.5%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	47.1	23.6%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	2.0	1.0%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	>200	16.9	8.5%
5040	Udorthents, loamy	>200	0.1	0.1%
Totals for Area of Interest			**199.8**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Well Search Report Site: 1824

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
179400	10375	T90N, R40W, 13, SW NW SW NE	Calc. +/- 230 ft.	35	1/1/1958	Gustafson, Oscar
179401	10376	T90N, R40W, 13, SE SE NE NE	Calc. +/- 230 ft.	15	1/1/1958	Gustafson, Oscar
183914	15306	T90N, R40W, 13, SW NW NW SW	Calc. +/- 230 ft.	340	4/19/1962	Gustafson, Oscar
184416	14608	T90N, R40W, 13, NW NE NE SE	Calc. +/- 230 ft.	320	9/6/1962	Hahn, Gerald

Statistics: IGS Well Database

Count: 4

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
9202	5795	T90N, R40W, Sec. 24, NW, NE, SW	Calc. +/- 140m.	22	n.a.	Stalcup Ag Service, Stiles-Byron
9206	14645	T90N, R40W, Sec. 24, NW, NE, SW	Calc. +/- 140m.	22	n.a.	Stiles & Byron Farm

Statistics: Registered abandoned wells

Count: 2

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
9144	11051	T90N, R40W, Sec. 23, NE, SE, NE	Calc. +/- 140m.	270	1960	Todd, Eugene Earl

Statistics: Wells registered for testing

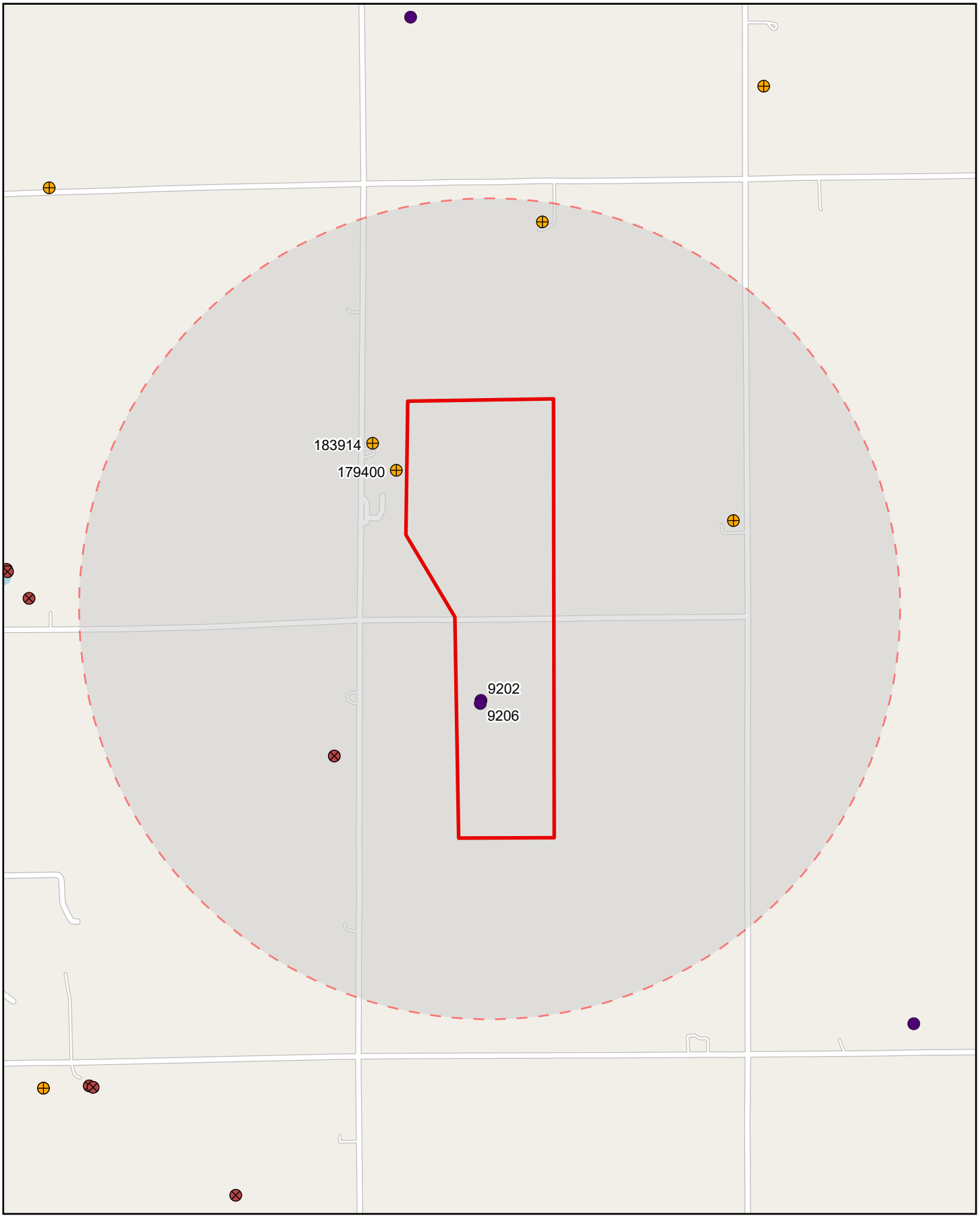
Count: 1

Report Totals

Count: 7

Date Exported: 5/12/2026 9:51 AM

Site: 1824
Subject: XY UTM Coordinates: 15T 293371 4720111
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1825



Unsuitable for Land Application

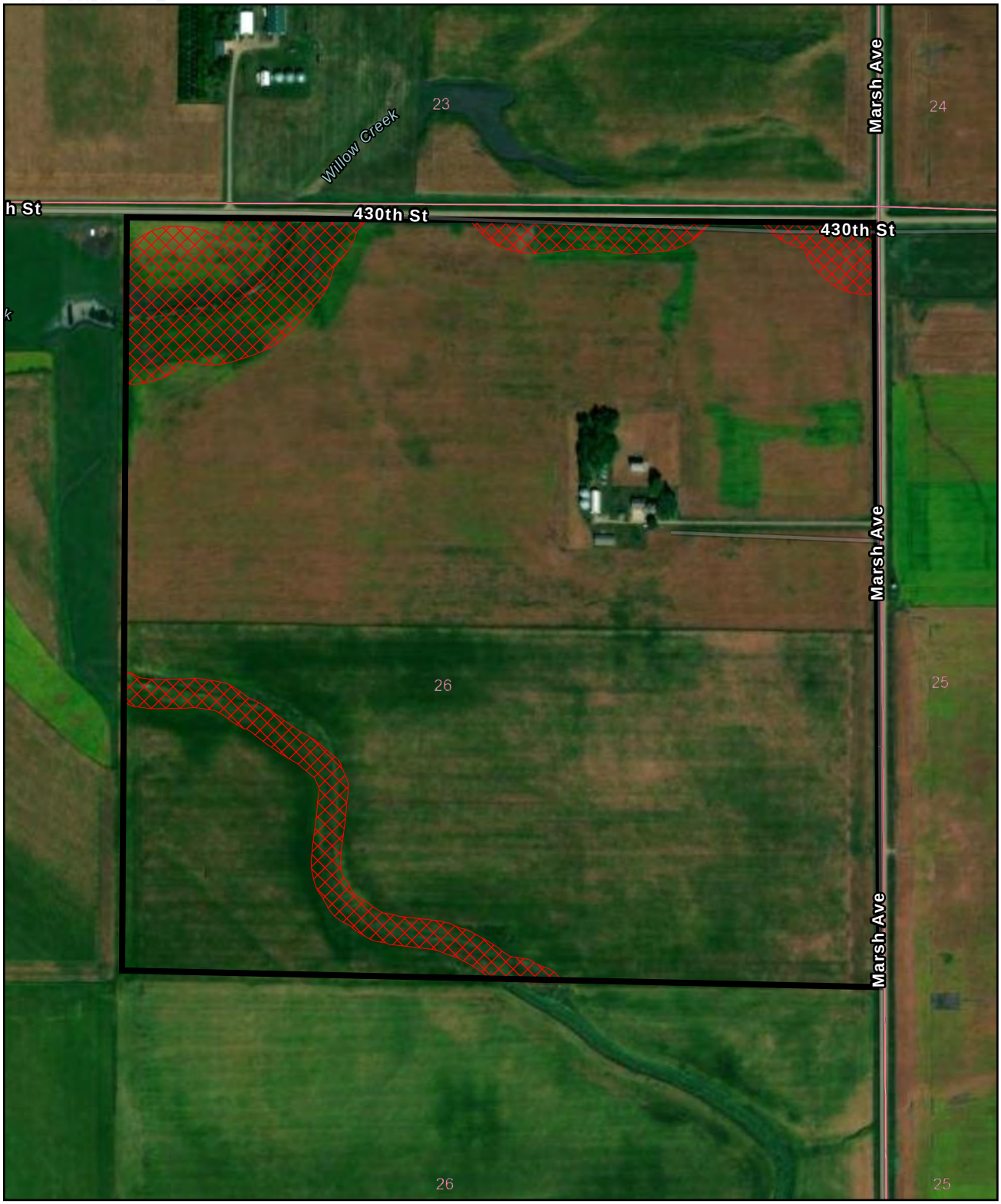
J Brothers Custom Phone: (712)261-3151 Spreadable Acres: 141 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1825



Unsuitable for Land Application

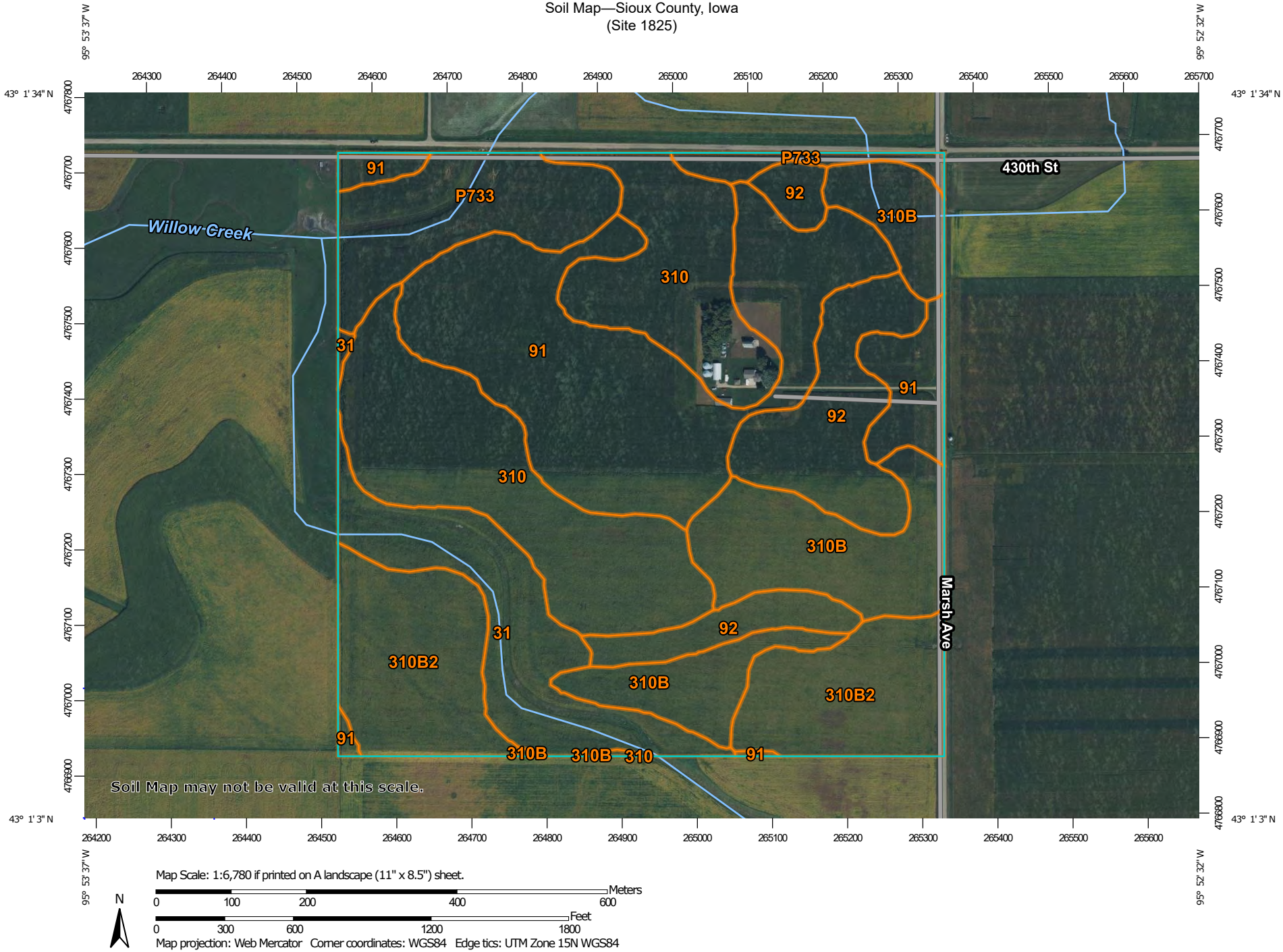
J Brothers Custom Phone: (712)261-3151 Gypsum Only

Permitted Acres: 141 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Sioux County, Iowa
(Site 1825)



Map Scale: 1:6,780 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	14.0	8.7%
91	Primghar silty clay loam, 0 to 2 percent slopes	37.8	23.6%
91B	Primghar silty clay loam, 2 to 5 percent slopes	0.1	0.1%
92	Marcus silty clay loam, 0 to 2 percent slopes	16.3	10.2%
310	Galva silty clay loam, 0 to 2 percent slopes	33.7	21.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	21.7	13.5%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	23.0	14.4%
P733	Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded	13.6	8.5%
Totals for Area of Interest		**160.2**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	5	14.0	8.7%
91	Primghar silty clay loam, 0 to 2 percent slopes	5	37.8	23.6%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	0.1	0.1%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	16.3	10.2%
310	Galva silty clay loam, 0 to 2 percent slopes	5	33.7	21.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	21.7	13.5%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5	23.0	14.4%
P733	Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded	5	13.6	8.5%
Totals for Area of Interest			**160.2**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	0	14.0	8.7%
91	Primghar silty clay loam, 0 to 2 percent slopes	30	37.8	23.6%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	0.1	0.1%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	16.3	10.2%
310	Galva silty clay loam, 0 to 2 percent slopes	>200	33.7	21.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	21.7	13.5%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	>200	23.0	14.4%
P733	Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded	0	13.6	8.5%
Totals for Area of Interest			**160.2**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

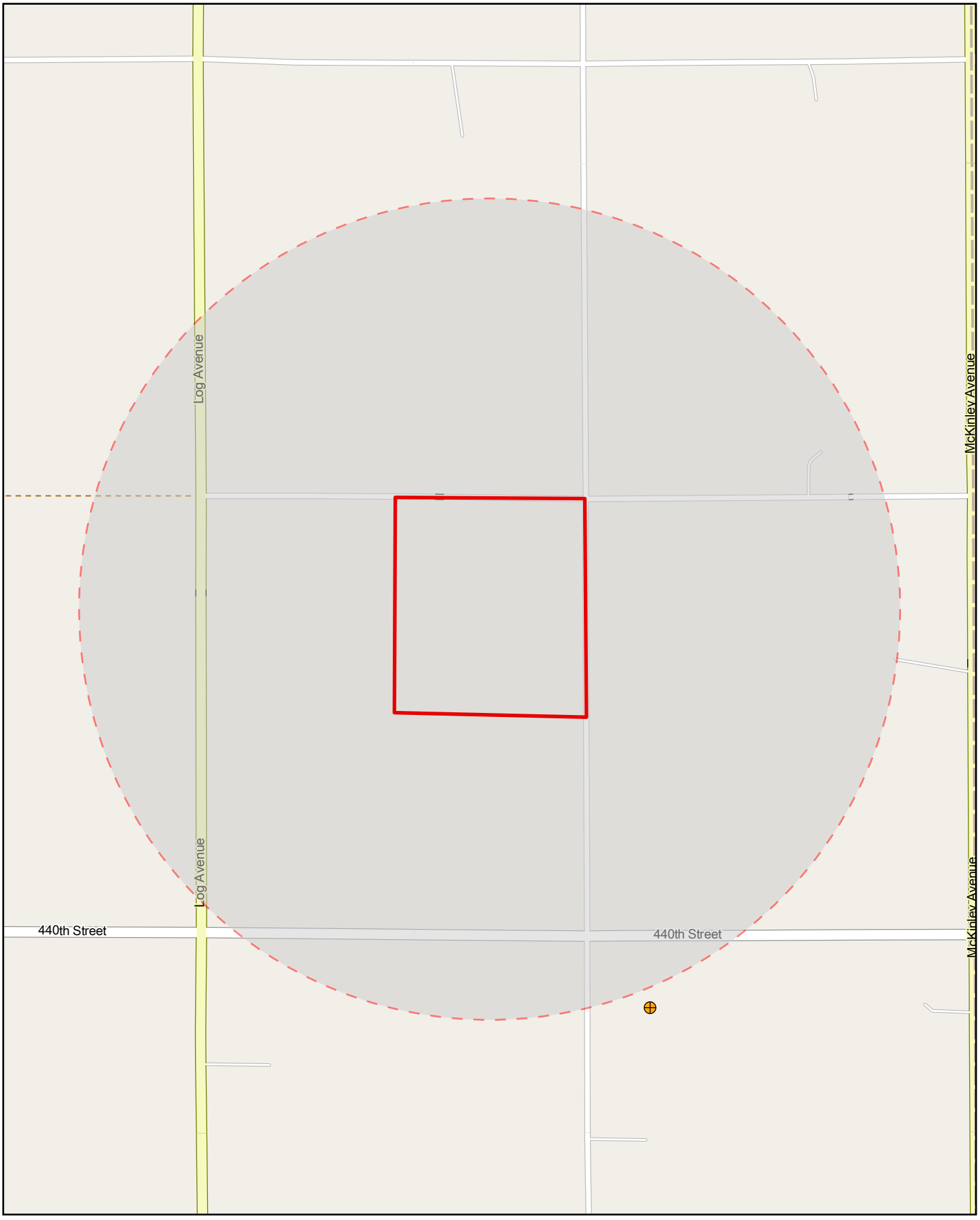
Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Site: 1825
Subject: XY UTM Coordinates: 15T 264942 4767297
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1826



Unsuitable for Land Application

J Brothers Custom Phone: (712)261-3151 Spreadable Acres: 356 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1826



Unsuitable for Land Application

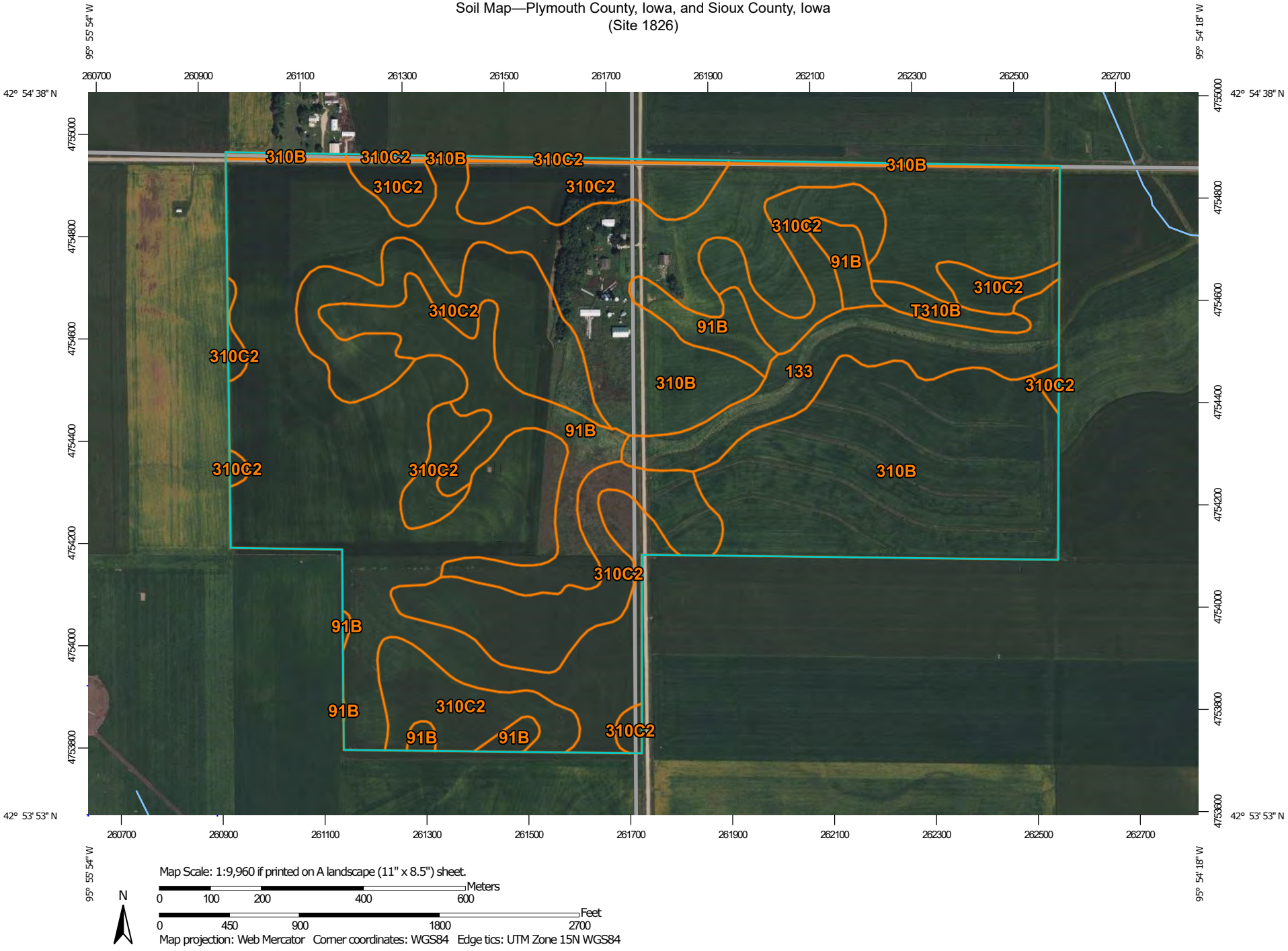
J Brothers Custom Phone: (712)261-3151 Gypsum Only

Permitted Acres: 356 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Plymouth County, Iowa, and Sioux County, Iowa
(Site 1826)



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
91B	Primghar silty clay loam, 2 to 5 percent slopes	32.4	8.8%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	21.3	5.8%
310B	Galva silty clay loam, 2 to 5 percent slopes	215.1	58.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	94.4	25.6%
T310B	Galva silty clay loam, terrace, 2 to 5 percent slopes	3.2	0.9%
Subtotals for Soil Survey Area		**366.4**	**99.2%**
Totals for Area of Interest		**369.5**	**100.0%**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
310B	Galva silty clay loam, 2 to 5 percent slopes	1.7	0.5%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	1.4	0.4%
Subtotals for Soil Survey Area		**3.0**	**0.8%**
Totals for Area of Interest		**369.5**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	32.4	8.8%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	21.3	5.8%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	215.1	58.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	94.4	25.6%
T310B	Galva silty clay loam, terrace, 2 to 5 percent slopes	5	3.2	0.9%
Subtotals for Soil Survey Area			**366.4**	**99.2%**
Totals for Area of Interest			**369.5**	**100.0%**

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
310B	Galva silty clay loam, 2 to 5 percent slopes	5	1.7	0.5%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	1.4	0.4%
Subtotals for Soil Survey Area			**3.0**	**0.8%**
Totals for Area of Interest			**369.5**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	32.4	8.8%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	21.3	5.8%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	215.1	58.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	94.4	25.6%
T310B	Galva silty clay loam, terrace, 2 to 5 percent slopes	>200	3.2	0.9%
Subtotals for Soil Survey Area			**366.4**	**99.2%**
Totals for Area of Interest			**369.5**	**100.0%**

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	1.7	0.5%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	1.4	0.4%
Subtotals for Soil Survey Area			**3.0**	**0.8%**
Totals for Area of Interest			**369.5**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Well Search Report Site: 1824

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
233088	84122	T94N, R43W, 33, SW SW SW	Calc. +/- 470 ft.	536	1/19/2005	Tentinger, Chad
259621	101091	T94N, R43W, 30, SW SW SW	GPS	560	8/7/2023	Tentinger, Chad

Statistics: IGS Well Database

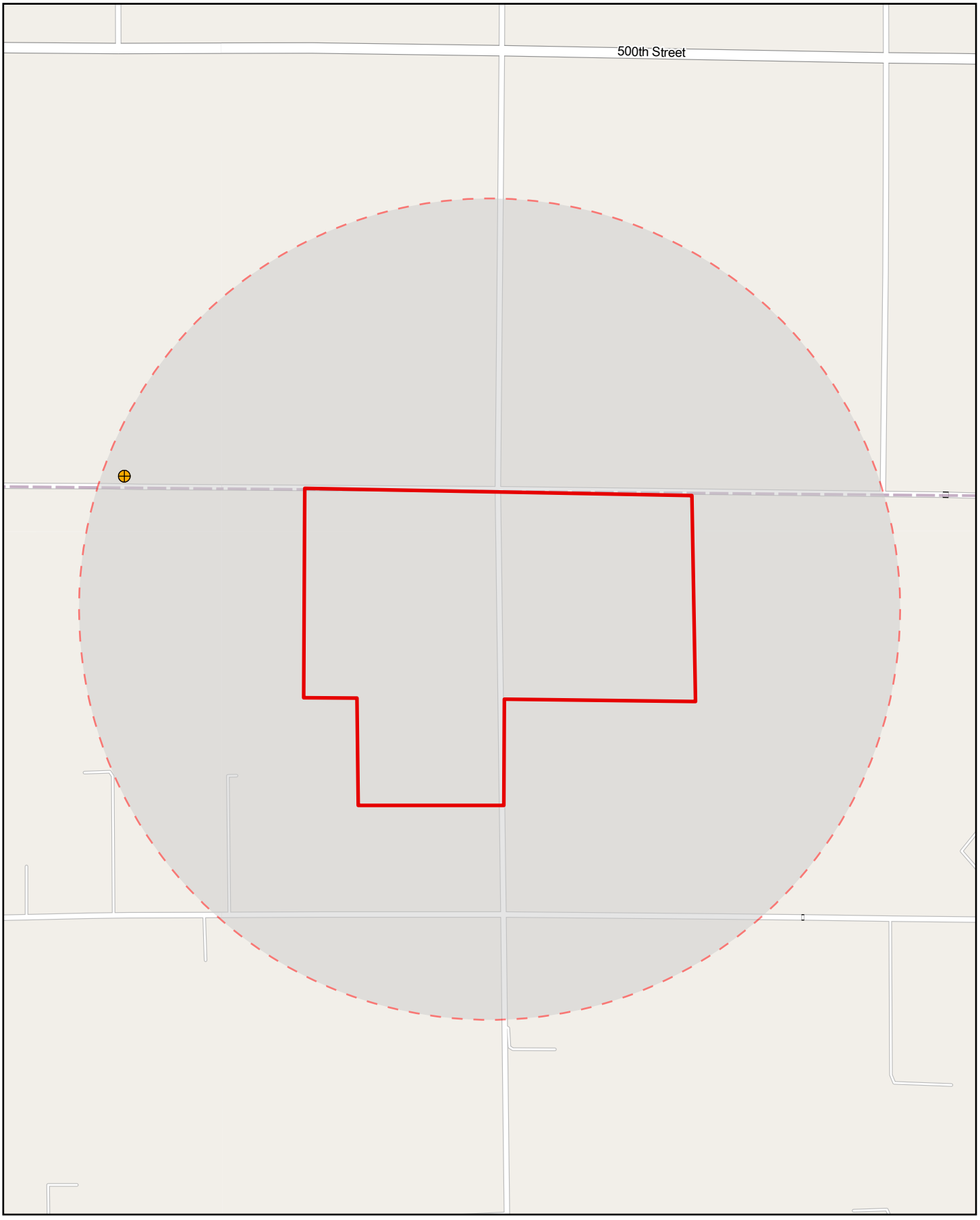
Count: 2

Report Totals

Count: 2

Date Exported: 5/12/2026 10:00 AM

Site: 1826
Subject: XY UTM Coordinates: 15T 261711 4754463
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1827



Unsuitable for Land Application

J Brothers Custom Phone: (712)261-3151 Spreadable Acres: 187 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1827



Unsuitable for Land Application

J Brothers Custom Phone: (712)261-3151 Gypsum Only

Permitted Acres: 187 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—O'Brien County, Iowa, and Sioux County, Iowa
(Site 1827)



Map Scale: 1:8,830 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 100 200 400 600

Feet
0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	0.0	0.0%
77B	Sac silty clay loam, loam substratum, 2 to 5 percent slopes	0.0	0.0%
91B	Primghar silty clay loam, 2 to 5 percent slopes	0.1	0.0%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0.0	0.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	0.0	0.0%
Subtotals for Soil Survey Area		**0.2**	**0.1%**
Totals for Area of Interest		**223.3**	**100.0%**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	14.3	6.4%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	0.8	0.4%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	3.7	1.6%
91	Primghar silty clay loam, 0 to 2 percent slopes	10.9	4.9%
91B	Primghar silty clay loam, 2 to 5 percent slopes	27.2	12.2%
92	Marcus silty clay loam, 0 to 2 percent slopes	7.3	3.3%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	37.2	16.7%
310	Galva silty clay loam, 0 to 2 percent slopes	5.2	2.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	58.6	26.3%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	57.9	25.9%
Subtotals for Soil Survey Area		**223.1**	**99.9%**
Totals for Area of Interest		**223.3**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	5	0.0	0.0%
77B	Sac silty clay loam, loam substratum, 2 to 5 percent slopes	5	0.0	0.0%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	0.1	0.0%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	0.0	0.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	0.0	0.0%
Subtotals for Soil Survey Area			**0.2**	**0.1%**
Totals for Area of Interest			**223.3**	**100.0%**

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	5	14.3	6.4%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	5	0.8	0.4%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	5	3.7	1.6%
91	Primghar silty clay loam, 0 to 2 percent slopes	5	10.9	4.9%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	27.2	12.2%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	7.3	3.3%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	37.2	16.7%
310	Galva silty clay loam, 0 to 2 percent slopes	5	5.2	2.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	58.6	26.3%

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5	57.9	25.9%
Subtotals for Soil Survey Area			**223.1**	**99.9%**
Totals for Area of Interest			**223.3**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	0	0.0	0.0%
77B	Sac silty clay loam, loam substratum, 2 to 5 percent slopes	122	0.0	0.0%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	0.1	0.0%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	0.0	0.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	0.0	0.0%
Subtotals for Soil Survey Area			**0.2**	**0.1%**
Totals for Area of Interest			**223.3**	**100.0%**

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	0	14.3	6.4%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	122	0.8	0.4%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	122	3.7	1.6%
91	Primghar silty clay loam, 0 to 2 percent slopes	30	10.9	4.9%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	27.2	12.2%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	7.3	3.3%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	37.2	16.7%
310	Galva silty clay loam, 0 to 2 percent slopes	>200	5.2	2.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	58.6	26.3%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	>200	57.9	25.9%

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
Subtotals for Soil Survey Area			**223.1**	**99.9%**
Totals for Area of Interest			**223.3**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1826

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
225644	54205	T94N, R43W, 24, NW NW NW	Calc. +/- 470 ft.	487	6/22/2001	Plathe, Randy
226405	84112	T94N, R43W, 24, SW SW SE	Calc. +/- 470 ft.	540	10/10/2001	Deatsma, Rick

Statistics: IGS Well Database

Count: 2

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
1992	28527	T94N, R43W, Sec. 24, NW, NW, NW	Calc. +/- 140m.	500	unkn	Plethe, Randy

Statistics: Permitted private wells

Count: 1

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
2030	39481	T94N, R43W, Sec. 24, NW, SW, NE	Calc. +/- 140m.	15	n.a.	Plathe, Mark
2112	8258	T94N, R43W, Sec. 24, NE, SE, NE	Calc. +/- 140m.	unkn	n.a.	Hakeman, Don

Statistics: Registered abandoned wells

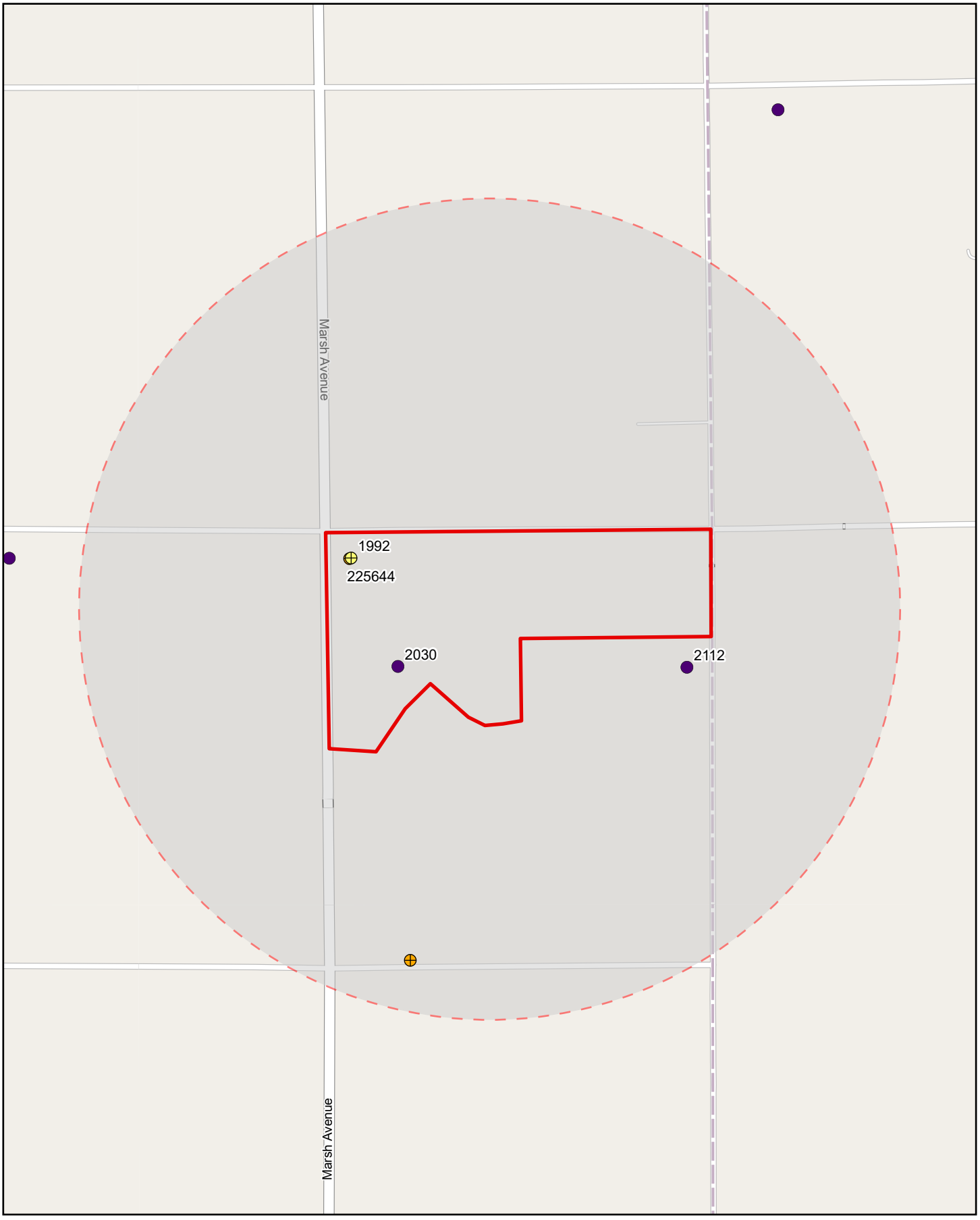
Count: 2

Report Totals

Count: 5

Date Exported: 5/12/2026 10:05 AM

Site: 1827
Subject: XY UTM Coordinates: 15T 265816 4759276
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1828



Unsuitable for Land Application

Paul Wilkins Phone: (712)261-3151 Spreadable Acres: 275 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1828



Unsuitable for Land Application

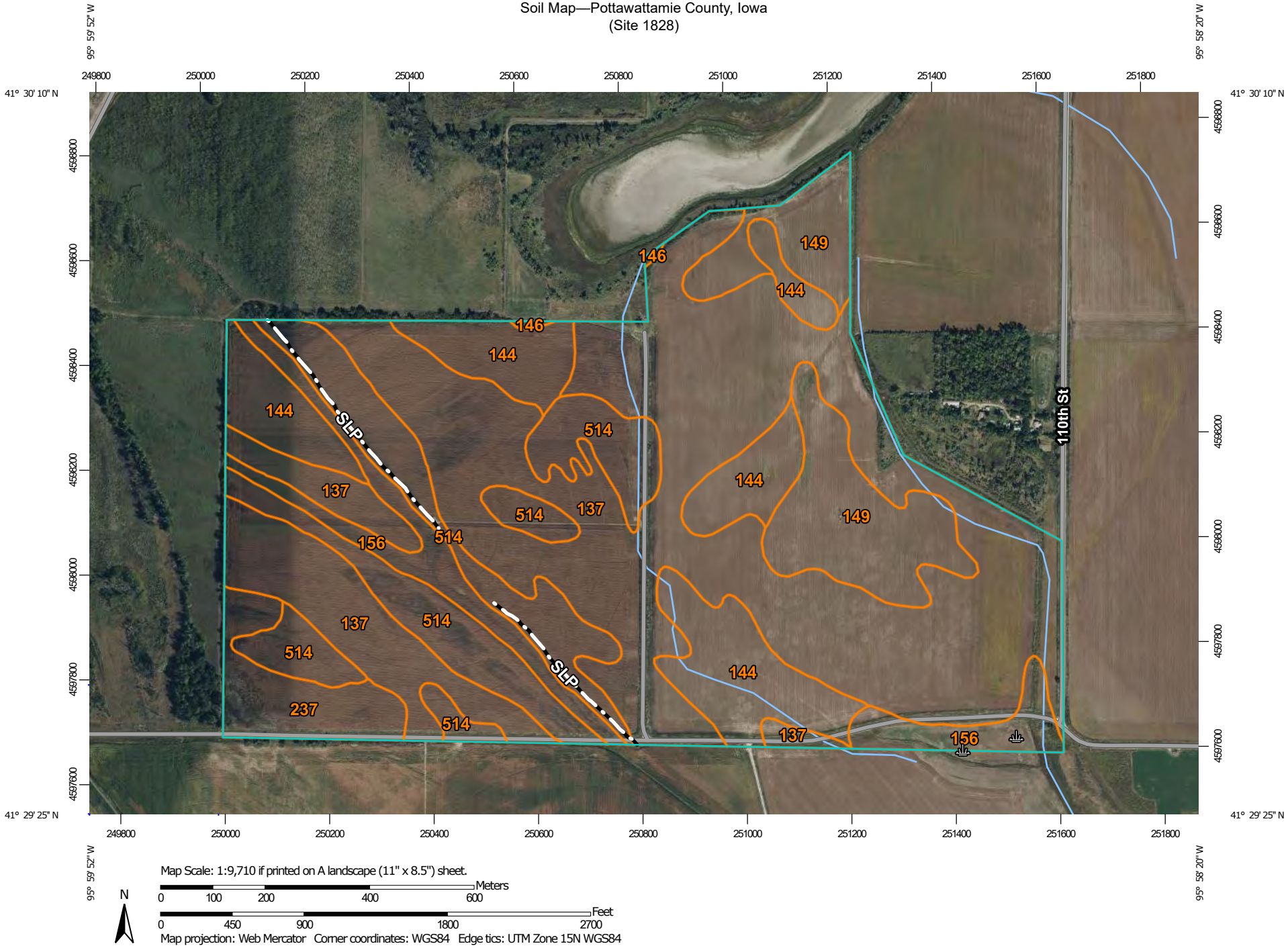
Paul Wilkins Phone: (712)261-3151 Gypsum Only

Permitted Acres: 275 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Pottawattamie County, Iowa
(Site 1828)



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
137	Haynie silt loam, 0 to 2 percent slopes, occasionally flooded	157.1	50.0%
144	Blake silty clay loam, 0 to 2 percent slopes	43.7	13.9%
146	Onawa silty clay, 0 to 2 percent slopes	0.3	0.1%
149	Modale silt loam, 0 to 2 percent slopes	31.3	9.9%
156	Albaton silty clay, 0 to 2 percent slopes, occasionally flooded	19.6	6.2%
237	Sarpy loamy fine sand, 0 to 3 percent slopes	12.4	3.9%
514	Grable silt loam, 0 to 2 percent slopes	49.9	15.9%
Totals for Area of Interest		**314.3**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
137	Haynie silt loam, 0 to 2 percent slopes, occasionally flooded	5	157.1	50.0%
144	Blake silty clay loam, 0 to 2 percent slopes	5	43.7	13.9%
146	Onawa silty clay, 0 to 2 percent slopes	5	0.3	0.1%
149	Modale silt loam, 0 to 2 percent slopes	4	31.3	9.9%
156	Albaton silty clay, 0 to 2 percent slopes, occasionally flooded	5	19.6	6.2%
237	Sarpy loamy fine sand, 0 to 3 percent slopes	5	12.4	3.9%
514	Grable silt loam, 0 to 2 percent slopes	3	49.9	15.9%
Totals for Area of Interest			**314.3**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
137	Haynie silt loam, 0 to 2 percent slopes, occasionally flooded	152	157.1	50.0%
144	Blake silty clay loam, 0 to 2 percent slopes	30	43.7	13.9%
146	Onawa silty clay, 0 to 2 percent slopes	30	0.3	0.1%
149	Modale silt loam, 0 to 2 percent slopes	122	31.3	9.9%
156	Albaton silty clay, 0 to 2 percent slopes, occasionally flooded	0	19.6	6.2%
237	Sarpy loamy fine sand, 0 to 3 percent slopes	>200	12.4	3.9%
514	Grable silt loam, 0 to 2 percent slopes	>200	49.9	15.9%
Totals for Area of Interest			**314.3**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1828

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
201318	29284	T77N, R45W, 11, NE SW	Calc. +/- 930 ft.	101	12/23/1980	Nolan Desoto Farms
201319	29285	T77N, R45W, 2, SW	Calc. +/- 1870 ft.	110	12/23/1980	Nolan Desoto Farms
203622	50164	T77N, R45W, 1, SW SW NE NE NE	Calc. +/- 115 ft.	79	1/1/1985	Martens, Harold & Rozella
237868	63931	T77N, R45W, 11, NW NE SW SE SW	Unknown	101	4/10/2007	Nolan Farms Inc.

Statistics: IGS Well Database

Count: 4

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
34157	274	T77N, R45W, Sec. 1, SW, SE, SW	Calc. +/- 285m.	200	unkn	Unknown
34166	14185	T77N, R45W, Sec. 1, SW, SE, SE	Calc. +/- 285m.	200	9/26/1988	Unknown

Statistics: Permitted private wells

Count: 2

Public Water Supply Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
445078	2412028					DESOTO BEND SOUTH BEACH WELL

Statistics: Public Water Supply Wells

Count: 1

Water Use Permit Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
454478	4671	8NR45WS3	nom. +/-100m	100		Rockford Farms Inc (COREY MCINTOSH)
454494	50	7NR45WS0	nom. +/-100m	79		ROBERT MARTENS

Statistics: Water Use Permit Wells

Count: 2

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
33983	59444	T77N, R45W, Sec. 1, SE, NW, NW	Calc. +/- 1135m.	270	unkn	Turner, Howard

Statistics: Wells registered for testing

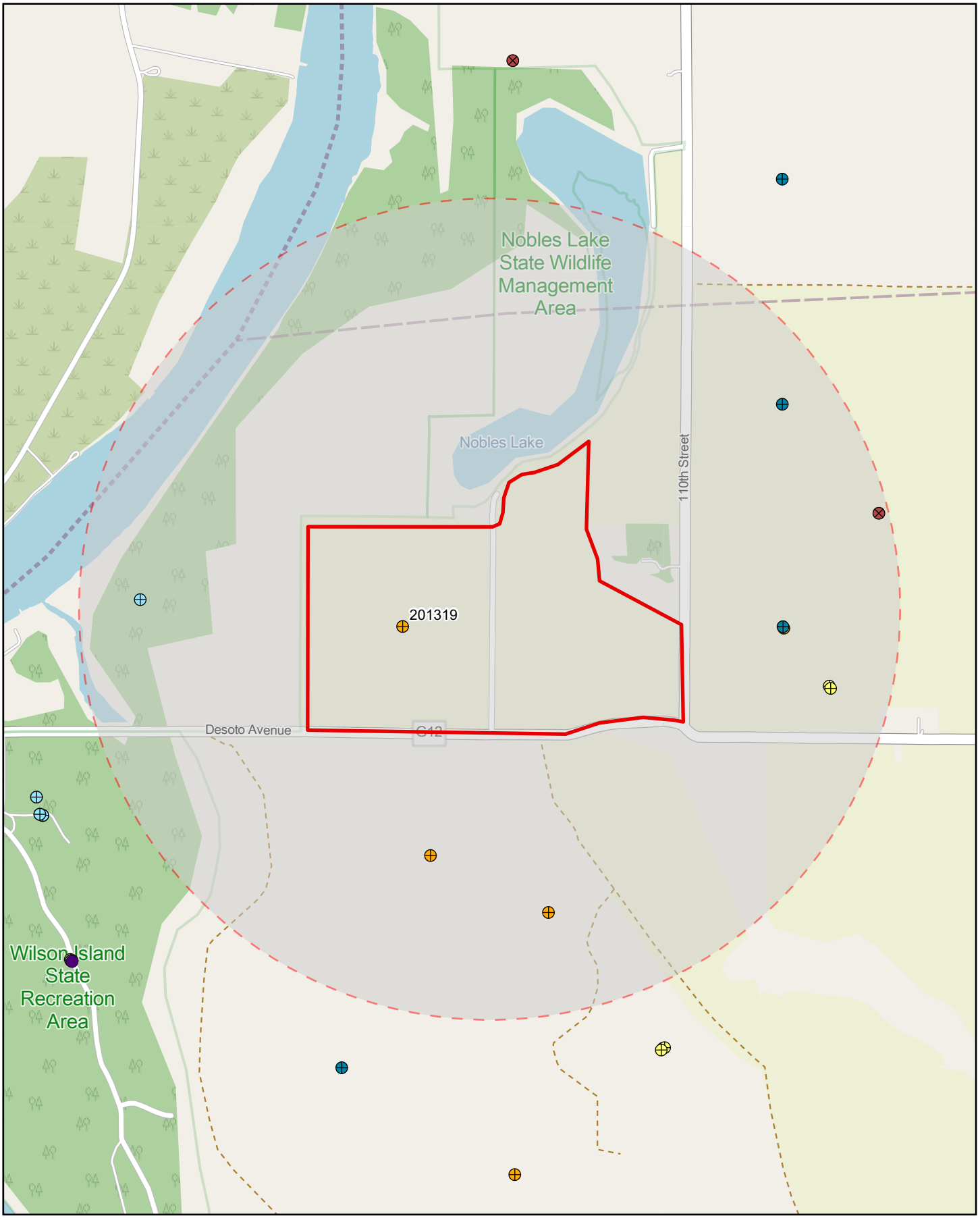
Count: 1

Report Totals

Count: 10

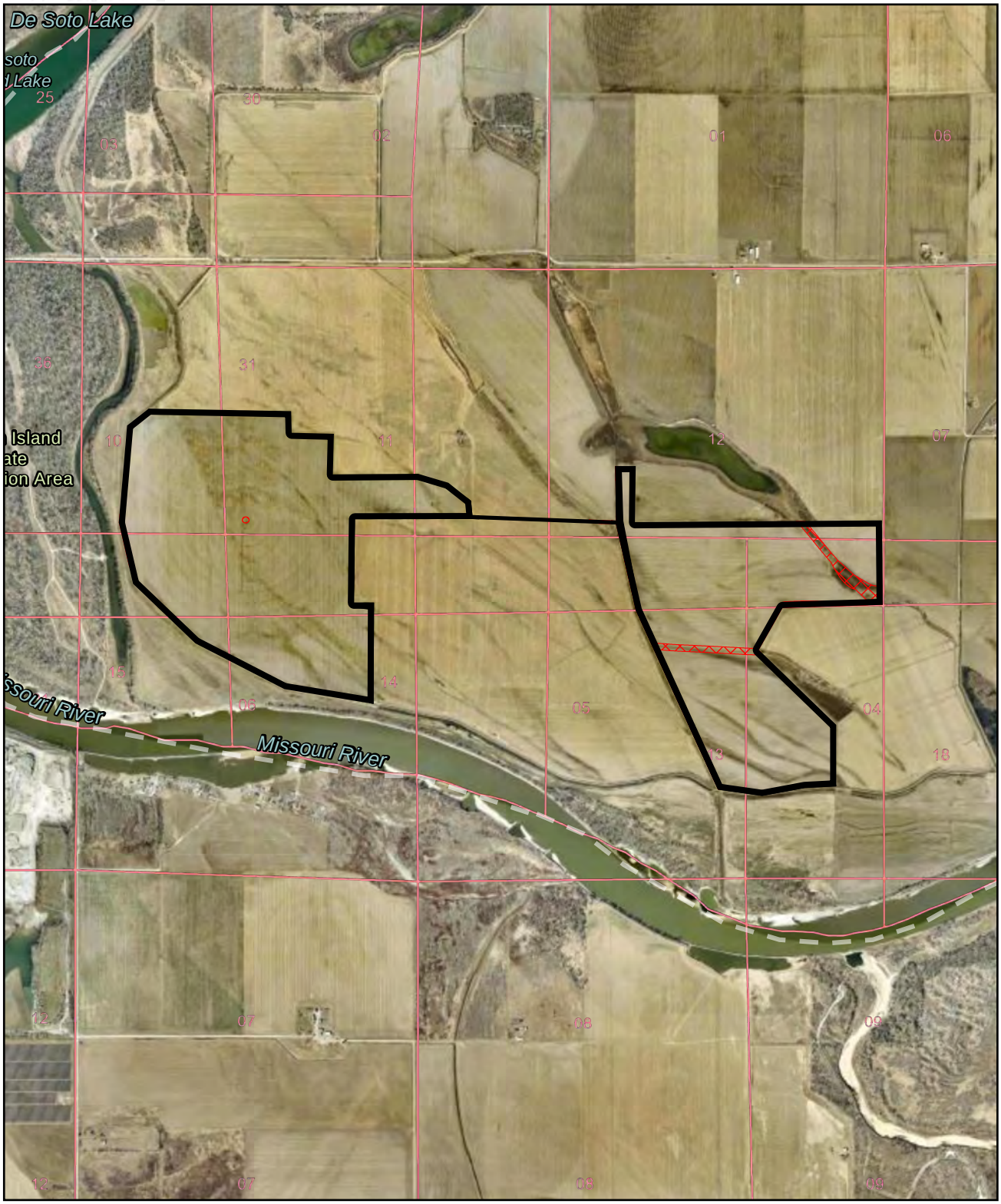
Date Exported: 5/12/2026 10:09 AM

Site: 1828
Subject: XY UTM Coordinates: 15T 250813 4598108
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1829



Unsuitable for Land Application

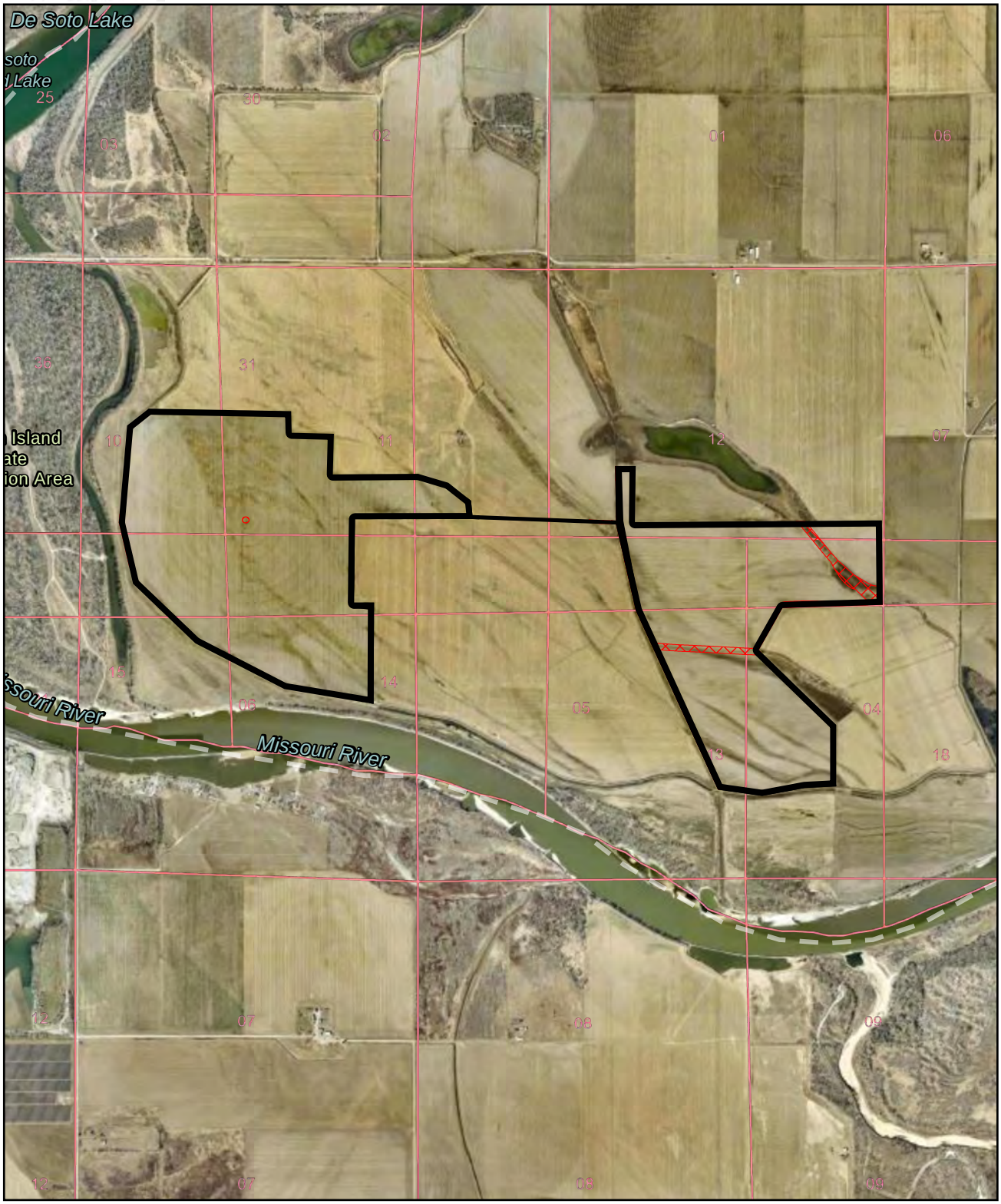
Paul Wilkins Phone: (712)261-3151 Spreadable Acres: 583 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1829



Unsuitable for Land Application

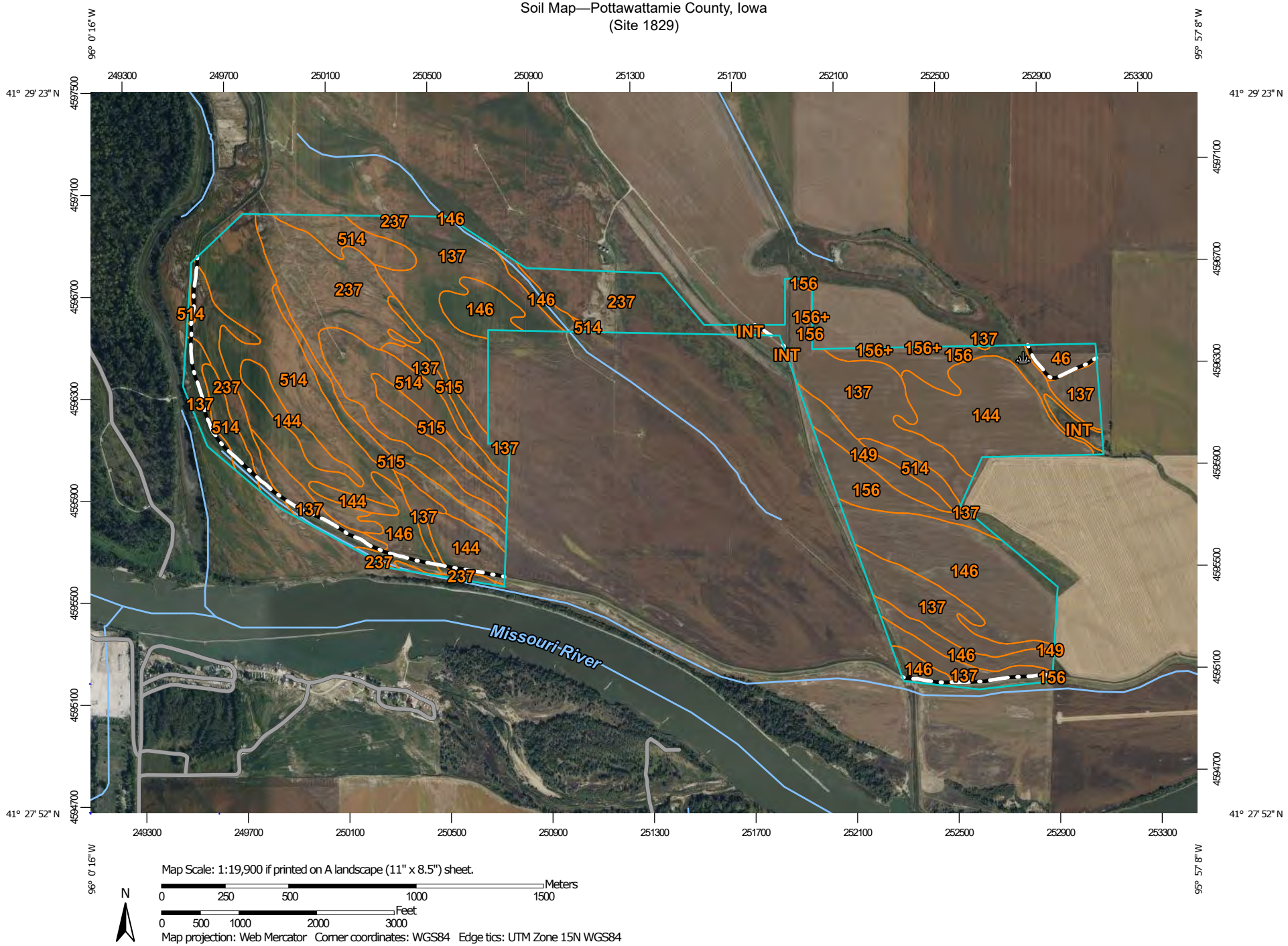
Paul Wilkins Phone: (712)261-3151 Gypsum Only

Permitted Acres: 583 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Pottawattamie County, Iowa
(Site 1829)



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
46	Keg silt loam, 0 to 2 percent slopes	7.0	1.0%
137	Haynie silt loam, 0 to 2 percent slopes, occasionally flooded	170.5	24.9%
144	Blake silty clay loam, 0 to 2 percent slopes	74.3	10.9%
146	Onawa silty clay, 0 to 2 percent slopes	101.1	14.8%
149	Modale silt loam, 0 to 2 percent slopes	12.6	1.8%
156	Albaton silty clay, 0 to 2 percent slopes, occasionally flooded	36.2	5.3%
156+	Albaton silt loam, 0 to 2 percent slopes, overwash, occasionally flooded	0.6	0.1%
237	Sarpy loamy fine sand, 0 to 3 percent slopes	106.4	15.6%
514	Grable silt loam, 0 to 2 percent slopes	137.0	20.0%
515	Percival silty clay, 0 to 2 percent slopes	34.2	5.0%
INT	Intermittent water	4.2	0.6%
Totals for Area of Interest		**684.2**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
46	Keg silt loam, 0 to 2 percent slopes	5	7.0	1.0%
137	Haynie silt loam, 0 to 2 percent slopes, occasionally flooded	5	170.5	24.9%
144	Blake silty clay loam, 0 to 2 percent slopes	5	74.3	10.9%
146	Onawa silty clay, 0 to 2 percent slopes	5	101.1	14.8%
149	Modale silt loam, 0 to 2 percent slopes	4	12.6	1.8%
156	Albaton silty clay, 0 to 2 percent slopes, occasionally flooded	5	36.2	5.3%
156+	Albaton silt loam, 0 to 2 percent slopes, overwash, occasionally flooded	3	0.6	0.1%
237	Sarpy loamy fine sand, 0 to 3 percent slopes	5	106.4	15.6%
514	Grable silt loam, 0 to 2 percent slopes	3	137.0	20.0%
515	Percival silty clay, 0 to 2 percent slopes	3	34.2	5.0%
INT	Intermittent water		4.2	0.6%
Totals for Area of Interest			**684.2**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
46	Keg silt loam, 0 to 2 percent slopes	>200	7.0	1.0%
137	Haynie silt loam, 0 to 2 percent slopes, occasionally flooded	152	170.5	24.9%
144	Blake silty clay loam, 0 to 2 percent slopes	30	74.3	10.9%
146	Onawa silty clay, 0 to 2 percent slopes	30	101.1	14.8%
149	Modale silt loam, 0 to 2 percent slopes	122	12.6	1.8%
156	Albaton silty clay, 0 to 2 percent slopes, occasionally flooded	0	36.2	5.3%
156+	Albaton silt loam, 0 to 2 percent slopes, overwash, occasionally flooded	0	0.6	0.1%
237	Sarpy loamy fine sand, 0 to 3 percent slopes	>200	106.4	15.6%
514	Grable silt loam, 0 to 2 percent slopes	>200	137.0	20.0%
515	Percival silty clay, 0 to 2 percent slopes	30	34.2	5.0%
INT	Intermittent water	>200	4.2	0.6%
Totals for Area of Interest			**684.2**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Well Search Report Site: 1839

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
183796	13205	T77N, R45W, 10,	Calc. +/- 3730 ft.	82	1/31/1962	Iowa Conservation Commission
201317	29283	T77N, R45W, 11, SE SW SW SW	Calc. +/- 230 ft.	81	12/23/1980	Nolan Desoto Farms
201318	29284	T77N, R45W, 11, NE SW	Calc. +/- 930 ft.	101	12/23/1980	Nolan Desoto Farms
201319	29285	T77N, R45W, 2, SW	Calc. +/- 1870 ft.	110	12/23/1980	Nolan Desoto Farms
203622	50164	T77N, R45W, 1, SW SW NE NE NE	Calc. +/- 115 ft.	79	1/1/1985	Martens, Harold & Rozella
211829	36669	T77N, R45W, 11, SE NE SE	Calc. +/- 470 ft.	92	6/28/1995	Desoto Farms
222702	53600	T77N, R44W, 7, NW SE	Calc. +/- 930 ft.	86	3/12/2000	Campbell, Dave
237868	63931	T77N, R45W, 11, NW NE SW SE SW	Unknown	101	4/10/2007	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Nolan Farms Inc.

Statistics: IGS Well Database

Count: 8

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
34157	274	T77N, R45W, Sec. 1, SW, SE, SW	Calc. +/- 285m.	200	unkn	Unknown
34166	14185	T77N, R45W, Sec. 1, SW, SE, SE	Calc. +/- 285m.	200	9/26/1988	Unknown
34282	14371	T77N, R45W, Sec. 10	Calc. +/- 285m.	90	unkn	Unknown
34289	541	T77N, R45W, Sec. 10	Calc. +/- 285m.	90	unkn	Iowa (Dnr), State Of
34590	2431	T77N, R45W, Sec. 11, SE, NE, SE	Calc. +/- 140m.	110	unkn	Desoto Farm
34595	18391	T77N, R45W, Sec. 11, SE, NE, SE	Calc. +/- 140m.	110	unkn	Unknown
34599	328	T77N, R44W, Sec. 7, NW, SE, NW	Calc. +/- 285m.	85	unkn	Campbell, Roy
34602	14237	T77N, R44W, Sec. 7, NW, SE, SW	Calc. +/- 285m.	85	10/06/1988	

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Unknown
34631	26455	T77N, R44W, Sec. 7, NW, SE, SW	Calc. +/- 140m.	90	2/29/2000	Campbell

Statistics: Permitted private wells

Count: 9

Public Water Supply Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
443953	2410895					WILSON ISLAND STATE REC AREA
445261	2412212					WILSON ISLAND STATE REC AREA

Statistics: Public Water Supply Wells

Count: 2

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
34293	23217	T77N, R45W, Sec. 10	Calc. +/- 570m.	28	n.a.	Dnr, State Of Iowa

Statistics: Registered abandoned wells

Count: 1

Water Use Permit Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
454494	50	7NR45WS0	nom. +/-100m	79		ROBERT MARTENS
454504	28769	7NR45WS1	nom. +/-100m	90	1/1/1976	OTTO PROPERTY (DONALD BROTHERS)
454517	30866	7NR45WS1	nom. +/-100m	80		Wilkins Family Farms LLC (Paul Wilkins)

Statistics: Water Use Permit Wells

Count: 3

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
3679	25570	T93N, R41W, Sec. 33, SW, SE, NE	Calc. +/- 140m.	604	unkn	Rose, Bill
3818	67680	T93N, R41W, Sec. 34, SW, SE, NE	Calc. +/- 285m.	18	1936	Johnson, Elmer
3892	8040	T93N, R41W, Sec. 35, SW, SW, SW	Calc. +/- 285m.	39	1991	Lamont, Wilmer
3893	9583	T93N, R41W, Sec. 35, SW, SW, NE	Calc. +/- 285m.	39	1991	Lamont, Wilmer
3894	30868	T93N, R41W, Sec. 35, SW, SW, NE	Calc. +/- 285m.	39	unkn	Lamont, Wilmer
33983	59444	T77N, R45W, Sec. 1, SE, NW, NW	Calc. +/- 1135m.	270	unkn	Turner, Howard

Statistics: Wells registered for testing

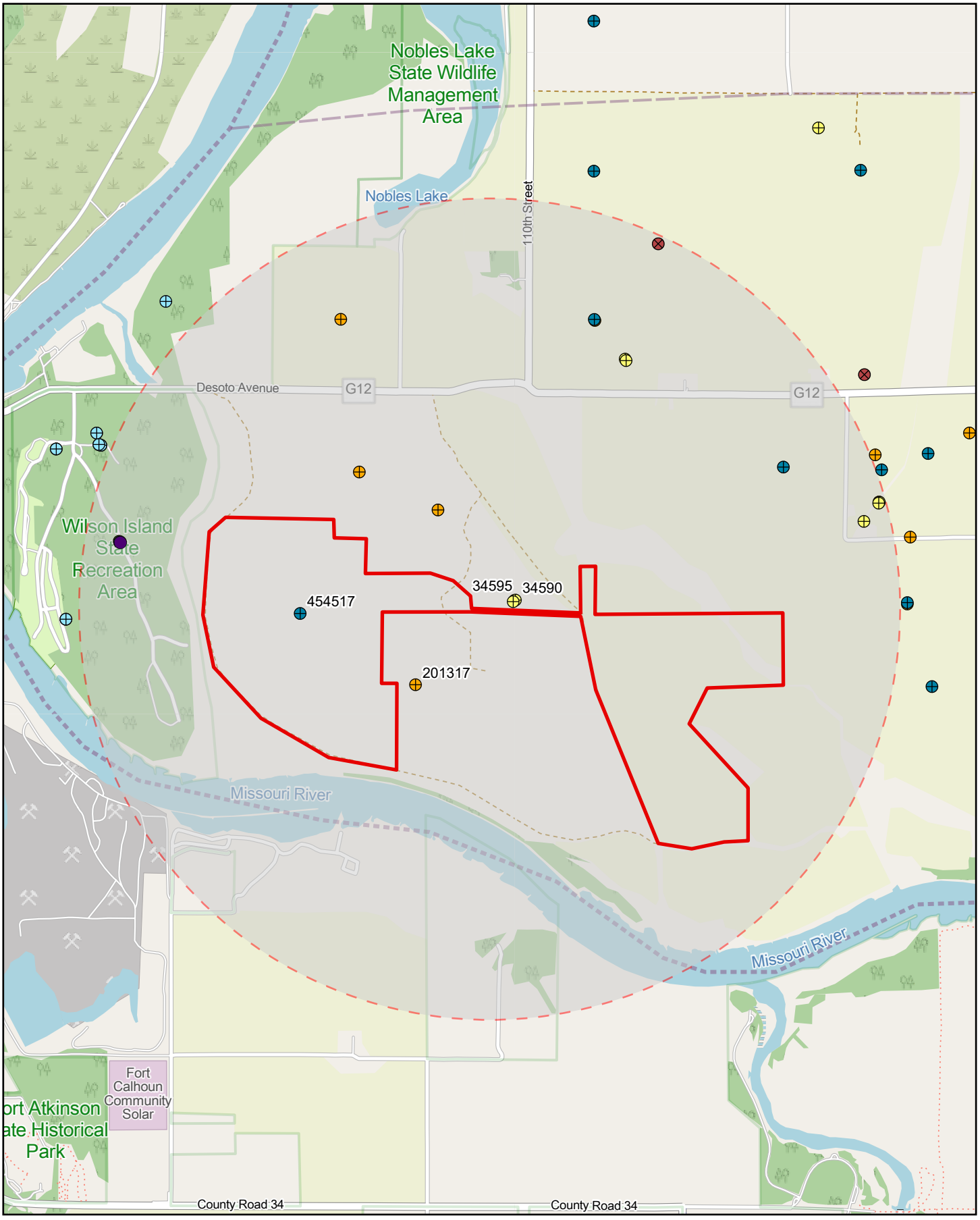
Count: 6

Report Totals

Count: 29

Date Exported: 5/13/2026 8:11 AM

Site: 1829
Subject: XY UTM Coordinates: 15T 251323 4596423
Search Radius (miles): 1.5



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1830



Unsuitable for Land Application

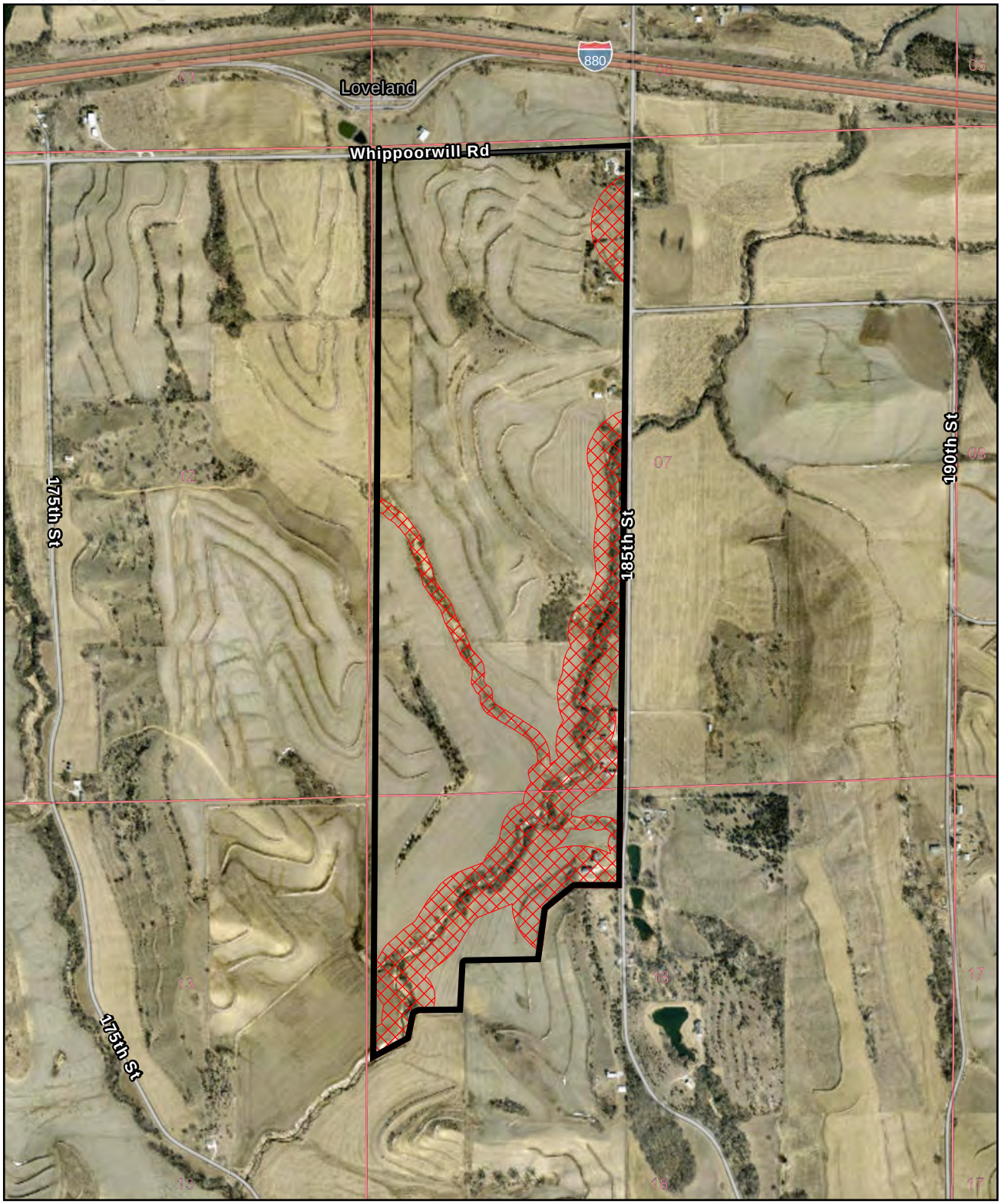
Paul Wilkins Phone: (712)261-3151 Spreadable Acres: 132 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1830



Unsuitable for Land Application

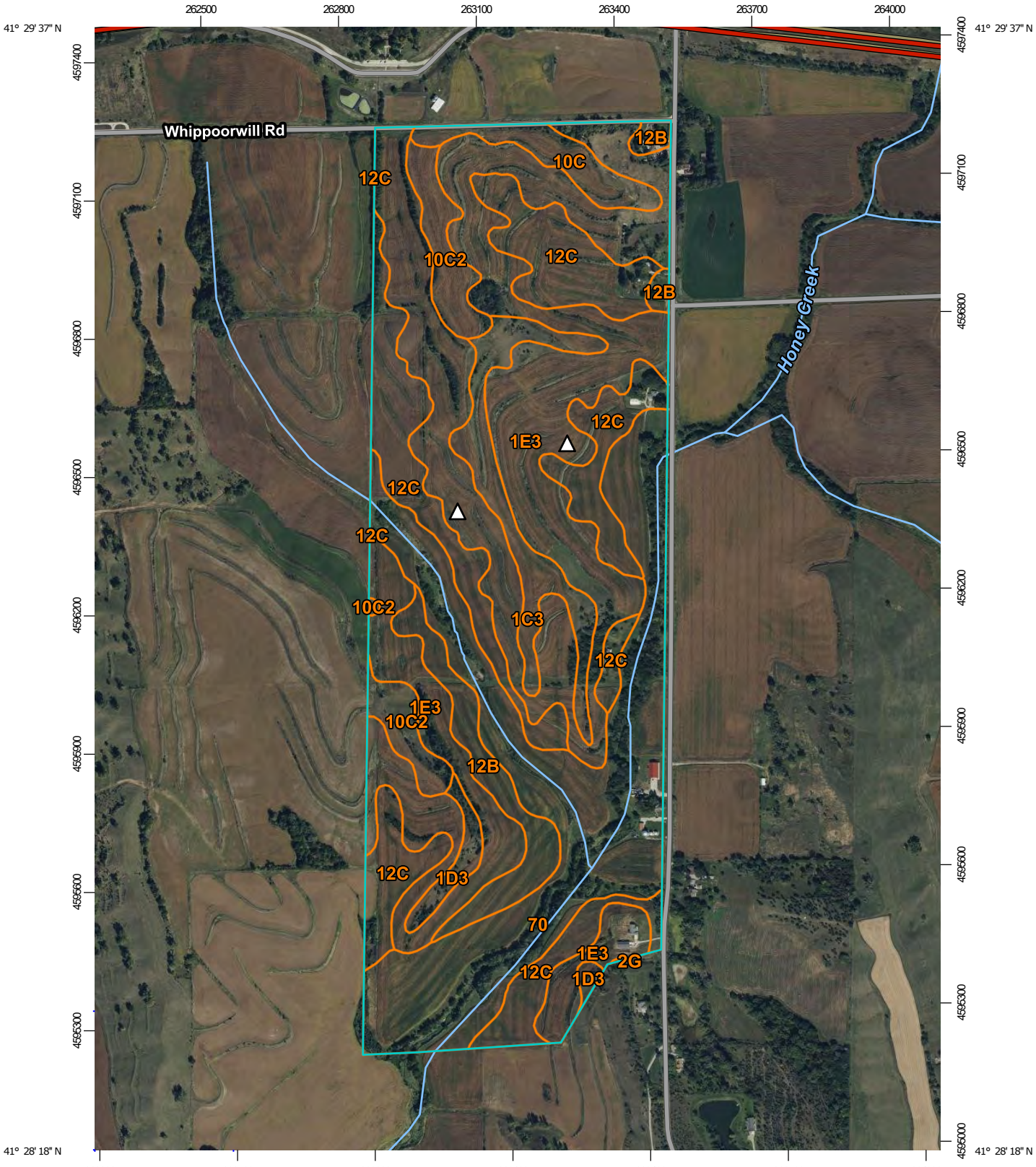
Paul Wilkins Phone: (712)261-3151 Gypsum Only

Permitted Acres: 132 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Pottawattamie County, Iowa
(Site 1830)



Map Scale: 1:11,900 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 150 300 600 900

Feet
0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1C3	Ida silt loam, 5 to 9 percent slopes, severely eroded	16.1	5.1%
1D3	Ida silt loam, 9 to 14 percent slopes, severely eroded	4.3	1.4%
1E3	Ida silt loam, 14 to 20 percent slopes, severely eroded	121.5	38.8%
2G	Hamburg silt loam, 40 to 75 percent slopes	0.0	0.0%
10C	Monona silt loam, 5 to 9 percent slopes	7.8	2.5%
10C2	Monona silt loam, 5 to 9 percent slopes, eroded	13.0	4.2%
12B	Napier silt loam, 2 to 5 percent slopes	14.7	4.7%
12C	Napier silt loam, 5 to 9 percent slopes	60.9	19.4%
70	McPaul silt loam, 0 to 2 percent slopes	74.9	23.9%
Totals for Area of Interest		**313.2**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
1C3	Ida silt loam, 5 to 9 percent slopes, severely eroded	4	16.1	5.1%
1D3	Ida silt loam, 9 to 14 percent slopes, severely eroded	4	4.3	1.4%
1E3	Ida silt loam, 14 to 20 percent slopes, severely eroded	4	121.5	38.8%
2G	Hamburg silt loam, 40 to 75 percent slopes	5	0.0	0.0%
10C	Monona silt loam, 5 to 9 percent slopes	5	7.8	2.5%
10C2	Monona silt loam, 5 to 9 percent slopes, eroded	5	13.0	4.2%
12B	Napier silt loam, 2 to 5 percent slopes	5	14.7	4.7%
12C	Napier silt loam, 5 to 9 percent slopes	5	60.9	19.4%
70	McPaul silt loam, 0 to 2 percent slopes	5	74.9	23.9%
Totals for Area of Interest			**313.2**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
1C3	Ida silt loam, 5 to 9 percent slopes, severely eroded	>200	16.1	5.1%
1D3	Ida silt loam, 9 to 14 percent slopes, severely eroded	>200	4.3	1.4%
1E3	Ida silt loam, 14 to 20 percent slopes, severely eroded	>200	121.5	38.8%
2G	Hamburg silt loam, 40 to 75 percent slopes	>200	0.0	0.0%
10C	Monona silt loam, 5 to 9 percent slopes	>200	7.8	2.5%
10C2	Monona silt loam, 5 to 9 percent slopes, eroded	>200	13.0	4.2%
12B	Napier silt loam, 2 to 5 percent slopes	>200	14.7	4.7%
12C	Napier silt loam, 5 to 9 percent slopes	>200	60.9	19.4%
70	McPaul silt loam, 0 to 2 percent slopes	30	74.9	23.9%
Totals for Area of Interest			**313.2**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Well Search Report Site: 1830

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
190309	39337	T77N, R43W, 6, SW SW SW	Maps/Air Photos +/- 20 m.	267	7/27/1967	Dot-4(I-680 Ra 023S Loveland)

Statistics: IGS Well Database

Count: 1

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
35219	14490	T77N, R43W, Sec. 6, SW, SE, NW	Calc. +/- 285m.	130	9/29/1993	Unknown
35662	18835	T77N, R43W, Sec. 7, SW, NE, SE	Calc. +/- 140m.	100	5/09/1996	Nourse
35764	417	T77N, R44W, Sec. 13, NW, NE, SW	Calc. +/- 285m.	110	unkn	Nolan, Daniel
35812	14314	T77N, R43W, Sec. 7, SE, SW, SW	Calc. +/- 285m.	75	9/06/1991	Unknown
35953	10663	T77N, R43W, Sec. 18, NE, NW, NW	Calc. +/- 285m.	130	10/18/1989	Unknown

Statistics: Permitted private wells

Count: 5

Public Water Supply Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
441479	2408398					DOT-4 (I-680 RA 023S LOVELAND)

Statistics: Public Water Supply Wells

Count: 1

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
35767	27446	T77N, R43W, Sec. 7, SE, SW, NE	Calc. +/- 140m.	20	n.a.	Wohlers, Byron

Statistics: Registered abandoned wells

Count: 1

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
35661	55729	T77N, R43W, Sec. 7, SW, NE, SE	Calc. +/- 140m.	140	1996	Nourse, John
35810	41016	T77N, R43W, Sec. 7, SE, SW, SW	Calc. +/- 285m.	60	1991	Wohlers, Byron
36098	84713	T77N, R44W, Sec. 13, SE, NE, NE	Calc. +/- 140m.	20	unkn	Johnson, Clifford/ Leonard

Statistics: Wells registered for testing

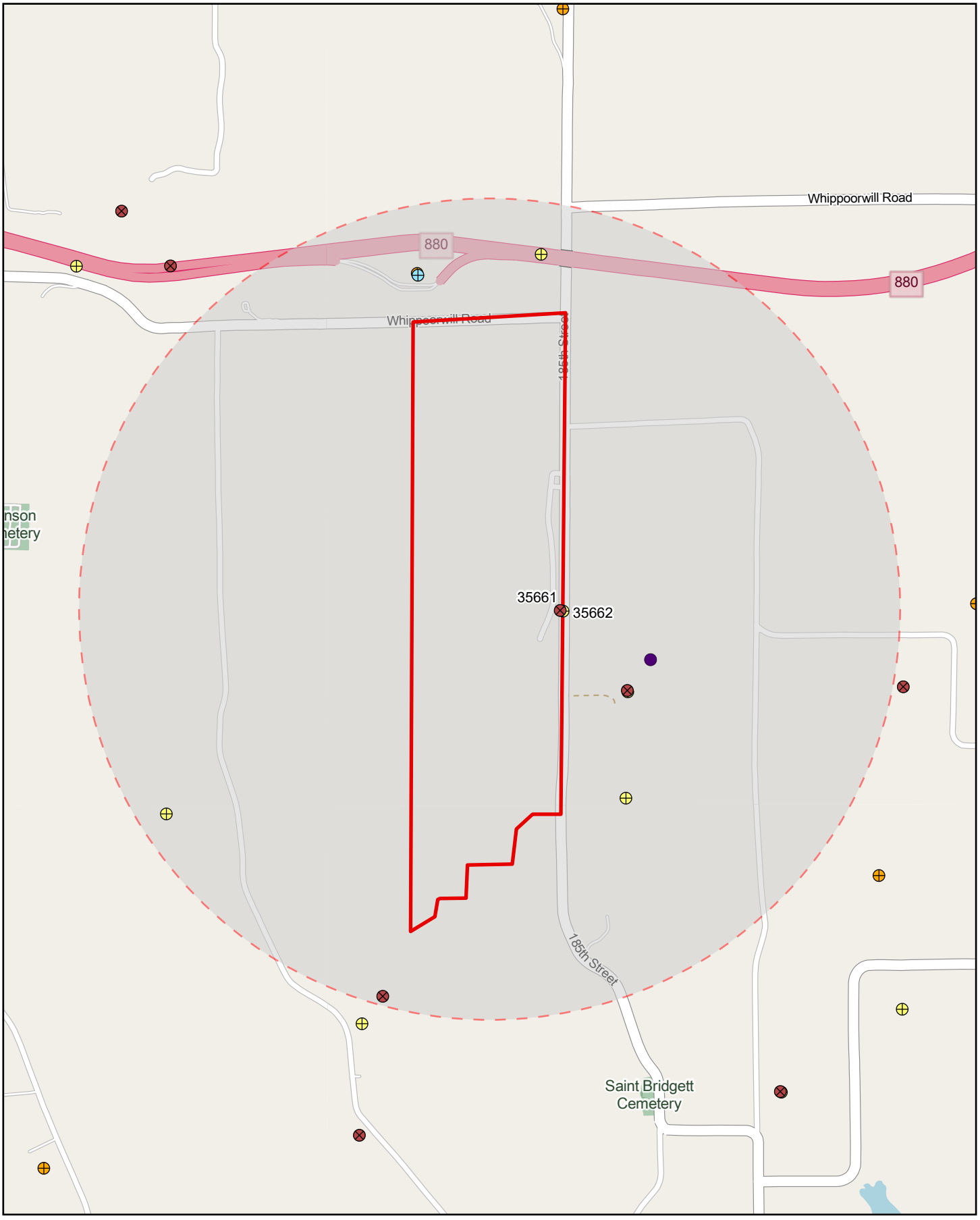
Count: 3

Report Totals

Count: 11

Date Exported: 5/12/2026 10:17 AM

Site: 1830
Subject: XY UTM Coordinates: 15T 263172 4596167
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1831



Unsuitable for Land Application

Paul Wilkins Phone: (712)261-3151 Spreadable Acres: 246 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1831



Unsuitable for Land Application

Paul Wilkins Phone: (712)261-3151 Gypsum Only

Permitted Acres: 246 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Fremont County, Iowa
(Site 1831)



Map Scale: 1:9,490 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 100 200 400 600

Feet
0 450 900 1800 2700

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
46	Keg silt loam	1.1	0.4%
49	Waubonsie fine sandy loam	43.9	16.1%
66	Luton silty clay	6.4	2.4%
70	McPaul silt loam	9.6	3.5%
137	Haynie silt loam, 0 to 2 percent slopes, occasionally flooded	72.7	26.8%
144	Blake silty clay loam	19.5	7.2%
146	Onawa silty clay	6.2	2.3%
156	Albaton silty clay, 0 to 2 percent slopes, occasionally flooded	15.5	5.7%
255	Cooper silty clay loam	47.2	17.3%
436	Lakeport silty clay loam	35.8	13.2%
538	Carr fine sandy loam, 1 to 3 percent slopes	0.1	0.0%
636	Buckney fine sandy loam, 1 to 3 percent slopes	13.8	5.1%
Totals for Area of Interest		**271.9**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
46	Keg silt loam	5	1.1	0.4%
49	Waubonsie fine sandy loam	5	43.9	16.1%
66	Luton silty clay	5	6.4	2.4%
70	McPaul silt loam	5	9.6	3.5%
137	Haynie silt loam, 0 to 2 percent slopes, occasionally flooded	5	72.7	26.8%
144	Blake silty clay loam	5	19.5	7.2%
146	Onawa silty clay	5	6.2	2.3%
156	Albaton silty clay, 0 to 2 percent slopes, occasionally flooded	5	15.5	5.7%
255	Cooper silty clay loam	5	47.2	17.3%
436	Lakeport silty clay loam	5	35.8	13.2%
538	Carr fine sandy loam, 1 to 3 percent slopes	3	0.1	0.0%
636	Buckney fine sandy loam, 1 to 3 percent slopes	3	13.8	5.1%
Totals for Area of Interest			**271.9**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
46	Keg silt loam	>200	1.1	0.4%
49	Waubonsie fine sandy loam	122	43.9	16.1%
66	Luton silty clay	0	6.4	2.4%
70	McPaul silt loam	122	9.6	3.5%
137	Haynie silt loam, 0 to 2 percent slopes, occasionally flooded	152	72.7	26.8%
144	Blake silty clay loam	30	19.5	7.2%
146	Onawa silty clay	30	6.2	2.3%
156	Albaton silty clay, 0 to 2 percent slopes, occasionally flooded	0	15.5	5.7%
255	Cooper silty clay loam	30	47.2	17.3%
436	Lakeport silty clay loam	30	35.8	13.2%
538	Carr fine sandy loam, 1 to 3 percent slopes	>200	0.1	0.0%
636	Buckney fine sandy loam, 1 to 3 percent slopes	>200	13.8	5.1%
Totals for Area of Interest			**271.9**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Well Search Report Site: 1830

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
205777	38847	T70N, R43W, 15, NW SE SW NW NW	Calc. +/- 115 ft.	60	12/27/1988	Leonard Farms
210956	35423	T70N, R43W, 16, SE SW	Calc. +/- 930 ft.	86	11/12/1994	Wilkins, Gary
213895	38862	T70N, R43W, 9, SW NE NE	Calc. +/- 470 ft.	18	6/12/1996	Newlon, David
226313	54835	T70N, R43W, 15, NE SW SW	Calc. +/- 470 ft.	75	9/28/2001	Newlon, David

Statistics: IGS Well Database

Count: 4

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
62016	18589	T70N, R43W, Sec. 9, SW, NE, NE	Calc. +/- 140m.	20	6/16/1996	Newlon
62844	20356	T70N, R43W, Sec. 16, SE, SW, NE	Calc. +/- 140m.	50	unkn	Wilkins

Statistics: Permitted private wells

Count: 2

Water Use Permit Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
455465	837	0NR43WS0	nom. +/-100m	80	1/1/2004	D Double N Farms
455470	2840	0NR43WS1	nom. +/-100m	60		LEONARD FARMS (DAVID LEONARD)

Statistics: Water Use Permit Wells

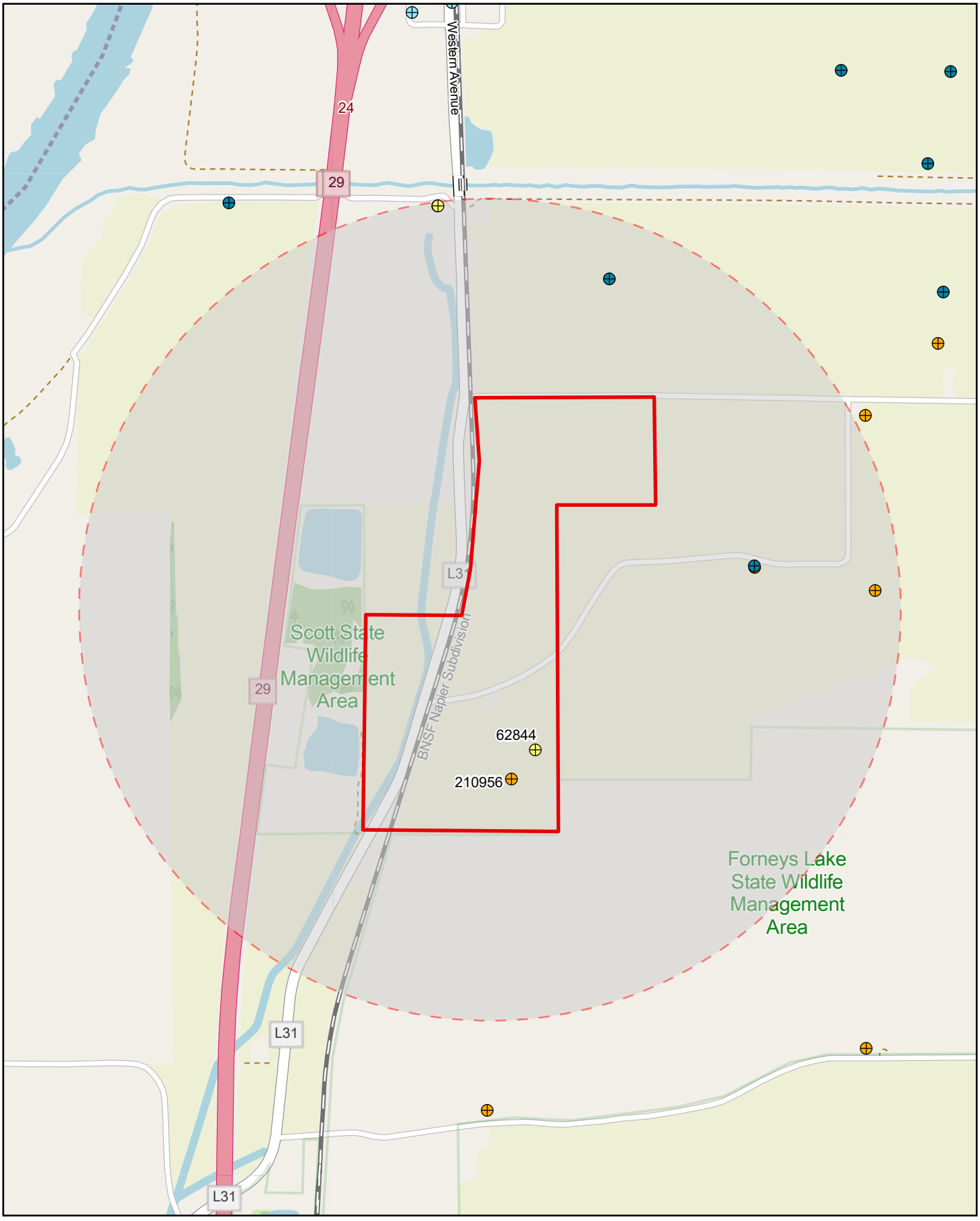
Count: 2

Report Totals

Count: 8

Date Exported: 5/12/2026 10:21 AM

Site: 1831
Subject: XY UTM Coordinates: 15T 264614 4527615
Search Radius (miles): 1



Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Bar K Cattle
Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Adam Pigott - Agronomist for Bar K Cattle

Signed:  Date: _____

Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Grant Ashinger
Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Signed: Adam Pigott Adam Pigott - Agronomist for Grant Ashinger Date: _____

Environmental Land Management, LLC.
Contractual Consent of Landowner

J Brothers Custom

Landowner, Lessee and/or Landoperator: _____ _____
Location of storage sites and spreading site(s): Al l and rented.
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Signed: _____ Adam Pigott - Agronomist for J Brothers Custom

Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Paul Wilkins
Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Adam Pigott - Agronomist for Paul Wilkins

Signed:  Date: _____

Cargill Corn Milling Blair: Permit # 00-SDP-07-14P - IDNR New Site List P6 5.18.26

Site Name	Section Information/Site Detail	Township	County	State	Acres	Slope Acceptable Acres	Operator
1812	SW 1/4 Sec 1 - 87N 48W	Liberty	Woodbury	IA	29	29	Katie Jorgensen
1813	NE 1/4 Sec 2 - 87N 48W	Liberty	Woodbury	IA	24	24	Katie Jorgensen
1814	NE 1/4 Sec 29, SE 1/4 Sec 20 - 86N 46W	Sloan	Woodbury	IA	291	291	Katie Jorgensen
1815	NE 1/4 Sec 23 - 86N 47W	Lakeport	Woodbury	IA	146	146	Katie Jorgensen
1816	NE 1/4 Sec 12, S 1/2 Sec 1 - 86N 47W	Lakeport	Woodbury	IA	247	247	Katie Jorgensen
1817	SW 1/4 Sec 24, SE 1/4 Sec 23 - 86N 47W	Lakeport	Woodbury	IA	174	174	Katie Jorgensen
1818	NE 1/4 Sec 30 - 86N 46W	Sloan	Woodbury	IA	18	18	Katie Jorgensen
1819	SE 1/4 Sec 27, SW 1/4 Sec 26 - 88N 47W	Woodbury	Woodbury	IA	156	156	Katie Jorgensen
1820	SE 1/4 Sec 33 - 86N 46W	Sloan	Woodbury	IA	77	77	Katie Jorgensen

EXTended Ag Services, Inc.
202 South Highway 86
Lakefield, MN 56150
507.662.5005 phone
507.662.5105 fax
info@extendedag.com

April 24, 2026

Environmental Land Management

1602 11th Drive NE

Austin, MN 55912

RE: Review of Potential Land Application Sites – Cargill Blair: Woodbury County

Michael,

We have completed our review of the proposed land application sites for the Cargill facility in Blair, Nebraska. Thank you for the opportunity to provide our input on this project. The following field was included in this review, all acres are approximate:

Site Name	Acres
Cargill Blair 1812	28.52
Cargill Blair 1813	25.96
Cargill Blair 1814	313.33
Cargill Blair 1815	146.29
Cargill Blair 1816	264.46
Cargill Blair 1817	174.54
Cargill Blair 1818	30.01
Cargill Blair 1819	161.83
Cargill Blair 1820	76.91
Grand Total	**1221.86**

Imagery provided by the National Ag Imagery Program (2024) was utilized to determine whether land application sites were in crop production, pasture/hay or non-farmed land. Overall, the land application sites have some limitations regarding slope steepness and length and general erosion potential.

There are approximately 1,221.9 acres available for land application of the industrial by-product. The land application site is dominated by silt clay loams, silt loams, clay, and silty clay loams. There are approximately 26.4 acres of fine sandy loams. These soils are present on Cargill Blair 1813, 1815, and 1817 and should be avoided during land application activities.

According to the NRCS, 100.0% of the sites have acceptable slopes for the land application of the Cargill byproducts (0-9%). According to the NRCS, none of the soils are classified as slightly, moderately or severely eroded. The NRCS classifies none of the soils as Highly Erodible.

Field specific planning and/or residue management should be utilized when applying the byproduct to reduce the potential for movement offsite, on all sites. Application can and should be limited to areas with the lowest slope first and then be directed to areas the furthest from sensitive features such as water. The application of the byproduct is not expected to conflict with any Conservation Plans associated with the observed soils. A summary of slope ratings for the potential land application sites is included below:

Slope Range	Acres
0-1%	646.67
0-2%	575.19
Grand Total	**1221.86**

Approximately 0.2% of the soils identified as potential land application sites are listed by the NRCS soil survey as ponded, commonly or frequently flooded. It is assumed that agricultural drain tile has been installed, to varying degrees, on soils with poor or somewhat poor drainage. Flooding frequency is not expected to be a limiting factor for land application. However, land application on saturated soils should be avoided at all times. Further, land application on fields with higher slope ranges and predicted rainfall within 24 hours should be limited. A complete breakdown of flooding frequency ratings is shown below:

NRCS Flooding Frequency	Acres
NONE	316.55
RARE	876.89
OCCASSIONAL	26.39
FREQUENT	2.03
Grand Total	**1221.86**

Determining appropriate land application rates for any by-product is dependent on the most restrictive variable. This can be either slope, erosivity, flooding potential, soil fertility levels, soil texture or byproduct characteristics, to name a few. The recommendations given herein are independent of any byproduct reviews and only consider the known field characteristics discussed in this review.

Application rates of approximately 15 Wet Tons per acre are appropriate for the field conditions of the land application sites discussed in this review. Appropriate measures should be taken to ensure minimal movement of the waste respect to adequate setbacks from sensitive features (surface water, karst features, conduits to water and high slopes) and land application rates. Special care should be given to applying wastes no less than 48 hours prior to rainfall events of greater than 0.5 inches. Wastes should be incorporated whenever possible, if such practices do not conflict with existing NRCS conservation plans. Applications of organic by-products can result in improved soil fertility, tilth and structure, if properly managed. The soils and parent material on the proposed land application site are naturally acidic in nature. Agricultural lime should be applied to ensure the soil pH is above 6.0 prior to land application of any byproducts.

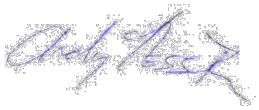
Summary

The specified land application material should be evaluated for constituents that pose a risk to the general health and welfare of the public. In general, land utilized for the land application of solid waste containing nutrients needed for pasture or crop production will benefit from such applications. Careful consideration should be taken to ensure nutrients are not applied at levels greater than crop need, once soils have reached the high fertility range as defined by Iowa State University.

In summary, we believe the field conditions are suitable for land application of solid wastes if done in accordance with all applicable rules, permits and laws. If you have any questions, please do not hesitate to contact us.

Sincerely,





Jim Nesseth
Certified Agronomist
License #: 17118

Andrew Nesseth
Environmental Consultant
NRCS Technical Service Provider

ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1812



Unsuitable for Land Application

Katie Jorgensen Phone: (712)261-3151 Spreadable Acres: 29 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1812



Unsuitable for Land Application

Katie Jorgensen Phone: (712)261-3151 Gypsum Only

Permitted Acres: 29 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Woodbury County, Iowa
(Site 1812)



Map Scale: 1:4,420 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
137	Haynie silt loam, deep loess, 0 to 2 percent slopes, rarely flooded	17.5	60.1%
144	Blake silty clay loam, 0 to 2 percent slopes, rarely flooded	6.7	23.1%
156	Albaton silty clay, 0 to 2 percent slopes, rarely flooded	3.8	12.9%
3146	Onawa-Albaton complex, 0 to 2 percent slopes, rarely flooded	1.1	3.9%
Totals for Area of Interest		**29.2**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
137	Haynie silt loam, deep loess, 0 to 2 percent slopes, rarely flooded	5	17.5	60.1%
144	Blake silty clay loam, 0 to 2 percent slopes, rarely flooded	5	6.7	23.1%
156	Albaton silty clay, 0 to 2 percent slopes, rarely flooded	5	3.8	12.9%
3146	Onawa-Albaton complex, 0 to 2 percent slopes, rarely flooded	5	1.1	3.9%
Totals for Area of Interest			**29.2**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
137	Haynie silt loam, deep loess, 0 to 2 percent slopes, rarely flooded	152	17.5	60.1%
144	Blake silty clay loam, 0 to 2 percent slopes, rarely flooded	30	6.7	23.1%
156	Albaton silty clay, 0 to 2 percent slopes, rarely flooded	0	3.8	12.9%
3146	Onawa-Albaton complex, 0 to 2 percent slopes, rarely flooded	30	1.1	3.9%
Totals for Area of Interest			**29.2**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1812

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
188189	29421	T87N, R47W, 6, SW SW	Calc. +/- 930 ft.	100	11/23/1965	Iowa Highway Commission
188219	29422	T87N, R47W, 6, SW SW	Calc. +/- 930 ft.	97	12/8/1965	Iowa Highway Commission
209420	35752	T87N, R48W, 1, SW NW NW	Calc. +/- 470 ft.	93	8/10/1993	Deirup, John
214487	39416	T87N, R48W, 1, SE NE SW	Calc. +/- 470 ft.	97	9/11/1996	Johnson, Terry
218219	45496	T87N, R48W, 1, SE NW NE	Calc. +/- 470 ft.	100	4/13/1998	27 Flags Golf Course
229399	57424	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	35	4/15/2003	Iowa Air Guard
229400	57430	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	26	4/15/2003	Iowa Air Guard
229401	57431	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	48	4/15/2003	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Iowa Air Guard
229402	57432	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	49	4/15/2003	Iowa Air Guard
229403	57433	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	49	4/15/2003	Iowa Air Guard
229404	57438	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	49	4/15/2003	Iowa Air Guard
229405	57439	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	49	4/15/2003	Iowa Air Guard
229406	57440	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	49	4/15/2003	Iowa Air Guard
229407	57441	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	49	4/15/2003	Iowa Air Guard
229411	57425	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	35	4/15/2003	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Iowa Air Guard
229412	57426	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	35	4/15/2003	Iowa Air Guard
229413	57427	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	25	4/15/2003	Iowa Air Guard
229414	57428	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	26	4/15/2003	Iowa Air Guard
229415	57429	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	26	4/15/2003	Iowa Air Guard
229416	57434	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	51	4/15/2003	Iowa Air Guard
229417	57435	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	51	4/15/2003	Iowa Air Guard
229418	57436	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	49	4/15/2003	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Iowa Air Guard
229419	57437	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	49	4/15/2003	Iowa Air Guard
233535	60094	T87N, R48W, 1, NE SW NE	Calc. +/- 470 ft.	90	5/5/2005	Leuenhagen, Randy
246897	75540	T87N, R48W, 1, SE NW NE	Calc. +/- 470 ft.	218	10/8/2012	Midamerican Energy Unit 3

Statistics: IGS Well Database

Count: 25

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
7822	15476	T87N, R48W, Sec. 2	Calc. +/- 570m.	100	5/10/1992	Unknown
7823	1849	T87N, R48W, Sec. 2	Calc. +/- 570m.	100	unkn	Kaler, Daniel L.
7828	21939	T87N, R48W, Sec. 2	Calc. +/- 140m.	80	12/17/1997	Ankerstierne
7959	22214	T87N, R48W, Sec. 1, SE, NW, NE	Calc. +/- 140m.	100	3/17/1998	Twenty-Seven Flags Golf
7982	27069	T87N, R47W, Sec. 6, SW, NW, NW	Calc. +/- 140m.	unkn	5/23/2000	William S
7995	18890	T87N, R48W, Sec. 1, SE, NE, SW	Calc. +/- 140m.	125	unkn	27 Flags Golf Course
8011	19442	T87N, R48W, Sec. 1, SE, NE, SE	Calc. +/- 140m.	90	10/29/1996	Twenty Seven Flags Course

Statistics: Permitted private wells

Count: 7

Public Water Supply Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
447104	2576885					TWENTY-SEVEN FLAGS GOLF COURSE
447924	2585235					TWENTY-SEVEN FLAGS GOLF COURSE
447925	2585236					TWENTY-SEVEN FLAGS GOLF COURSE

Statistics: Public Water Supply Wells

Count: 3

Water Use Permit Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
451525	3325	7NR48WS1	nom. +/-100m	NULL		Jorgensen Farms
451531	4076	7NR48WS1	nom. +/-100m	98	6/15/1985	Cobar Inc (BARBARA OEHLERKING)

Statistics: Water Use Permit Wells

Count: 2

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
7857	3	T87N, R48W, Sec. 1, NE, SW, NW	Calc. +/- 285m.	100	1979	Const. Co., Elk Horn
7910	71943	T87N, R48W, Sec. 1, SW, NW, NW	Calc. +/- 140m.	97	1994	Deirup, J.E.
7919	15440	T87N, R48W, Sec. 1, NW, SE, SE	Calc. +/- 1135m.	24	unkn	Nelson, Grace M.
7936	71956	T87N, R47W, Sec. 6, NW, SW, SW	Calc. +/- 140m.	93	2000	Williams, Linda
7983	69719	T87N, R47W, Sec. 6, SW, NW, NW	Calc. +/- 140m.	100	unkn	Williams, Linda
7987	1988	T87N, R48W, Sec. 1, SW, SW, NE	Calc. +/- 570m.	92	1993	Deirup, John

Statistics: Wells registered for testing

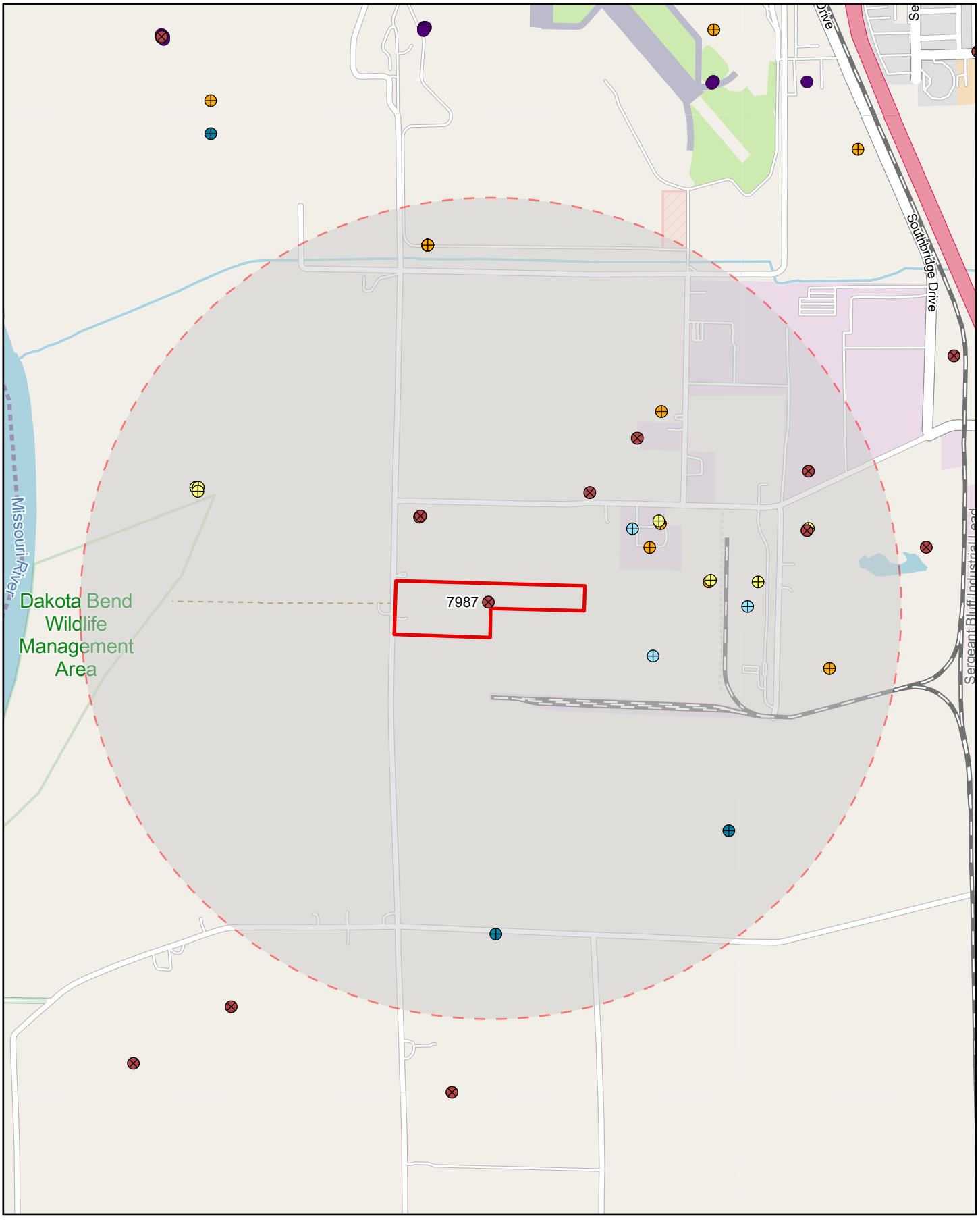
Count: 6

Report Totals

Count: 43

Date Exported: 5/11/2026 1:52 PM

Site: 1812
Subject: XY UTM Coordinates: 14N 715324 4694683
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1813



Unsuitable for Land Application

Katie Jorgensen Phone: (712)261-3151 Spreadable Acres: 24 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1813



Unsuitable for Land Application

Katie Jorgensen Phone: (712)261-3151 Gypsum Only

Permitted Acres: 24 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Woodbury County, Iowa
(Site 1813)



Map Scale: 1:4,160 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
137	Haynie silt loam, deep loess, 0 to 2 percent slopes, rarely flooded	16.8	62.8%
144	Blake silty clay loam, 0 to 2 percent slopes, rarely flooded	9.4	35.3%
156	Albaton silty clay, 0 to 2 percent slopes, rarely flooded	0.5	1.8%
Totals for Area of Interest		**26.7**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
137	Haynie silt loam, deep loess, 0 to 2 percent slopes, rarely flooded	5	16.8	62.8%
144	Blake silty clay loam, 0 to 2 percent slopes, rarely flooded	5	9.4	35.3%
156	Albaton silty clay, 0 to 2 percent slopes, rarely flooded	5	0.5	1.8%
Totals for Area of Interest			**26.7**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
137	Haynie silt loam, deep loess, 0 to 2 percent slopes, rarely flooded	152	16.8	62.8%
144	Blake silty clay loam, 0 to 2 percent slopes, rarely flooded	30	9.4	35.3%
156	Albaton silty clay, 0 to 2 percent slopes, rarely flooded	0	0.5	1.8%
Totals for Area of Interest			**26.7**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1813

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
198523	39250	T88N, R48W, 35, NW NE SW SE	Calc. +/- 230 ft.	86	4/11/1977	Boyer, Bernice C.
209420	35752	T87N, R48W, 1, SW NW NW	Calc. +/- 470 ft.	93	8/10/1993	Deirup, John
218219	45496	T87N, R48W, 1, SE NW NE	Calc. +/- 470 ft.	100	4/13/1998	27 Flags Golf Course
229399	57424	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	35	4/15/2003	Iowa Air Guard
229400	57430	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	26	4/15/2003	Iowa Air Guard
229401	57431	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	48	4/15/2003	Iowa Air Guard
229402	57432	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	49	4/15/2003	Iowa Air Guard
229403	57433	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	49	4/15/2003	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Iowa Air Guard
229404	57438	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	49	4/15/2003	Iowa Air Guard
229405	57439	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	49	4/15/2003	Iowa Air Guard
229406	57440	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	49	4/15/2003	Iowa Air Guard
229407	57441	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	49	4/15/2003	Iowa Air Guard
229411	57425	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	35	4/15/2003	Iowa Air Guard
229412	57426	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	35	4/15/2003	Iowa Air Guard
229413	57427	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	25	4/15/2003	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Iowa Air Guard
229414	57428	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	26	4/15/2003	Iowa Air Guard
229415	57429	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	26	4/15/2003	Iowa Air Guard
229416	57434	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	51	4/15/2003	Iowa Air Guard
229417	57435	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	51	4/15/2003	Iowa Air Guard
229418	57436	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	49	4/15/2003	Iowa Air Guard
229419	57437	T88N, R48W, 36, SW SW SW	Calc. +/- 470 ft.	49	4/15/2003	Iowa Air Guard
233535	60094	T87N, R48W, 1, NE SW NE	Calc. +/- 470 ft.	90	5/5/2005	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Leuenhagen, Randy
246897	75540	T87N, R48W, 1, SE NW NE	Calc. +/- 470 ft.	218	10/8/2012	Midamerican Energy Unit 3

Statistics: IGS Well Database

Count: 23

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
7822	15476	T87N, R48W, Sec. 2	Calc. +/- 570m.	100	5/10/1992	Unknown
7823	1849	T87N, R48W, Sec. 2	Calc. +/- 570m.	100	unkn	Kaler, Daniel L.
7828	21939	T87N, R48W, Sec. 2	Calc. +/- 140m.	80	12/17/1997	Ankerstierne
7959	22214	T87N, R48W, Sec. 1, SE, NW, NE	Calc. +/- 140m.	100	3/17/1998	Twenty-Seven Flags Golf

Statistics: Permitted private wells

Count: 4

Public Water Supply Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
447924	2585235					TWENTY-SEVEN FLAGS GOLF COURSE
447925	2585236					TWENTY-SEVEN FLAGS GOLF COURSE

Statistics: Public Water Supply Wells

Count: 2

Water Use Permit Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
451490	55	8NR48WS3	nom. +/-100m	86		TIM GRANSTROM

Statistics: Water Use Permit Wells

Count: 1

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
7857	3	T87N, R48W, Sec. 1, NE, SW, NW	Calc. +/- 285m.	100	1979	Const. Co., Elk Horn
7910	71943	T87N, R48W, Sec. 1, SW, NW, NW	Calc. +/- 140m.	97	1994	Deirup, J.E.
7919	15440	T87N, R48W, Sec. 1, NW, SE, SE	Calc. +/- 1135m.	24	unkn	Nelson, Grace M.
7987	1988	T87N, R48W, Sec. 1, SW, SW, NE	Calc. +/- 570m.	92	1993	Deirup, John

Statistics: Wells registered for testing

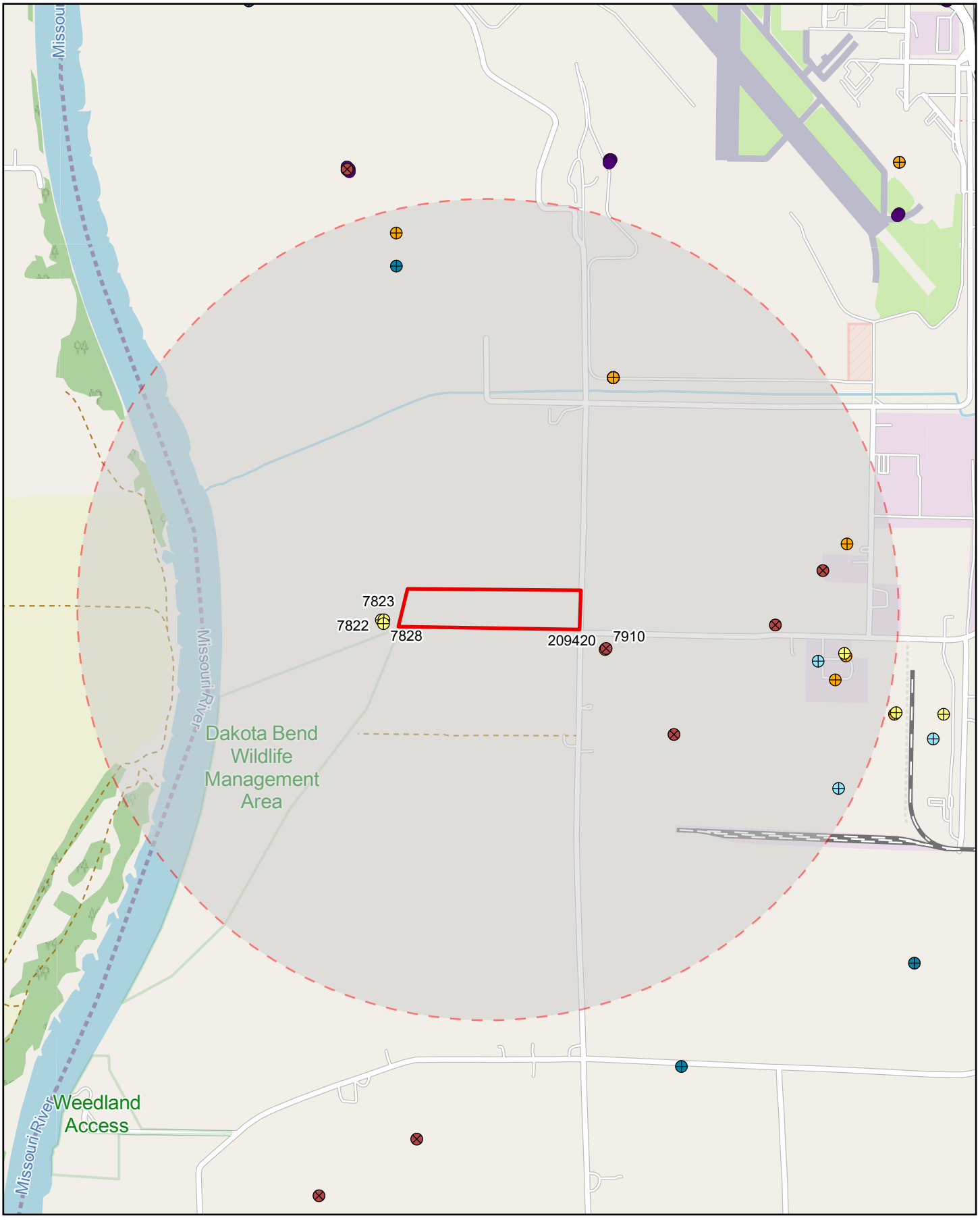
Count: 4

Report Totals

Count: 34

Date Exported: 5/11/2026 1:59 PM

Site: 1813
Subject: XY UTM Coordinates: 14T 714522 4695140
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1814



Unsuitable for Land Application

Katie Jorgensen Phone: (712)261-3151 Spreadable Acres: 291 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1814



Unsuitable for Land Application

Katie Jorgensen Phone: (712)261-3151 Gypsum Only

Permitted Acres: 291 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Woodbury County, Iowa
(Site 1814)



Map Scale: 1:9,540 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 100 200 400 600

Feet
0 450 900 1800 2700

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
36	Salix silt loam, 0 to 2 percent slopes, rarely flooded	33.3	9.9%
66	Luton silty clay, 0 to 2 percent slopes, rarely flooded	85.8	25.5%
67	Woodbury silty clay, 0 to 2 percent slopes, rarely flooded	112.4	33.5%
436	Lakeport silty clay loam, 0 to 2 percent slopes, rarely flooded	33.5	10.0%
3440	Blencoe-Woodbury silty clays, 0 to 2 percent slopes, rarely flooded	71.1	21.2%
Totals for Area of Interest		**336.1**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
36	Salix silt loam, 0 to 2 percent slopes, rarely flooded	5	33.3	9.9%
66	Luton silty clay, 0 to 2 percent slopes, rarely flooded	5	85.8	25.5%
67	Woodbury silty clay, 0 to 2 percent slopes, rarely flooded	5	112.4	33.5%
436	Lakeport silty clay loam, 0 to 2 percent slopes, rarely flooded	5	33.5	10.0%
3440	Blencoe-Woodbury silty clays, 0 to 2 percent slopes, rarely flooded	5	71.1	21.2%
Totals for Area of Interest			**336.1**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
36	Salix silt loam, 0 to 2 percent slopes, rarely flooded	152	33.3	9.9%
66	Luton silty clay, 0 to 2 percent slopes, rarely flooded	0	85.8	25.5%
67	Woodbury silty clay, 0 to 2 percent slopes, rarely flooded	0	112.4	33.5%
436	Lakeport silty clay loam, 0 to 2 percent slopes, rarely flooded	30	33.5	10.0%
3440	Blencoe-Woodbury silty clays, 0 to 2 percent slopes, rarely flooded	30	71.1	21.2%
Totals for Area of Interest			**336.1**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1814

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
157440	42534	T86N, R46W, 29,	Calc. +/- 3730 ft.	0		Sloan, City Of
168078	42531	T86N, R46W, 29, SW NW SE	Meas. +/- 230 ft.	46	1/1/1935	Sloan, City Of
168079	42532	T86N, R46W, 29, SW NW SE	Meas. +/- 230 ft.	46	1/1/1935	Sloan, City Of
168080	42533	T86N, R46W, 29, SW NW SE	Meas. +/- 230 ft.	46	1/1/1935	Sloan, City Of
169662	42529	T86N, R46W, 29, SW NW SE	Meas. +/- 230 ft.	57	1/1/1943	Sloan, City Of
169689	42530	T86N, R46W, 29, SW NW SE	Meas. +/- 230 ft.	57	1/1/1943	Sloan, City Of
171001	42527	T86N, R46W, 29, SW NW SE	GPS	70	1/1/1947	Sloan, City Of
171002	42527	T86N, R46W, 29, SW NW SE	GPS	70	1/1/1947	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Sloan, City Of
184946	39533	T86N, R46W, 29, SW NW SE	GPS	97	1/1/1963	Sloan, City Of
184947	39533	T86N, R46W, 29, SW NW SE	GPS	97	1/1/1963	Sloan, City Of
201467	42528	T86N, R46W, 29, SW NW NE	GPS	104	1/1/1981	Sloan, City Of
201468	42528	T86N, R46W, 29, SW NW NE	GPS	104	1/1/1981	Sloan, City Of
205009	68400	T86N, R46W, 29, SE SE NW	Calc. +/- 470 ft.	126	12/4/1987	Sloan, City Of
205011	68401	T86N, R46W, 29, SE SE NW	Calc. +/- 470 ft.	125	12/4/1987	Sloan, City Of
205020	68402	T86N, R46W, 29, SE SE NW	Calc. +/- 470 ft.	125	12/11/1987	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Sloan, City Of
248112	76711	T86N, R46W, 29, NE NE SW	Calc. +/- 470 ft.	98	6/20/2013	Lord, Don
259407	100686	T86N, R46W, 28, NE NW SW	GPS	100	4/14/2023	Lander, Joe

Statistics: IGS Well Database

Count: 17

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
10863	27061	T86N, R46W, Sec. 29, NW, SE, NE	Calc. +/- 140m.	100	5/16/2000	Hummel

Statistics: Permitted private wells

Count: 1

Public Water Supply Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
442188	2409114					SLOAN WATER SUPPLY
444791	2411738					SLOAN WATER SUPPLY
445855	2412811					SLOAN COVENANT CHURCH
446436	2413395					SLOAN WATER SUPPLY
448681	2589892					SLOAN GOLF COURSE

Statistics: Public Water Supply Wells

Count: 5

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
10827	19379	T86N, R46W, Sec. 29, NW, SW, NE	Calc. +/- 140m.	12	n.a.	Iowa Department, Of Transportation
10828	19381	T86N, R46W, Sec. 29, NW, SW, NE	Calc. +/- 140m.	15	n.a.	Iowa Department, Of Transportation
10830	19378	T86N, R46W, Sec. 29, NW, SW, NE	Calc. +/- 140m.	12	n.a.	Iowa Department, Of Transportation
10832	19377	T86N, R46W, Sec. 29, NW, SW, NE	Calc. +/- 140m.	15	n.a.	Iowa Department, Of Tansportation
10833	19376	T86N, R46W, Sec. 29, NW, SW, NE	Calc. +/- 140m.	15	n.a.	Iowa Derpartment, Of Transportation
10834	19380	T86N, R46W, Sec. 29, NW, SW, NE	Calc. +/- 140m.	15	n.a.	Iowa Department, Of Transportation

Statistics: Registered abandoned wells

Count: 6

Water Use Permit Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
451822	29179	6NR46WS2	nom. +/-100m	105	11/18/2011	MICHAEL ILTENBERGER
451852	29024	6NR46WS2	nom. +/-100m	98	6/20/2013	Jm Farms Inc (DON LORD)
451863	4624	6NR46WS2	nom. +/-100m	104	1/1/1981	City Of Sloan (CITY CLERK)
451867	4555	6NR46WS2	nom. +/-100m	97	1/1/1963	City Of Sloan (CITY CLERK)
451868	4277	6NR46WS2	nom. +/-100m	70	1/1/1947	City Of Sloan (CITY CLERK)
451877	751	6NR46WS2	nom. +/-100m	125		WESTWOOD COMMUNITY SCHOOL (JUSTIN MITCHELL)
451878	625	6NR46WS2	nom. +/-100m	125		WESTWOOD COMMUNITY SCHOOL (JUSTIN MITCHELL)
451879	731	6NR46WS2	nom. +/-100m	125		

Water Use Permit Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						WESTWOOD COMMUNITY SCHOOL (JUSTIN MITCHELL)

Statistics: Water Use Permit Wells

Count: 8

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
10591	24243	T86N, R46W, Sec. 20, NE, SW, SW	Calc. +/- 285m.	108	unkn	Byers, Earl
10711	69433	T86N, R46W, Sec. 20, SE, SW, SE	Calc. +/- 285m.	100	1988	Lord, Don
10712	24289	T86N, R46W, Sec. 20, SE, SW, SW	Calc. +/- 285m.	100	unkn	Lord, John
10714	69432	T86N, R46W, Sec. 20, SE, SW, SW	Calc. +/- 285m.	100	1988	Lord, Don
10720	57673	T86N, R46W, Sec. 30, NE, NE, NE	Calc. +/- 140m.	98	1994	Lord, John
10733	24290	T86N, R46W, Sec. 30, NE, NE, NW	Calc. +/- 285m.	unkn	unkn	Lord, John
10734	57674	T86N, R46W, Sec. 20, SE, SW, SE	Calc. +/- 140m.	unkn	1996	Lord, Don
10737	57675	T86N, R46W, Sec. 20, SE, SW, SE	Calc. +/- 140m.	unkn	1996	

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Lord, Don
10824	57057	T86N, R46W, Sec. 21, SE, SW, SW	Calc. +/- 140m.	36	1999	Derochie Jr, Richard
10958	17655	T86N, R46W, Sec. 28, NW, SE, SE	Calc. +/- 285m.	unkn	unkn	Black, Brad
10964	46128	T86N, R46W, Sec. 28, NW, SE, SW	Calc. +/- 140m.	unkn	unkn	Winters, Melissa
10984	26250	T86N, R46W, Sec. 29, SE, NW, SE	Calc. +/- 140m.	22	1987	Nelson, Harold
11061	68621	T86N, R46W, Sec. 28, SW, SW, NE	Calc. +/- 285m.	85	1985	Johnson, Russell M.
11066	68619	T86N, R46W, Sec. 28, SW, SW, SW	Calc. +/- 285m.	100	1981	Kernig, Winston

Statistics: Wells registered for testing

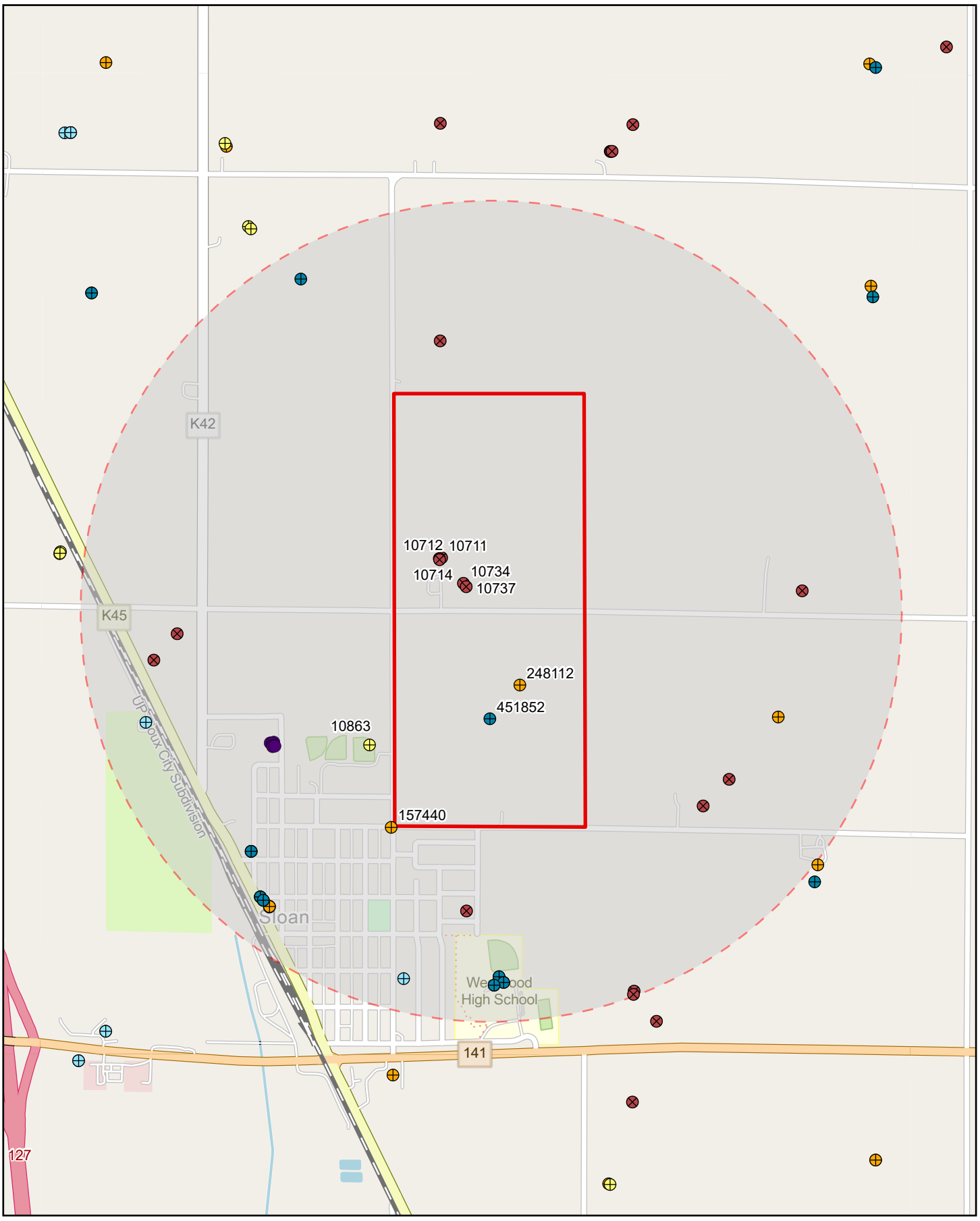
Count: 14

Report Totals

Count: 51

Date Exported: 5/12/2026 8:54 AM

Site: 1814
Subject: XY UTM Coordinates: 14T 729568 4680531
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1815



Unsuitable for Land Application

Katie Jorgensen Phone: (712)261-3151 Spreadable Acres: 146 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1815



Unsuitable for Land Application

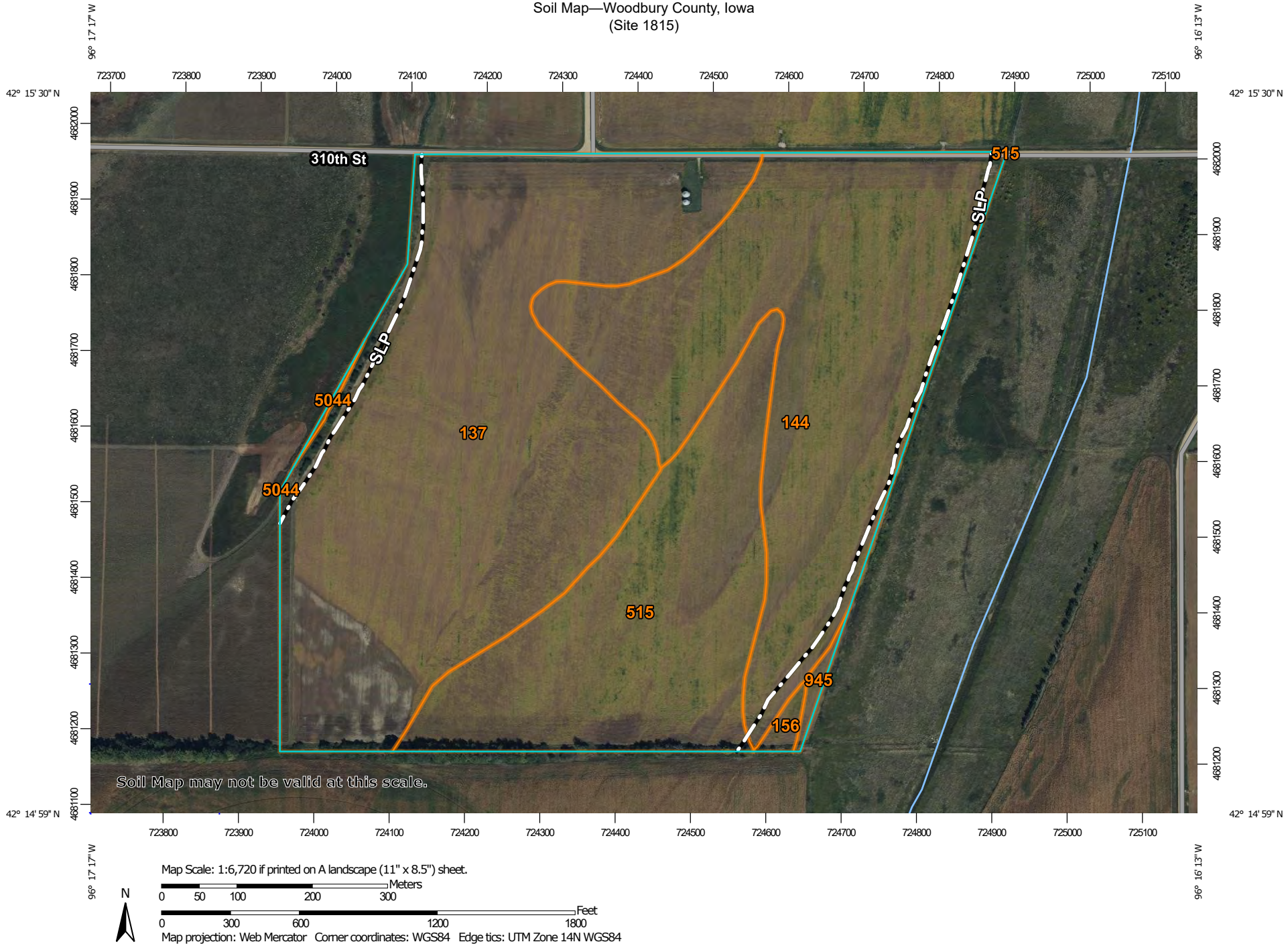
Katie Jorgensen Phone: (712)261-3151 Gypsum Only

Permitted Acres: 146 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Woodbury County, Iowa
(Site 1815)



Map Scale: 1:6,720 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Woodbury County, Iowa
Survey Area Data: Version 35, Sep 9, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 19, 2022—Sep 20, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
137	Haynie silt loam, deep loess, 0 to 2 percent slopes, rarely flooded	68.1	45.5%
144	Blake silty clay loam, 0 to 2 percent slopes, rarely flooded	48.7	32.5%
156	Albaton silty clay, 0 to 2 percent slopes, rarely flooded	0.7	0.5%
515	Percival silty clay, 0 to 2 percent slopes, rarely flooded	31.5	21.0%
945	Albaton silty clay, depressional, drained, 0 to 1 percent slopes, frequently flooded	0.6	0.4%
5044	Fluvaquents, 0 to 2 percent slopes, frequently flooded	0.1	0.1%
Totals for Area of Interest		**149.7**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
137	Haynie silt loam, deep loess, 0 to 2 percent slopes, rarely flooded	5	68.1	45.5%
144	Blake silty clay loam, 0 to 2 percent slopes, rarely flooded	5	48.7	32.5%
156	Albaton silty clay, 0 to 2 percent slopes, rarely flooded	5	0.7	0.5%
515	Percival silty clay, 0 to 2 percent slopes, rarely flooded	3	31.5	21.0%
945	Albaton silty clay, depressional, drained, 0 to 1 percent slopes, frequently flooded	5	0.6	0.4%
5044	Fluvaquents, 0 to 2 percent slopes, frequently flooded	5	0.1	0.1%
Totals for Area of Interest			**149.7**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
137	Haynie silt loam, deep loess, 0 to 2 percent slopes, rarely flooded	152	68.1	45.5%
144	Blake silty clay loam, 0 to 2 percent slopes, rarely flooded	30	48.7	32.5%
156	Albaton silty clay, 0 to 2 percent slopes, rarely flooded	0	0.7	0.5%
515	Percival silty clay, 0 to 2 percent slopes, rarely flooded	30	31.5	21.0%
945	Albaton silty clay, depressional, drained, 0 to 1 percent slopes, frequently flooded	0	0.6	0.4%
5044	Fluvaquents, 0 to 2 percent slopes, frequently flooded	15	0.1	0.1%
Totals for Area of Interest			**149.7**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Well Search Report Site: 1815

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
197610	38946	T86N, R47W, 23, SW SW NE NE NE	Calc. +/- 115 ft.	114	3/1/1976	Brenden, Vernon E.
218337	46338	T86N, R47W, 22, SE SE SE	Calc. +/- 470 ft.	110	5/3/1998	Brennden, Patt
218338	46338	T86N, R47W, 22, SE SE SE	Calc. +/- 470 ft.	110	5/3/1998	Brennden, Patt
236899	82340	T86N, R47W, 13, SW SW NE	Calc. +/- 470 ft.	107	9/16/2006	Roepke, Kent
242107	74300	T86N, R47W, 22, SE NW NE	Calc. +/- 470 ft.	100	8/3/2009	Kenney, Neil
242117	68147	T86N, R47W, 22, SW NW NE NE SW	Calc. +/- 115 ft.	100	8/3/2009	Kenney, Neil
248927	76941	T86N, R47W, 14, NW SE NE	Calc. +/- 470 ft.	97	10/26/2013	Kenney, Neil
249139	90046	T86N, R47W, 26, NW NW NW	GPS	74	12/10/2013	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Koenig, Brad
254764	96486	T86N, R47W, 23, SW SE SE	Map +/- 20 m.	40	4/10/2018	Brouillette, Brendon
255793	90118	T86N, R47W, 13, SW SW SE	Maps/Air Photos +/- 20 m.	112	12/13/2018	McCluskey, Jim
256914	100914	T86N, R47W, 13, SW NW SE	NULL	90	4/24/2020	Dewald, Jason
259365	101812	T86N, R47W, 23, NE SW NW	GPS	100	3/20/2023	Lord, Don

Statistics: IGS Well Database

Count: 12

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
10499	22337	T86N, R47W, Sec. 22, SE, SE, SE	Calc. +/- 140m.	100	5/04/1998	Brenden
10543	28934	T86N, R47W, Sec. 26, NW, NW, NW	Calc. +/- 140m.	unkn	6/28/2001	Gay, Bob
10592	15424	T86N, R47W, Sec. 26, NW, NE, NE	Calc. +/- 285m.	80	9/19/1991	Unknown
10593	1729	T86N, R47W, Sec. 26, NW, NE, NE	Calc. +/- 285m.	100	unkn	Brenden, Vernon

Statistics: Permitted private wells

Count: 4

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
10610	9780	T86N, R47W, Sec. 25, NW, NW, NW	Calc. +/- 140m.	35	n.a.	Dean, Danny

Statistics: Registered abandoned wells

Count: 1

Water Use Permit Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
451797	28840	6NR47WS1	nom. +/-100m	100	10/26/2013	MACK KENNEY JR TRUST (NEIL KENNEY TRUSTEE)
451808	5902	6NR47WS1	nom. +/-100m	NULL		Terrance M Small and Nancy K Small Revocable Trust
451826	4511	6NR47WS2	nom. +/-100m	100	8/3/2009	MACK KENNEY JR TRUST (NEIL KENNEY TRUSTEE)
451835	1881	6NR47WS2	nom. +/-100m	114		BRENDEN FARM (BRADY WORRELL)
451836	4123	6NR47WS2	nom. +/-100m	100	8/3/2009	MACK KENNEY JR TRUST (NEIL KENNEY TRUSTEE)

Statistics: Water Use Permit Wells

Count: 5

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
10573	68588	T86N, R47W, Sec. 26, NW, NW, NE	Calc. +/- 285m.	35	1984	Gay, Robert

Statistics: Wells registered for testing

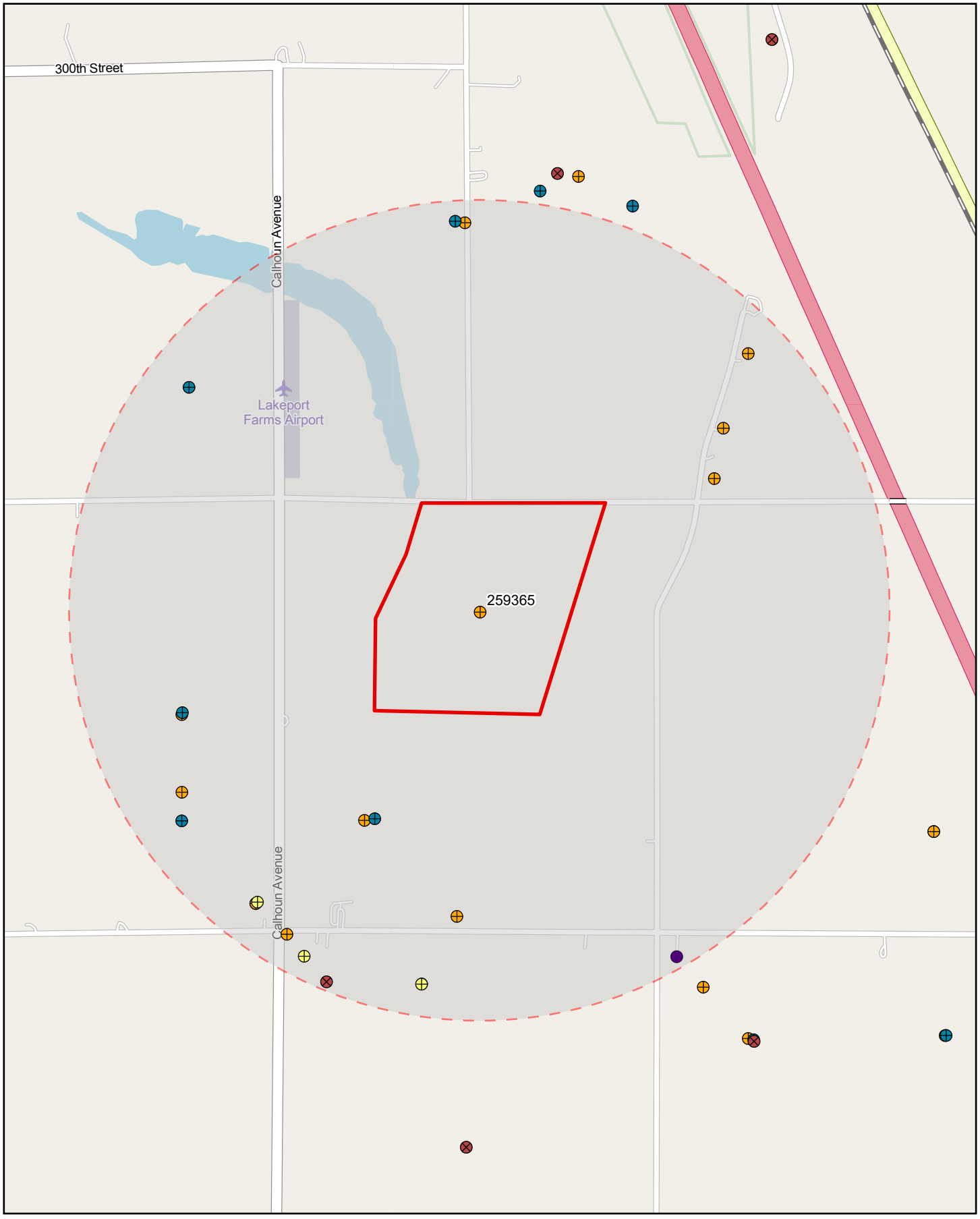
Count: 1

Report Totals

Count: 23

Date Exported: 5/12/2026 9:00 AM

Site: 1815
Subject: XY UTM Coordinates: 14T 724393 4681581
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1816



Unsuitable for Land Application

Katie Jorgensen Phone: (712)261-3151 Spreadable Acres: 247 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1816



Unsuitable for Land Application

Katie Jorgensen Phone: (712)261-3151 Gypsum Only

Permitted Acres: 247 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Woodbury County, Iowa
(Site 1816)



Map Scale: 1:10,300 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 150 300 600 900

Feet: 0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Woodbury County, Iowa
Survey Area Data: Version 35, Sep 9, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 19, 2022—Sep 20, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
36	Salix silt loam, 0 to 2 percent slopes, rarely flooded	2.5	0.9%
46	Keg loam, 0 to 2 percent slopes, rarely flooded	232.6	84.7%
244	Blend silty clay, 0 to 2 percent slopes, rarely flooded	6.7	2.4%
436	Lakeport silty clay loam, 0 to 2 percent slopes, rarely flooded	32.8	12.0%
Totals for Area of Interest		**274.6**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
36	Salix silt loam, 0 to 2 percent slopes, rarely flooded	5	2.5	0.9%
46	Keg loam, 0 to 2 percent slopes, rarely flooded	5	232.6	84.7%
244	Blend silty clay, 0 to 2 percent slopes, rarely flooded	5	6.7	2.4%
436	Lakeport silty clay loam, 0 to 2 percent slopes, rarely flooded	5	32.8	12.0%
Totals for Area of Interest			**274.6**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
36	Salix silt loam, 0 to 2 percent slopes, rarely flooded	152	2.5	0.9%
46	Keg loam, 0 to 2 percent slopes, rarely flooded	>200	232.6	84.7%
244	Blend silty clay, 0 to 2 percent slopes, rarely flooded	0	6.7	2.4%
436	Lakeport silty clay loam, 0 to 2 percent slopes, rarely flooded	30	32.8	12.0%
Totals for Area of Interest			**274.6**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1816

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
213627	38677	T86N, R47W, 12, NE NE NE	Calc. +/- 470 ft.	110	4/26/1996	Eveleth, Ken
249519	82383	T87N, R47W, 36, SW SE SE	Calc. +/- 470 ft.	200	5/15/2014	Sanderson, Kyle
259399	100678	T86N, R47W, 1, NW SW NW	GPS	113	4/12/2023	CHO LLP

Statistics: IGS Well Database

Count: 3

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
9576	15437	T86N, R47W, Sec. 1, NW, NE, NE	Calc. +/- 140m.	100	unkn	Unknown
9628	15438	T86N, R47W, Sec. 1, NW, NE, SE	Calc. +/- 140m.	100	unkn	Unknown
9821	15400	T86N, R47W, Sec. 1, SW, SE, SE	Calc. +/- 285m.	100	3/08/1990	Unknown
9864	15471	T86N, R47W, Sec. 12, NW, NE, NW	Calc. +/- 140m.	100	5/14/1992	Unknown
9898	18208	T86N, R47W, Sec. 12, NE, NE, NE	Calc. +/- 140m.	100	unkn	Unknown

Statistics: Permitted private wells

Count: 5

Water Use Permit Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
451727	30657	86NR47WS	nom. +/-100m	110		Jon Oehlerking

Statistics: Water Use Permit Wells

Count: 1

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
9615	50113	T86N, R47W, Sec. 1, NE, NE, NW	Calc. +/- 140m.	60	unkn	Buresh, Shelly
9620	69470	T86N, R47W, Sec. 1, NE, NW, NW	Calc. +/- 285m.	60	1980	Unknown
9778	67425	T86N, R47W, Sec. 2, SE, SW, SE	Calc. +/- 285m.	65	1983	Eveleth, Edwin L.
9839	69318	T86N, R47W, Sec. 1, SE, SE, SE	Calc. +/- 285m.	112	1985	Eliason, Steve
9896	42640	T86N, R47W, Sec. 12, NE, NE, NE	Calc. +/- 140m.	100	1996	Evelth, Ken
9900	57665	T86N, R47W, Sec. 12, NE, NE, NE	Calc. +/- 140m.	100	1997	Fueleth, Ken
9932	68529	T86N, R47W, Sec. 12, NE, NE, SW	Calc. +/- 570m.	100	1951	Eveleth, Ed

Statistics: Wells registered for testing

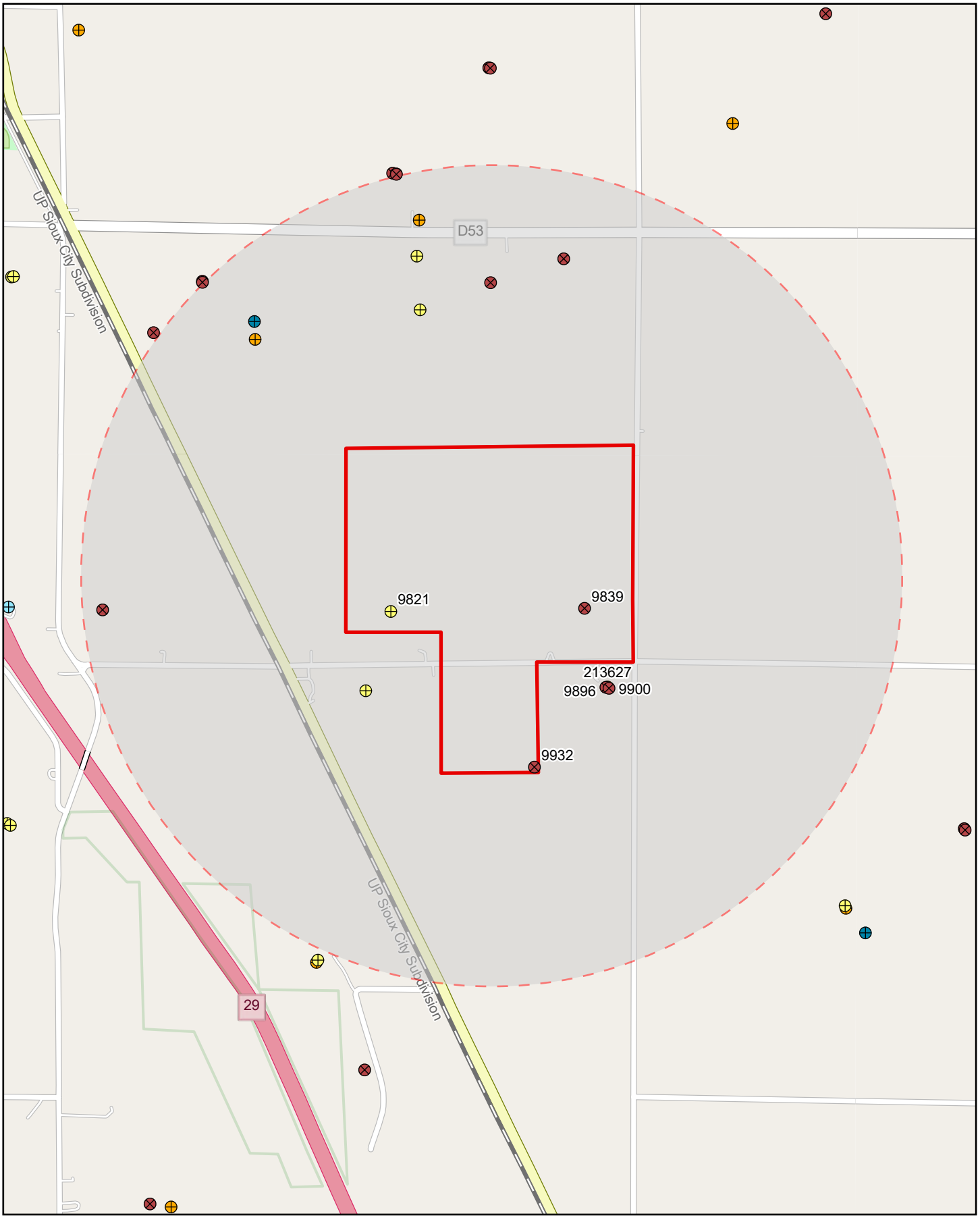
Count: 7

Report Totals

Count: 16

Date Exported: 5/12/2026 9:08 AM

Site: 1816
Subject: XY UTM Coordinates: 14T 726005 4685565
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1817



Unsuitable for Land Application

Katie Jorgensen Phone: (712)261-3151 Spreadable Acres: 174 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1817



Unsuitable for Land Application

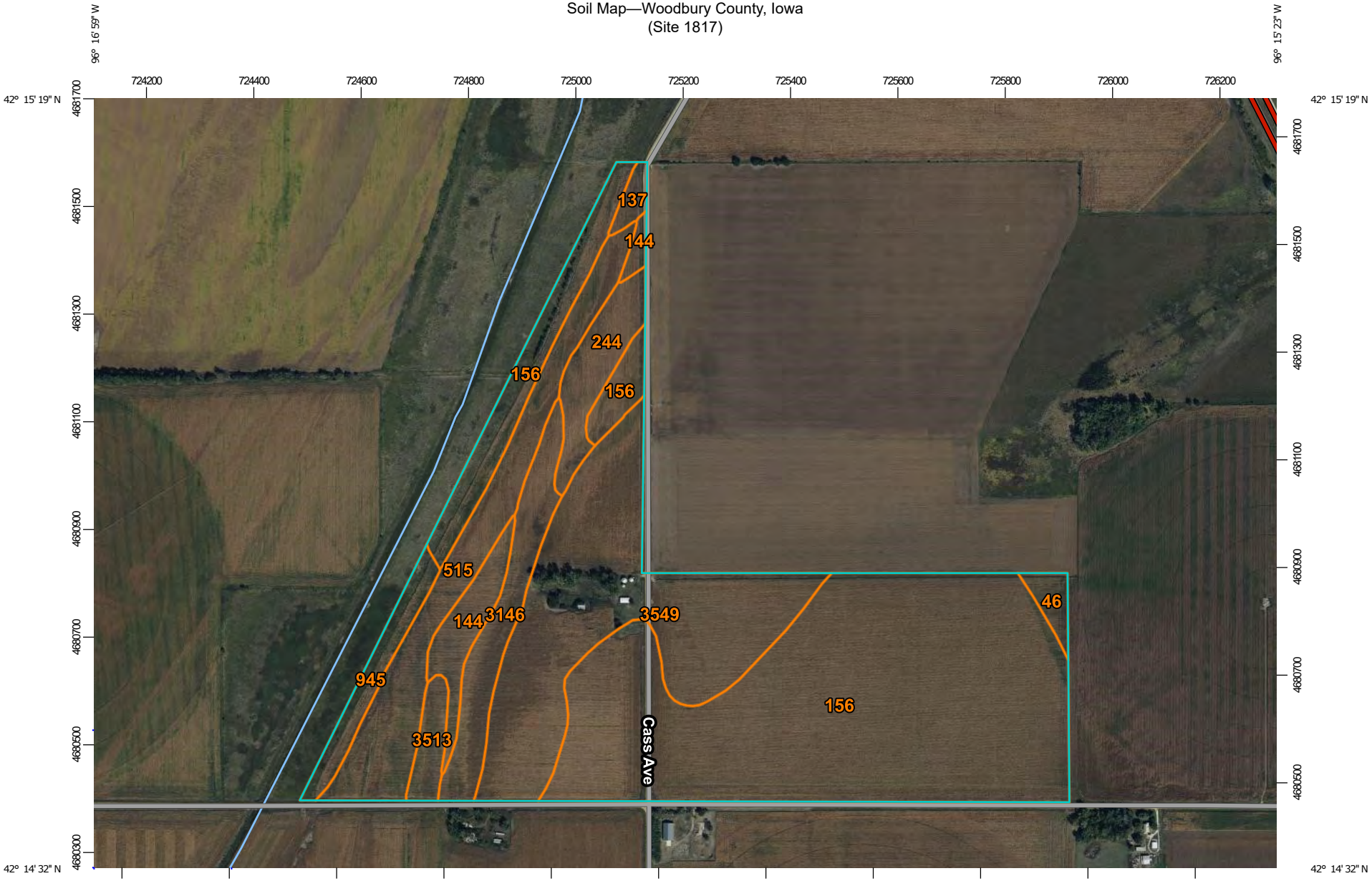
Katie Jorgensen Phone: (712)261-3151 Gypsum Only

Permitted Acres: 174 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Woodbury County, Iowa
(Site 1817)



Map Scale: 1:10,100 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 100 200 400 600

Feet
0 450 900 1800 2700

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
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- Streams and Canals

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Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Woodbury County, Iowa
Survey Area Data: Version 35, Sep 9, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 19, 2022—Sep 20, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
46	Keg loam, 0 to 2 percent slopes, rarely flooded	1.8	0.9%
137	Haynie silt loam, deep loess, 0 to 2 percent slopes, rarely flooded	1.2	0.7%
144	Blake silty clay loam, 0 to 2 percent slopes, rarely flooded	6.0	3.2%
156	Albaton silty clay, 0 to 2 percent slopes, rarely flooded	91.7	49.4%
244	Blend silty clay, 0 to 2 percent slopes, rarely flooded	6.7	3.6%
515	Percival silty clay, 0 to 2 percent slopes, rarely flooded	19.3	10.4%
945	Albaton silty clay, depressional, drained, 0 to 1 percent slopes, frequently flooded	4.9	2.6%
3146	Onawa-Albaton complex, 0 to 2 percent slopes, rarely flooded	10.4	5.6%
3513	Grable-Morconick complex, 0 to 2 percent slopes, rarely flooded	2.8	1.5%
3549	Modale complex, 0 to 2 percent slopes, rarely flooded	40.8	22.0%
Totals for Area of Interest		**185.6**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
46	Keg loam, 0 to 2 percent slopes, rarely flooded	5	1.8	0.9%
137	Haynie silt loam, deep loess, 0 to 2 percent slopes, rarely flooded	5	1.2	0.7%
144	Blake silty clay loam, 0 to 2 percent slopes, rarely flooded	5	6.0	3.2%
156	Albaton silty clay, 0 to 2 percent slopes, rarely flooded	5	91.7	49.4%
244	Blend silty clay, 0 to 2 percent slopes, rarely flooded	5	6.7	3.6%
515	Percival silty clay, 0 to 2 percent slopes, rarely flooded	3	19.3	10.4%
945	Albaton silty clay, depressional, drained, 0 to 1 percent slopes, frequently flooded	5	4.9	2.6%
3146	Onawa-Albaton complex, 0 to 2 percent slopes, rarely flooded	5	10.4	5.6%
3513	Grable-Morconick complex, 0 to 2 percent slopes, rarely flooded	3	2.8	1.5%
3549	Modale complex, 0 to 2 percent slopes, rarely flooded	4	40.8	22.0%
Totals for Area of Interest			**185.6**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
46	Keg loam, 0 to 2 percent slopes, rarely flooded	>200	1.8	0.9%
137	Haynie silt loam, deep loess, 0 to 2 percent slopes, rarely flooded	152	1.2	0.7%
144	Blake silty clay loam, 0 to 2 percent slopes, rarely flooded	30	6.0	3.2%
156	Albaton silty clay, 0 to 2 percent slopes, rarely flooded	0	91.7	49.4%
244	Blend silty clay, 0 to 2 percent slopes, rarely flooded	0	6.7	3.6%
515	Percival silty clay, 0 to 2 percent slopes, rarely flooded	30	19.3	10.4%
945	Albaton silty clay, depressional, drained, 0 to 1 percent slopes, frequently flooded	0	4.9	2.6%
3146	Onawa-Albaton complex, 0 to 2 percent slopes, rarely flooded	30	10.4	5.6%
3513	Grable-Morconick complex, 0 to 2 percent slopes, rarely flooded	>200	2.8	1.5%
3549	Modale complex, 0 to 2 percent slopes, rarely flooded	61	40.8	22.0%
Totals for Area of Interest			**185.6**	**100.0%**

Well Search Report Site: 1817

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
162836	38828	T86N, R47W, 25, NW SW NE NE NE	Calc. +/- 115 ft.	109		Olson, Larry M.
197016	38829	T86N, R47W, 25, NE NW SE SE SE	Calc. +/- 115 ft.	105	1/1/1975	Olson, Larry M.
197610	38946	T86N, R47W, 23, SW SW NE NE NE	Calc. +/- 115 ft.	114	3/1/1976	Brenden, Vernon E.
210145	34730	T86N, R47W, 25, NW NW	Calc. +/- 930 ft.	94	5/4/1994	Dean, Dan
231824	82273	T86N, R47W, 24, SE SE SW	Calc. +/- 470 ft.	112	6/9/2004	Mccrystal, Jim
254764	96486	T86N, R47W, 23, SW SE SE	Map +/- 20 m.	40	4/10/2018	Brouillette, Brendon
255793	90118	T86N, R47W, 13, SW SW SE	Maps/Air Photos +/- 20 m.	112	12/13/2018	McCluskey, Jim
257558	94935	T86N, R47W, 24, SE SW NE	GPS	110	11/19/2020	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Shook, John
257790	95632	T86N, R47W, 24, SE SW NE	GPS	104	4/14/2021	Shook, John
259365	101812	T86N, R47W, 23, NE SW NW	GPS	100	3/20/2023	Lord, Don

Statistics: IGS Well Database

Count: 10

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
10592	15424	T86N, R47W, Sec. 26, NW, NE, NE	Calc. +/- 285m.	80	9/19/1991	Unknown
10593	1729	T86N, R47W, Sec. 26, NW, NE, NE	Calc. +/- 285m.	100	unkn	Brenden, Vernon

Statistics: Permitted private wells

Count: 2

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
10610	9780	T86N, R47W, Sec. 25, NW, NW, NW	Calc. +/- 140m.	35	n.a.	Dean, Danny

Statistics: Registered abandoned wells

Count: 1

Water Use Permit Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
451835	1881	6NR47WS2	nom. +/-100m	114		BRENDEN FARM (BRADY WORRELL)
451837	30305	6NR47WS2	nom. +/-100m	110	11/19/2020	JOHN AND GAIL SHOOK
451850	4133	6NR47WS2	nom. +/-100m	109		JAMES OLSON
451851	4209	6NR47WS2	nom. +/-100m	109		JAMES OLSON

Statistics: Water Use Permit Wells

Count: 4

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
10573	68588	T86N, R47W, Sec. 26, NW, NW, NE	Calc. +/- 285m.	35	1984	Gay, Robert
10668	69323	T86N, R47W, Sec. 25, NW, NE, SW	Calc. +/- 570m.	40	unkn	Dean, Dan
10691	67346	T86N, R47W, Sec. 26, NW, SE, SE	Calc. +/- 1135m.	35	1978	Hanson, Laurence

Statistics: Wells registered for testing

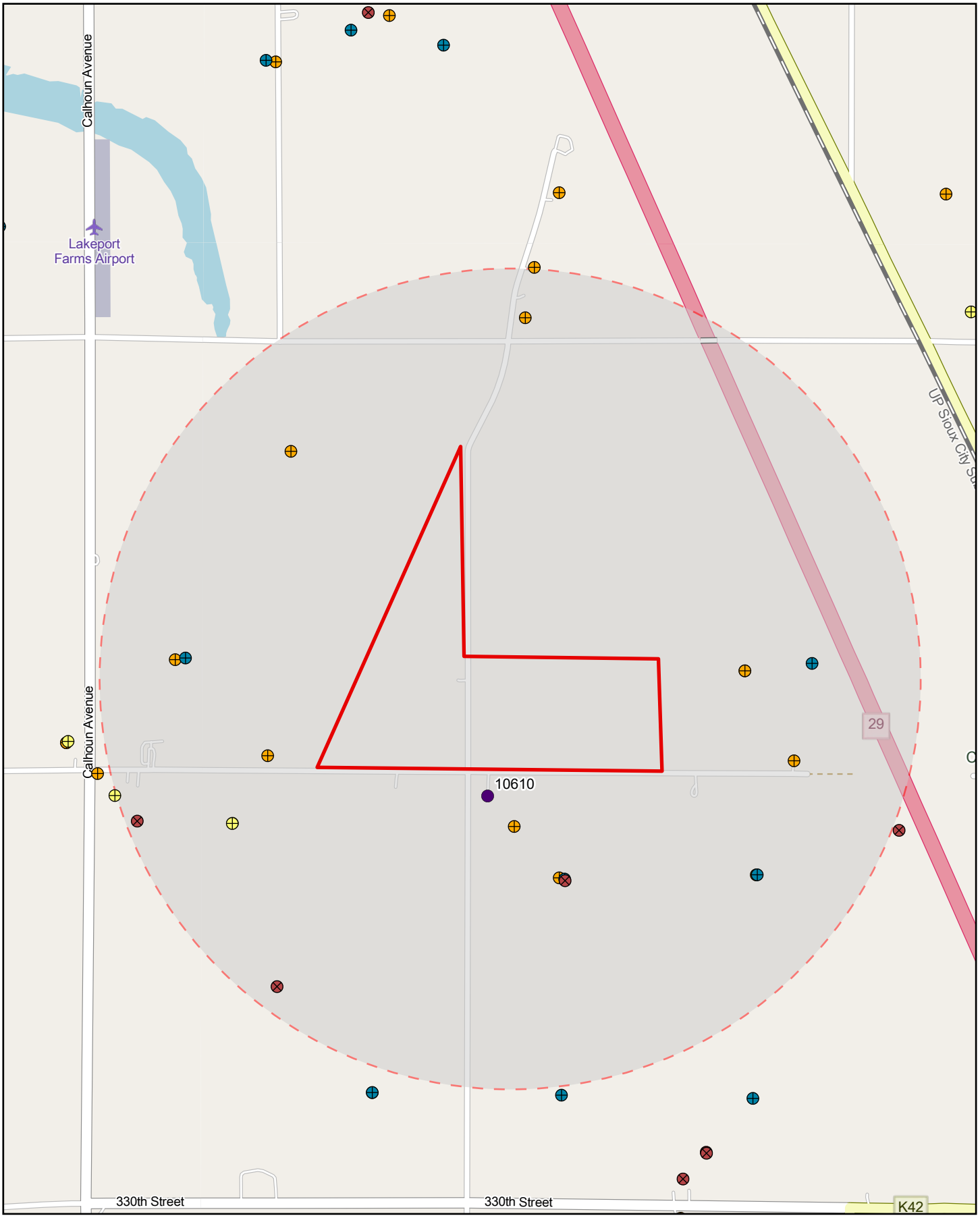
Count: 3

Report Totals

Count: 20

Date Exported: 5/12/2026 9:13 AM

Site: 1817
Subject: XY UTM Coordinates: 14T 725340 4680767
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1818



Unsuitable for Land Application

Katie Jorgensen Phone: (712)261-3151 Spreadable Acres: 18 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1818



Unsuitable for Land Application

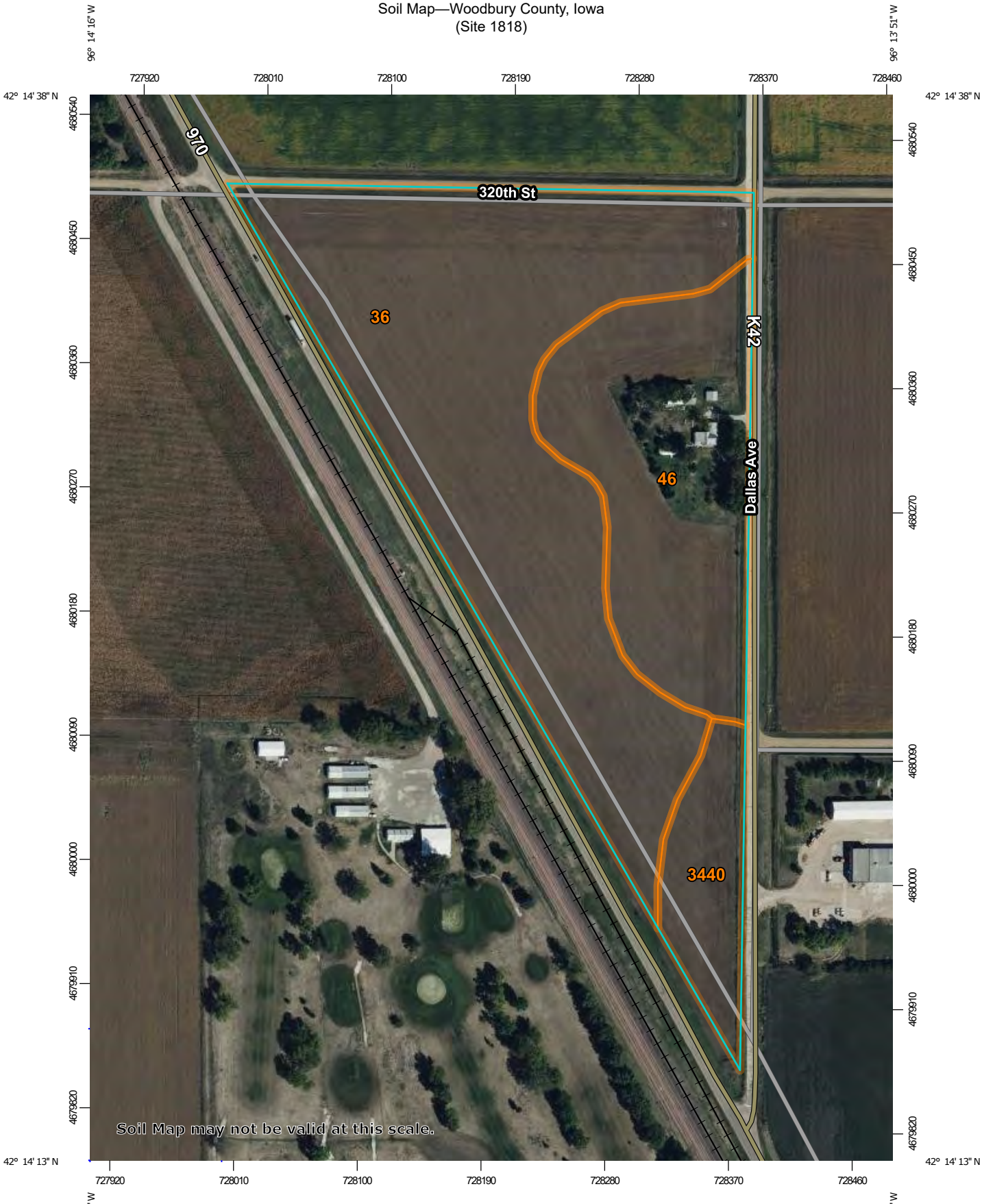
Katie Jorgensen Phone: (712)261-3151 Gypsum Only

Permitted Acres: 18 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Woodbury County, Iowa
(Site 1818)



Map Scale: 1:3,760 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Woodbury County, Iowa
Survey Area Data: Version 35, Sep 9, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 19, 2022—Sep 20, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
36	Salix silt loam, 0 to 2 percent slopes, rarely flooded	18.8	62.4%
46	Keg loam, 0 to 2 percent slopes, rarely flooded	8.7	28.9%
3440	Blencoe-Woodbury silty clays, 0 to 2 percent slopes, rarely flooded	2.6	8.7%
Totals for Area of Interest		**30.2**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
36	Salix silt loam, 0 to 2 percent slopes, rarely flooded	5	18.8	62.4%
46	Keg loam, 0 to 2 percent slopes, rarely flooded	5	8.7	28.9%
3440	Blencoe-Woodbury silty clays, 0 to 2 percent slopes, rarely flooded	5	2.6	8.7%
Totals for Area of Interest			**30.2**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
36	Salix silt loam, 0 to 2 percent slopes, rarely flooded	152	18.8	62.4%
46	Keg loam, 0 to 2 percent slopes, rarely flooded	>200	8.7	28.9%
3440	Blencoe-Woodbury silty clays, 0 to 2 percent slopes, rarely flooded	30	2.6	8.7%
Totals for Area of Interest			**30.2**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1818

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
157440	42534	T86N, R46W, 29,	Calc. +/- 3730 ft.	0		Sloan, City Of
159779	73362	T86N, R46W, 30, SE SE SW	GPS +/- 15 m.	0		Shop N Go
162837	38834	T86N, R46W, 19, NE SW NE NE	Calc. +/- 230 ft.	99		Olson, Larry M.
168078	42531	T86N, R46W, 29, SW NW SE	Meas. +/- 230 ft.	46	1/1/1935	Sloan, City Of
168079	42532	T86N, R46W, 29, SW NW SE	Meas. +/- 230 ft.	46	1/1/1935	Sloan, City Of
168080	42533	T86N, R46W, 29, SW NW SE	Meas. +/- 230 ft.	46	1/1/1935	Sloan, City Of
169662	42529	T86N, R46W, 29, SW NW SE	Meas. +/- 230 ft.	57	1/1/1943	Sloan, City Of
169689	42530	T86N, R46W, 29, SW NW SE	Meas. +/- 230 ft.	57	1/1/1943	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Sloan, City Of
171001	42527	T86N, R46W, 29, SW NW SE	GPS	70	1/1/1947	Sloan, City Of
171002	42527	T86N, R46W, 29, SW NW SE	GPS	70	1/1/1947	Sloan, City Of
184946	39533	T86N, R46W, 29, SW NW SE	GPS	97	1/1/1963	Sloan, City Of
184947	39533	T86N, R46W, 29, SW NW SE	GPS	97	1/1/1963	Sloan, City Of
201467	42528	T86N, R46W, 29, SW NW NE	GPS	104	1/1/1981	Sloan, City Of
201468	42528	T86N, R46W, 29, SW NW NE	GPS	104	1/1/1981	Sloan, City Of
210180	34723	T86N, R46W, 19, SE SW	Calc. +/- 930 ft.	90	5/12/1994	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Ames, Vernon
248112	76711	T86N, R46W, 29, NE NE SW	Calc. +/- 470 ft.	98	6/20/2013	Lord, Don

Statistics: IGS Well Database

Count: 16

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
10648	171	T86N, R46W, Sec. 19, SE, SW, NE	Calc. +/- 285m.	100	unkn	Ames, Mrs. Clara
10650	15384	T86N, R46W, Sec. 19, SE, SW, SE	Calc. +/- 285m.	100	8/25/1988	Unknown
10863	27061	T86N, R46W, Sec. 29, NW, SE, NE	Calc. +/- 140m.	100	5/16/2000	Hummel

Statistics: Permitted private wells

Count: 3

Public Water Supply Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
442188	2409114					SLOAN WATER SUPPLY
444791	2411738					SLOAN WATER SUPPLY
445855	2412811					SLOAN COVENANT CHURCH
446436	2413395					SLOAN WATER SUPPLY
448400	2588099					SHOP N GO
448681	2589892					SLOAN GOLF COURSE

Statistics: Public Water Supply Wells

Count: 6

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
10827	19379	T86N, R46W, Sec. 29, NW, SW, NE	Calc. +/- 140m.	12	n.a.	Iowa Department, Of Transportation
10828	19381	T86N, R46W, Sec. 29, NW, SW, NE	Calc. +/- 140m.	15	n.a.	Iowa Department, Of Transportation
10830	19378	T86N, R46W, Sec. 29, NW, SW, NE	Calc. +/- 140m.	12	n.a.	Iowa Department, Of Transportation
10832	19377	T86N, R46W, Sec. 29, NW, SW, NE	Calc. +/- 140m.	15	n.a.	Iowa Department, Of Tansportation
10833	19376	T86N, R46W, Sec. 29, NW, SW, NE	Calc. +/- 140m.	15	n.a.	Iowa Derpartment, Of Transportation
10834	19380	T86N, R46W, Sec. 29, NW, SW, NE	Calc. +/- 140m.	15	n.a.	Iowa Department, Of Transportation

Statistics: Registered abandoned wells

Count: 6

Water Use Permit Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
451822	29179	6NR46WS2	nom. +/-100m	105	11/18/2011	MICHAEL ILTENBERGER
451823	1412	6NR46WS1	nom. +/-100m	99	5/1/1975	JAMES OLSON
451852	29024	6NR46WS2	nom. +/-100m	98	6/20/2013	Jm Farms Inc (DON LORD)
451863	4624	6NR46WS2	nom. +/-100m	104	1/1/1981	City Of Sloan (CITY CLERK)
451867	4555	6NR46WS2	nom. +/-100m	97	1/1/1963	City Of Sloan (CITY CLERK)
451868	4277	6NR46WS2	nom. +/-100m	70	1/1/1947	City Of Sloan (CITY CLERK)

Statistics: Water Use Permit Wells

Count: 6

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
10686	68476	T86N, R46W, Sec. 30, NW, NW, NW	Calc. +/- 285m.	90	1991	Lord, John S.
10711	69433	T86N, R46W, Sec. 20, SE, SW, SE	Calc. +/- 285m.	100	1988	Lord, Don
10712	24289	T86N, R46W, Sec. 20, SE, SW, SW	Calc. +/- 285m.	100	unkn	Lord, John
10714	69432	T86N, R46W, Sec. 20, SE, SW, SW	Calc. +/- 285m.	100	1988	Lord, Don
10720	57673	T86N, R46W, Sec. 30, NE, NE, NE	Calc. +/- 140m.	98	1994	Lord, John
10733	24290	T86N, R46W, Sec. 30, NE, NE, NW	Calc. +/- 285m.	unkn	unkn	Lord, John
10734	57674	T86N, R46W, Sec. 20, SE, SW, SE	Calc. +/- 140m.	unkn	1996	Lord, Don
10737	57675	T86N, R46W, Sec. 20, SE, SW, SE	Calc. +/- 140m.	unkn	1996	

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Lord, Don
10984	26250	T86N, R46W, Sec. 29, SE, NW, SE	Calc. +/- 140m.	22	1987	Nelson, Harold

Statistics: Wells registered for testing

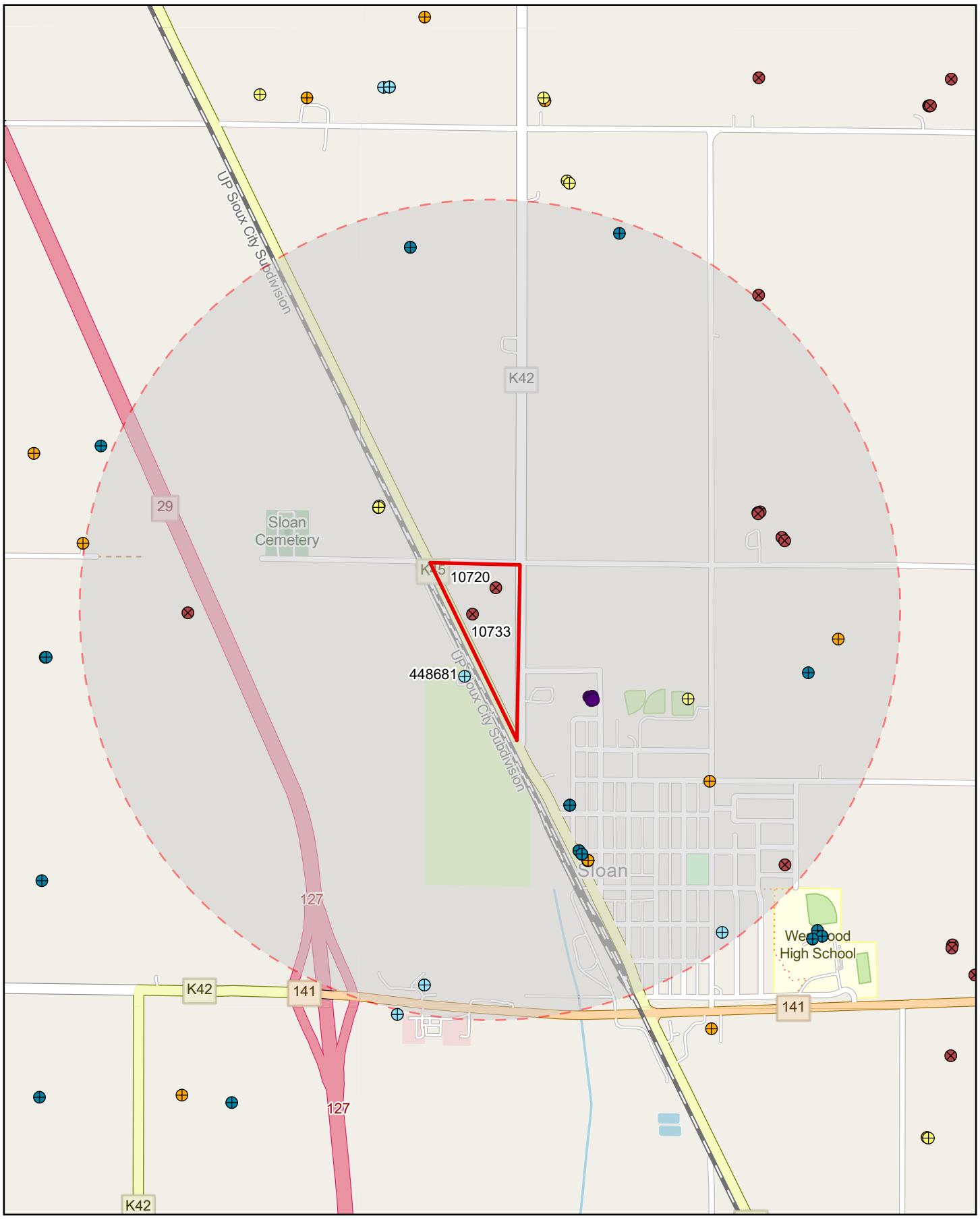
Count: 9

Report Totals

Count: 46

Date Exported: 5/12/2026 9:19 AM

Site: 1818
Subject: XY UTM Coordinates: 14T 728240 4680320
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1819



Unsuitable for Land Application

Katie Jorgensen Phone: (712)261-3151 Spreadable Acres: 156 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1819



Unsuitable for Land Application

Katie Jorgensen Phone: (712)261-3151 Gypsum Only

Permitted Acres: 156 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Woodbury County, Iowa
(Site 1819)



Map Scale: 1:7,000 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 100 200 400 600

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Woodbury County, Iowa
Survey Area Data: Version 35, Sep 9, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 19, 2022—Sep 20, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
66	Luton silty clay, 0 to 2 percent slopes, rarely flooded	4.0	2.4%
255	Cooper silty clay loam, 0 to 2 percent slopes, rarely flooded	110.6	66.4%
465	Tieville silty clay, 0 to 2 percent slopes, rarely flooded	28.6	17.2%
552	Owego silty clay, 0 to 2 percent slopes, rarely flooded	23.2	13.9%
Totals for Area of Interest		**166.5**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
66	Luton silty clay, 0 to 2 percent slopes, rarely flooded	5	4.0	2.4%
255	Cooper silty clay loam, 0 to 2 percent slopes, rarely flooded	5	110.6	66.4%
465	Tieville silty clay, 0 to 2 percent slopes, rarely flooded	5	28.6	17.2%
552	Owego silty clay, 0 to 2 percent slopes, rarely flooded	5	23.2	13.9%
Totals for Area of Interest			**166.5**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
66	Luton silty clay, 0 to 2 percent slopes, rarely flooded	0	4.0	2.4%
255	Cooper silty clay loam, 0 to 2 percent slopes, rarely flooded	30	110.6	66.4%
465	Tieville silty clay, 0 to 2 percent slopes, rarely flooded	0	28.6	17.2%
552	Owego silty clay, 0 to 2 percent slopes, rarely flooded	0	23.2	13.9%
Totals for Area of Interest			**166.5**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1819

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
203428	39261	T88N, R47W, 27, NW NE NE NE NE	Calc. +/- 115 ft.	168	7/16/1984	Carter, Donald
236629	82334	T88N, R47W, 34, NE SW NW	Calc. +/- 470 ft.	95	8/14/2006	Echter, Brad

Statistics: IGS Well Database

Count: 2

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
7474	18173	T88N, R47W, Sec. 34, NW, NE, NE	Calc. +/- 140m.	unkn	unkn	Unknown
7476	1362	T88N, R47W, Sec. 34, NW, NW, SW	Calc. +/- 285m.	80	unkn	Hughes, Duane
7481	16954	T88N, R47W, Sec. 34, NE, NW, NW	Calc. +/- 140m.	unkn	3/29/1995	Unknown
7493	1363	T88N, R47W, Sec. 34, NW, NE, SW	Calc. +/- 285m.	80	unkn	Hughes, Duane
7511	15397	T88N, R47W, Sec. 34, NE, NW, NW	Calc. +/- 285m.	80	unkn	Unknown

Statistics: Permitted private wells

Count: 5

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
7170	21080	T88N, R47W, Sec. 27, NW, SE, SW	Calc. +/- 140m.	318	n.a.	Dice, Dale

Statistics: Registered abandoned wells

Count: 1

Water Use Permit Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
451452	1290	8NR47WS2	nom. +/-100m	180		Knudson Farm (RACHELLE BISEK)

Statistics: Water Use Permit Wells

Count: 1

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
7171	79748	T88N, R47W, Sec. 27, NW, SE, SW	Calc. +/- 140m.	80	1994	Dice, Eugene
7301	70199	T88N, R47W, Sec. 27, SW, NE, SW	Calc. +/- 140m.	80	unkn	Zarbano, Mike
7375	9197	T88N, R47W, Sec. 27, SW, SE, NW	Calc. +/- 285m.	35	unkn	Eisley, Luann
7475	68799	T88N, R47W, Sec. 34, NW, NW, NW	Calc. +/- 285m.	85	1975	Finkin, Melvin
7479	68215	T88N, R47W, Sec. 34, NW, NW, SE	Calc. +/- 285m.	85	1976	Hughes, Duane F.
7523	68486	T88N, R47W, Sec. 34, NE, NW, SE	Calc. +/- 285m.	60	1987	Thompson, Richard H.
7548	68068	T88N, R47W, Sec. 34, NE, NE, NE	Calc. +/- 285m.	65	1987	Thompson, Richard
7553	67453	T88N, R47W, Sec. 34, NW, NW, SE	Calc. +/- 570m.	85	1976	

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Hughes, Duane F.
7554	68457	T88N, R47W, Sec. 34, NW, NE, SW	Calc. +/- 570m.	85	1991	Hughes, Duane F.
7562	67451	T88N, R47W, Sec. 34, NW, SW, NE	Calc. +/- 570m.	60	unkn	Nelson, Herbert
7616	68174	T88N, R47W, Sec. 34, NW, SE, SW	Calc. +/- 285m.	65	unkn	Lutz, Kevin
7617	68052	T88N, R47W, Sec. 34, NW, SE, NE	Calc. +/- 285m.	65	1989	Prundy, Mark
7682	69380	T88N, R47W, Sec. 34, SW, NE, NE	Calc. +/- 1135m.	40	1978	Smithwick, Sandra
7683	68107	T88N, R47W, Sec. 34, SE, NW, NW	Calc. +/- 1135m.	65	1976	Zimmerman, Daniel

Statistics: Wells registered for testing

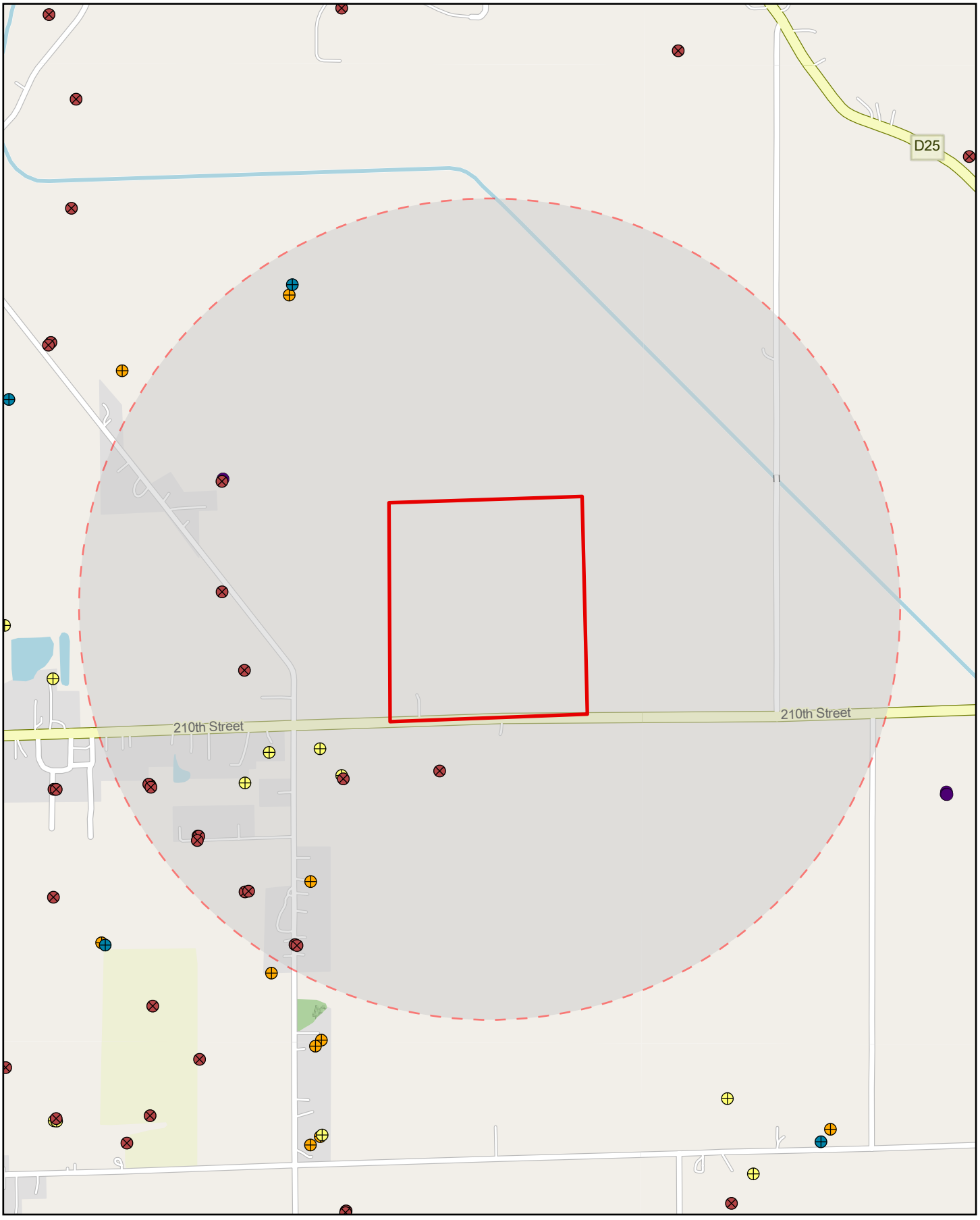
Count: 14

Report Totals

Count: 23

Date Exported: 5/12/2026 9:24 AM

Site: 1819
Subject: XY UTM Coordinates: 14T 722854 4698340
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1820



Unsuitable for Land Application

Katie Jorgensen Phone: (712)261-3151 Spreadable Acres: 77 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1820



Unsuitable for Land Application

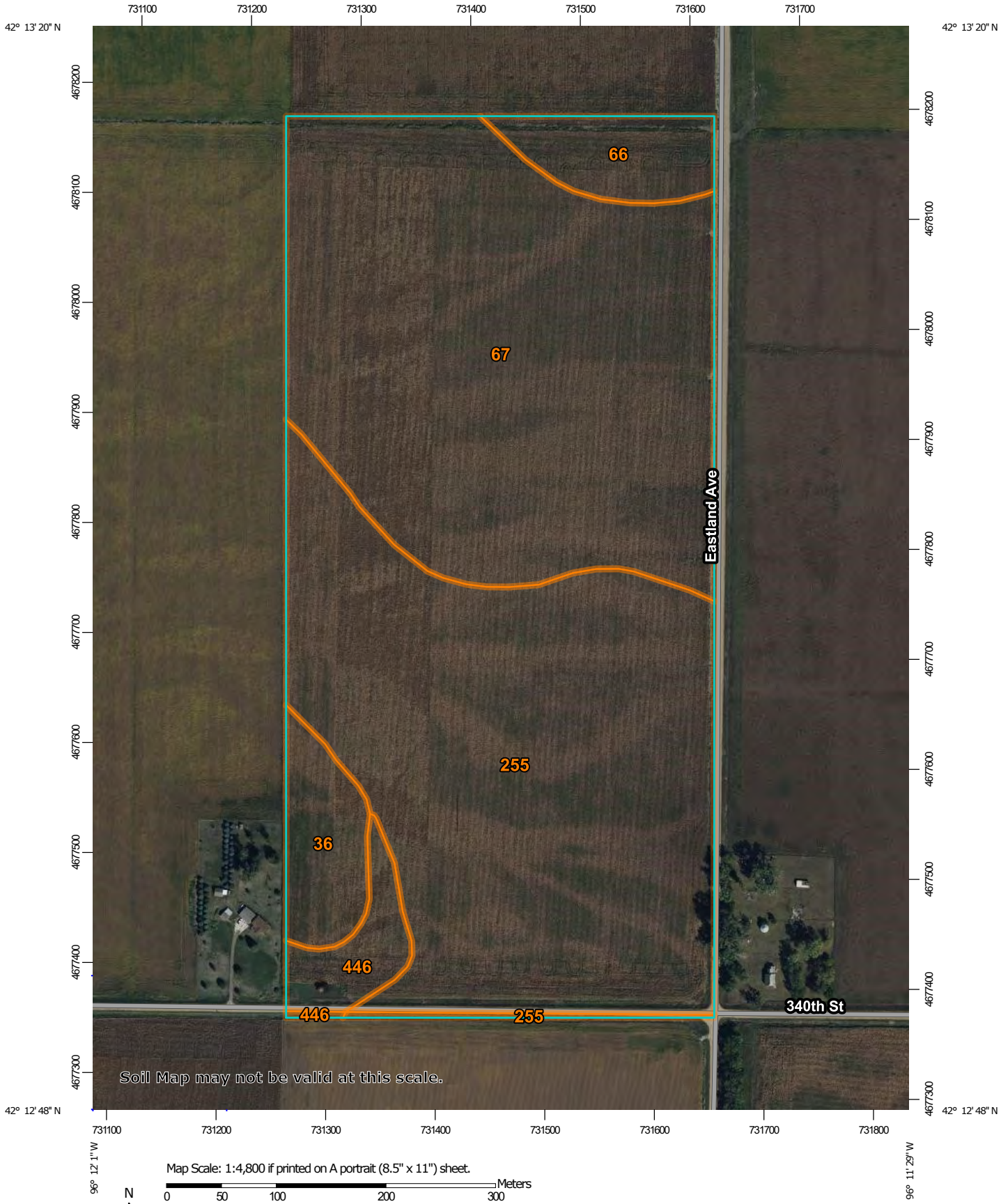
Katie Jorgensen Phone: (712)261-3151 Gypsum Only

Permitted Acres: 77 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Monona County, Iowa, and Woodbury County, Iowa
(Site 1820)



Map Scale: 1:4,800 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
255	Cooper silty clay loam, 0 to 2 percent slopes, rarely flooded	0.3	0.4%
446	Burcham silt loam, 0 to 2 percent slopes, rarely flooded	0.1	0.1%
Subtotals for Soil Survey Area		**0.4**	**0.5%**
Totals for Area of Interest		**79.4**	**100.0%**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
36	Salix silt loam, 0 to 2 percent slopes, rarely flooded	3.2	4.1%
66	Luton silty clay, 0 to 2 percent slopes, rarely flooded	3.2	4.0%
67	Woodbury silty clay, 0 to 2 percent slopes, rarely flooded	35.3	44.5%
255	Cooper silty clay loam, 0 to 2 percent slopes, rarely flooded	35.0	44.1%
446	Burcham silt loam, 0 to 2 percent slopes, rarely flooded	2.2	2.8%
Subtotals for Soil Survey Area		**79.0**	**99.5%**
Totals for Area of Interest		**79.4**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
255	Cooper silty clay loam, 0 to 2 percent slopes, rarely flooded	5	0.3	0.4%
446	Burcham silt loam, 0 to 2 percent slopes, rarely flooded	4	0.1	0.1%
Subtotals for Soil Survey Area			**0.4**	**0.5%**
Totals for Area of Interest			**79.4**	**100.0%**

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
36	Salix silt loam, 0 to 2 percent slopes, rarely flooded	5	3.2	4.1%
66	Luton silty clay, 0 to 2 percent slopes, rarely flooded	5	3.2	4.0%
67	Woodbury silty clay, 0 to 2 percent slopes, rarely flooded	5	35.3	44.5%
255	Cooper silty clay loam, 0 to 2 percent slopes, rarely flooded	5	35.0	44.1%
446	Burcham silt loam, 0 to 2 percent slopes, rarely flooded	4	2.2	2.8%
Subtotals for Soil Survey Area			**79.0**	**99.5%**
Totals for Area of Interest			**79.4**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
255	Cooper silty clay loam, 0 to 2 percent slopes, rarely flooded	30	0.3	0.4%
446	Burcham silt loam, 0 to 2 percent slopes, rarely flooded	30	0.1	0.1%
Subtotals for Soil Survey Area			**0.4**	**0.5%**
Totals for Area of Interest			**79.4**	**100.0%**

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
36	Salix silt loam, 0 to 2 percent slopes, rarely flooded	152	3.2	4.1%
66	Luton silty clay, 0 to 2 percent slopes, rarely flooded	0	3.2	4.0%
67	Woodbury silty clay, 0 to 2 percent slopes, rarely flooded	0	35.3	44.5%
255	Cooper silty clay loam, 0 to 2 percent slopes, rarely flooded	30	35.0	44.1%
446	Burcham silt loam, 0 to 2 percent slopes, rarely flooded	30	2.2	2.8%
Subtotals for Soil Survey Area			**79.0**	**99.5%**
Totals for Area of Interest			**79.4**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Well Search Report Site: 1820

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
212429	37093	T85N, R46W, 4, SE NE	Calc. +/- 930 ft.	70	10/25/1995	Douglas, George
221564	50944	T86N, R46W, 33, NW SW NW	Calc. +/- 470 ft.	94	9/23/1999	Parsley, James
229589	57351	T86N, R46W, 33, SE SW NE	Calc. +/- 470 ft.	97	5/15/2003	Cox, Kenneth
235178	61341	T85N, R46W, 4, SE NE SE	Calc. +/- 470 ft.	98	1/5/2006	Mclang, Edwin
241688	85754	T85N, R46W, 3, SW NW SE	Calc. +/- 470 ft.	88	5/6/2009	Westergaard, Ardyce
247797	76741	T85N, R46W, 3, NE SW NW	Calc. +/- 470 ft.	100	4/30/2013	Heinle, Roger
259249	96803	T86N, R46W, 30, SE NW SW	GPS	94	11/22/2022	Westergaard, Lee
259413	100683	T85N, R46W, 4, NW NE NW	GPS	94	4/17/2023	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Copple, Todd
259843	101113	T86N, R46W, 33, NE SE NW	GPS	105	11/29/2023	Hobbs, Brian
259844	101113	T86N, R46W, 33, NE SE NW	GPS	105	11/29/2023	Hobbs, Brian

Statistics: IGS Well Database

Count: 10

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
11209	25668	T86N, R46W, Sec. 33, NW, SW, NW	Calc. +/- 140m.	100	9/24/1999	Parsley
11288	20471	T86N, R46W, Sec. 32, SE, NE, SE	Calc. +/- 140m.	100	unkn	Johnson
11672	16754	T85N, R46W, Sec. 4, SE, NE, SW	Calc. +/- 285m.	100	5/25/1995	Unknown

Statistics: Permitted private wells

Count: 3

Water Use Permit Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
451898	1847	6NR46WS3	nom. +/-100m	120		LEE ESTERGAARD - JIM
451902	30579	5NR46WS0	nom. +/-100m	100		TODD COPPLE

Statistics: Water Use Permit Wells

Count: 2

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
11160	68675	T86N, R46W, Sec. 27, SW, SW, NW	Calc. +/- 285m.	85	unkn	Eyer, Shirley
11162	69346	T86N, R46W, Sec. 33, NW, NW, NW	Calc. +/- 285m.	96	1991	Olson, Steven & Christine

Statistics: Wells registered for testing

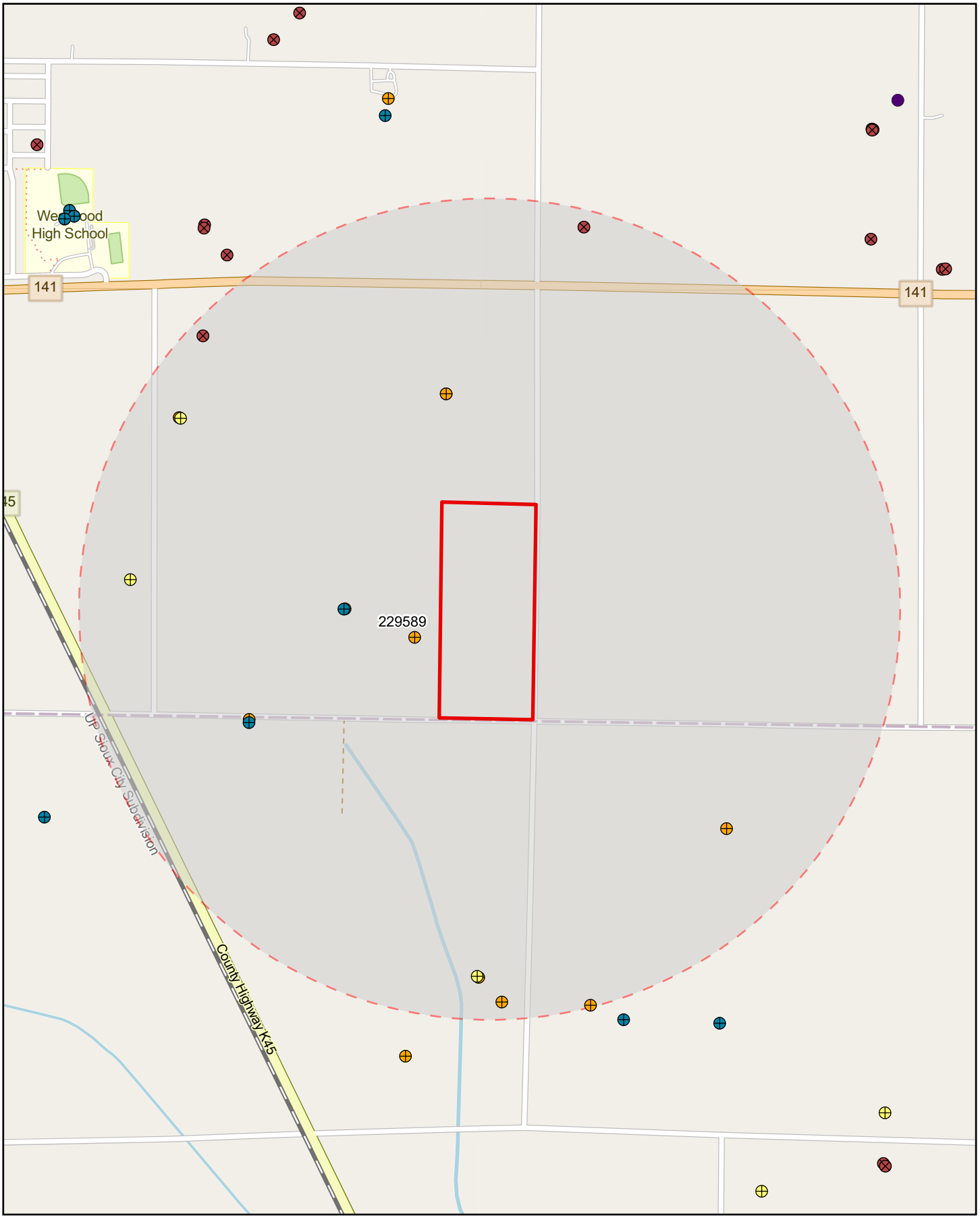
Count: 2

Report Totals

Count: 17

Date Exported: 5/12/2026 9:31 AM

Site: 1820
Subject: XY UTM Coordinates: 14T 731451 4677778
Search Radius (miles): 1



Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Katie Jorgenson

Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.

Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Signed: _____ Adam Pigott - Agronomist for Katie Jorgensen Date: _____

Cargill Corn Milling Blair: Permit # 00-SDP-07-14P - IDNR New Site List P5 5.18.26

Site Name	Section Information/Site Detail	Township	County	State	Acres	Slope Acceptable Acres	Operator
1801	NE 1/4 Sec 12 - 89N 44W	Arlington	Woodbury	IA	34	34	Jordan Plendl
1802	NE 1/4 Sec 29 - 90N 45W	Lincoln	Plymouth	IA	96	72	Jordan Plendl
1803	Sec 8 - 86N 43W	Oto	Woodbury	IA	205	204	Jordan Plendl
1804	NE 1/4 Sec 27 - 88N 36W	Jackson	Sac	IA	42	42	Phillips Ag
1805	NE 1/4 Sec 20 - 87N 36W	Wall Lake	Sac	IA	75	75	Phillips Ag
1806	SW 1/4 Sec 16 - 81N 22W	Washington	Buena Vista	IA	120	120	Brian Reinhart
1807	NW 1/4 Sec 1 - 81N 24W	Lincoln	Buena Vista	IA	83	83	Brian Reinhart
1808	NW 1/4 Sec 14 - 81N 22W	Washington	Buena Vista	IA	105	105	Brian Reinhart
1809	SW 1/4 Sec 30, NW 1/4 Sec 31 - 81N 25W	Jefferson	Buena Vista	IA	104	104	Brian Reinhart
1810	W 1/2 Sec 5 - 80N 25W	Jefferson	Buena Vista	IA	129	129	Brian Reinhart
1811	NW 1/4 Sec 10 - 80N 26W	Grant	Buena Vista	IA	51	51	Brian Reinhart

EXTended Ag Services, Inc.
202 South Highway 86
Lakefield, MN 56150
507.662.5005 phone
507.662.5105 fax
info@extendedag.com

April 24, 2026

Environmental Land Management

1602 11th Drive NE

Austin, MN 55912

RE: Review of Potential Land Application Sites – Cargill Blair: Dallas, Cherokee, Sac, Polk, Woodbury County

Michael,

We have completed our review of the proposed land application sites for the Cargill facility in Blair, Nebraska. Thank you for the opportunity to provide our input on this project. The following field was included in this review, all acres are approximate:

COUNTY: Site Name	Acres
Cherokee	**117.29**
Cargill Blair 1802	117.29
Dallas	**56.05**
Cargill Blair 1809	0.34
Cargill Blair 1811	55.70
Polk	**616.15**
Cargill Blair 1806	119.66
Cargill Blair 1807	113.07
Cargill Blair 1808	115.26
Cargill Blair 1809	116.11
Cargill Blair 1810	152.04
Sac	**117.12**
Cargill Blair 1804	42.37
Cargill Blair 1805	74.75
Woodbury	**276.44**
Cargill Blair 1801	37.82
Cargill Blair 1803	238.62
Grand Total	**1183.04**

Imagery provided by the National Ag Imagery Program (2024) was utilized to determine whether land application sites were in crop production, pasture/hay or non-farmed land. Overall, the land application sites have some limitations regarding slope steepness and length and general erosion potential.

There are approximately 1,183.0 acres available for land application of the industrial by-product. The land application site is dominated by loams, silt clay loams and silt loams. There are approximately 33.0 acres of Fine Sandy Loams, and 1.9 acres of gravel identified on potential land application sites. These soils are present on Cargill 1806 and Cargill 1803 and should be avoided during land application activities.

According to the NRCS, 92.4% of the sites have acceptable slopes for the land application of the Cargill byproducts (0-9%). According to the NRCS, 12.0% of the soils are classified as moderately or severely eroded and 63.8% as slightly eroded. The NRCS classifies 13.2% of the soils as Highly Erodible and 2.4% as *potentially* Highly Erodible.

Field specific planning and/or residue management should be utilized when applying the byproduct to reduce the potential for movement offsite, on all sites. Application can and should be limited to areas with the lowest slope first and then be directed to areas the furthest from sensitive features such as water. The application of the byproduct is not expected to conflict with any Conservation Plans associated with the observed soils. A summary of slope ratings for the potential land application sites is included below:

Slope Range	Acres
------	1.92
0-1%	73.87
0-2%	379.87
1-3%	203.33
1-5%	1.82
2-5%	307.03
2-6%	50.01
5-9%	75.33
6-10%	32.32
9-14%	31.21
10-15%	5.45
10-20%	9.08
14-18%	11.80
Grand Total	**1183.04**

Approximately 0.4% of the soils identified as potential land application sites are listed by the NRCS soil survey as ponded, commonly or frequently flooded. It is assumed that agricultural drain tile has been installed, to varying degrees, on soils with poor or somewhat poor drainage. Flooding frequency is not expected to be a limiting factor for land application. However, land application on saturated soils should be avoided at all times. Further, land application on fields with higher slope ranges and predicted rainfall within 24 hours should be limited. A complete breakdown of flooding frequency ratings is shown below:

NRCS Flooding Frequency	Acres
------	1.92
NONE	945.09

RARE	84.05
OCCASSIONAL	147.09
PONDED	4.83
FREQUENT	0.06
Grand Total	**1183.04**

Determining appropriate land application rates for any by-product is dependent on the most restrictive variable. This can be either slope, erosivity, flooding potential, soil fertility levels, soil texture or byproduct characteristics, to name a few. The recommendations given herein are independent of any byproduct reviews and only consider the known field characteristics discussed in this review.

Application rates of approximately 15 Wet Tons per acre are appropriate for the field conditions of the land application sites discussed in this review. Appropriate measures should be taken to ensure minimal movement of the waste respect to adequate setbacks from sensitive features (surface water, karst features, conduits to water and high slopes) and land application rates. Special care should be given to applying wastes no less than 48 hours prior to rainfall events of greater than 0.5 inches. Wastes should be incorporated whenever possible, if such practices do not conflict with existing NRCS conservation plans. Applications of organic by-products can result in improved soil fertility, tilth and structure, if properly managed. The soils and parent material on the proposed land application site are naturally acidic in nature. Agricultural lime should be applied to ensure the soil pH is above 6.0 prior to land application of any byproducts.

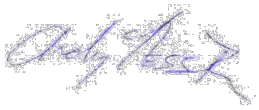
Summary

The specified land application material should be evaluated for constituents that pose a risk to the general health and welfare of the public. In general, land utilized for the land application of solid waste containing nutrients needed for pasture or crop production will benefit from such applications. Careful consideration should be taken to ensure nutrients are not applied at levels greater than crop need, once soils have reached the high fertility range as defined by Iowa State University.

In summary, we believe the field conditions are suitable for land application of solid wastes if done in accordance with all applicable rules, permits and laws. If you have any questions, please do not hesitate to contact us.

Sincerely,





Jim Nesseth
Certified Agronomist
License #: 17118

Andrew Nesseth
Environmental Consultant
NRCS Technical Service Provider

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1801



Unsuitable for Land Application

Jordan Plendl Phone: (712)261-3151 Spreadable Acres: 34 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1801



Unsuitable for Land Application

Jordan Plendl Phone: (712)261-3151 Gypsum Only

Permitted Acres: 34 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Woodbury County, Iowa
(Site 1801)



Map Scale: 1:3,380 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1C3	Ida silt loam, 5 to 9 percent slopes, severely eroded	1.5	3.6%
1D3	Ida silt loam, 9 to 14 percent slopes, severely eroded	3.8	9.4%
8B	Judson silty clay loam, deep loess, 2 to 5 percent slopes	0.0	0.1%
8C	Judson silty clay loam, deep loess, 5 to 9 percent slopes	1.3	3.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	14.2	35.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	18.9	46.9%
666B	Smithland-Danbury-Judson complex, 0 to 5 percent slopes	0.6	1.6%
Totals for Area of Interest		**40.3**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
1C3	Ida silt loam, 5 to 9 percent slopes, severely eroded	4	1.5	3.6%
1D3	Ida silt loam, 9 to 14 percent slopes, severely eroded	4	3.8	9.4%
8B	Judson silty clay loam, deep loess, 2 to 5 percent slopes	5	0.0	0.1%
8C	Judson silty clay loam, deep loess, 5 to 9 percent slopes	5	1.3	3.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	14.2	35.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	18.9	46.9%
666B	Smithland-Danbury-Judson complex, 0 to 5 percent slopes	5	0.6	1.6%
Totals for Area of Interest			**40.3**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
1C3	Ida silt loam, 5 to 9 percent slopes, severely eroded	>200	1.5	3.6%
1D3	Ida silt loam, 9 to 14 percent slopes, severely eroded	>200	3.8	9.4%
8B	Judson silty clay loam, deep loess, 2 to 5 percent slopes	>200	0.0	0.1%
8C	Judson silty clay loam, deep loess, 5 to 9 percent slopes	>200	1.3	3.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	14.2	35.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	18.9	46.9%
666B	Smithland-Danbury-Judson complex, 0 to 5 percent slopes	30	0.6	1.6%
Totals for Area of Interest			**40.3**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Well Search Report Site: 1801

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
209944	37448	T89N, R44W, 12, SE SE SE	Calc. +/- 470 ft.	115	1/13/1994	Ploen, Jeff
223001	52050	T89N, R43W, 7, SW NW SE	Calc. +/- 470 ft.	34	4/29/2000	Janssen, Richard
223002	52050	T89N, R43W, 7, SW NW SE	Calc. +/- 470 ft.	34	4/29/2000	Janssen, Richard

Statistics: IGS Well Database

Count: 3

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
5506	16972	T89N, R44W, Sec. 12, NE, NE, NE	Calc. +/- 140m.	unkn	11/04/1994	Unknown
5648	26779	T89N, R43W, Sec. 7, SW, NW, SW	Calc. +/- 140m.	75	5/01/2000	Janssen, Richard

Statistics: Permitted private wells

Count: 2

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
5249	9774	T89N, R44W, Sec. 1, NE, NE, SE	Calc. +/- 140m.	30	n.a.	Vannorsdel, Bernice
5250	8825	T89N, R44W, Sec. 1, NE, NE, SE	Calc. +/- 140m.	30	n.a.	Vannorsdel, Bernice
5254	11187	T89N, R44W, Sec. 1, NE, NE, SE	Calc. +/- 140m.	30	n.a.	Vannorsdel, Bernice
5296	8798	T89N, R44W, Sec. 2, SE, SE, NE	Calc. +/- 140m.	24	n.a.	Woodbury County, Woodbury Co.
5520	42291	T89N, R43W, Sec. 6, SE, NW, SE	Calc. +/- 140m.	44	n.a.	Bogenrief, Delbert
5581	9783	T89N, R44W, Sec. 12, SW, NW, SE	Calc. +/- 140m.	99	n.a.	Crowe, Mary/ Hume

Statistics: Registered abandoned wells

Count: 6

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
5420	37454	T89N, R43W, Sec. 6, SE, NW, NW	Calc. +/- 1135m.	20	1936	Wiese, Randy
5630	79755	T89N, R44W, Sec. 12, SE, NE, SE	Calc. +/- 140m.	115	1994	Ploen, Jeff
5693	10755	T89N, R44W, Sec. 12, SE, SE, NW	Calc. +/- 285m.	115	1994	Ploen, Jeffrey G.
5694	38345	T89N, R44W, Sec. 12, SE, SE, SW	Calc. +/- 285m.	115	1995	Ploen, Jeff
5695	58063	T89N, R44W, Sec. 12, SE, SE, SE	Calc. +/- 285m.	105	1994	Ploen, Jeffrey/ Anita
5718	69324	T89N, R43W, Sec. 7, SW, NE, SW	Calc. +/- 570m.	20	unkn	Janssen, Richard
5750	64039	T89N, R43W, Sec. 7, SW, SW, SW	Calc. +/- 140m.	115	1994	Ploen, Jeff

Statistics: Wells registered for testing

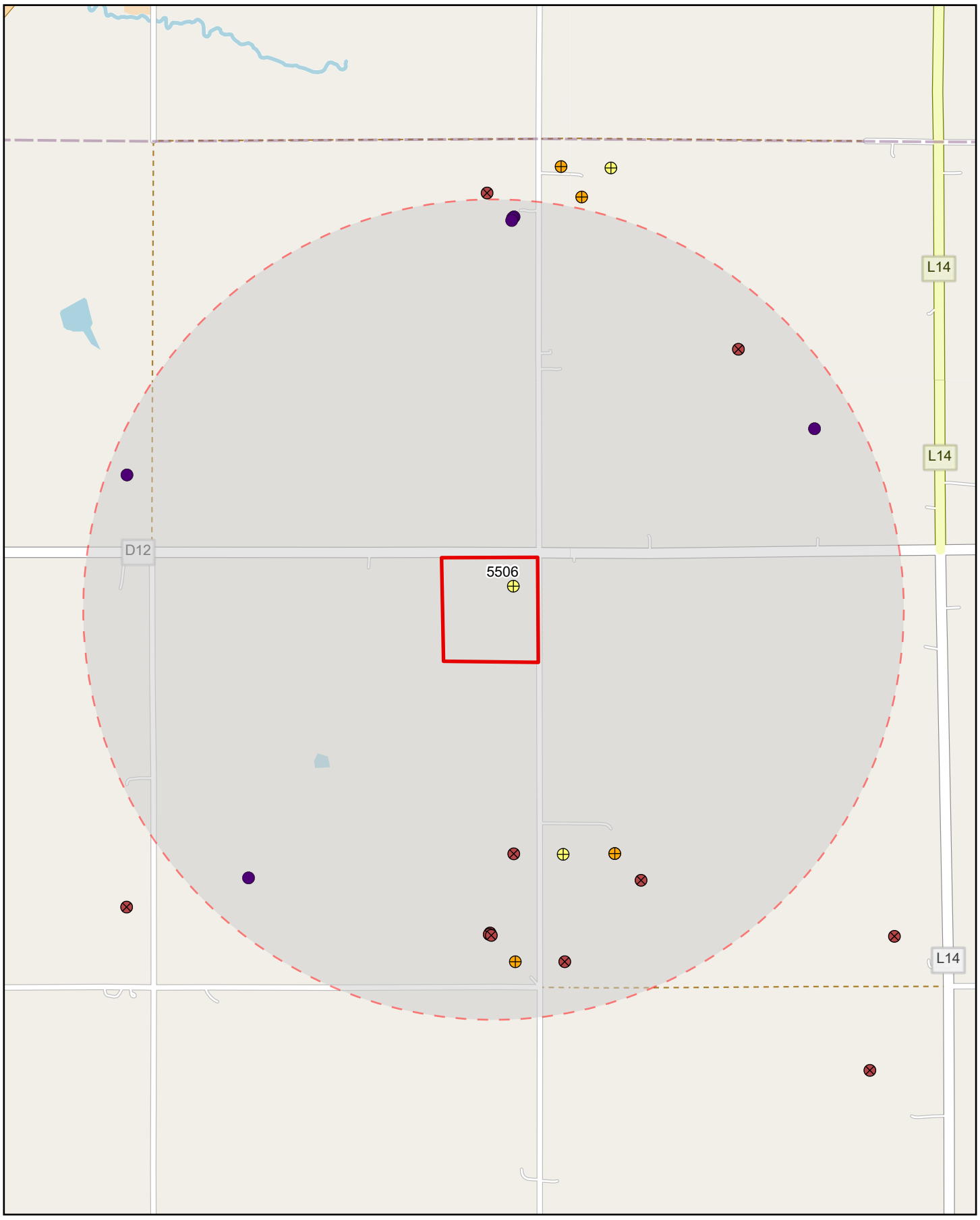
Count: 7

Report Totals

Count: 18

Date Exported: 5/11/2026 12:48 PM

Site: 1801
Subject: XY UTM Coordinates: 15N 255274 4714647
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1802



Unsuitable for Land Application

Jordan Plendl Phone: (712)261-3151 Spreadable Acres: 72 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1802



Unsuitable for Land Application

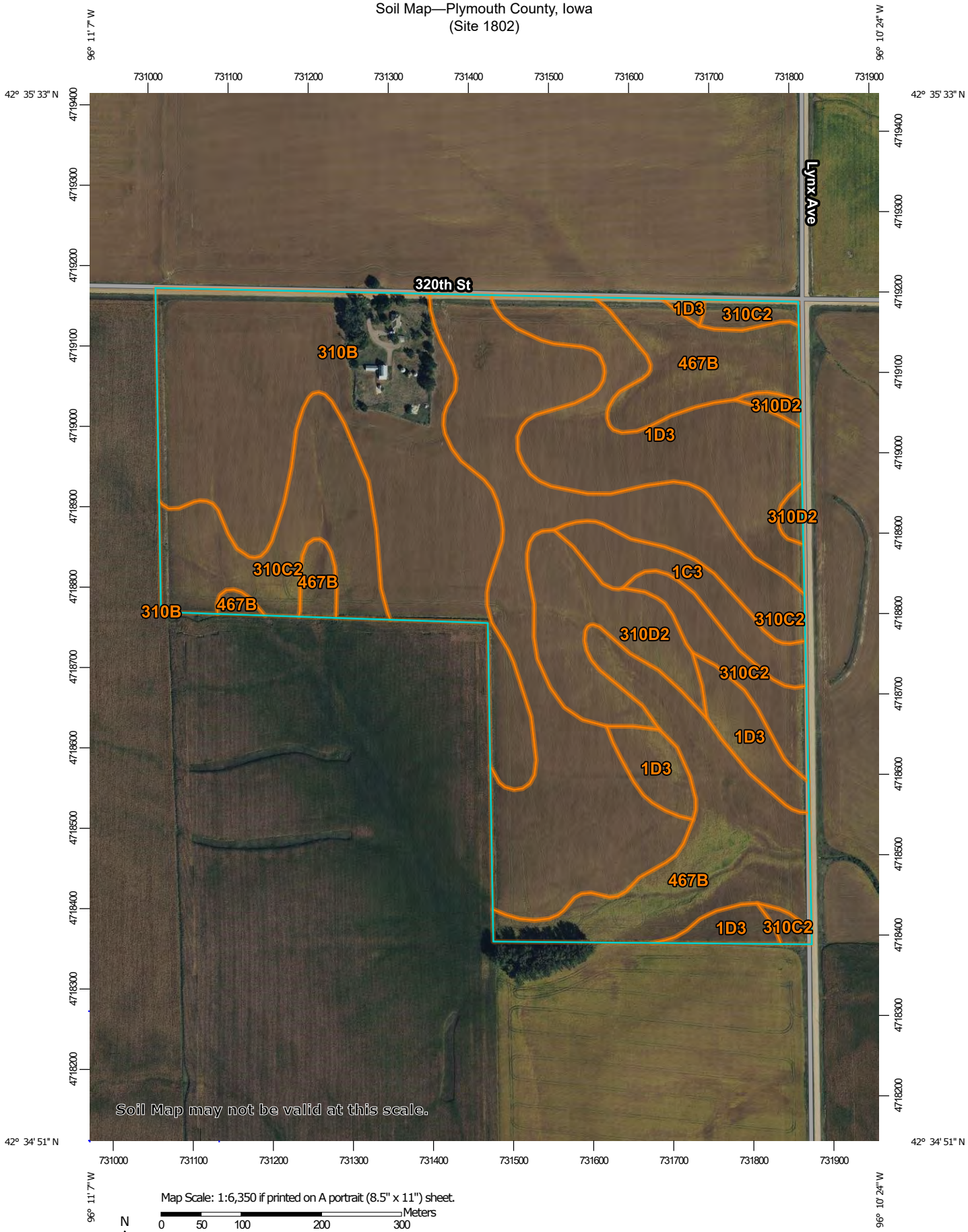
Jordan Plendl Phone: (712)261-3151 Gypsum Only

Permitted Acres: 96 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Plymouth County, Iowa
(Site 1802)



Map Scale: 1:6,350 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1C3	Ida silt loam, 5 to 9 percent slopes, severely eroded	3.8	3.2%
1D3	Ida silt loam, 9 to 14 percent slopes, severely eroded	18.5	15.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	30.0	25.0%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	40.2	33.6%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	7.7	6.4%
467B	Radford silty clay loam, 2 to 5 percent slopes	19.6	16.4%
Totals for Area of Interest		**119.8**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
1C3	Ida silt loam, 5 to 9 percent slopes, severely eroded	4	3.8	3.2%
1D3	Ida silt loam, 9 to 14 percent slopes, severely eroded	4	18.5	15.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	30.0	25.0%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	40.2	33.6%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	5	7.7	6.4%
467B	Radford silty clay loam, 2 to 5 percent slopes	5	19.6	16.4%
Totals for Area of Interest			**119.8**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
1C3	Ida silt loam, 5 to 9 percent slopes, severely eroded	>200	3.8	3.2%
1D3	Ida silt loam, 9 to 14 percent slopes, severely eroded	>200	18.5	15.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	30.0	25.0%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	40.2	33.6%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	>200	7.7	6.4%
467B	Radford silty clay loam, 2 to 5 percent slopes	30	19.6	16.4%
Totals for Area of Interest			**119.8**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1802

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
200542	25592	T90N, R45W, 28, SW SW SE	Calc. +/- 470 ft.	487	9/10/1979	Igs-Usgs
216625	44902	T90N, R45W, 20, SW SW SW	Calc. +/- 470 ft.	175	7/17/1997	Milton, Marlin
234698	84321	T90N, R45W, 29, NE NW NE	Calc. +/- 470 ft.	327	10/13/2005	Schreiber, Melody
234699	84321	T90N, R45W, 29, NE NW NE	Calc. +/- 470 ft.	327	10/13/2005	Schreiber, Melody
258009	95803	T90N, R45W, 19, SE SE NE	Maps/Air Photos +/- 20 m.	229	6/24/2021	Haselquist, Keith

Statistics: IGS Well Database

Count: 5

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
3736	73740	T90N, R45W, Sec. 21, SW, NW, SW	Calc. +/- 140m.	unkn	unkn	Shannon, Tim

Statistics: Wells registered for testing

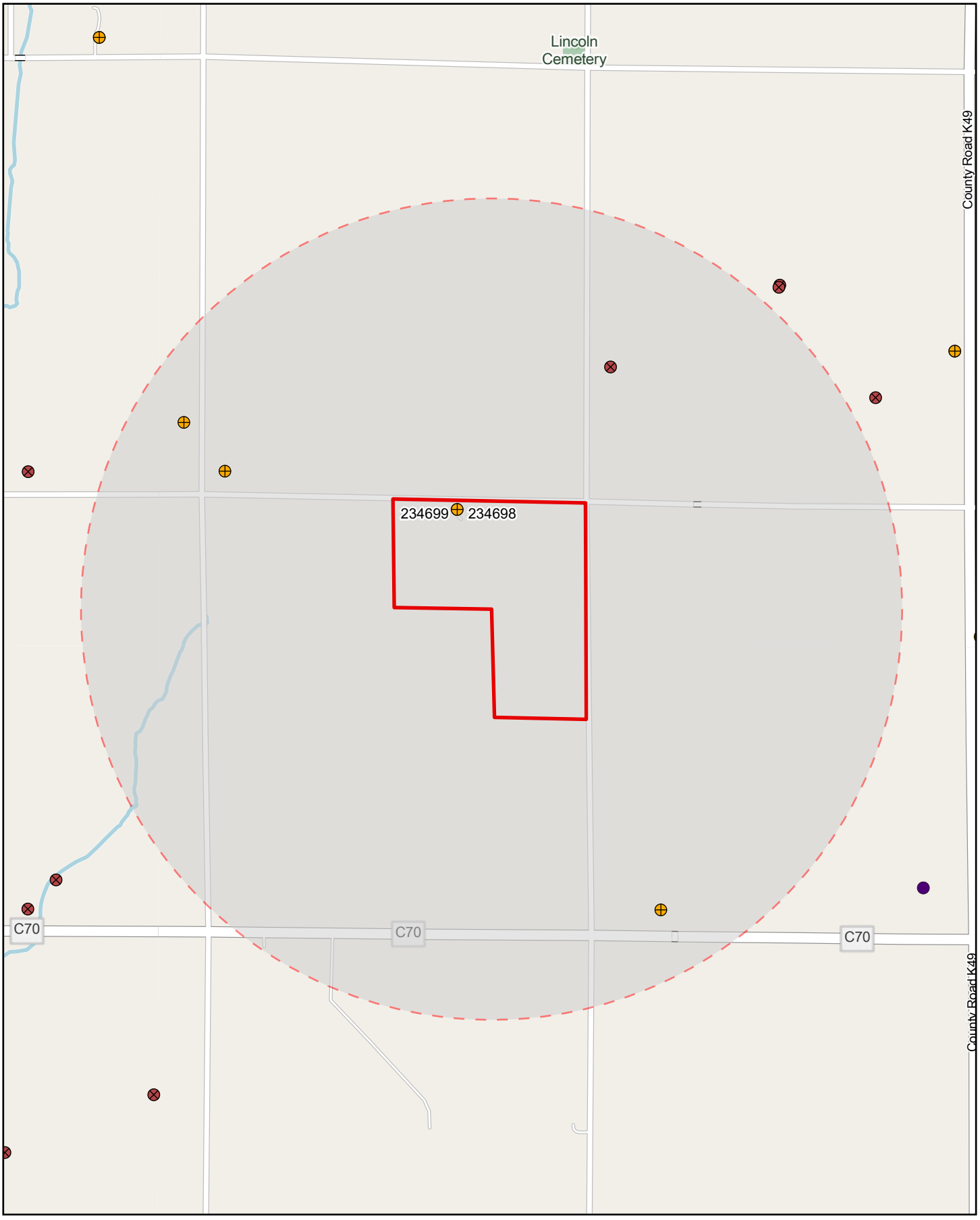
Count: 1

Report Totals

Count: 6

Date Exported: 5/11/2026 12:54 PM

Site: 1802
Subject: XY UTM Coordinates: 14N 731447 4718774
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1803



Unsuitable for Land Application

Jordan Plendl Phone: (712)261-3151 Spreadable Acres: 204 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1803



Unsuitable for Land Application

Jordan Plendl Phone: (712)261-3151 Gypsum Only

Permitted Acres: 205 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Woodbury County, Iowa
(Site 1803)



Map Scale: 1:7,940 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 100 200 400 600

Feet
0 350 700 1400 2100

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
12B	Napier silt loam, 2 to 5 percent slopes	17.1	6.8%
12C	Napier silt loam, 5 to 9 percent slopes	0.5	0.2%
26	Kennebec silty clay loam, 0 to 2 percent slopes, occasionally flooded	17.0	6.7%
35F	Liston-Burchard complex, 18 to 25 percent slopes	0.0	0.0%
35G	Liston-Burchard complex, 25 to 40 percent slopes	0.9	0.3%
212	Kennebec silt loam, 0 to 2 percent slopes, occasionally flooded	42.1	16.6%
266	Smithland silty clay loam, 0 to 2 percent slopes, occasionally flooded	6.4	2.5%
266+	Smithland silt loam, 0 to 2 percent slopes, occasionally flooded, overwash	35.9	14.2%
277C	Deloit loam, 5 to 9 percent slopes	9.8	3.9%
510B	Monona silt loam, terrace, 2 to 5 percent slopes	35.1	13.9%
670	Rawles silt loam, 0 to 2 percent slopes, occasionally flooded	47.3	18.7%
701	Wilsey silt loam, 0 to 2 percent slopes, occasionally flooded	29.0	11.5%
5010	Pits, sand and gravel	4.2	1.7%
5040	Udorthents, loamy	1.3	0.5%
W	Water	6.6	2.6%
Totals for Area of Interest		**253.2**	**100.0%**

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
12B	Napier silt loam, 2 to 5 percent slopes	>200	17.1	6.8%
12C	Napier silt loam, 5 to 9 percent slopes	>200	0.5	0.2%
26	Kennebec silty clay loam, 0 to 2 percent slopes, occasionally flooded	122	17.0	6.7%
35F	Liston-Burchard complex, 18 to 25 percent slopes	>200	0.0	0.0%
35G	Liston-Burchard complex, 25 to 40 percent slopes	>200	0.9	0.3%
212	Kennebec silt loam, 0 to 2 percent slopes, occasionally flooded	122	42.1	16.6%
266	Smithland silty clay loam, 0 to 2 percent slopes, occasionally flooded	30	6.4	2.5%
266+	Smithland silt loam, 0 to 2 percent slopes, occasionally flooded, overwash	30	35.9	14.2%
277C	Deloit loam, 5 to 9 percent slopes	>200	9.8	3.9%
510B	Monona silt loam, terrace, 2 to 5 percent slopes	>200	35.1	13.9%
670	Rawles silt loam, 0 to 2 percent slopes, occasionally flooded	91	47.3	18.7%
701	Wilsey silt loam, 0 to 2 percent slopes, occasionally flooded	>200	29.0	11.5%
5010	Pits, sand and gravel	>200	4.2	1.7%
5040	Udorthents, loamy	>200	1.3	0.5%
W	Water	>200	6.6	2.6%
Totals for Area of Interest			**253.2**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
12B	Napier silt loam, 2 to 5 percent slopes	5	17.1	6.8%
12C	Napier silt loam, 5 to 9 percent slopes	5	0.5	0.2%
26	Kennebec silty clay loam, 0 to 2 percent slopes, occasionally flooded	5	17.0	6.7%
35F	Liston-Burchard complex, 18 to 25 percent slopes	5	0.0	0.0%
35G	Liston-Burchard complex, 25 to 40 percent slopes	5	0.9	0.3%
212	Kennebec silt loam, 0 to 2 percent slopes, occasionally flooded	5	42.1	16.6%
266	Smithland silty clay loam, 0 to 2 percent slopes, occasionally flooded	5	6.4	2.5%
266+	Smithland silt loam, 0 to 2 percent slopes, occasionally flooded, overwash	5	35.9	14.2%
277C	Deloit loam, 5 to 9 percent slopes	5	9.8	3.9%
510B	Monona silt loam, terrace, 2 to 5 percent slopes	5	35.1	13.9%
670	Rawles silt loam, 0 to 2 percent slopes, occasionally flooded	5	47.3	18.7%
701	Wilsey silt loam, 0 to 2 percent slopes, occasionally flooded	5	29.0	11.5%
5010	Pits, sand and gravel		4.2	1.7%
5040	Udorthents, loamy	5	1.3	0.5%
W	Water		6.6	2.6%
Totals for Area of Interest			**253.2**	**100.0%**

Well Search Report Site: 1803

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
171990	80210	T86N, R43W, 7,	Unknown	115	11/1/1948	Reese
175542	41336	T86N, R43W, 6, SE SW SW	GPS	65	1/1/1954	Oto, City Of
175543	41336	T86N, R43W, 6, SE SW SW	GPS	65	1/1/1954	Oto, City Of
203200	41337	T86N, R43W, 6, SE SW SW	GPS	70	1/1/1984	Oto, City Of
203201	41337	T86N, R43W, 6, SE SW SW	GPS	70	1/1/1984	Oto, City Of
229560	57342	T86N, R43W, 8, NE SW NE	Calc. +/- 470 ft.	123	5/12/2003	Ullrich Farm Corp.
257424	96517	T86N, R43W, 8, NE NE NE	GPS	148	10/5/2020	Mason, Kimberly

Statistics: IGS Well Database

Count: 7

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
12097	27071	T86N, R43W, Sec. 9, SW, NE, NW	Calc. +/- 140m.	unkn	5/25/2000	Schwartz, Sheran

Statistics: Permitted private wells

Count: 1

Public Water Supply Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
441622	2408543					OTO WATER SUPPLY
444772	2411719					OTO WATER SUPPLY

Statistics: Public Water Supply Wells

Count: 2

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
11857	32286	T86N, R43W, Sec. 8, NW, SE, SE	Calc. +/- 140m.	160	n.a.	Heck, Vernon G.

Statistics: Registered abandoned wells

Count: 1

Water Use Permit Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
451750	5538	6NR43WS0	nom. +/-100m	65	12/31/1954	CITY OF OTO (DAVID DORALE)
451751	5539	6NR43WS0	nom. +/-100m	70	1/1/1984	CITY OF OTO (DAVID DORALE)
451770	4	6NR43WS0	nom. +/-100m	70		Ulrich Farm Corp (MARTY EMGE)

Statistics: Water Use Permit Wells

Count: 3

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
11773	2523	T86N, R43W, Sec. 7, SW, NE, NE	Calc. +/- 285m.	120	1975	Mcdonald, Vincent
11776	68600	T86N, R43W, Sec. 7, SW, NE, SW	Calc. +/- 285m.	145	1975	Mcdonald, Vincent

Statistics: Wells registered for testing

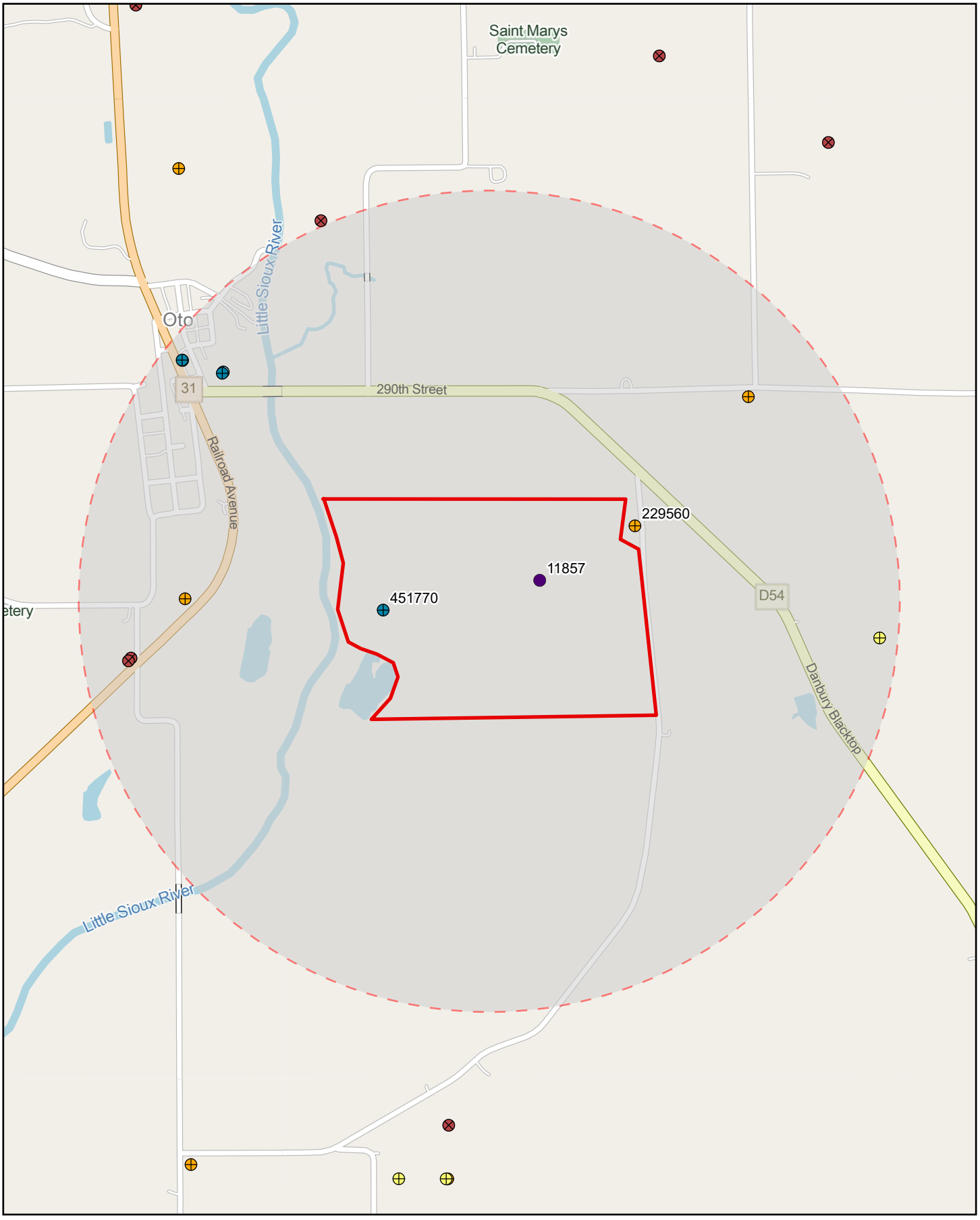
Count: 2

Report Totals

Count: 16

Date Exported: 5/11/2026 12:59 PM

Site: 1803
Subject: XY UTM Coordinates: 15N 262661 4684530
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1804



Unsuitable for Land Application

Phillips Ag Phone: (712)261-3151 Spreadable Acres: 42 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1804



Unsuitable for Land Application

Phillips Ag Phone: (712)261-3151 Gypsum Only

Permitted Acres: 42 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Sac County, Iowa
(Site 1804)



Map Scale: 1:3,770 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
55	Nicollet clay loam, 1 to 3 percent slopes	17.8	42.8%
107	Webster clay loam, 0 to 2 percent slopes	0.5	1.2%
138B	Clarion loam, 2 to 6 percent slopes	12.3	29.5%
507	Canisteo clay loam, 0 to 2 percent slopes	11.0	26.5%
Totals for Area of Interest		**41.5**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
55	Nicollet clay loam, 1 to 3 percent slopes	5	17.8	42.8%
107	Webster clay loam, 0 to 2 percent slopes	5	0.5	1.2%
138B	Clarion loam, 2 to 6 percent slopes	5	12.3	29.5%
507	Canisteo clay loam, 0 to 2 percent slopes	5	11.0	26.5%
Totals for Area of Interest			**41.5**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
55	Nicollet clay loam, 1 to 3 percent slopes	45	17.8	42.8%
107	Webster clay loam, 0 to 2 percent slopes	0	0.5	1.2%
138B	Clarion loam, 2 to 6 percent slopes	90	12.3	29.5%
507	Canisteo clay loam, 0 to 2 percent slopes	0	11.0	26.5%
Totals for Area of Interest			**41.5**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1804

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
155254	1797	T88N, R36W, 23,	Calc. +/- 3730 ft.	255		Sac City, City Of
160756	1798	T88N, R36W, 23,	Calc. +/- 3730 ft.	228		Sac City, City Of
160757	1799	T88N, R36W, 23,	Calc. +/- 3730 ft.	26		Sac City, City Of
160840	605	T88N, R36W, 23,	Calc. +/- 3730 ft.	63		Sac City, City Of
161845	41729	T88N, R36W, 26,	Calc. +/- 3730 ft.	0		Sac City, City Of
168035	41727	T88N, R36W, 26,	Calc. +/- 3730 ft.	63	1/1/1935	Sac City, City Of
181507	12685	T88N, R36W, 26, NE NW NE	GPS	240	1/1/1960	Sac City, City Of
181508	12685	T88N, R36W, 26, NE NW NE	GPS	240	1/1/1960	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Sac City, City Of
187910	18095	T88N, R36W, 22, SW NW NE NE	Calc. +/- 230 ft.	242	8/24/1965	Northern Iowa Conf. Pension
230779	58145	T88N, R36W, 23, NW SE NW	Calc. +/- 470 ft.	178	11/7/2003	Simpson, Leonard
237523	62814	T88N, R36W, 26, NW SE SE	Calc. +/- 470 ft.	178	12/13/2006	Glass, George
238909	64291	T88N, R36W, 26, NE NW SW NW SW	Unknown	180	10/1/2007	Thomas, Arnold
241217	66731	T88N, R36W, 23, SW SE SE SE NW	Unknown	140	11/26/2008	Hosteng, Mark
241776	67332	T88N, R36W, 23, SE SE NW SW NW	Unknown	180	5/27/2009	Hinrichs, Lorene
241790	67748	T88N, R36W, 23, SE NW NW NW	GPS	180	5/29/2009	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Irwin, Steve
242593	68327	T88N, R36W, 23, SW NE NE	Calc. +/- 470 ft.	180	11/13/2009	Agri Sales
249437	77661	T88N, R36W, 23, SW SE SE	Calc. +/- 470 ft.	90	4/23/2014	Freidman, George

Statistics: IGS Well Database

Count: 17

Public Water Supply Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
444861	2411810					SAC CITY MUNICIPAL WATER PLANT

Statistics: Public Water Supply Wells

Count: 1

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
18383	1663	T88N, R36W, Sec. 23, SW, NW, NW	Calc. +/- 140m.	55	n.a.	Waller, Boyd
18470	42260	T88N, R36W, Sec. 23, SW, NE, NE	Calc. +/- 1135m.	unkn	n.a.	Mahler, Larry

Statistics: Registered abandoned wells

Count: 2

Water Use Permit Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
451459	5787	8NR36WS2	nom. +/-100m	240	1/1/1960	CITY OF SAC CITY

Statistics: Water Use Permit Wells

Count: 1

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
18473	30672	T88N, R36W, Sec. 23, NE, SW, SW	Calc. +/- 1135m.	unkn	unkn	Smith, Karen
18474	27640	T88N, R36W, Sec. 23, SE, NW, NW	Calc. +/- 1135m.	unkn	unkn	Smith, Karen
18475	75239	T88N, R36W, Sec. 23, NE, SW, SW	Calc. +/- 1135m.	unkn	unkn	Sferrazza, Tony
18560	15616	T88N, R36W, Sec. 27, SE, SW, NE	Calc. +/- 285m.	unkn	unkn	Glass, Charles
18569	2270	T88N, R36W, Sec. 26, NW, NE, SE	Calc. +/- 285m.	40	unkn	Rogers, Neil

Statistics: Wells registered for testing

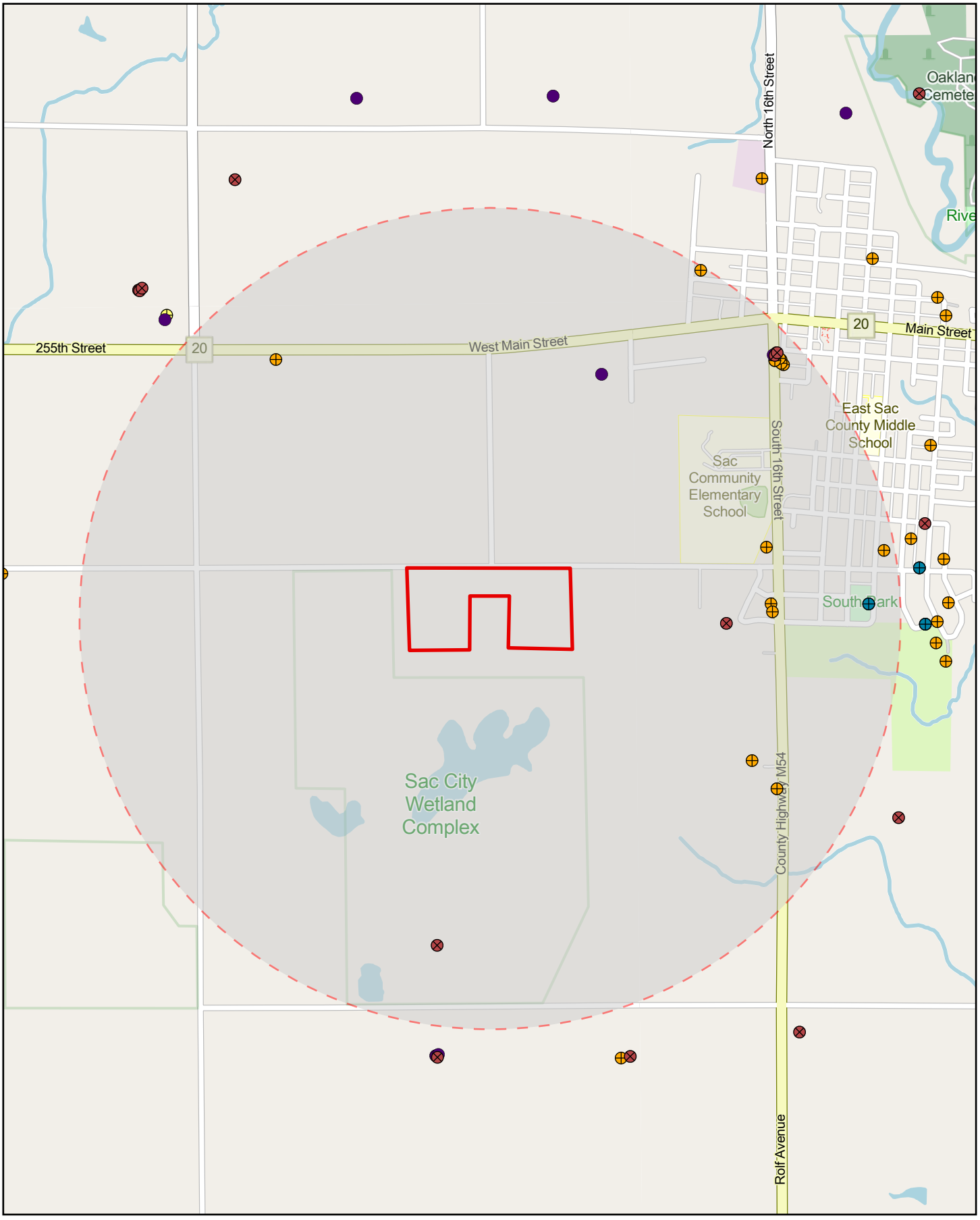
Count: 5

Report Totals

Count: 26

Date Exported: 5/11/2026 1:07 PM

Site: 1804
Subject: XY UTM Coordinates: 15N 334027 4697603
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1805



Unsuitable for Land Application

Phillips Ag Phone: (712)261-3151 Spreadable Acres: 75 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1805



Unsuitable for Land Application

Phillips Ag Phone: (712)261-3151 Gypsum Only

Permitted Acres: 75 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Sac County, Iowa
(Site 1805 Soil)



Map Scale: 1:4,860 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
6	Okoboji silty clay loam, 0 to 1 percent slopes	2.7	3.4%
55	Nicollet clay loam, 1 to 3 percent slopes	15.8	19.8%
107	Webster clay loam, 0 to 2 percent slopes	15.7	19.6%
108B	Wadena loam, 2 to 6 percent slopes	0.6	0.8%
138B	Clarion loam, 2 to 6 percent slopes	20.3	25.4%
138C2	Clarion loam, 6 to 10 percent slopes, moderately eroded	11.8	14.8%
507	Canisteo clay loam, 0 to 2 percent slopes	12.0	15.1%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	0.9	1.1%
Totals for Area of Interest		**79.8**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
6	Okoboji silty clay loam, 0 to 1 percent slopes	5	2.7	3.4%
55	Nicollet clay loam, 1 to 3 percent slopes	5	15.8	19.8%
107	Webster clay loam, 0 to 2 percent slopes	5	15.7	19.6%
108B	Wadena loam, 2 to 6 percent slopes	3	0.6	0.8%
138B	Clarion loam, 2 to 6 percent slopes	5	20.3	25.4%
138C2	Clarion loam, 6 to 10 percent slopes, moderately eroded	5	11.8	14.8%
507	Canisteo clay loam, 0 to 2 percent slopes	5	12.0	15.1%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	5	0.9	1.1%
Totals for Area of Interest			**79.8**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
6	Okoboji silty clay loam, 0 to 1 percent slopes	0	2.7	3.4%
55	Nicollet clay loam, 1 to 3 percent slopes	45	15.8	19.8%
107	Webster clay loam, 0 to 2 percent slopes	0	15.7	19.6%
108B	Wadena loam, 2 to 6 percent slopes	>200	0.6	0.8%
138B	Clarion loam, 2 to 6 percent slopes	90	20.3	25.4%
138C2	Clarion loam, 6 to 10 percent slopes, moderately eroded	140	11.8	14.8%
507	Canisteo clay loam, 0 to 2 percent slopes	0	12.0	15.1%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	15	0.9	1.1%
Totals for Area of Interest			**79.8**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Well Search Report Site: 1805

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
234503	83176	T87N, R36W, 17, SE NE NE	Calc. +/- 470 ft.	50	9/16/2005	Bettin, Mike

Statistics: IGS Well Database

Count: 1

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
19219	40455	T87N, R36W, Sec. 20, NE, NE, NE	Calc. +/- 140m.	16	n.a.	Hamilton Co. Cons.
19295	3137	T87N, R36W, Sec. 20, SE, NW, SW	Calc. +/- 140m.	24	n.a.	Carlson, Jane

Statistics: Registered abandoned wells

Count: 2

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
19001	13613	T87N, R36W, Sec. 17, NE, SW, NW	Calc. +/- 285m.	75	1994	Wilson, Steve
19041	76163	T87N, R36W, Sec. 20, NW, NW, NW	Calc. +/- 285m.	24	1950	Obman, Donald
19045	76162	T87N, R36W, Sec. 17, SW, SE, SW	Calc. +/- 285m.	350	1989	Phillips, Norm
19159	70933	T87N, R36W, Sec. 20, SW, NW, SW	Calc. +/- 140m.	40	1940	Riedell, Richard
19160	70931	T87N, R36W, Sec. 20, SW, NW, SW	Calc. +/- 140m.	40	1940	Riedell, Richard
19389	50522	T87N, R36W, Sec. 20, SE, SW, SE	Calc. +/- 140m.	30	unkn	Stock, Dean
19418	76168	T87N, R36W, Sec. 20, SE, SE, SW	Calc. +/- 285m.	55	1950	Stock, Dean

Statistics: Wells registered for testing

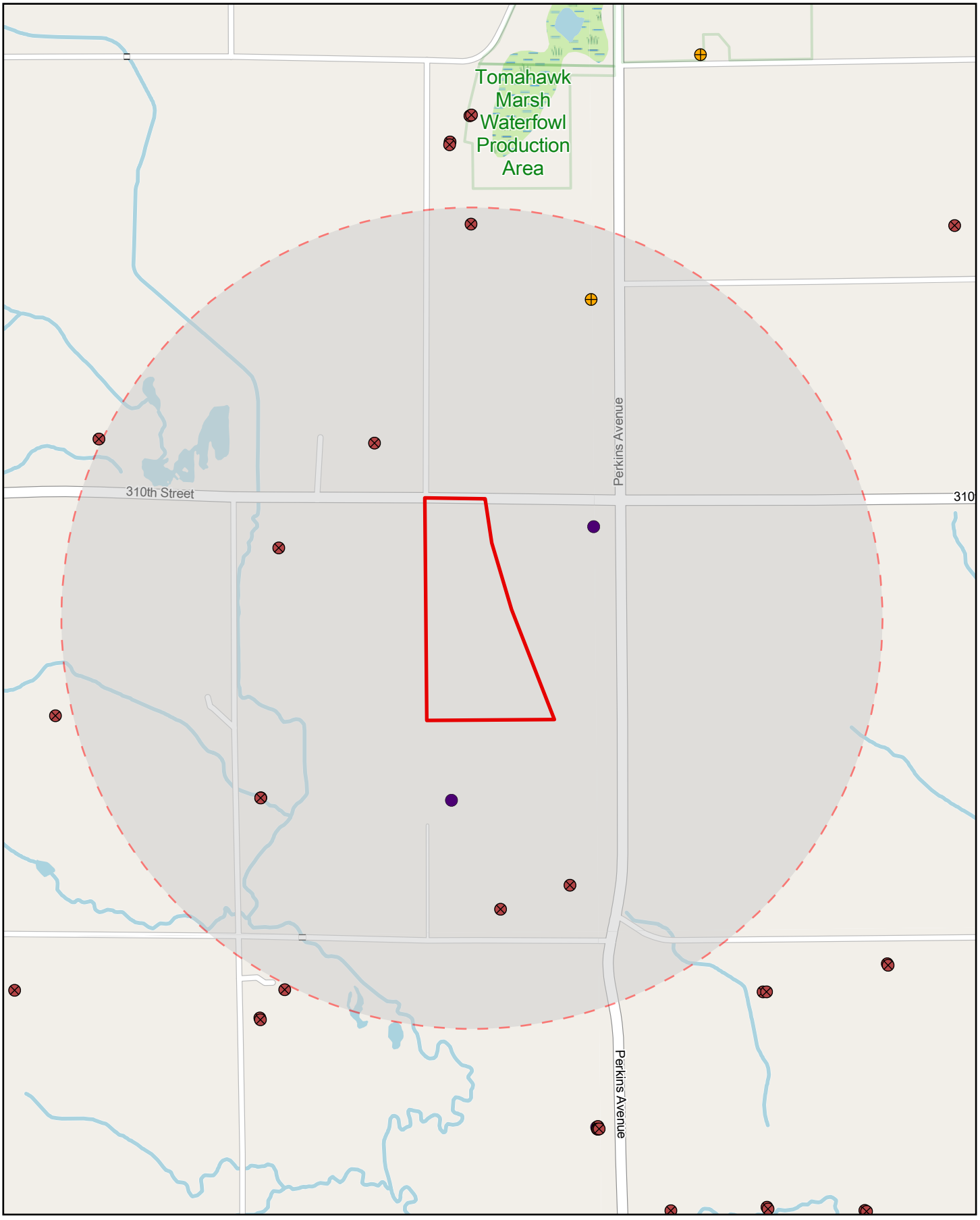
Count: 7

Report Totals

Count: 10

Date Exported: 5/11/2026 1:12 PM

Site: 1805
Subject: XY UTM Coordinates: 15N 330298 4689191
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1806



Unsuitable for Land Application

Brian Reinhart Phone: (712)261-3151 Spreadable Acres: 120 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1806



Unsuitable for Land Application

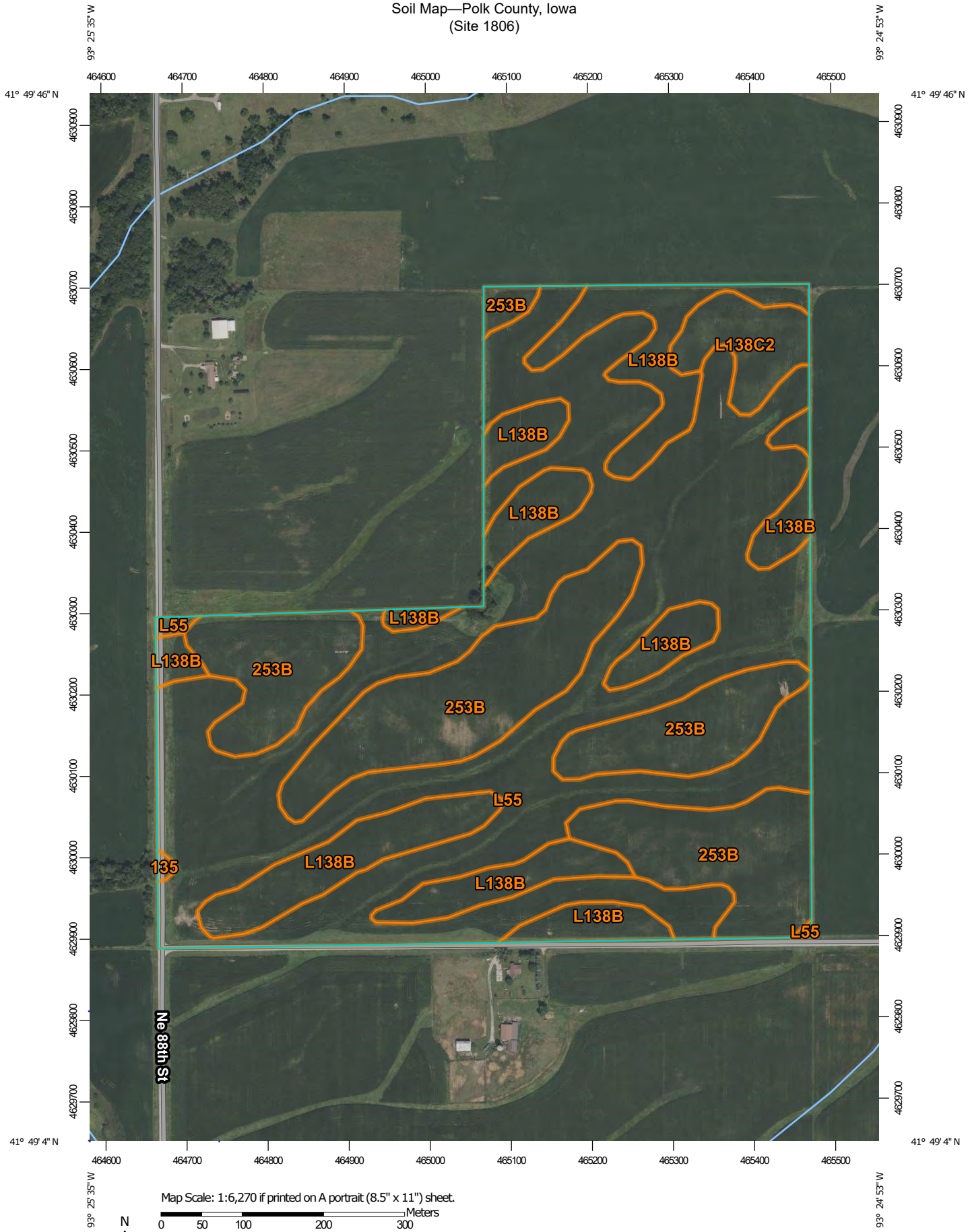
Brian Reinhart Phone: (712)261-3151 Gypsum Only

Permitted Acres: 120 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Polk County, Iowa
(Site 1806)



Map Scale: 1:6,270 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
135	Coland clay loam, 0 to 2 percent slopes, occasionally flooded	0.1	0.1%
253B	Farrar fine sandy loam, 2 to 5 percent slopes	32.8	27.0%
L55	Nicollet loam, 1 to 3 percent slopes	60.9	50.1%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	23.8	19.6%
L138C2	Clarion loam, Bemis moraine, 6 to 10 percent slopes, moderately eroded	3.8	3.1%
Totals for Area of Interest		**121.5**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
135	Coland clay loam, 0 to 2 percent slopes, occasionally flooded	5	0.1	0.1%
253B	Farrar fine sandy loam, 2 to 5 percent slopes	5	32.8	27.0%
L55	Nicollet loam, 1 to 3 percent slopes	5	60.9	50.1%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	5	23.8	19.6%
L138C2	Clarion loam, Bemis moraine, 6 to 10 percent slopes, moderately eroded	5	3.8	3.1%
Totals for Area of Interest			**121.5**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
135	Coland clay loam, 0 to 2 percent slopes, occasionally flooded	0	0.1	0.1%
253B	Farrar fine sandy loam, 2 to 5 percent slopes	>200	32.8	27.0%
L55	Nicollet loam, 1 to 3 percent slopes	50	60.9	50.1%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	150	23.8	19.6%
L138C2	Clarion loam, Bemis moraine, 6 to 10 percent slopes, moderately eroded	150	3.8	3.1%
Totals for Area of Interest			**121.5**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

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Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1807

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
189244	19324	T81N, R24W, 1, NW NE NE NW	Calc. +/- 230 ft.	397	10/12/1966	Larson, Lewis

Statistics: IGS Well Database

Count: 1

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
65082	14541	T81N, R24W, Sec. 1, NW, NW, SE	Calc. +/- 285m.	170	unkn	Unknown

Statistics: Permitted private wells

Count: 1

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
65510	49578	T81N, R24W, Sec. 1, NE, SE, NE	Calc. +/- 140m.	unkn	unkn	Griffith Residence
65511	49577	T81N, R24W, Sec. 1, NE, SE, NE	Calc. +/- 140m.	unkn	unkn	Griffith Residence

Statistics: Wells registered for testing

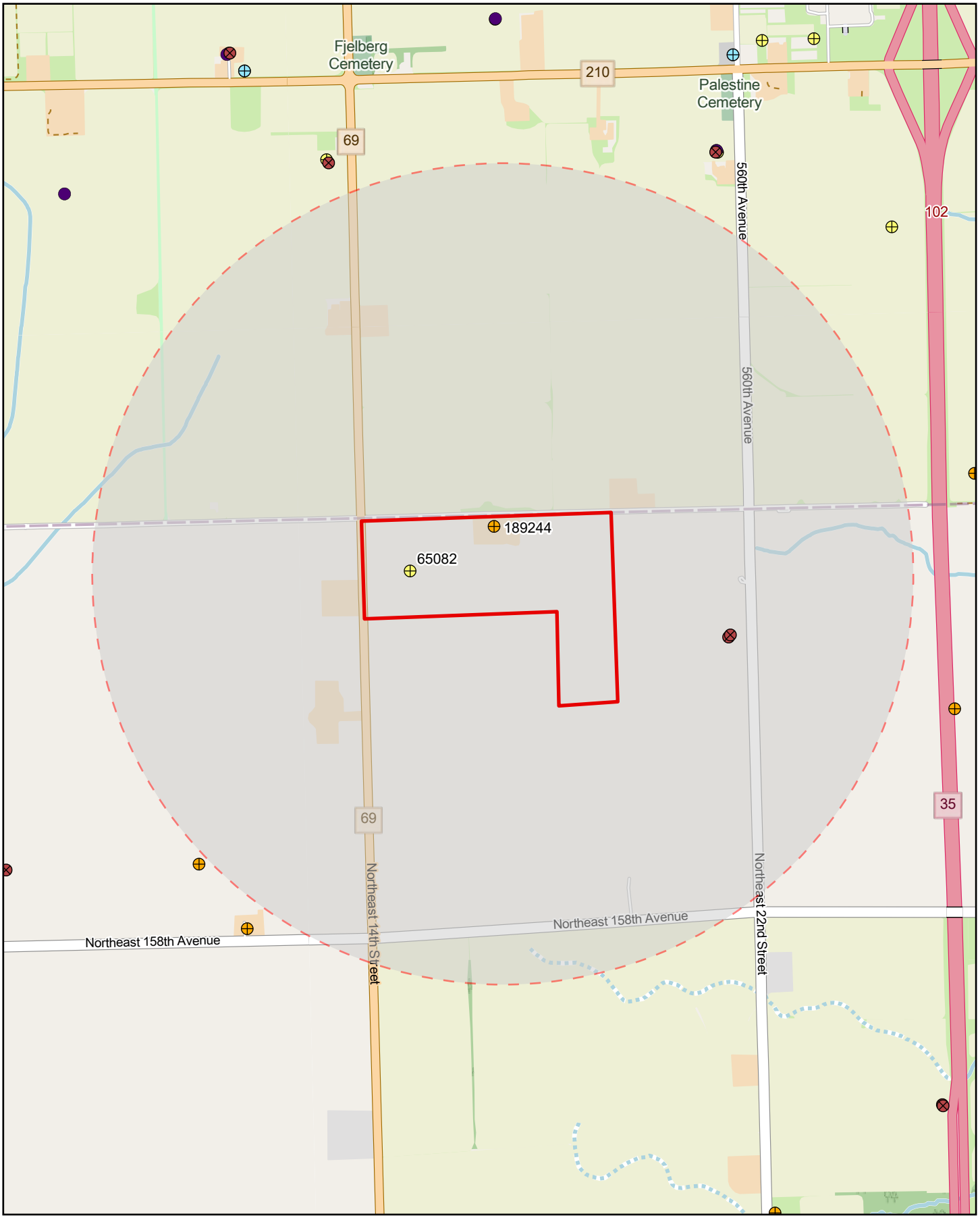
Count: 2

Report Totals

Count: 4

Date Exported: 5/11/2026 1:29 PM

Site: 1807
Subject: XY UTM Coordinates: 15N 450756 4634540
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1807



Unsuitable for Land Application

Brian Reinhart Phone: (712)261-3151 Spreadable Acres: 83 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1807



Unsuitable for Land Application

Brian Reinhart Phone: (712)261-3151 Gypsum Only

Permitted Acres: 83 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Polk County, Iowa
(Site 1807)



Map Scale: 1:5,870 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
6	Okoboji silty clay loam, 0 to 1 percent slopes	1.7	1.5%
L55	Nicollet loam, 1 to 3 percent slopes	47.7	42.8%
L95	Harps clay loam, Bemis moraine, 0 to 2 percent slopes	2.1	1.9%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	14.5	13.0%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	1.6	1.4%
L507	Canisteo clay loam, Bemis moraine, 0 to 2 percent slopes	43.8	39.3%
Totals for Area of Interest		**111.3**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
6	Okoboji silty clay loam, 0 to 1 percent slopes	5	1.7	1.5%
L55	Nicollet loam, 1 to 3 percent slopes	5	47.7	42.8%
L95	Harps clay loam, Bemis moraine, 0 to 2 percent slopes	5	2.1	1.9%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	5	14.5	13.0%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	5	1.6	1.4%
L507	Canisteo clay loam, Bemis moraine, 0 to 2 percent slopes	5	43.8	39.3%
Totals for Area of Interest			**111.3**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
6	Okoboji silty clay loam, 0 to 1 percent slopes	0	1.7	1.5%
L55	Nicollet loam, 1 to 3 percent slopes	50	47.7	42.8%
L95	Harps clay loam, Bemis moraine, 0 to 2 percent slopes	15	2.1	1.9%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	15	14.5	13.0%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	150	1.6	1.4%
L507	Canisteo clay loam, Bemis moraine, 0 to 2 percent slopes	15	43.8	39.3%
Totals for Area of Interest			**111.3**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1807

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
189244	19324	T81N, R24W, 1, NW NE NE NW	Calc. +/- 230 ft.	397	10/12/1966	Larson, Lewis

Statistics: IGS Well Database

Count: 1

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
65082	14541	T81N, R24W, Sec. 1, NW, NW, SE	Calc. +/- 285m.	170	unkn	Unknown

Statistics: Permitted private wells

Count: 1

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
65510	49578	T81N, R24W, Sec. 1, NE, SE, NE	Calc. +/- 140m.	unkn	unkn	Griffith Residence
65511	49577	T81N, R24W, Sec. 1, NE, SE, NE	Calc. +/- 140m.	unkn	unkn	Griffith Residence

Statistics: Wells registered for testing

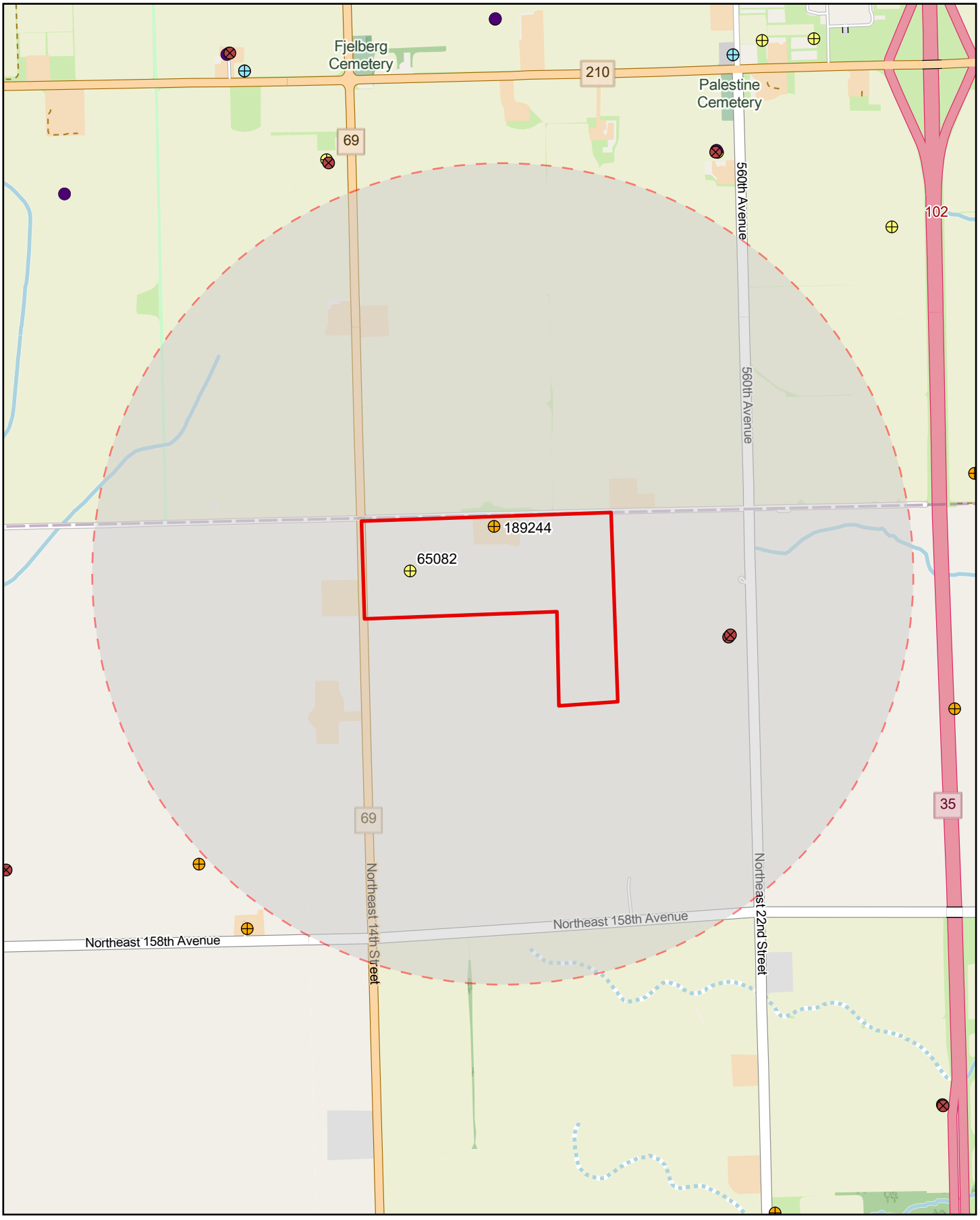
Count: 2

Report Totals

Count: 4

Date Exported: 5/11/2026 1:29 PM

Site: 1807
Subject: XY UTM Coordinates: 15N 450756 4634540
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1808



Unsuitable for Land Application

Brian Reinhart Phone: (712)261-3151 Spreadable Acres: 105 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1808



Unsuitable for Land Application

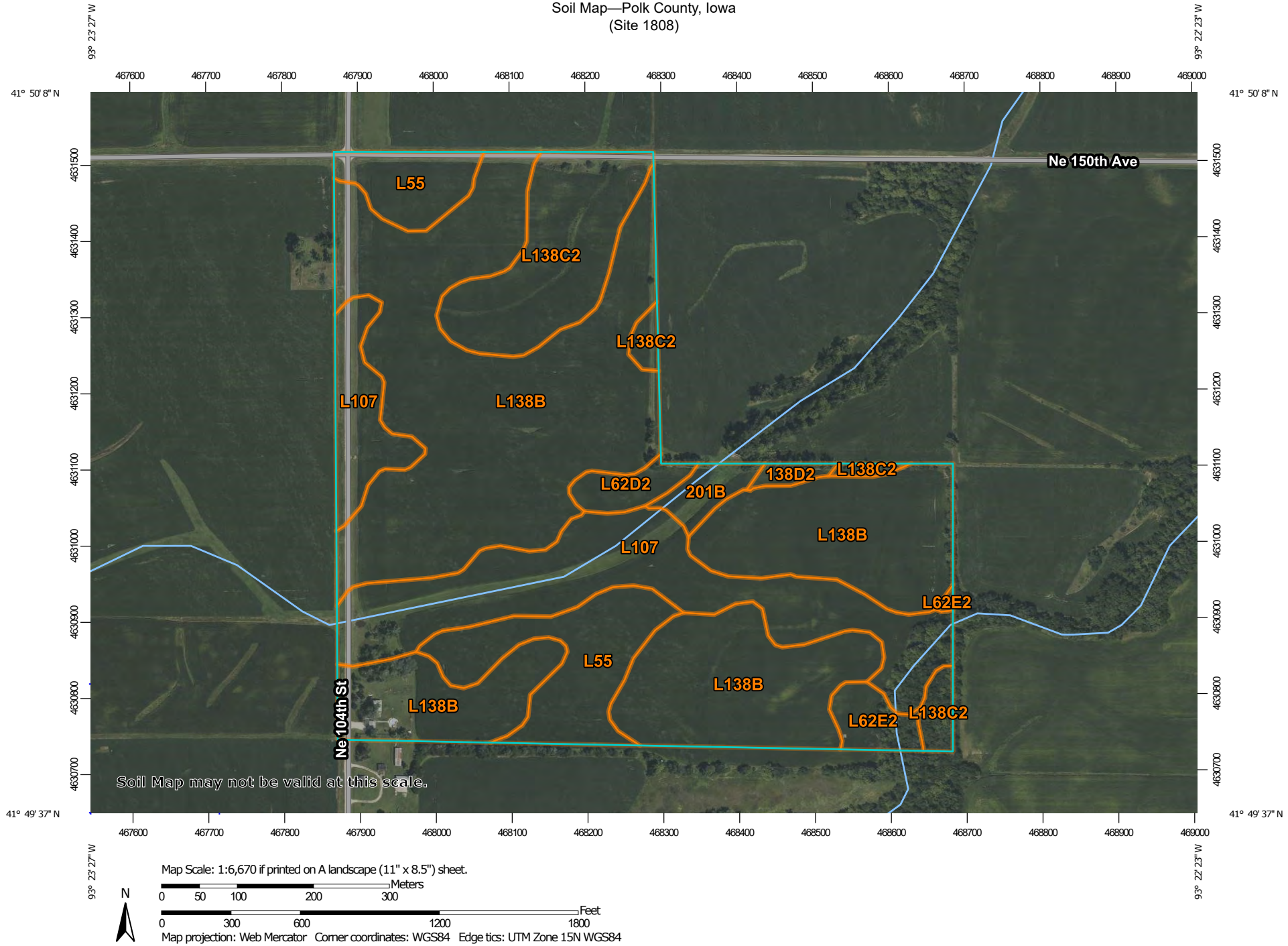
Brian Reinhart Phone: (712)261-3151 Gypsum Only

Permitted Acres: 105 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Polk County, Iowa
(Site 1808)



Map Scale: 1:6,670 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
138D2	Clarion loam, 9 to 14 percent slopes, moderately eroded	0.6	0.5%
201B	Coland, occasionally flooded-Terril complex, 2 to 5 percent slopes	1.6	1.4%
L55	Nicollet loam, 1 to 3 percent slopes	11.7	9.9%
L62D2	Storden loam, Bemis moraine, 10 to 16 percent slopes, moderately eroded	1.8	1.5%
L62E2	Storden loam, Bemis moraine, 10 to 22 percent slopes, moderately eroded	2.1	1.8%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	22.0	18.7%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	66.1	56.1%
L138C2	Clarion loam, Bemis moraine, 6 to 10 percent slopes, moderately eroded	12.0	10.1%
Totals for Area of Interest		**117.8**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
138D2	Clarion loam, 9 to 14 percent slopes, moderately eroded	5	0.6	0.5%
201B	Coland, occasionally flooded-Terril complex, 2 to 5 percent slopes	5	1.6	1.4%
L55	Nicollet loam, 1 to 3 percent slopes	5	11.7	9.9%
L62D2	Storden loam, Bemis moraine, 10 to 16 percent slopes, moderately eroded	5	1.8	1.5%
L62E2	Storden loam, Bemis moraine, 10 to 22 percent slopes, moderately eroded	5	2.1	1.8%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	5	22.0	18.7%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	5	66.1	56.1%
L138C2	Clarion loam, Bemis moraine, 6 to 10 percent slopes, moderately eroded	5	12.0	10.1%
Totals for Area of Interest			**117.8**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
138D2	Clarion loam, 9 to 14 percent slopes, moderately eroded	122	0.6	0.5%
201B	Coland, occasionally flooded-Terril complex, 2 to 5 percent slopes	0	1.6	1.4%
L55	Nicollet loam, 1 to 3 percent slopes	50	11.7	9.9%
L62D2	Storden loam, Bemis moraine, 10 to 16 percent slopes, moderately eroded	170	1.8	1.5%
L62E2	Storden loam, Bemis moraine, 10 to 22 percent slopes, moderately eroded	>200	2.1	1.8%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	15	22.0	18.7%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	150	66.1	56.1%
L138C2	Clarion loam, Bemis moraine, 6 to 10 percent slopes, moderately eroded	150	12.0	10.1%
Totals for Area of Interest			**117.8**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Well Search Report Site: 1808

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
199706	25807	T81N, R22W, 13, SW NW SW SW	Calc. +/- 230 ft.	93	7/20/1978	Martin, Clyde

Statistics: IGS Well Database

Count: 1

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
70659	14691	T81N, R22W, Sec. 10, SW, SE, NE	Calc. +/- 285m.	200	unkn	Unknown

Statistics: Permitted private wells

Count: 1

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
70895	22415	T81N, R22W, Sec. 15, NE, NW, NW	Calc. +/- 285m.	35	n.a.	Alder (Allen), Mae

Statistics: Registered abandoned wells

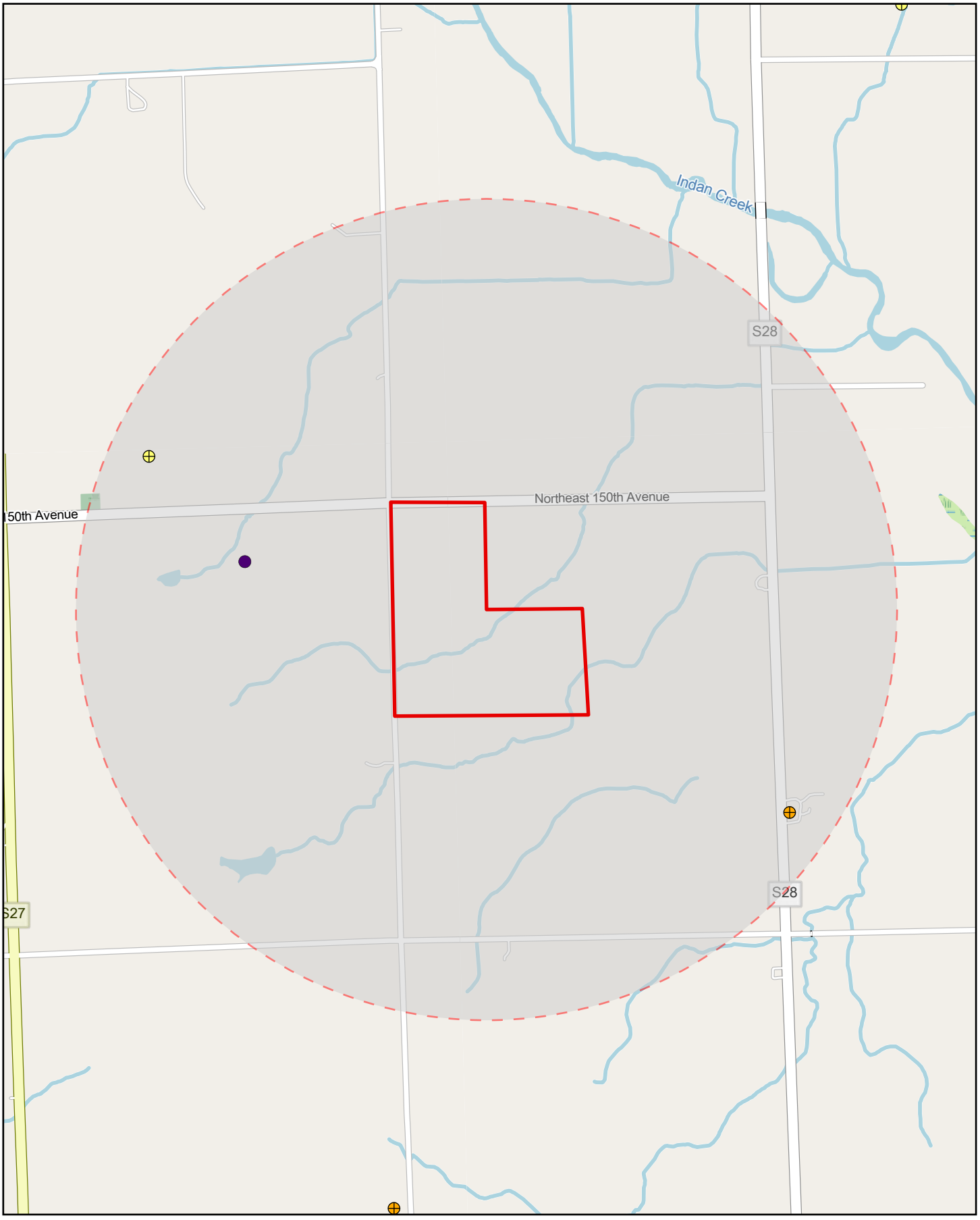
Count: 1

Report Totals

Count: 3

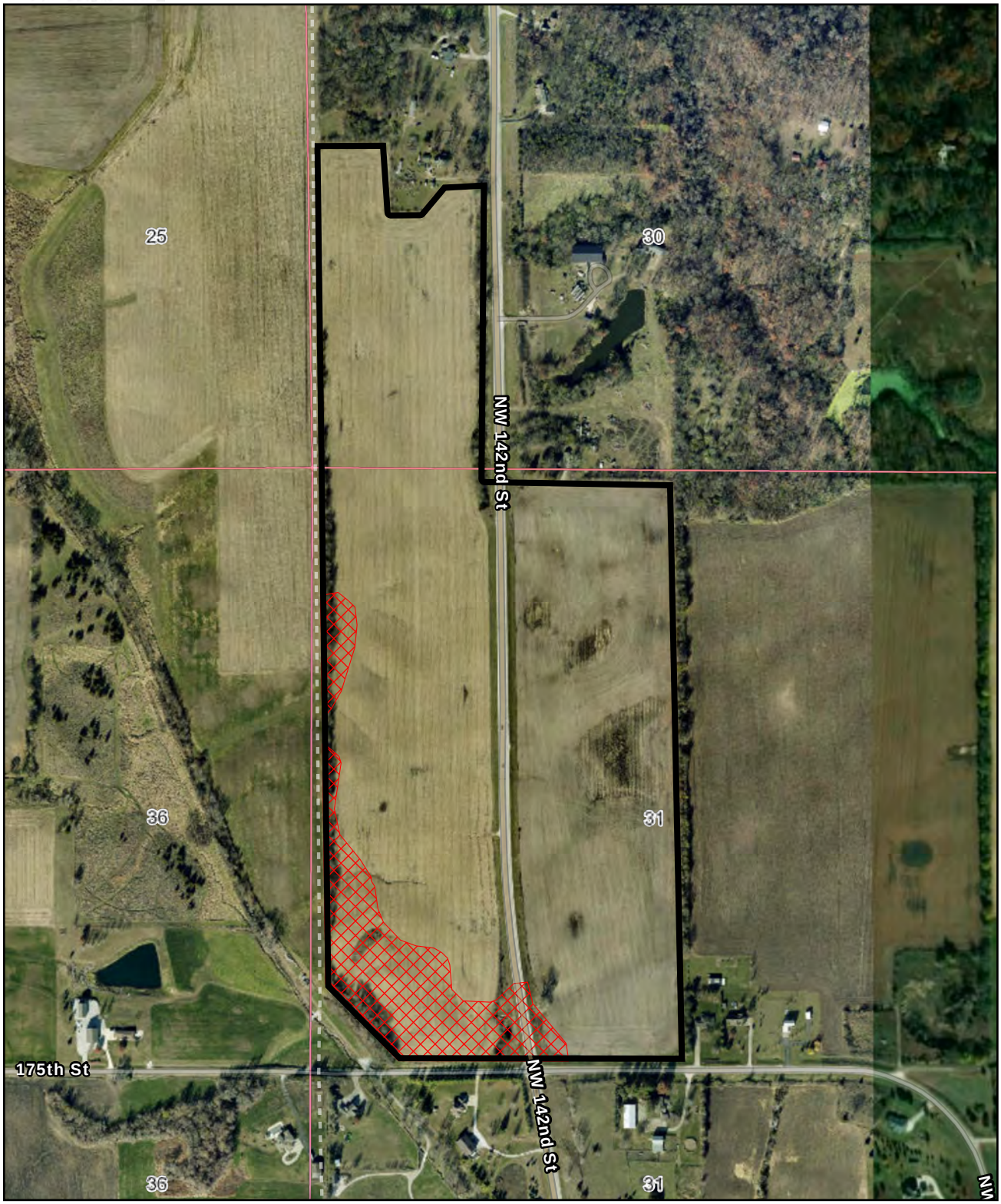
Date Exported: 5/11/2026 1:32 PM

Site: 1808
Subject: XY UTM Coordinates: 15N 468280 4631106
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1809



Unsuitable for Land Application

Brian Reinhart Phone: (712)261-3151 Spreadable Acres: 104 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1809



Unsuitable for Land Application

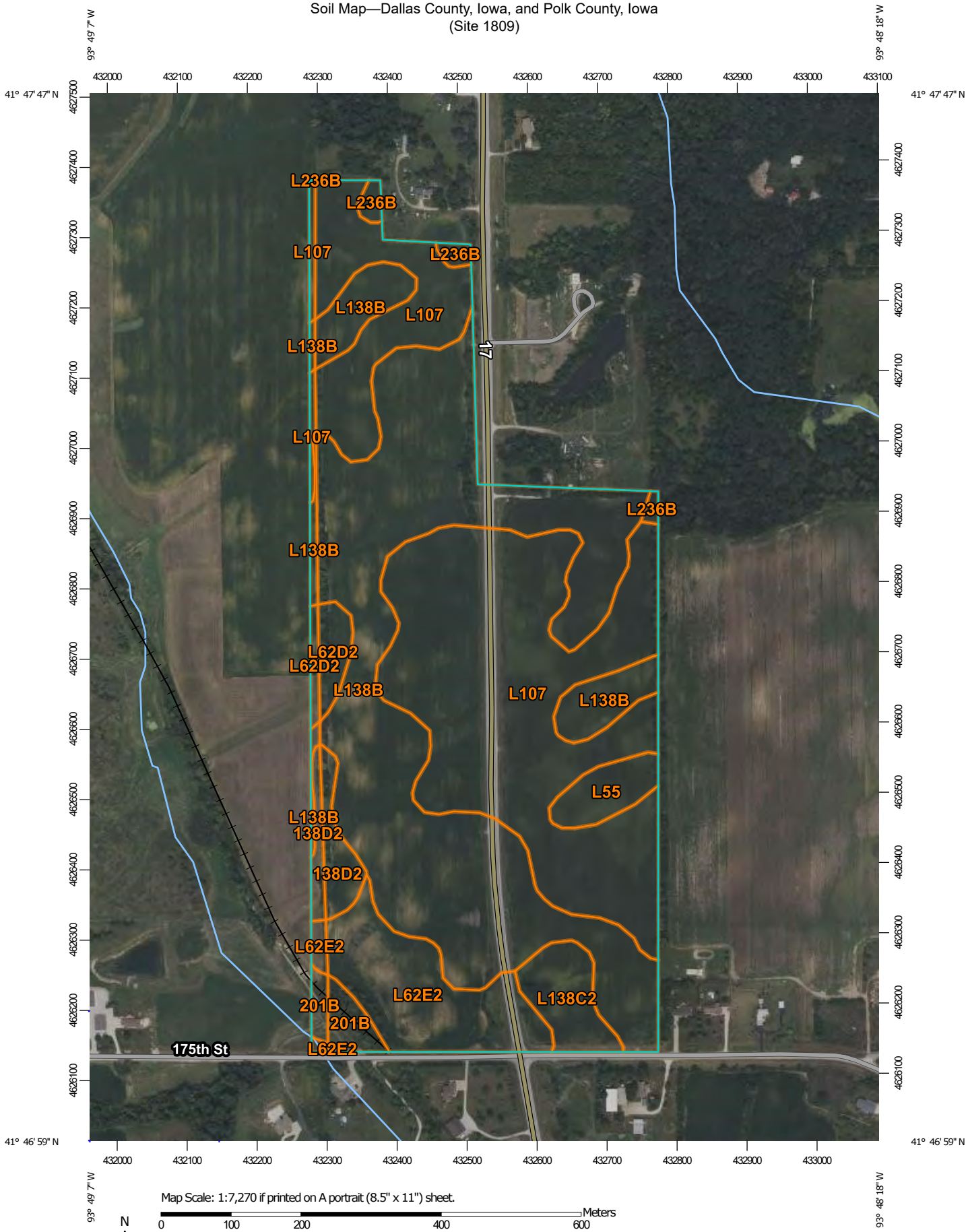
Brian Reinhart Phone: (712)261-3151 Gypsum Only

Permitted Acres: 104 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Dallas County, Iowa, and Polk County, Iowa
(Site 1809)



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
138D2	Clarion loam, 9 to 14 percent slopes, moderately eroded	0.9	0.7%
201B	Coland-Terril complex, 2 to 5 percent slopes	0.6	0.5%
L62D2	Storden loam, Bemis moraine, 10 to 16 percent slopes, moderately eroded	0.5	0.4%
L62E2	Storden loam, Bemis moraine, 10 to 22 percent slopes, moderately eroded	0.5	0.4%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	0.7	0.6%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	0.8	0.7%
L236B	Lester loam, Bemis moraine, 2 to 6 percent slopes	0.0	0.0%
Subtotals for Soil Survey Area		**4.1**	**3.4%**
Totals for Area of Interest		**121.6**	**100.0%**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
138D2	Clarion loam, 9 to 14 percent slopes, moderately eroded	1.9	1.5%
201B	Coland, occasionally flooded-Terril complex, 2 to 5 percent slopes	1.4	1.1%
L55	Nicollet loam, 1 to 3 percent slopes	2.5	2.1%
L62D2	Storden loam, Bemis moraine, 10 to 16 percent slopes, moderately eroded	1.5	1.2%
L62E2	Storden loam, Bemis moraine, 10 to 22 percent slopes, moderately eroded	9.6	7.9%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	46.4	38.2%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	49.7	40.9%
L138C2	Clarion loam, Bemis moraine, 6 to 10 percent slopes, moderately eroded	3.6	2.9%
L236B	Lester loam, Bemis moraine, 2 to 6 percent slopes	1.0	0.8%
Subtotals for Soil Survey Area		**117.5**	**96.6%**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Totals for Area of Interest		**121.6**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
138D2	Clarion loam, 9 to 14 percent slopes, moderately eroded	5	0.9	0.7%
201B	Coland-Terril complex, 2 to 5 percent slopes	5	0.6	0.5%
L62D2	Storden loam, Bemis moraine, 10 to 16 percent slopes, moderately eroded	5	0.5	0.4%
L62E2	Storden loam, Bemis moraine, 10 to 22 percent slopes, moderately eroded	5	0.5	0.4%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	5	0.7	0.6%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	5	0.8	0.7%
L236B	Lester loam, Bemis moraine, 2 to 6 percent slopes	5	0.0	0.0%
Subtotals for Soil Survey Area			**4.1**	**3.4%**
Totals for Area of Interest			**121.6**	**100.0%**

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
138D2	Clarion loam, 9 to 14 percent slopes, moderately eroded	5	1.9	1.5%
201B	Coland, occasionally flooded-Terril complex, 2 to 5 percent slopes	5	1.4	1.1%
L55	Nicollet loam, 1 to 3 percent slopes	5	2.5	2.1%
L62D2	Storden loam, Bemis moraine, 10 to 16 percent slopes, moderately eroded	5	1.5	1.2%
L62E2	Storden loam, Bemis moraine, 10 to 22 percent slopes, moderately eroded	5	9.6	7.9%

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	5	46.4	38.2%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	5	49.7	40.9%
L138C2	Clarion loam, Bemis moraine, 6 to 10 percent slopes, moderately eroded	5	3.6	2.9%
L236B	Lester loam, Bemis moraine, 2 to 6 percent slopes	5	1.0	0.8%
Subtotals for Soil Survey Area			**117.5**	**96.6%**
Totals for Area of Interest			**121.6**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
138D2	Clarion loam, 9 to 14 percent slopes, moderately eroded	122	0.9	0.7%
201B	Coland-Terril complex, 2 to 5 percent slopes	0	0.6	0.5%
L62D2	Storden loam, Bemis moraine, 10 to 16 percent slopes, moderately eroded	170	0.5	0.4%
L62E2	Storden loam, Bemis moraine, 10 to 22 percent slopes, moderately eroded	>200	0.5	0.4%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	15	0.7	0.6%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	150	0.8	0.7%
L236B	Lester loam, Bemis moraine, 2 to 6 percent slopes	150	0.0	0.0%
Subtotals for Soil Survey Area			**4.1**	**3.4%**
Totals for Area of Interest			**121.6**	**100.0%**

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
138D2	Clarion loam, 9 to 14 percent slopes, moderately eroded	122	1.9	1.5%
201B	Coland, occasionally flooded-Terril complex, 2 to 5 percent slopes	0	1.4	1.1%
L55	Nicollet loam, 1 to 3 percent slopes	50	2.5	2.1%
L62D2	Storden loam, Bemis moraine, 10 to 16 percent slopes, moderately eroded	170	1.5	1.2%
L62E2	Storden loam, Bemis moraine, 10 to 22 percent slopes, moderately eroded	>200	9.6	7.9%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	15	46.4	38.2%

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	150	49.7	40.9%
L138C2	Clarion loam, Bemis moraine, 6 to 10 percent slopes, moderately eroded	150	3.6	2.9%
L236B	Lester loam, Bemis moraine, 2 to 6 percent slopes	150	1.0	0.8%
Subtotals for Soil Survey Area			**117.5**	**96.6%**
Totals for Area of Interest			**121.6**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1809

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
158541	72729	T81N, R25W, 29, SW	Meas. +/- 470 ft.	0		Iowa Geological Survey
160483	91278	T81N, R25W, 30, NW NW SE	Calc. +/- 930 ft.	0		RC DB-I-1024
163977	72631	T81N, R25W, 30, NW	Meas. +/- 230 ft.	0		Iowa Geological Survey
165711	89993	T81N, R25W, 30, NW SW NE	Maps/Air Photos +/- 20 m.	0		I-1024
165712	89994	T81N, R25W, 30, NW SW NE	Maps/Air Photos +/- 20 m.	0		I-1025
168936	1169	T81N, R25W, 30, NW SW SE	Calc. +/- 470 ft.	387	1/1/1940	Moore, L.E.
241492	66458	T81N, R25W, 31, SW NW SE NW NE	Unknown	200	3/21/2009	Auxier, Eric
259246	96779	T81N, R26W, 36, NE NW NW	GPS	655	11/22/2022	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						O'neil, Michael

Statistics: IGS Well Database

Count: 8

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
61794	14611	T81N, R25W, Sec. 30, SW, NE, NE	Calc. +/- 1135m.	170	3/25/1991	Unknown
62392	14706	T81N, R25W, Sec. 31, SE, SW, NW	Calc. +/- 285m.	60	unkn	Unknown

Statistics: Permitted private wells

Count: 2

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
62270	33337	T81N, R25W, Sec. 31, SE, NW, SW	Calc. +/- 140m.	60	1975	Westrum, Pam

Statistics: Wells registered for testing

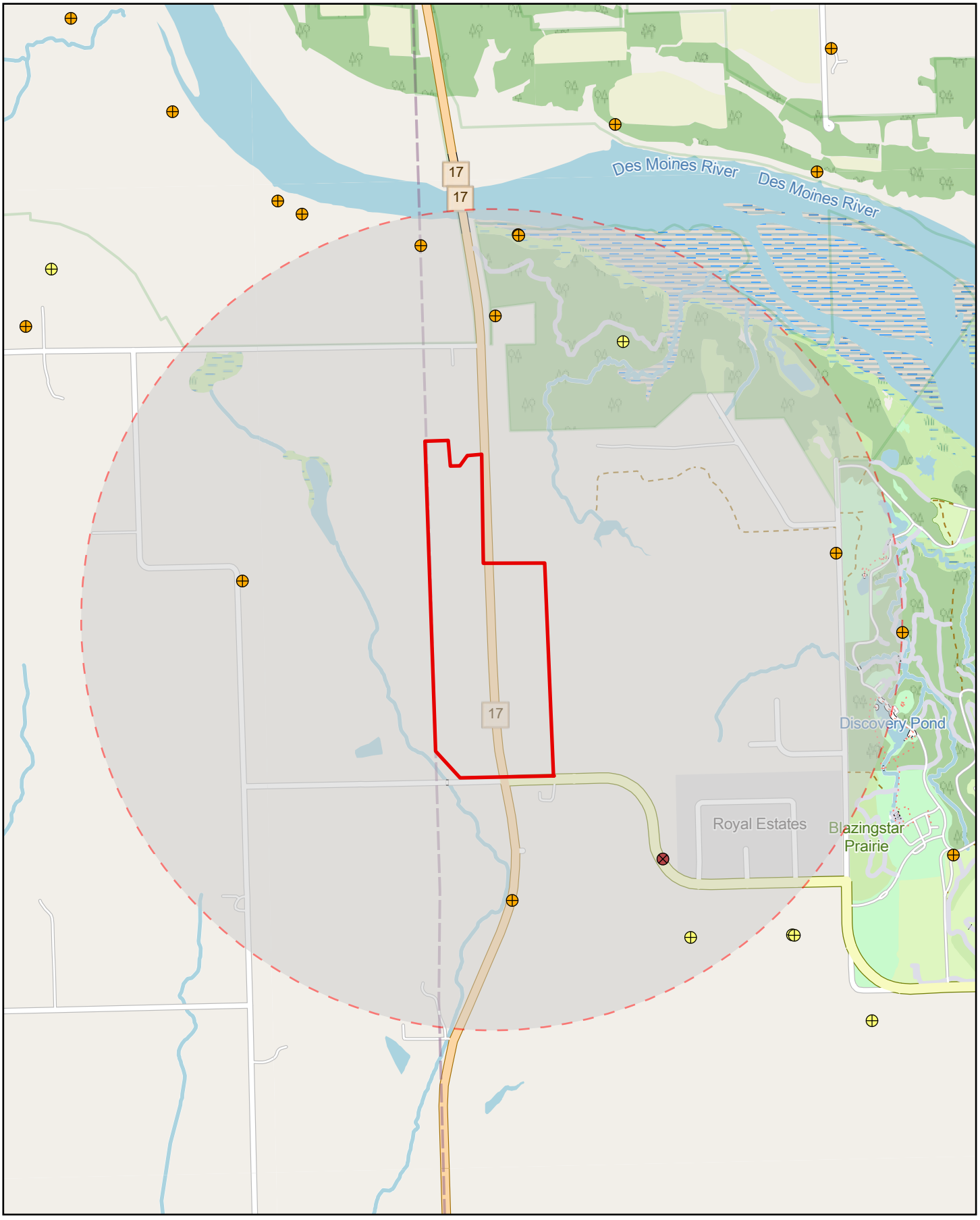
Count: 1

Report Totals

Count: 11

Date Exported: 5/11/2026 1:36 PM

Site: 1809
Subject: XY UTM Coordinates: 15N 432547 4626720
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1810



Unsuitable for Land Application

Brian Reinhart Phone: (712)261-3151 Spreadable Acres: 129 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1810



Unsuitable for Land Application

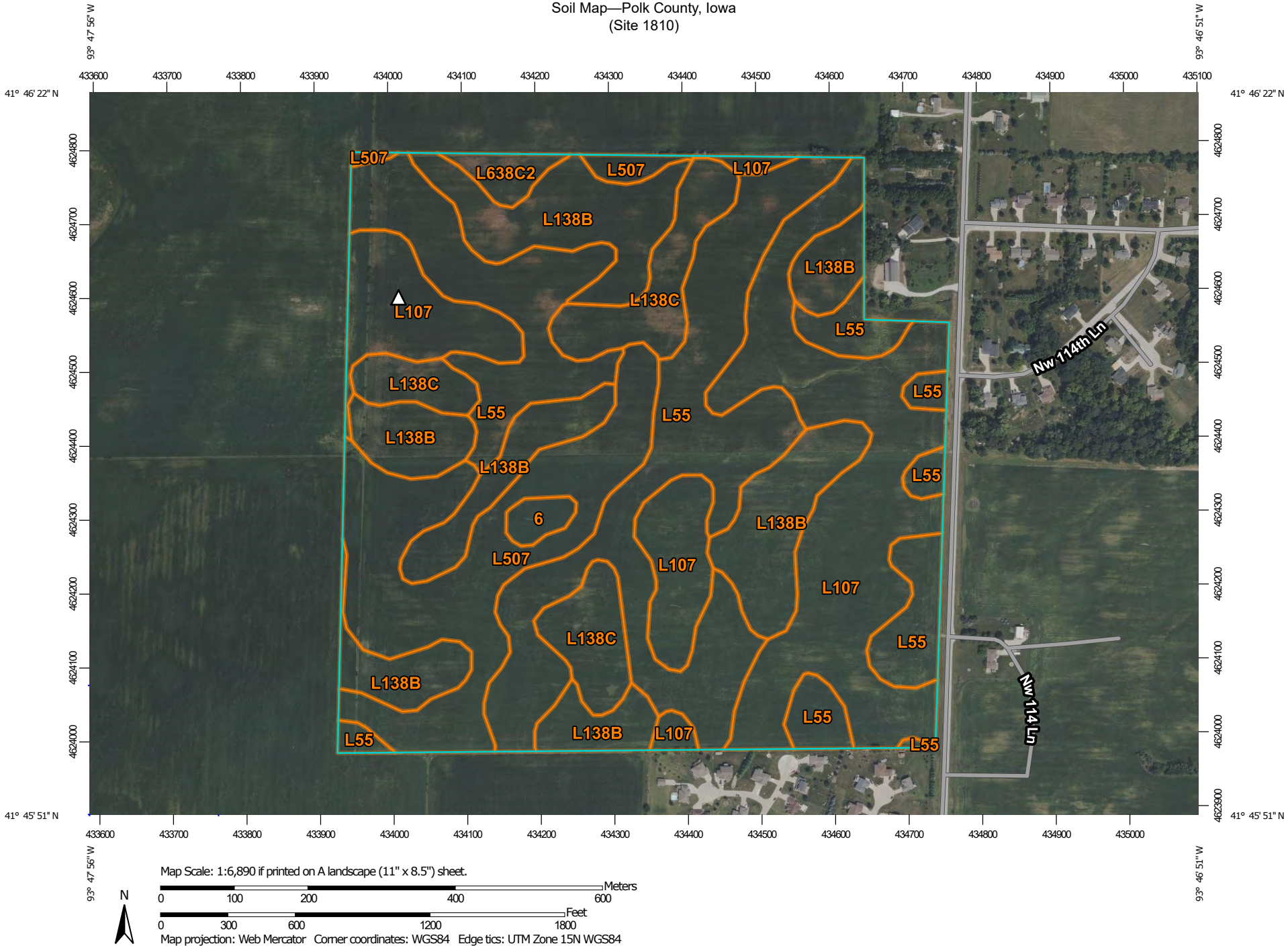
Brian Reinhart Phone: (712)261-3151 Gypsum Only

Permitted Acres: 129 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Polk County, Iowa
(Site 1810)



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
6	Okoboji silty clay loam, 0 to 1 percent slopes	1.1	0.7%
L55	Nicollet loam, 1 to 3 percent slopes	47.8	30.5%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	39.2	25.1%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	32.1	20.5%
L138C	Clarion loam, Bemis moraine, 6 to 10 percent slopes	12.4	7.9%
L507	Canisteo clay loam, Bemis moraine, 0 to 2 percent slopes	22.3	14.2%
L638C2	Clarion-Storden complex, Bemis moraine, 6 to 10 percent slopes, moderately eroded	1.6	1.0%
Totals for Area of Interest		**156.6**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
6	Okoboji silty clay loam, 0 to 1 percent slopes	5	1.1	0.7%
L55	Nicollet loam, 1 to 3 percent slopes	5	47.8	30.5%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	5	39.2	25.1%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	5	32.1	20.5%
L138C	Clarion loam, Bemis moraine, 6 to 10 percent slopes	5	12.4	7.9%
L507	Canisteo clay loam, Bemis moraine, 0 to 2 percent slopes	5	22.3	14.2%
L638C2	Clarion-Storden complex, Bemis moraine, 6 to 10 percent slopes, moderately eroded	5	1.6	1.0%
Totals for Area of Interest			**156.6**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
6	Okoboji silty clay loam, 0 to 1 percent slopes	0	1.1	0.7%
L55	Nicollet loam, 1 to 3 percent slopes	50	47.8	30.5%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	15	39.2	25.1%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	150	32.1	20.5%
L138C	Clarion loam, Bemis moraine, 6 to 10 percent slopes	150	12.4	7.9%
L507	Canisteo clay loam, Bemis moraine, 0 to 2 percent slopes	15	22.3	14.2%
L638C2	Clarion-Storden complex, Bemis moraine, 6 to 10 percent slopes, moderately eroded	150	1.6	1.0%
Totals for Area of Interest			**156.6**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Well Search Report Site: 1809

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
179817	10531	T81N, R25W, 32, SE SE SE	Meas. +/- 230 ft.	545	9/1/1958	Jester Park
193051	42718	T81N, R25W, 32, SW NE SW SW	Calc. +/- 230 ft.	635	1/1/1970	Jester Park
236593	57821	T80N, R25W, 5, NE SE SE	Calc. +/- 470 ft.	200	8/9/2006	Knuth Construction
237013	62561	T80N, R25W, 5, SW SE SW	Calc. +/- 230 ft.	180	9/29/2006	Kundill, Scott
241428	66395	T80N, R25W, 5, NE SW SW	Unknown	180	2/23/2009	Coffin, Chris
244432	73587	T80N, R25W, 5, SW SE SE	Calc. +/- 470 ft.	180	5/3/2011	Kimberly Development
246787	75158	T80N, R25W, 5, SW SE NE	Calc. +/- 470 ft.	175	9/20/2012	Mallas, Mark
247418	75761	T80N, R25W, 5, NE NE NE	Calc. +/- 470 ft.	200	12/31/2012	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Olson, Joshua
248192	76226	T80N, R25W, 5, NE SE NE	Calc. +/- 470 ft.	175	7/5/2013	Frampton, Justin
250691	79570	T80N, R25W, 5, SW SE NW	Calc. +/- 470 ft.	300	3/11/2015	KRM Homes
251044	80329	T80N, R25W, 5, NW SE NE	Calc. +/- 470 ft.	175	6/1/2015	TS Construction
251730	80914	T80N, R25W, 5, NE SE NE	Calc. +/- 470 ft.	175	10/10/2015	Harney, Matt

Statistics: IGS Well Database

Count: 12

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
62392	14706	T81N, R25W, Sec. 31, SE, SW, NW	Calc. +/- 285m.	60	unkn	Unknown
62512	12767	T81N, R25W, Sec. 31, SE, SE, NW	Calc. +/- 285m.	60	unkn	Unknown
62514	14709	T81N, R25W, Sec. 31, SE, SE, NE	Calc. +/- 285m.	70	unkn	Unknown
62697	14624	T80N, R25W, Sec. 5, NW, NW, NW	Calc. +/- 140m.	40	7/15/1992	Unknown
63092	14668	T80N, R25W, Sec. 5, NE, SW, SW	Calc. +/- 1135m.	55	unkn	Unknown
63108	14711	T80N, R25W, Sec. 5, NE, NE, NW	Calc. +/- 285m.	unkn	5/01/1990	Unknown
63506	14654	T80N, R25W, Sec. 9, NW, NW, NW	Calc. +/- 140m.	465	unkn	Unknown

Statistics: Permitted private wells

Count: 7

Public Water Supply Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
445607	2412561					POLK CONS-JP RANGER HQ WELL

Statistics: Public Water Supply Wells

Count: 1

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
63186	41094	T80N, R25W, Sec. 4, NW, NW, SW	Calc. +/- 140m.	30	n.a.	Frampton, George
63187	41093	T80N, R25W, Sec. 4, NW, NW, SW	Calc. +/- 140m.	30	n.a.	Framton, George

Statistics: Registered abandoned wells

Count: 2

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
63235	80929	T80N, R25W, Sec. 5, NE, SE, SE	Calc. +/- 140m.	65	1989	Dennis, Sue

Statistics: Wells registered for testing

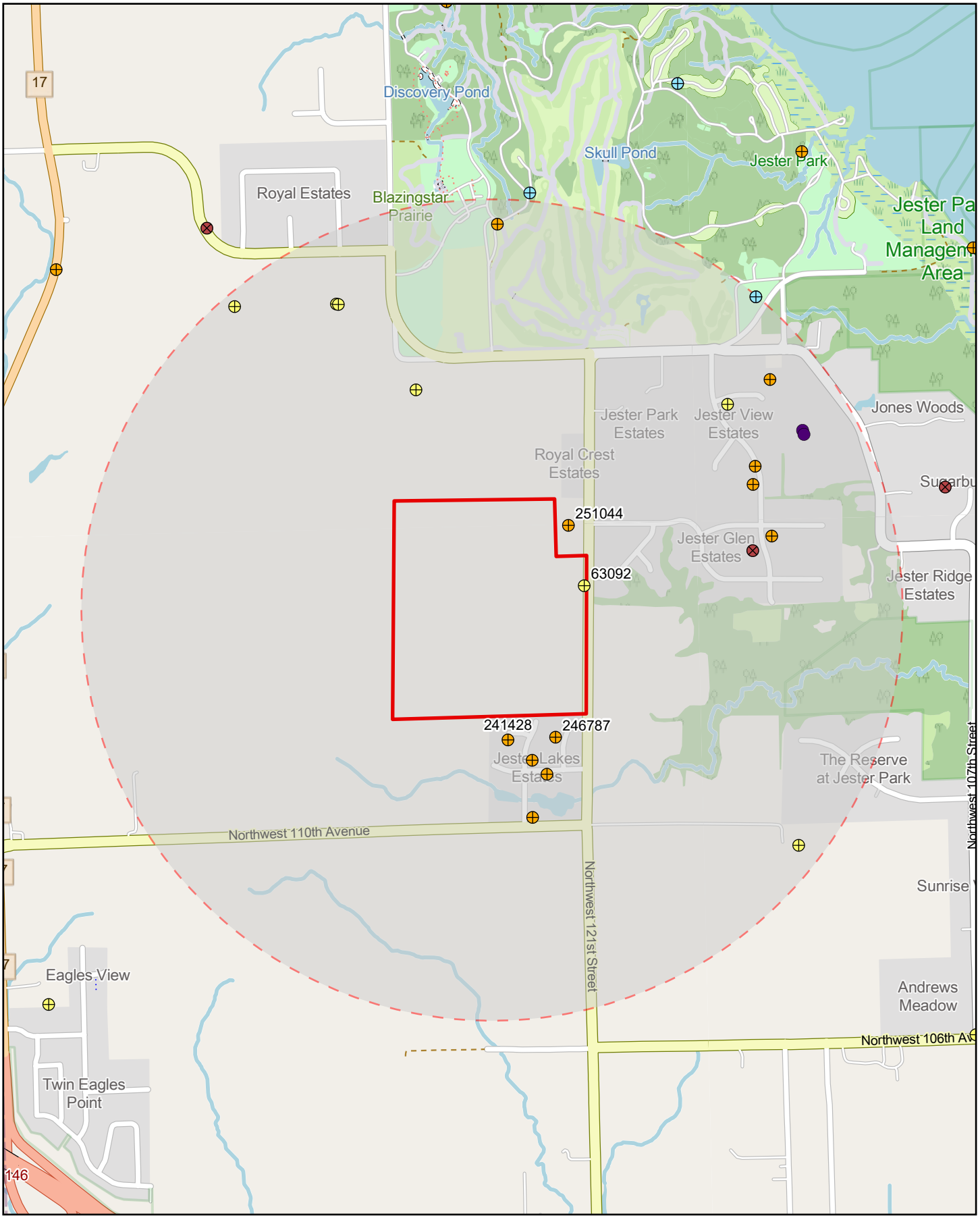
Count: 1

Report Totals

Count: 23

Date Exported: 5/11/2026 1:43 PM

Site: 1810
Subject: XY UTM Coordinates: 15N 434367 4624376
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1811



Unsuitable for Land Application

Brian Reinhart Phone: (712)261-3151 Spreadable Acres: 51 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1811



Unsuitable for Land Application

Brian Reinhart Phone: (712)261-3151 Gypsum Only

Permitted Acres: 51 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Dallas County, Iowa
(Site 1811)



Map Scale: 1:3,600 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
201B	Coland-Terril complex, 2 to 5 percent slopes	0.2	0.4%
203	Cylinder loam, 0 to 2 percent slopes	15.0	26.5%
259	Biscay clay loam, 0 to 2 percent slopes	17.1	30.3%
308	Wadena loam, 0 to 2 percent slopes	4.3	7.6%
L55	Nicollet loam, 1 to 3 percent slopes	0.9	1.7%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	8.6	15.3%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	10.4	18.3%
Totals for Area of Interest		**56.6**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
201B	Coland-Terril complex, 2 to 5 percent slopes	5	0.2	0.4%
203	Cylinder loam, 0 to 2 percent slopes	3	15.0	26.5%
259	Biscay clay loam, 0 to 2 percent slopes	3	17.1	30.3%
308	Wadena loam, 0 to 2 percent slopes	3	4.3	7.6%
L55	Nicollet loam, 1 to 3 percent slopes	5	0.9	1.7%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	5	8.6	15.3%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	5	10.4	18.3%
Totals for Area of Interest			**56.6**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
201B	Coland-Terril complex, 2 to 5 percent slopes	0	0.2	0.4%
203	Cylinder loam, 0 to 2 percent slopes	40	15.0	26.5%
259	Biscay clay loam, 0 to 2 percent slopes	10	17.1	30.3%
308	Wadena loam, 0 to 2 percent slopes	>200	4.3	7.6%
L55	Nicollet loam, 1 to 3 percent slopes	50	0.9	1.7%
L107	Webster clay loam, Bemis moraine, 0 to 2 percent slopes	15	8.6	15.3%
L138B	Clarion loam, Bemis moraine, 2 to 6 percent slopes	150	10.4	18.3%
Totals for Area of Interest			**56.6**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1811

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
162948	42230	T80N, R26W, 9,	Calc. +/- 3730 ft.	55		Unknown
194806	42216	T80N, R26W, 4,	Calc. +/- 3730 ft.	107	5/15/1972	Brummett, Dennis
197059	42229	T80N, R26W, 9,	Calc. +/- 3730 ft.	100	1/25/1975	Manning, Mat
197164	42227	T80N, R26W, 9, NE NW	Calc. +/- 930 ft.	106	6/1/1975	Bertrand, Eugene
197254	42231	T80N, R26W, 9, NE NW	Calc. +/- 930 ft.	111	8/5/1975	Rothfus, Terry
227190	65960	T80N, R26W, 3, SW SE SW	Calc. +/- 470 ft.	0	2/11/2002	Igs

Statistics: IGS Well Database

Count: 6

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
60752	30805	T80N, R26W, Sec. 4, NE, SW, SW	Calc. +/- 1135m.	53	n.a.	Mccormick, Eugene M.

Statistics: Registered abandoned wells

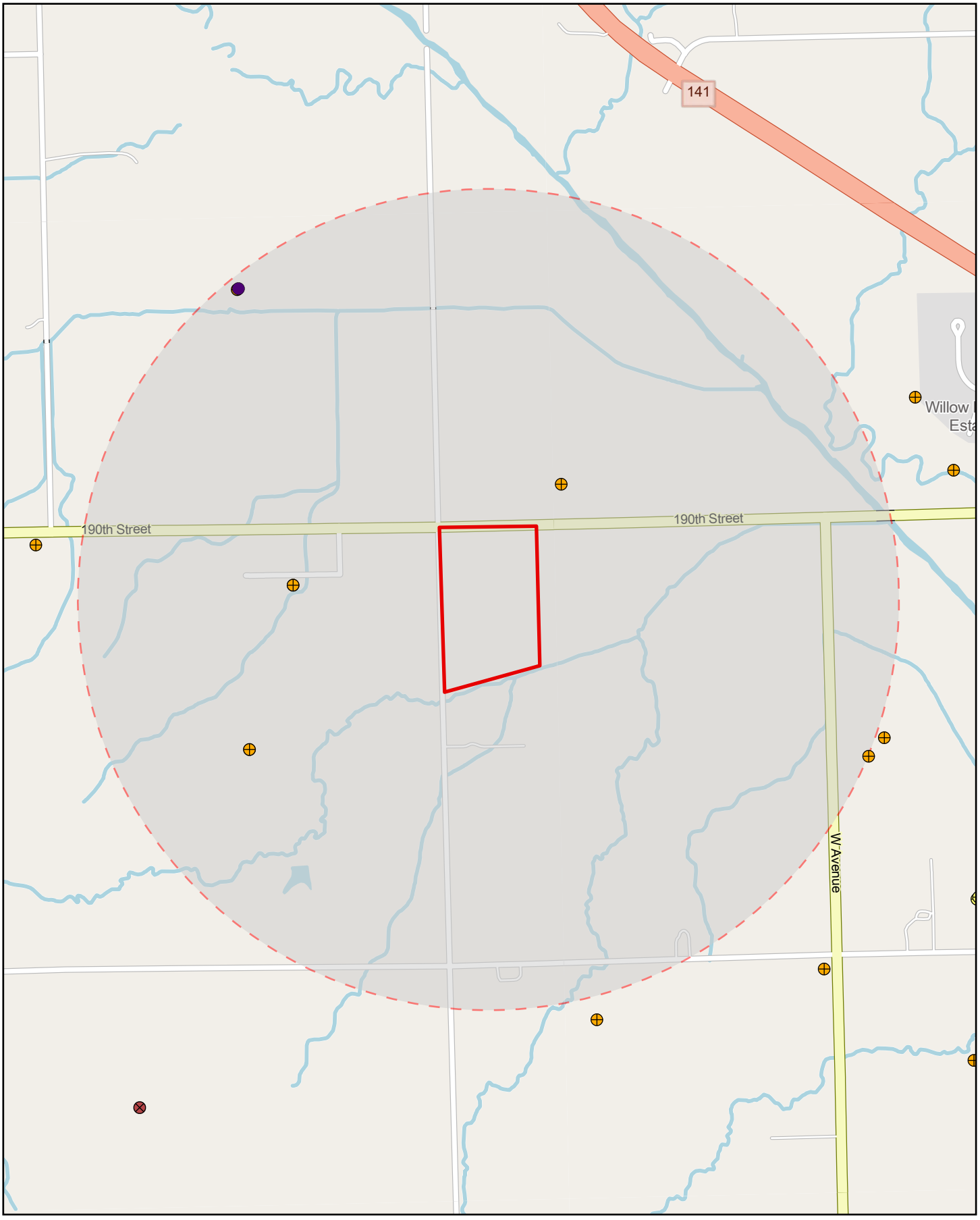
Count: 1

Report Totals

Count: 7

Date Exported: 5/11/2026 1:47 PM

Site: 1811
Subject: XY UTM Coordinates: 15N 427630 4623324
Search Radius (miles): 1



Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Jordan Pendl
Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Signed: Adam Pigott Adam Pigott - Agronomist for Jordan Pendl Date: _____

Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Philips Ag
Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Signed: Adam Pigott Adam Pigott - Agronomist for Philips Ag Date: _____

Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Brian Reinhart
Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

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I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Signed: Adam Pigott Adam Pigott - Agronomist for Brian Reinhart Date: _____

Cargill Corn Milling Blair: Permit # 00-SDP-07-14P - IDNR New Site List P4 5.14.26

Site Name	Section Information/Site Detail	Township	County	State	Acres	Slope Acceptable Acres	Operator
1791	SE 1/4 Sec 32 - 92N 41W	Sheridan	Cherokee	IA	162	162	Steve Pitts
1792	SW 1/4 Sec 19 - 91N 40W	Pilot	Cherokee	IA	84	84	Bruce Husman
1793	SE 1/4 Sec 5, NW 1/4 Sec 8 - 90N 40W	Silver	Cherokee	IA	183	183	Bruce Husman
1794	SW 1/4 Sec 13 - 91N 41W	Rock	Cherokee	IA	92	92	Bruce Husman
1795	NW 1/4 Sec 31 - 91N 40W	Pilot	Cherokee	IA	91	91	Bruce Husman
1796	SE 1/4 Sec 13 - 92N 40W	Cherokee	Cherokee	IA	112	112	Darren Stowater
1797	NW 1/4 Sec 26 - 91N 39W	Pitcher	Cherokee	IA	118	118	Mike Vondrak
1798	SW 1/4 Sec 24 - 90N 38W	Maple Valley	Buena Vista	IA	147	147	Ben Sand
1799	N 1/2 Sec 3 - 89N 38W	Eureka	Sac	IA	271	266	Ben Sand
1800	N 1/2 Sec 30 - 92N 38W, NE 1/4 Sec 25 - 92N 39W	Elk	Cherokee	IA	179	179	Fordyce Family Farms

EXTended Ag Services, Inc.
202 South Highway 86
Lakefield, MN 56150
507.662.5005 phone
507.662.5105 fax
info@extendedag.com

April 24, 2026

Environmental Land Management

1602 11th Drive NE

Austin, MN 55912

RE: Review of Potential Land Application Sites – Cargill Blair: Buena Vista, Cherokee, Sac County

Michael,

We have completed our review of the proposed land application sites for the Cargill facility in Blair, Nebraska. Thank you for the opportunity to provide our input on this project. The following field was included in this review, all acres are approximate:

COUNTY: Site Name	Acres
Buena Vista	**302.01**
Cargill Blair 1798	154.84
Cargill Blair 1799	0.93
Cargill Blair 1800	146.24
Cherokee	**990.22**
Cargill Blair 1791	161.82
Cargill Blair 1792	89.98
Cargill Blair 1793	206.11
Cargill Blair 1794	92.79
Cargill Blair 1795	159.57
Cargill Blair 1796	121.65
Cargill Blair 1797	118.28
Cargill Blair 1800	40.03
Sac	**293.17**
Cargill Blair 1799	293.17
Grand Total	**1585.40**

Imagery provided by the National Ag Imagery Program (2024) was utilized to determine whether land application sites were in crop production, pasture/hay or non-farmed land. Overall, the land application sites have some limitations regarding slope steepness and length and general erosion potential.

There are approximately 1,585.4 acres available for land application of the industrial by-product. The land application site is dominated by silt clay loams and clay loams. According to the NRCS, 95.1% of the sites have acceptable slopes for the land application of the Cargill byproducts (0-9%). According to the NRCS, 2.7% of the soils are classified as moderately or severely eroded and 66.2% as slightly eroded. The NRCS classifies 25.0% of the soils as Highly Erodible and 4.6% as potentially Highly Erodible.

Field specific planning and/or residue management should be utilized when applying the byproduct to reduce the potential for movement offsite, on all sites. Application can and should be limited to areas with the lowest slope first and then be directed to areas the furthest from sensitive features such as water. The application of the byproduct is not expected to conflict with any Conservation Plans associated with the observed soils. A summary of slope ratings for the potential land application sites is included below:

Slope Range	Acres
0-2%	311.04
0-3%	81.32
0-5%	80.91
1-4%	34.62
2-4%	16.73
2-5%	638.29
2-9%	2.12
5-9%	342.96
5-12%	5.35
9-14%	41.35
14-25%	7.53
18-35%	0.62
20-50%	0.32
25-40%	22.25
Grand Total	**1585.40**

Approximately 0.5% of the soils identified as potential land application sites are listed by the NRCS soil survey as ponded, commonly or frequently flooded. It is assumed that agricultural drain tile has been installed, to varying degrees, on soils with poor or somewhat poor drainage. Flooding frequency is not expected to be a limiting factor for land application. However, land application on saturated soils should be avoided at all times. Further, land application on fields with higher slope ranges and predicted rainfall within 24 hours should be limited. A complete breakdown of flooding frequency ratings is shown below:

NRCS Flooding Frequency	Acres
NONE	1437.86
OCCASSIONAL	140.46
COMMON	7.08
Grand Total	**1585.40**

Determining appropriate land application rates for any by-product is dependent on the most restrictive variable. This can be either slope, erosivity, flooding potential, soil fertility levels, soil texture or byproduct

characteristics, to name a few. The recommendations given herein are independent of any byproduct reviews and only consider the known field characteristics discussed in this review.

Application rates of approximately 15 Wet Tons per acre are appropriate for the field conditions of the land application sites discussed in this review. Appropriate measures should be taken to ensure minimal movement of the waste respect to adequate setbacks from sensitive features (surface water, karst features, conduits to water and high slopes) and land application rates. Special care should be given to applying wastes no less than 48 hours prior to rainfall events of greater than 0.5 inches. Wastes should be incorporated whenever possible, if such practices do not conflict with existing NRCS conservation plans. Applications of organic by-products can result in improved soil fertility, tilth and structure, if properly managed. The soils and parent material on the proposed land application site are naturally acidic in nature. Agricultural lime should be applied to ensure the soil pH is above 6.0 prior to land application of any byproducts.

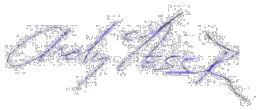
Summary

The specified land application material should be evaluated for constituents that pose a risk to the general health and welfare of the public. In general, land utilized for the land application of solid waste containing nutrients needed for pasture or crop production will benefit from such applications. Careful consideration should be taken to ensure nutrients are not applied at levels greater than crop need, once soils have reached the high fertility range as defined by Iowa State University.

In summary, we believe the field conditions are suitable for land application of solid wastes if done in accordance with all applicable rules, permits and laws. If you have any questions, please do not hesitate to contact us.

Sincerely,





Jim Nesseth
Certified Agronomist
License #: 17118

Andrew Nesseth
Environmental Consultant
NRCS Technical Service Provider

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1791



Unsuitable for Land Application

Steve Pitts Phone: (712)261-3151 Spreadable Acres: 162 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1791



Unsuitable for Land Application

Steve Pitts Phone: (712)261-3151 Gypsum Only

Permitted Acres: 162 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1791)



Map Scale: 1:6,310 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	20.1	12.1%
91B	Primghar silty clay loam, 2 to 5 percent slopes	9.0	5.4%
92	Marcus silty clay loam, 0 to 2 percent slopes	9.9	5.9%
310B	Galva silty clay loam, 2 to 5 percent slopes	58.5	35.2%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	35.9	21.6%
310C	Galva silty clay loam, 5 to 9 percent slopes	23.3	14.0%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	9.5	5.7%
Totals for Area of Interest		**166.3**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	20.1	12.1%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	9.0	5.4%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	9.9	5.9%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	58.5	35.2%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5	35.9	21.6%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	23.3	14.0%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	9.5	5.7%
Totals for Area of Interest			**166.3**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	20.1	12.1%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	9.0	5.4%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	9.9	5.9%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	58.5	35.2%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	>200	35.9	21.6%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	23.3	14.0%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	9.5	5.7%
Totals for Area of Interest			**166.3**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Well Search Report Site: 1791

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
185486	15933	T91N, R41W, 5, NW SW NW NW	Calc. +/- 230 ft.	80	8/10/1963	Goodburn, Gerald
191439	21387	T92N, R41W, 33, SW SE SW SW	Calc. +/- 230 ft.	417	7/1/1968	Raymond, Charles

Statistics: IGS Well Database

Count: 2

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
4267	17882	T92N, R41W, Sec. 31, SE, NE, SE	Calc. +/- 285m.	25	n.a.	Specht, Viviann
4269	17881	T92N, R41W, Sec. 31, SE, NE, SE	Calc. +/- 285m.	38	n.a.	Specht, Viviann
4348	124	T92N, R41W, Sec. 32, NE, SE, NW	Calc. +/- 140m.	31	n.a.	Chapman, Esther
4560	14667	T92N, R41W, Sec. 33, SW, NE, SW	Calc. +/- 140m.	405	n.a.	Rupp, Charles
4562	5796	T92N, R41W, Sec. 33, SW, NE, SW	Calc. +/- 570m.	20	n.a.	Rupp, Charles
4563	5806	T92N, R41W, Sec. 33, SW, SE, NW	Calc. +/- 570m.	405	n.a.	Rupp, Charles
4564	14655	T92N, R41W, Sec. 33, SW, NE, SW	Calc. +/- 140m.	20	n.a.	Rupp, Charles

Statistics: Registered abandoned wells

Count: 7

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
4328	59849	T92N, R41W, Sec. 28, SW, SW, NW	Calc. +/- 285m.	30	1956	Bush, Leland
4332	12736	T92N, R41W, Sec. 31, SE, SE, SE	Calc. +/- 140m.	60	1995	Specht, Robert
4342	67770	T92N, R41W, Sec. 32, SE, NW, NW	Calc. +/- 1135m.	20	unkn	Pitts, Steve
4343	1840	T92N, R41W, Sec. 32, SW, SW, NW	Calc. +/- 285m.	70	1920	Pitts, Steve

Statistics: Wells registered for testing

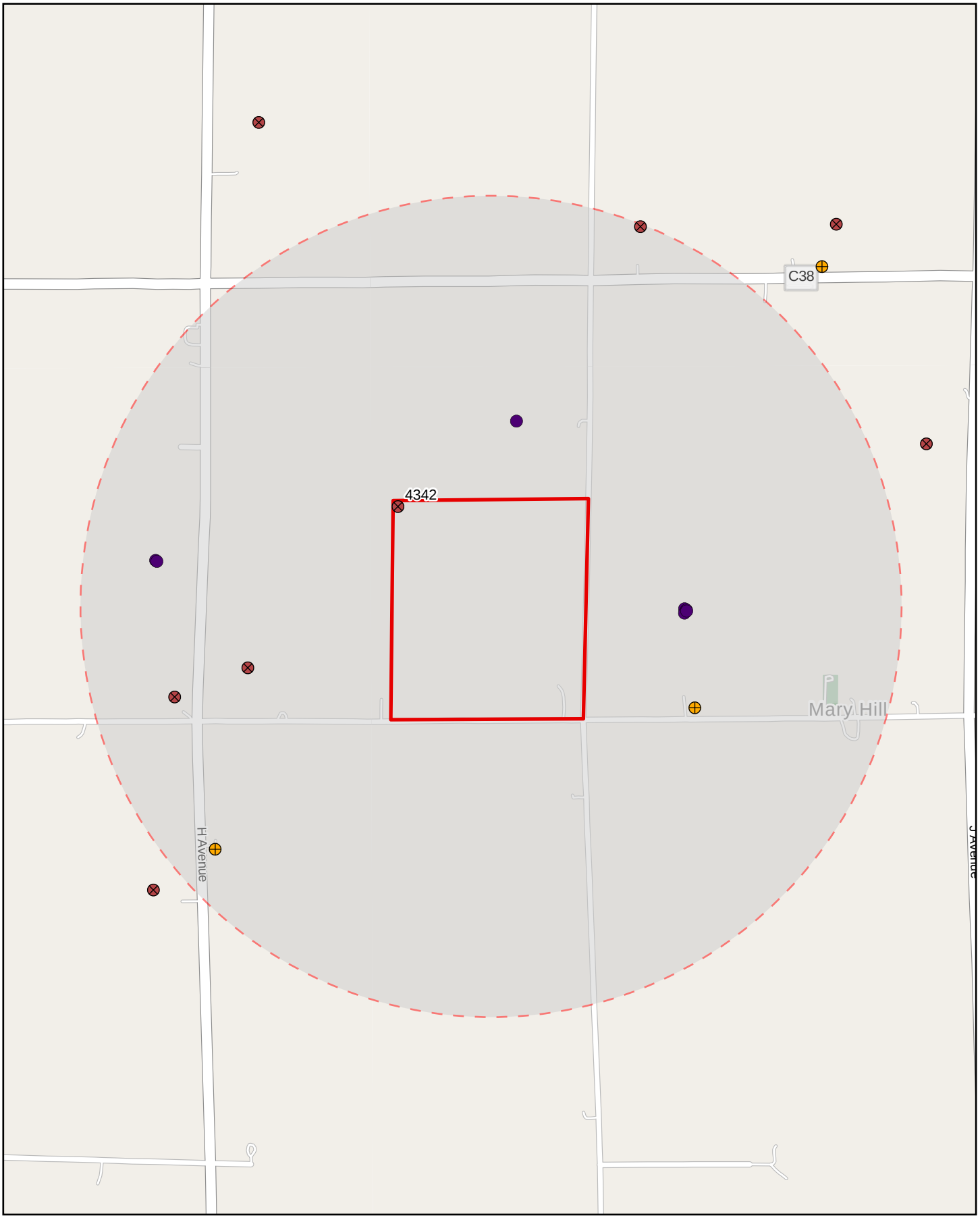
Count: 4

Report Totals

Count: 13

Date Exported: 5/8/2026 4:17 PM

Site: 1791
Subject: XY UTM Coordinates: 15N 278437 4735391
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1792



Unsuitable for Land Application

Bruce Husman Phone: (712)261-3151 Spreadable Acres: 84 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1792



Unsuitable for Land Application

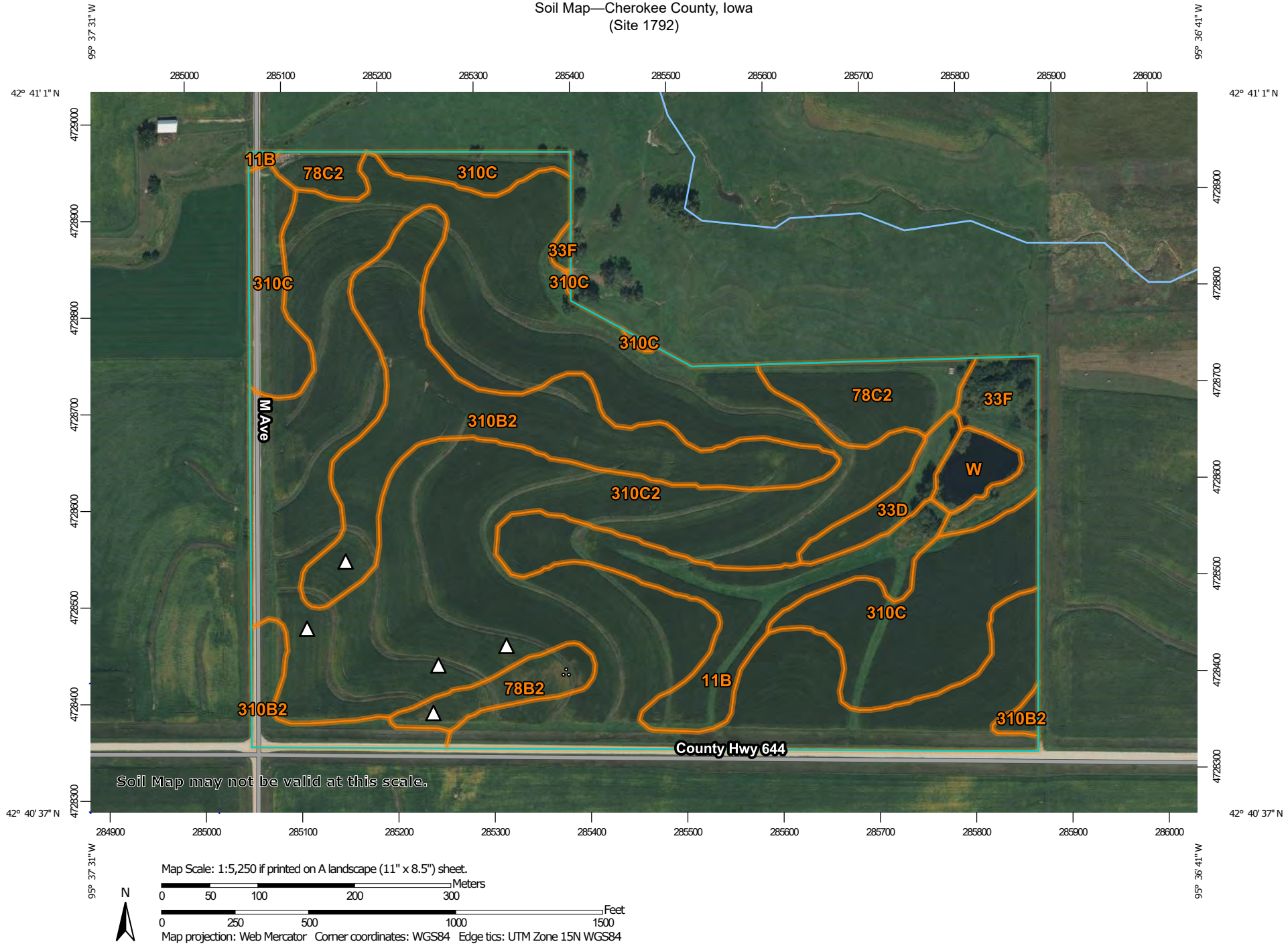
Bruce Husman Phone: (712)261-3151 Gypsum Only

Permitted Acres: 84 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1792)



Map Scale: 1:5,250 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	7.2	7.2%
33D	Steinauer clay loam, 9 to 14 percent slopes	1.6	1.6%
33F	Steinauer clay loam, 14 to 25 percent slopes	2.7	2.7%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	1.9	1.9%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	4.3	4.3%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	14.0	13.9%
310C	Galva silty clay loam, 5 to 9 percent slopes	11.4	11.3%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	56.1	55.9%
W	Water	1.2	1.2%
Totals for Area of Interest		**100.4**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	7.2	7.2%
33D	Steinauer clay loam, 9 to 14 percent slopes	5	1.6	1.6%
33F	Steinauer clay loam, 14 to 25 percent slopes	5	2.7	2.7%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	5	1.9	1.9%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	5	4.3	4.3%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5	14.0	13.9%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	11.4	11.3%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	56.1	55.9%
W	Water		1.2	1.2%
Totals for Area of Interest			**100.4**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	7.2	7.2%
33D	Steinauer clay loam, 9 to 14 percent slopes	>200	1.6	1.6%
33F	Steinauer clay loam, 14 to 25 percent slopes	>200	2.7	2.7%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	122	1.9	1.9%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	122	4.3	4.3%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	>200	14.0	13.9%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	11.4	11.3%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	56.1	55.9%
W	Water	>200	1.2	1.2%
Totals for Area of Interest			**100.4**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Well Search Report Site: 1792

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
165879	91107	T91N, R40W, 30, NW	Calc. +/- 3730 ft.	0		Lucas-179
196191	23532	T91N, R40W, 19, NE NW NW NW	Calc. +/- 230 ft.	241	1/14/1974	Robinson, Melvin

Statistics: IGS Well Database

Count: 2

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
6643	14657	T91N, R40W, Sec. 19, SW, NE, NW	Calc. +/- 140m.	45	n.a.	Husman, Ronald
6648	5798	T91N, R40W, Sec. 19, SW, NE, NW	Calc. +/- 140m.	45	n.a.	Husman, Ronald
6900	22543	T91N, R40W, Sec. 30, NW, SW, SE	Calc. +/- 285m.	unkn	n.a.	Compton, Robert
7033	87	T91N, R40W, Sec. 30, SW, NW, SW	Calc. +/- 140m.	27	n.a.	Krause, A.W.
7034	2397	T91N, R40W, Sec. 30, SW, NW, SW	Calc. +/- 140m.	27	n.a.	Krause, A.W.
7036	597	T91N, R40W, Sec. 30, SW, NW, SW	Calc. +/- 140m.	27	n.a.	Krause, A.W.
7037	86	T91N, R40W, Sec. 30, SW, NW, SW	Calc. +/- 140m.	18	n.a.	Krause, A.W.
7040	2396	T91N, R40W, Sec. 30, SW, NW, SE	Calc. +/- 285m.	18	n.a.	

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Krause, A W
7044	596	T91N, R40W, Sec. 30, SW, NW, SW	Calc. +/- 140m.	18	n.a.	Krause, A.W.

Statistics: Registered abandoned wells

Count: 9

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
6399	10346	T91N, R40W, Sec. 19, NW, NW, SW	Calc. +/- 285m.	560	1970	Henke, Darwin
7006	16694	T91N, R40W, Sec. 19, SE, SE, SW	Calc. +/- 140m.	15	1950	Rhea, Ken
7175	9571	T91N, R40W, Sec. 29, NW, NW, NW	Calc. +/- 285m.	25	1970	Lamos/ Beazely, Barry/Rose

Statistics: Wells registered for testing

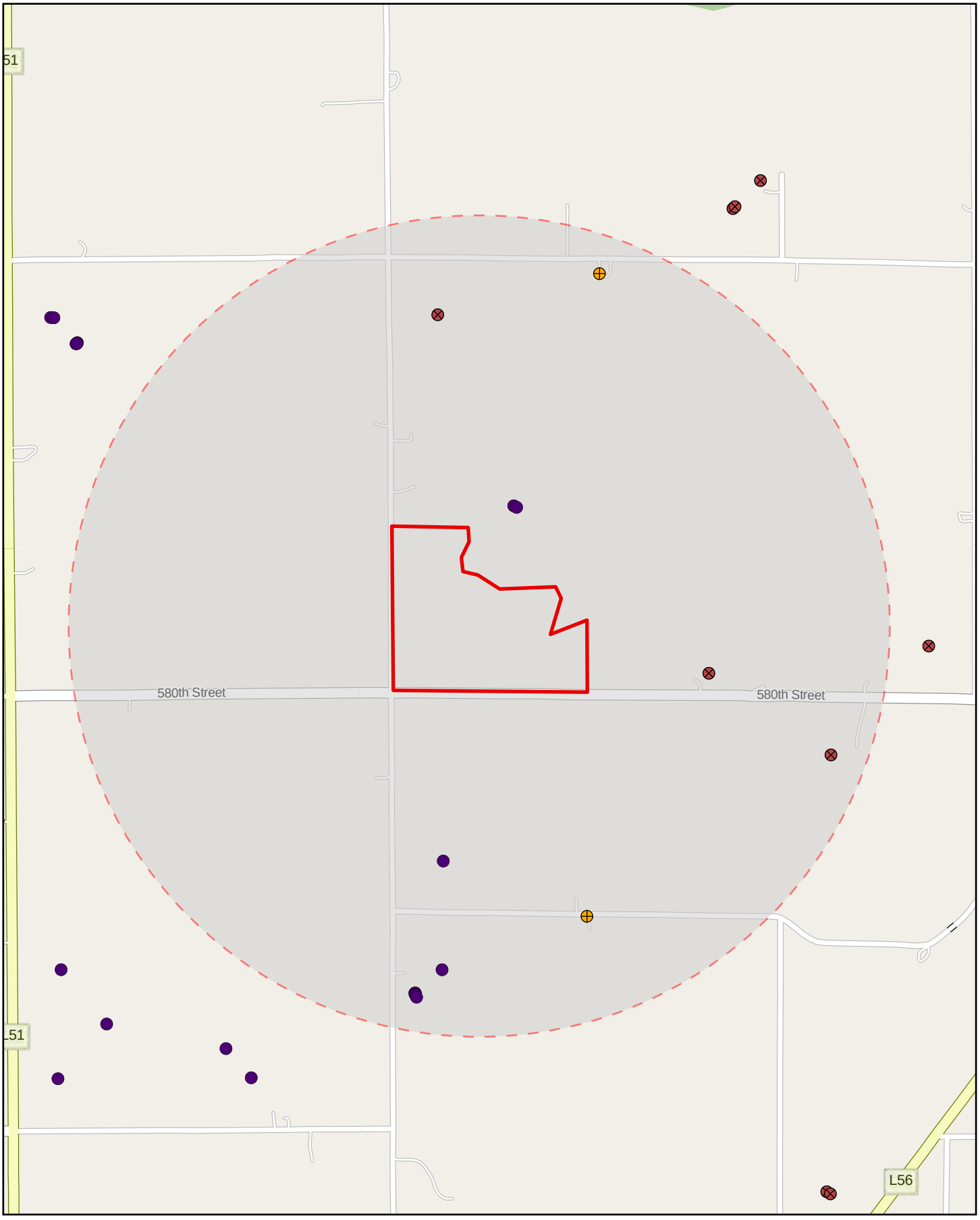
Count: 3

Report Totals

Count: 14

Date Exported: 5/8/2026 4:22 PM

Site: 1792
Subject: XY UTM Coordinates: 15N 285429 4728583
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1793



Unsuitable for Land Application

Bruce Husman Phone: (712)261-3151 Spreadable Acres: 183 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1793



Unsuitable for Land Application

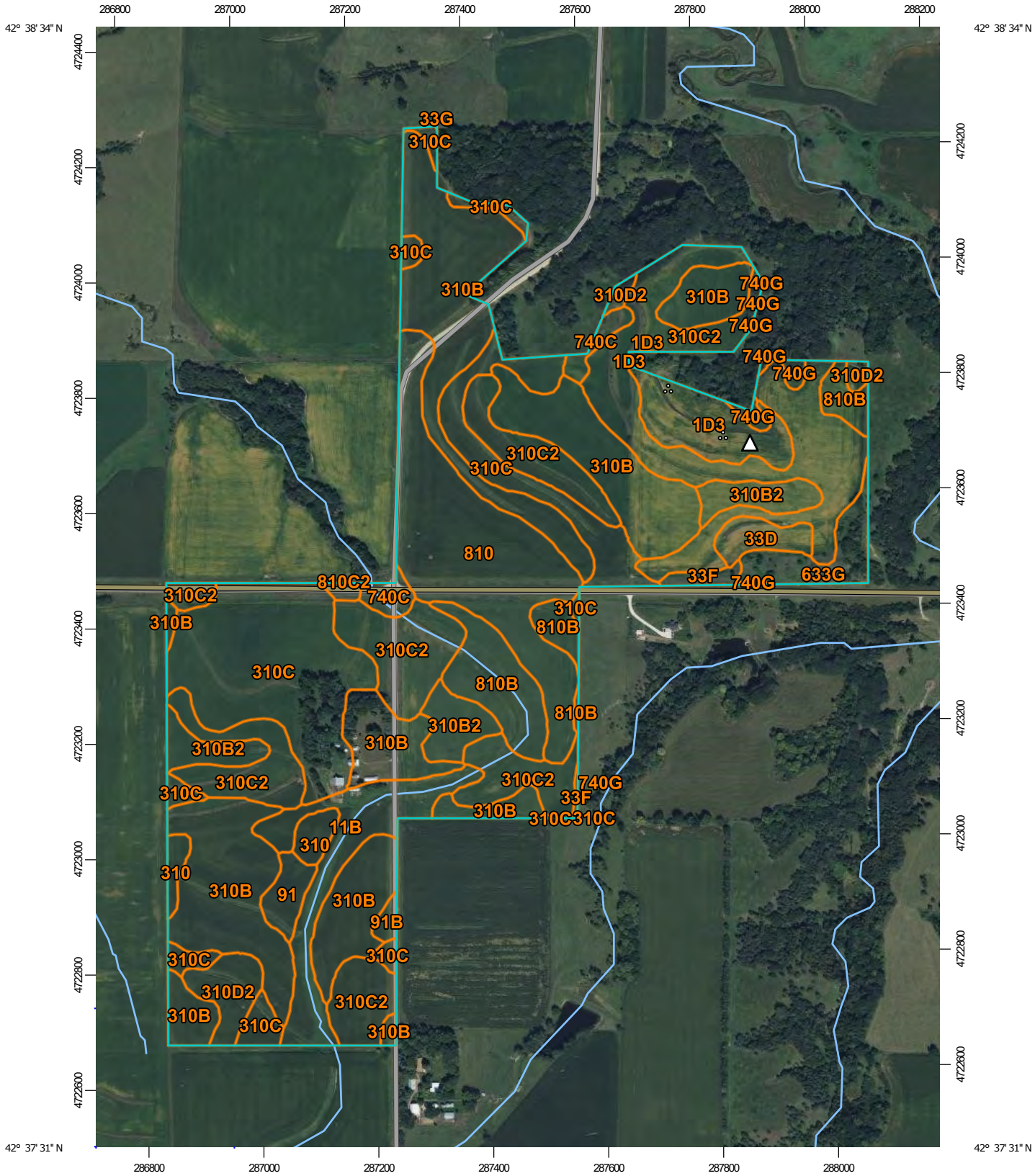
Bruce Husman Phone: (712)261-3151 Gypsum Only

Permitted Acres: 183 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1793)



T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
1D3	Ida silt loam, 9 to 14 percent slopes, severely eroded	4	6.3	3.0%
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	9.9	4.6%
33D	Steinauer clay loam, 9 to 14 percent slopes	5	2.3	1.1%
33F	Steinauer clay loam, 14 to 25 percent slopes	5	0.9	0.4%
33G	Steinauer clay loam, 25 to 40 percent slopes	5	0.0	0.0%
91	Primghar silty clay loam, 0 to 2 percent slopes	5	2.0	1.0%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	0.6	0.3%
310	Galva silty clay loam, 0 to 2 percent slopes	5	2.2	1.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	57.3	27.0%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5	7.8	3.7%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	32.5	15.3%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	48.1	22.6%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	5	4.0	1.9%
633G	Steinauer-Steinauer variant clay loams, 20 to 50 percent slopes	5	4.1	1.9%
740C	Hawick sandy loam, 2 to 9 percent slopes	5	2.3	1.1%
740G	Hawick sandy loam, 18 to 35 percent slopes	5	1.1	0.5%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	5	21.1	10.0%

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	5	9.5	4.5%
810C2	Galva silty clay loam, terrace, 5 to 9 percent slopes, eroded	5	0.4	0.2%
Totals for Area of Interest			**212.4**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1D3	Ida silt loam, 9 to 14 percent slopes, severely eroded	6.3	3.0%
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	9.9	4.6%
33D	Steinauer clay loam, 9 to 14 percent slopes	2.3	1.1%
33F	Steinauer clay loam, 14 to 25 percent slopes	0.9	0.4%
33G	Steinauer clay loam, 25 to 40 percent slopes	0.0	0.0%
91	Primghar silty clay loam, 0 to 2 percent slopes	2.0	1.0%
91B	Primghar silty clay loam, 2 to 5 percent slopes	0.6	0.3%
310	Galva silty clay loam, 0 to 2 percent slopes	2.2	1.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	57.3	27.0%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	7.8	3.7%
310C	Galva silty clay loam, 5 to 9 percent slopes	32.5	15.3%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	48.1	22.6%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	4.0	1.9%
633G	Steinauer-Steinauer variant clay loams, 20 to 50 percent slopes	4.1	1.9%
740C	Hawick sandy loam, 2 to 9 percent slopes	2.3	1.1%
740G	Hawick sandy loam, 18 to 35 percent slopes	1.1	0.5%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	21.1	10.0%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	9.5	4.5%
810C2	Galva silty clay loam, terrace, 5 to 9 percent slopes, eroded	0.4	0.2%
Totals for Area of Interest		**212.4**	**100.0%**

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
1D3	Ida silt loam, 9 to 14 percent slopes, severely eroded	>200	6.3	3.0%
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	9.9	4.6%
33D	Steinauer clay loam, 9 to 14 percent slopes	>200	2.3	1.1%
33F	Steinauer clay loam, 14 to 25 percent slopes	>200	0.9	0.4%
33G	Steinauer clay loam, 25 to 40 percent slopes	>200	0.0	0.0%
91	Primghar silty clay loam, 0 to 2 percent slopes	30	2.0	1.0%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	0.6	0.3%
310	Galva silty clay loam, 0 to 2 percent slopes	>200	2.2	1.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	57.3	27.0%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	>200	7.8	3.7%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	32.5	15.3%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	48.1	22.6%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	>200	4.0	1.9%
633G	Steinauer-Steinauer variant clay loams, 20 to 50 percent slopes	>200	4.1	1.9%
740C	Hawick sandy loam, 2 to 9 percent slopes	>200	2.3	1.1%
740G	Hawick sandy loam, 18 to 35 percent slopes	>200	1.1	0.5%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	>200	21.1	10.0%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	>200	9.5	4.5%

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
810C2	Galva silty clay loam, terrace, 5 to 9 percent slopes, eroded	>200	0.4	0.2%
Totals for Area of Interest			**212.4**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1793

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
160496	91317	T90N, R40W, 8, NW NW NE	Calc. +/- 930 ft.	0		RC DB-I-79
160502	91335	T90N, R40W, 5, SE SE SE	Calc. +/- 930 ft.	0		RC DB-W-591
165681	89876	T90N, R40W, 5, SE SE SE	Maps/Air Photos +/- 20 m.	0		W-591
165682	89877	T90N, R40W, 8, NW NW NE	Maps/Air Photos +/- 20 m.	0		I-79
190351	19998	T90N, R40W, 6, SE NW NE SW	Calc. +/- 230 ft.	208	8/7/1967	Clark, Harold
232397	83543	T90N, R40W, 8, NW NW NW	Calc. +/- 470 ft.	175	9/3/2004	Dittmer, Vincent

Statistics: IGS Well Database

Count: 6

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
8080	2723	T90N, R40W, Sec. 7, NE, NW, SW	Calc. +/- 285m.	84	n.a.	Johnsen, Keith
8128	21201	T90N, R40W, Sec. 8, NW, NW, NW	Calc. +/- 140m.	unkn	n.a.	Dittmer, Robert
8129	21202	T90N, R40W, Sec. 8, NW, NW, NW	Calc. +/- 140m.	225	n.a.	Dittmer, Robert

Statistics: Registered abandoned wells

Count: 3

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
7978	8046	T90N, R40W, Sec. 6, SE, NW, SE	Calc. +/- 285m.	300	1966	Cunningham, James
8220	11054	T90N, R40W, Sec. 8, SW, NW, NW	Calc. +/- 140m.	75	1940	Sargent, Don
8223	11056	T90N, R40W, Sec. 7, SE, NE, SE	Calc. +/- 140m.	180	1970	Spotten, Nick
8324	12733	T90N, R40W, Sec. 8, NE, SE, SE	Calc. +/- 140m.	35	unkn	Parrot, Jason

Statistics: Wells registered for testing

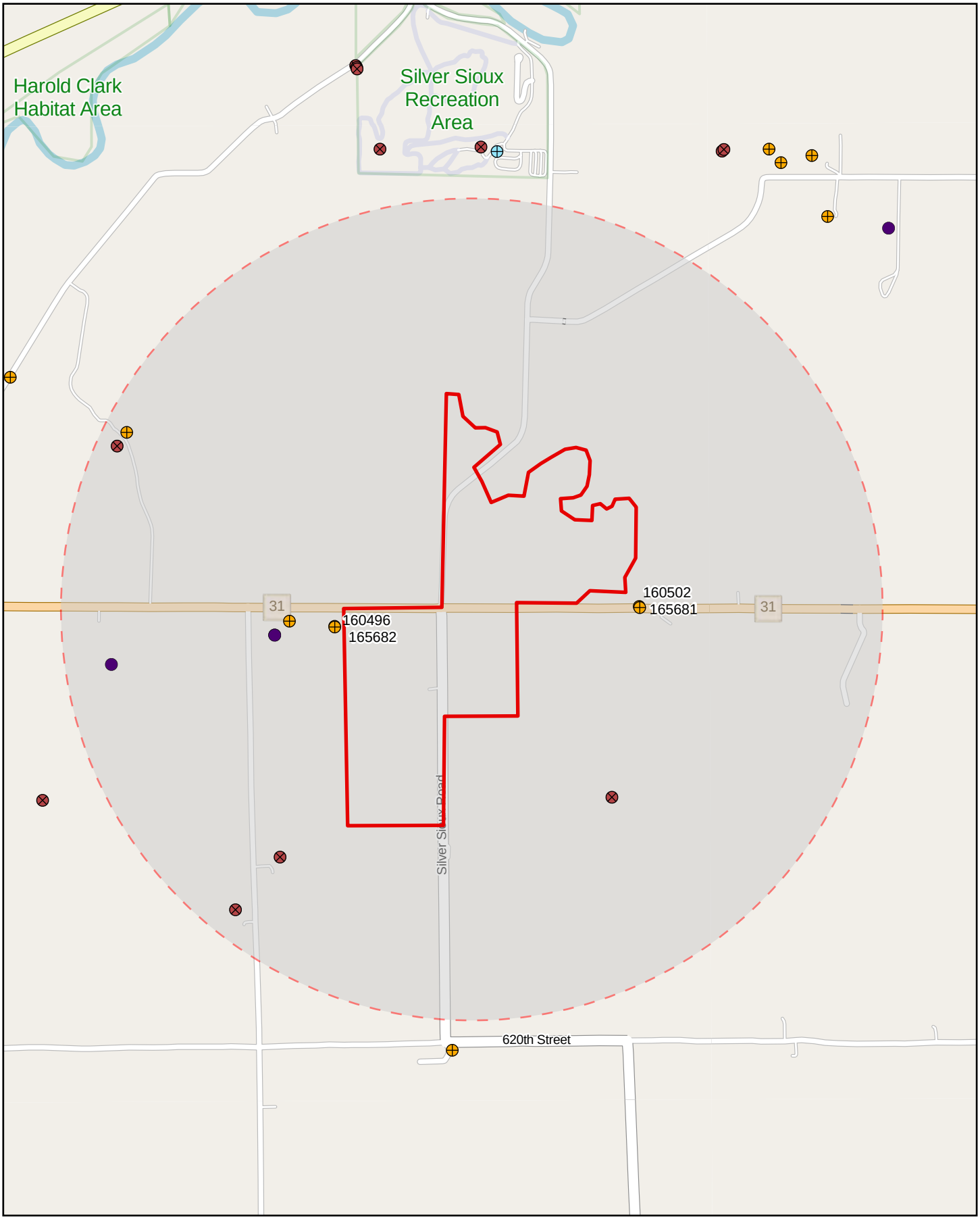
Count: 4

Report Totals

Count: 13

Date Exported: 5/8/2026 4:29 PM

Site: 1793
Subject: XY UTM Coordinates: 15N 287382 4723438
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1794



Unsuitable for Land Application

Bruce Husman Phone: (712)261-3151 Spreadable Acres: 92 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1794



Unsuitable for Land Application

Bruce Husman Phone: (712)261-3151 Gypsum Only

Permitted Acres: 92 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1794)



Map Scale: 1:5,620 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	6.4	6.7%
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	0.1	0.1%
91B	Primghar silty clay loam, 2 to 5 percent slopes	6.6	6.8%
310B	Galva silty clay loam, 2 to 5 percent slopes	60.0	61.9%
310C	Galva silty clay loam, 5 to 9 percent slopes	23.7	24.5%
Totals for Area of Interest		**96.9**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	6.4	6.7%
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	5	0.1	0.1%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	6.6	6.8%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	60.0	61.9%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	23.7	24.5%
Totals for Area of Interest			**96.9**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	6.4	6.7%
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	0	0.1	0.1%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	6.6	6.8%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	60.0	61.9%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	23.7	24.5%
Totals for Area of Interest			**96.9**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1794

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
5638	42152	T91N, R41W, Sec. 13, NW, NW, NE	Calc. +/- 140m.	28	n.a.	Burkhalter, Ed
5799	40819	T91N, R41W, Sec. 23, NE, NW, NW	Calc. +/- 140m.	18	n.a.	Clark, Robert
5972	10026	T91N, R41W, Sec. 23, NE, SW, NE	Calc. +/- 140m.	unkn	n.a.	Trapp, Larry
6062	2376	T91N, R41W, Sec. 24, NW, NW, NW	Calc. +/- 285m.	30	n.a.	Fee, Williard H
6066	2375	T91N, R41W, Sec. 24, NW, NW, NE	Calc. +/- 285m.	36	n.a.	H Fee, William
6113	107	T91N, R41W, Sec. 24, NW, NW, SE	Calc. +/- 140m.	25	n.a.	Fee, Williard H.
6114	106	T91N, R41W, Sec. 24, NW, NW, SE	Calc. +/- 140m.	36	n.a.	Fee, Williard H.
6115	108	T91N, R41W, Sec. 24, NW, NW, SE	Calc. +/- 140m.	30	n.a.	

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Fee, Williard H.

Statistics: Registered abandoned wells

Count: 8

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
5825	11121	T91N, R41W, Sec. 13, NE, NE, NW	Calc. +/- 140m.	25	1950	Burch, Paul

Statistics: Wells registered for testing

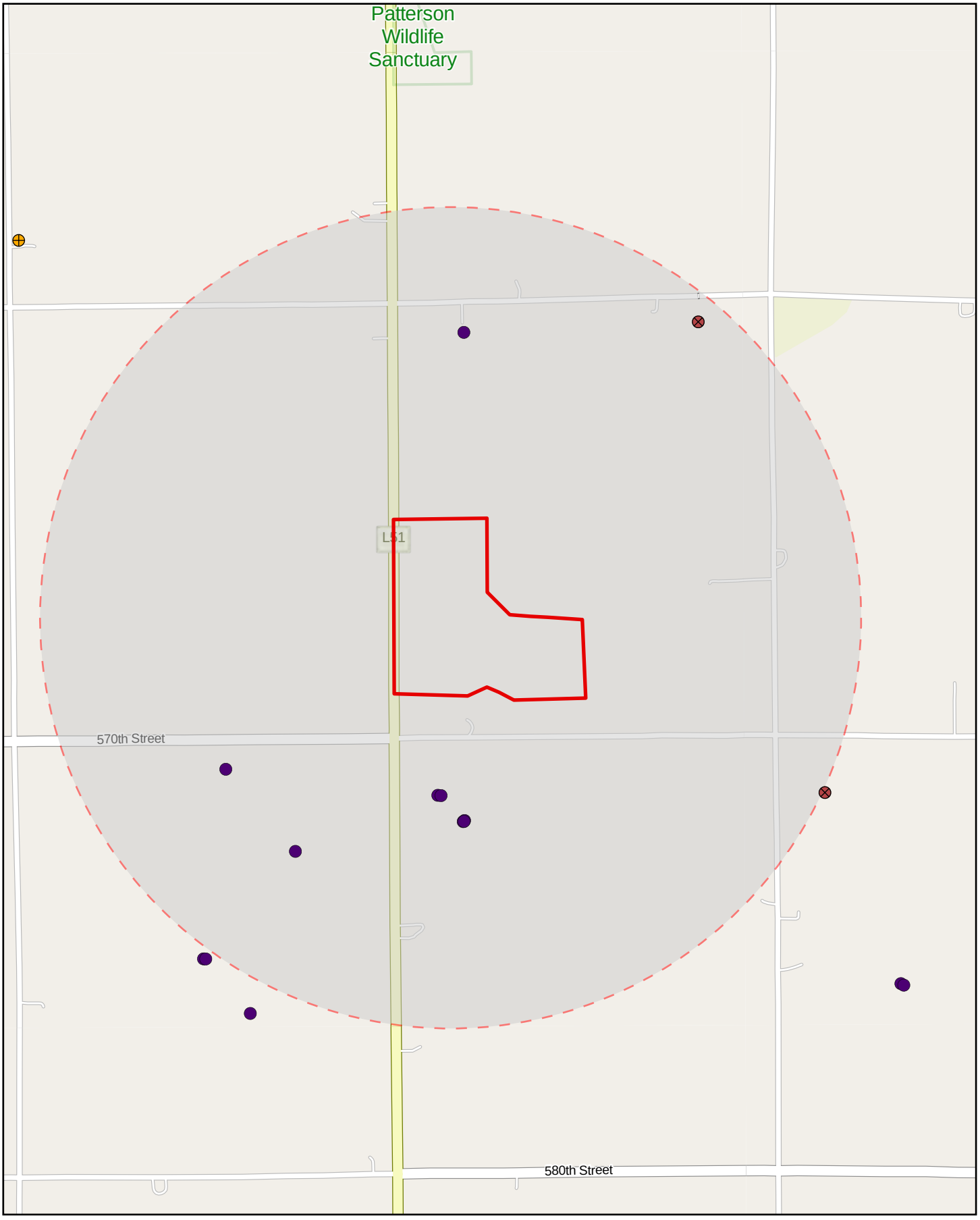
Count: 1

Report Totals

Count: 9

Date Exported: 5/8/2026 4:32 PM

Site: 1794
Subject: XY UTM Coordinates: 15N 283760 4730432
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1795



Unsuitable for Land Application

Bruce Husman Phone: (712)261-3151 Spreadable Acres: 91 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1795



Unsuitable for Land Application

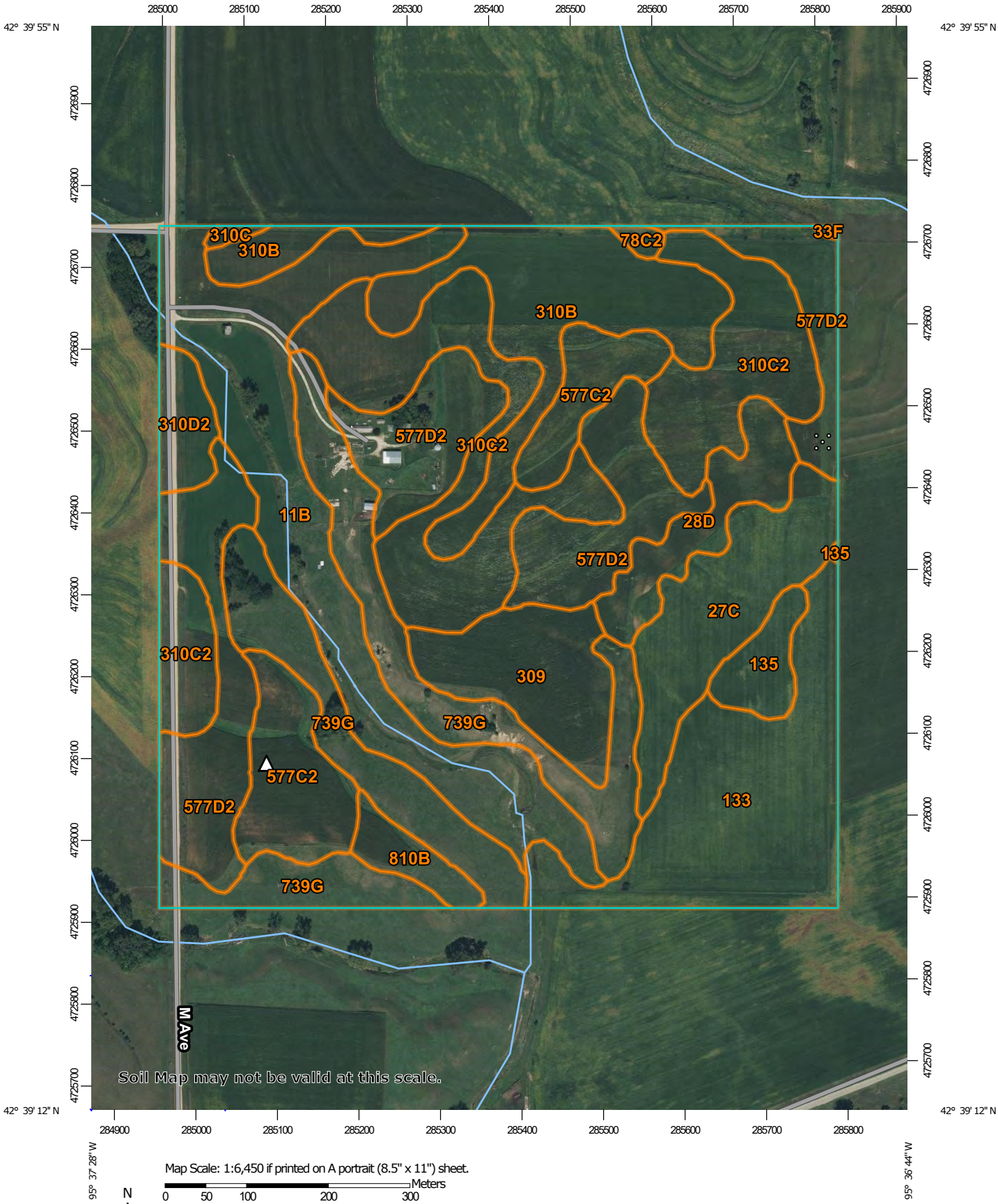
Bruce Husman Phone: (712)261-3151 Gypsum Only

Permitted Acres: 91 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1795)



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	22.3	12.9%
27C	Terril loam, 5 to 9 percent slopes	9.8	5.7%
28D	Dickman sandy loam, 5 to 12 percent slopes	5.3	3.1%
33F	Steinauer clay loam, 14 to 25 percent slopes	0.1	0.0%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	0.4	0.3%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	17.5	10.1%
135	Coland clay loam, 0 to 2 percent slopes	2.6	1.5%
309	Allendorf silty clay loam, 0 to 2 percent slopes	7.9	4.6%
310B	Galva silty clay loam, 2 to 5 percent slopes	15.3	8.9%
310C	Galva silty clay loam, 5 to 9 percent slopes	0.3	0.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	26.0	15.1%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	2.6	1.5%
577C2	Everly clay loam, 5 to 9 percent slopes, moderately eroded	10.2	5.9%
577D2	Everly clay loam, 9 to 14 percent slopes, moderately eroded	26.5	15.4%
739G	Steinauer-Hawick complex, 25 to 40 percent slopes	23.0	13.4%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	2.2	1.3%
Totals for Area of Interest		**172.0**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	22.3	12.9%
27C	Terril loam, 5 to 9 percent slopes	5	9.8	5.7%
28D	Dickman sandy loam, 5 to 12 percent slopes	2	5.3	3.1%
33F	Steinauer clay loam, 14 to 25 percent slopes	5	0.1	0.0%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	5	0.4	0.3%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	17.5	10.1%
135	Coland clay loam, 0 to 2 percent slopes	5	2.6	1.5%
309	Allendorf silty clay loam, 0 to 2 percent slopes	3	7.9	4.6%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	15.3	8.9%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	0.3	0.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	26.0	15.1%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	5	2.6	1.5%
577C2	Everly clay loam, 5 to 9 percent slopes, moderately eroded	5	10.2	5.9%
577D2	Everly clay loam, 9 to 14 percent slopes, moderately eroded	5	26.5	15.4%
739G	Steinauer-Hawick complex, 25 to 40 percent slopes	5	23.0	13.4%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	5	2.2	1.3%
Totals for Area of Interest			**172.0**	**100.0%**

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	22.3	12.9%
27C	Terril loam, 5 to 9 percent slopes	122	9.8	5.7%
28D	Dickman sandy loam, 5 to 12 percent slopes	>200	5.3	3.1%
33F	Steinauer clay loam, 14 to 25 percent slopes	>200	0.1	0.0%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	122	0.4	0.3%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	17.5	10.1%
135	Coland clay loam, 0 to 2 percent slopes	0	2.6	1.5%
309	Allendorf silty clay loam, 0 to 2 percent slopes	>200	7.9	4.6%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	15.3	8.9%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	0.3	0.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	26.0	15.1%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	>200	2.6	1.5%
577C2	Everly clay loam, 5 to 9 percent slopes, moderately eroded	152	10.2	5.9%
577D2	Everly clay loam, 9 to 14 percent slopes, moderately eroded	152	26.5	15.4%
739G	Steinauer-Hawick complex, 25 to 40 percent slopes	>200	23.0	13.4%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	>200	2.2	1.3%
Totals for Area of Interest			**172.0**	**100.0%**

Well Search Report Site: 1795

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
165879	91107	T91N, R40W, 30, NW	Calc. +/- 3730 ft.	0		Lucas-179
227086	55359	T91N, R40W, 31, SE NW NE	Calc. +/- 470 ft.	107	1/8/2002	Olson, Mike

Statistics: IGS Well Database

Count: 2

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
6873	98	T91N, R41W, Sec. 25, SE, SW, NW	Calc. +/- 140m.	23	n.a.	Ravnsborg, Richard
6900	22543	T91N, R40W, Sec. 30, NW, SW, SE	Calc. +/- 285m.	unkn	n.a.	Compton, Robert
6928	2405	T91N, R41W, Sec. 25, SE, SW, SE	Calc. +/- 285m.	26	n.a.	Raunsborg, Richard
7033	87	T91N, R40W, Sec. 30, SW, NW, SW	Calc. +/- 140m.	27	n.a.	Krause, A.W.
7034	2397	T91N, R40W, Sec. 30, SW, NW, SW	Calc. +/- 140m.	27	n.a.	Krause, A.W.
7036	597	T91N, R40W, Sec. 30, SW, NW, SW	Calc. +/- 140m.	27	n.a.	Krause, A.W.
7037	86	T91N, R40W, Sec. 30, SW, NW, SW	Calc. +/- 140m.	18	n.a.	Krause, A.W.
7040	2396	T91N, R40W, Sec. 30, SW, NW, SE	Calc. +/- 285m.	18	n.a.	

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Krause, A W
7044	596	T91N, R40W, Sec. 30, SW, NW, SW	Calc. +/- 140m.	18	n.a.	Krause, A.W.
7165	2727	T91N, R41W, Sec. 36, SW, NE, NE	Calc. +/- 1135m.	24	n.a.	Krause, A.W.

Statistics: Registered abandoned wells

Count: 10

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
7388	2982	T91N, R40W, Sec. 31, SW, NW, NE	Calc. +/- 285m.	10	unkn	Law, Junior
7389	2984	T91N, R40W, Sec. 31, SW, NW, NE	Calc. +/- 285m.	10	unkn	Law, Junior
7418	59853	T91N, R41W, Sec. 36, SE, SE, SW	Calc. +/- 285m.	161	1974	Harvey, Dale
7459	16692	T91N, R41W, Sec. 36, SE, SE, SE	Calc. +/- 140m.	165	1974	Harvey, Dale
7477	16674	T91N, R40W, Sec. 31, SW, SW, NE	Calc. +/- 140m.	10	1994	Law, Junior
7480	16675	T91N, R40W, Sec. 31, SW, SW, NE	Calc. +/- 140m.	20	unkn	Law, Junior
7530	59846	T91N, R40W, Sec. 32, NW, NW, NW	Calc. +/- 285m.	15	1969	Law, Junior
7539	59847	T91N, R40W, Sec. 32, NW, NW, SE	Calc. +/- 285m.	15	1955	

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Law, Junior
7610	708	T91N, R40W, Sec. 32, NW, NW, SE	Calc. +/- 570m.	80	1975	Cherokee County, Sioux Silver

Statistics: Wells registered for testing

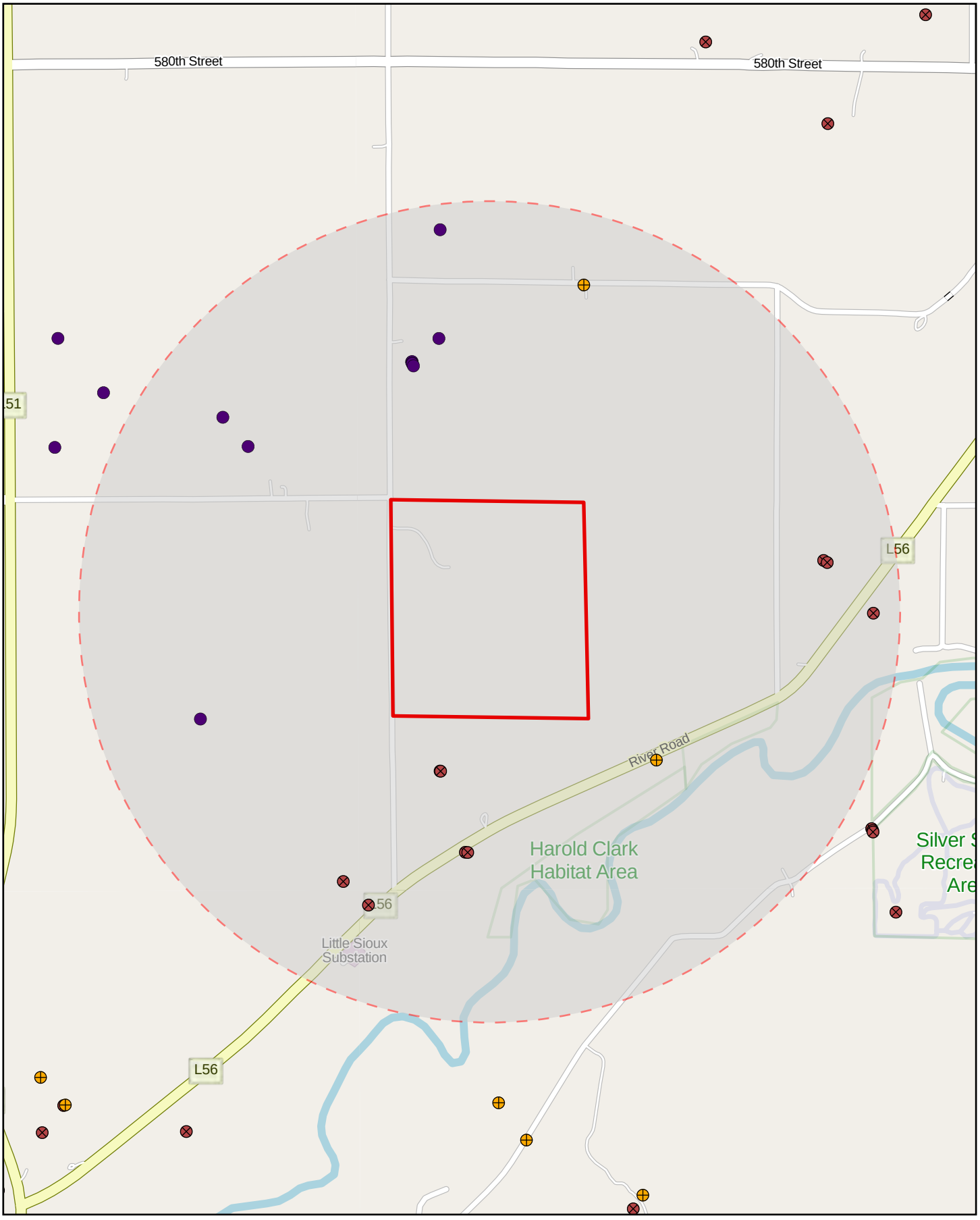
Count: 9

Report Totals

Count: 21

Date Exported: 5/8/2026 4:37 PM

Site: 1795
Subject: XY UTM Coordinates: 15N 285405 4726309
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1796



Unsuitable for Land Application

Darren Stowater Phone: (712)261-3151 Spreadable Acres: 112 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1796



Unsuitable for Land Application

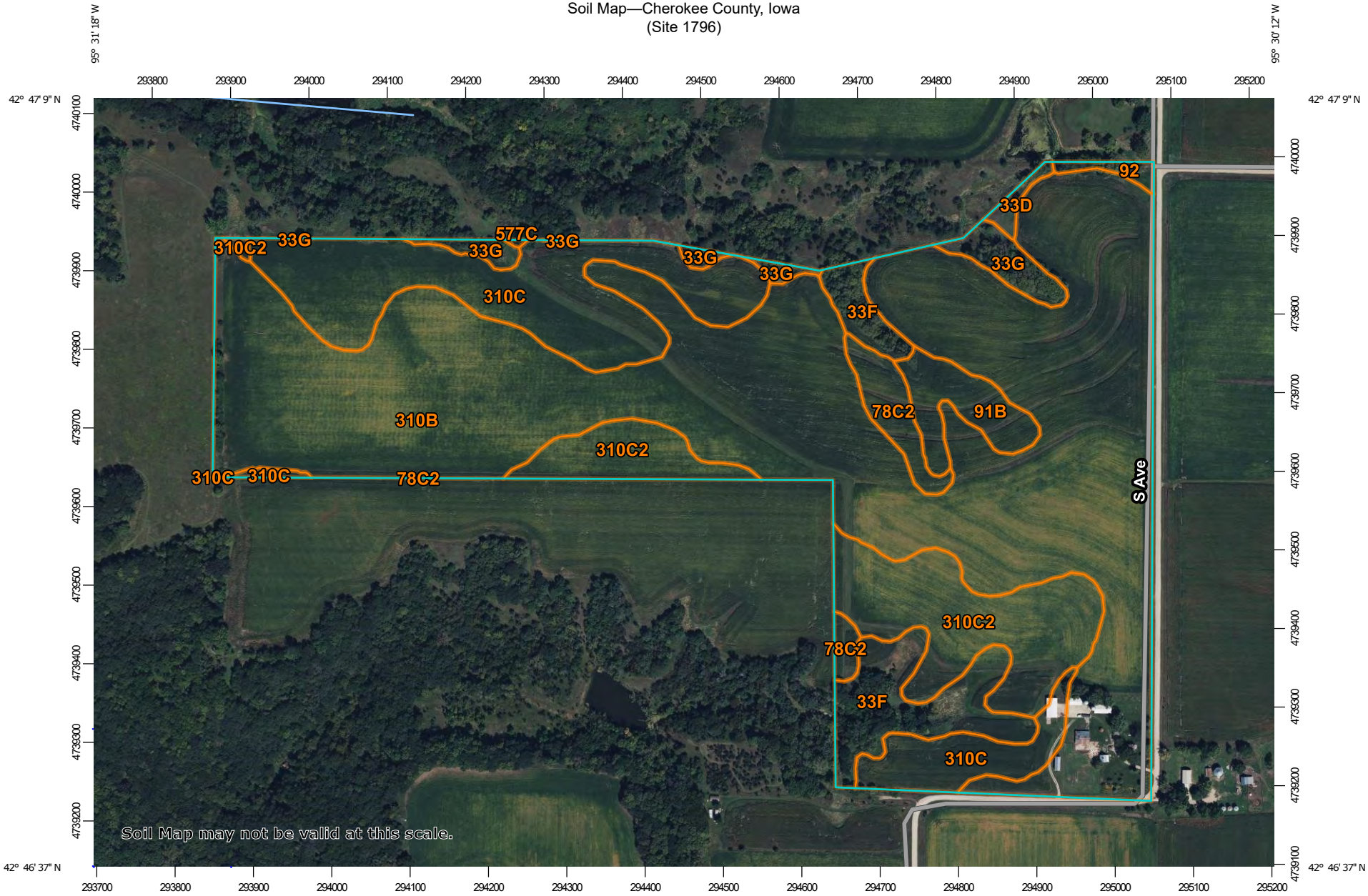
Darren Stowater Phone: (712)261-3151 Gypsum Only

Permitted Acres: 112 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1796)



Map Scale: 1:6,890 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
33D	Steinauer clay loam, 9 to 14 percent slopes	0.5	0.4%
33F	Steinauer clay loam, 14 to 25 percent slopes	7.6	5.7%
33G	Steinauer clay loam, 25 to 40 percent slopes	3.0	2.2%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	2.8	2.1%
91B	Primghar silty clay loam, 2 to 5 percent slopes	3.3	2.5%
92	Marcus silty clay loam, 0 to 2 percent slopes	0.6	0.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	81.8	61.2%
310C	Galva silty clay loam, 5 to 9 percent slopes	19.5	14.6%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	14.5	10.8%
577C	Everly clay loam, 5 to 9 percent slopes	0.0	0.0%
Totals for Area of Interest		**133.6**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
33D	Steinauer clay loam, 9 to 14 percent slopes	5	0.5	0.4%
33F	Steinauer clay loam, 14 to 25 percent slopes	5	7.6	5.7%
33G	Steinauer clay loam, 25 to 40 percent slopes	5	3.0	2.2%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	5	2.8	2.1%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	3.3	2.5%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	0.6	0.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	81.8	61.2%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	19.5	14.6%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	14.5	10.8%
577C	Everly clay loam, 5 to 9 percent slopes	5	0.0	0.0%
Totals for Area of Interest			**133.6**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
33D	Steinauer clay loam, 9 to 14 percent slopes	>200	0.5	0.4%
33F	Steinauer clay loam, 14 to 25 percent slopes	>200	7.6	5.7%
33G	Steinauer clay loam, 25 to 40 percent slopes	>200	3.0	2.2%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	122	2.8	2.1%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	3.3	2.5%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	0.6	0.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	81.8	61.2%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	19.5	14.6%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	14.5	10.8%
577C	Everly clay loam, 5 to 9 percent slopes	152	0.0	0.0%
Totals for Area of Interest			**133.6**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Well Search Report Site: 1796

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
178073	9100	T92N, R39W, 18, NW NE SW	Calc. +/- 470 ft.	408	2/1/1957	Letsche, G.
180469	11043	T92N, R40W, 23, NE NE SW	Calc. +/- 470 ft.	132	3/27/1959	Pritchard Estate
224627	97025	T92N, R40W, 23, NE NE SW	Unknown	0	1/1/2001	SA-92N40W23 Trench 2a
224628	97026	T92N, R40W, 23, NE NE SW	Unknown	0	1/1/2001	SA-92N40W23 Tr 4
224814	97023	T92N, R40W, 23, NE NE NW	Unknown	0	1/1/2001	SA-92N40W23 Trench 1a
224815	97024	T92N, R40W, 23, NE NE NW	Unknown	0	1/1/2001	SA-92N40W23 Trench 1b

Statistics: IGS Well Database

Count: 6

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
6180	42203	T92N, R40W, Sec. 24, NW, SE, NW	Calc. +/- 140m.	40	n.a.	Western Hills Education

Statistics: Registered abandoned wells

Count: 1

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
5668	12725	T92N, R40W, Sec. 14, NE, SE, SE	Calc. +/- 140m.	30	1960	Urban, Mike
5674	12663	T92N, R40W, Sec. 14, NE, SE, SE	Calc. +/- 140m.	30	1960	Urban, Mike
5703	67695	T92N, R40W, Sec. 14, SE, SW, SE	Calc. +/- 285m.	30	unkn	Wilson, Ed
5705	125	T92N, R40W, Sec. 14, SE, NW, SE	Calc. +/- 570m.	90	unkn	Sivinski, Jeff & Nancy
6234	9457	T92N, R39W, Sec. 18, NW, SE, NW	Calc. +/- 140m.	35	1928	Letsche, John
6252	12748	T92N, R40W, Sec. 24, NE, NW, SW	Calc. +/- 285m.	320	1971	Carlson, Don
6325	67632	T92N, R40W, Sec. 24, NE, NE, NE	Calc. +/- 285m.	300	1933	Corrington, Jim

Statistics: Wells registered for testing

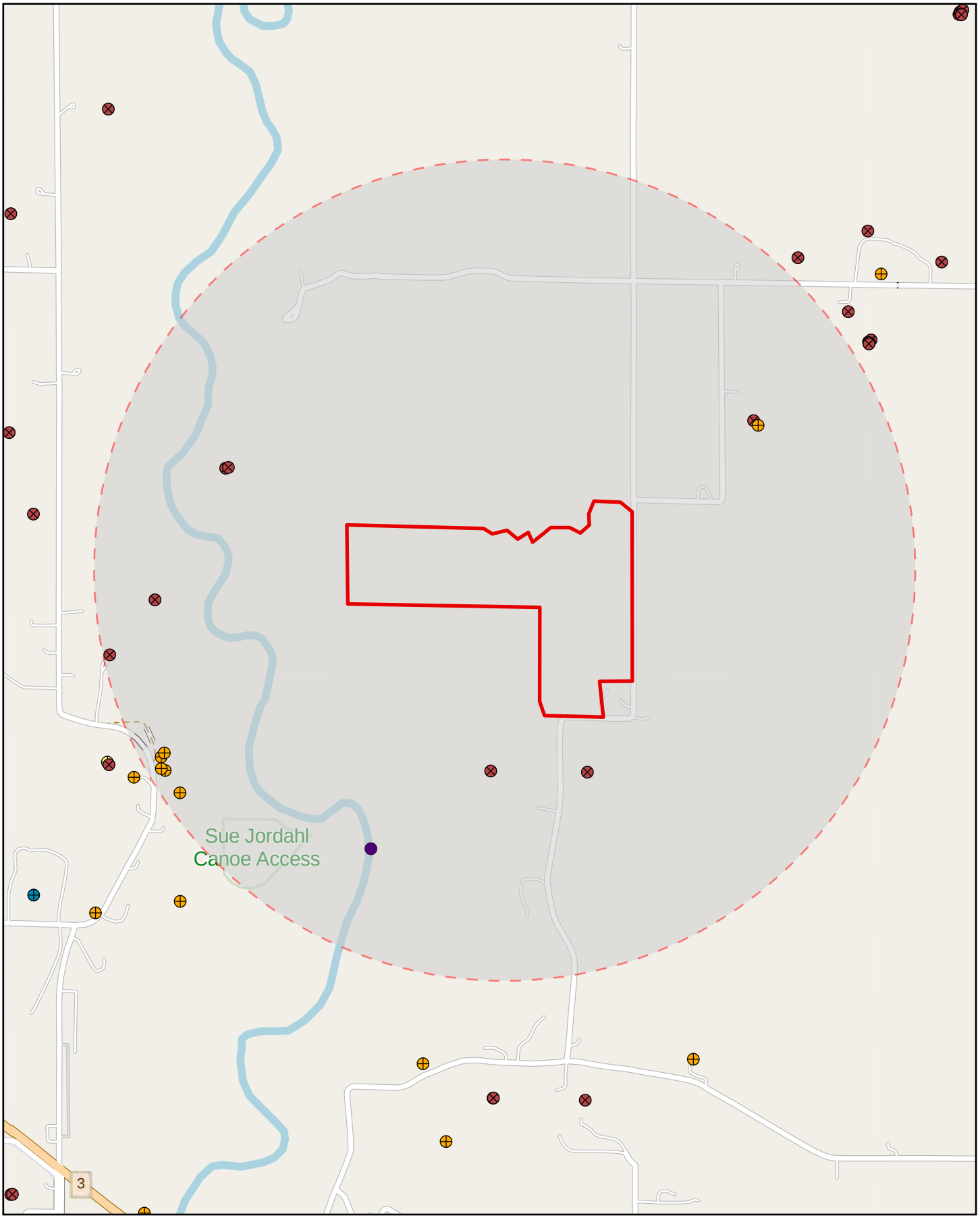
Count: 7

Report Totals

Count: 14

Date Exported: 5/8/2026 4:40 PM

Site: 1796
Subject: XY UTM Coordinates: 15N 294537 4739747
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1797



Unsuitable for Land Application

Mike Vondrak Phone: (712)261-3151 Spreadable Acres: 118 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1797



Unsuitable for Land Application

Mike Vondrak Phone: (712)261-3151 Gypsum Only

Permitted Acres: 118 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1797)



Map Scale: 1:6,190 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	19.5	15.8%
78B	Sac silty clay loam, 2 to 5 percent slopes	26.2	21.3%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	6.2	5.0%
91B	Primghar silty clay loam, 2 to 5 percent slopes	3.1	2.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	32.6	26.4%
310C	Galva silty clay loam, 5 to 9 percent slopes	31.8	25.8%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	3.8	3.1%
Totals for Area of Interest		**123.2**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	19.5	15.8%
78B	Sac silty clay loam, 2 to 5 percent slopes	5	26.2	21.3%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	5	6.2	5.0%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	3.1	2.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	32.6	26.4%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	31.8	25.8%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	3.8	3.1%
Totals for Area of Interest			**123.2**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	19.5	15.8%
78B	Sac silty clay loam, 2 to 5 percent slopes	122	26.2	21.3%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	122	6.2	5.0%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	3.1	2.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	32.6	26.4%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	31.8	25.8%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	3.8	3.1%
Totals for Area of Interest			**123.2**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Well Search Report Site: 1797

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
158195	66608	T91N, R39W, 26, NE SE SE	Meas. +/- 470 ft.	0		Igs
192341	21641	T91N, R39W, 24, NW SW SW NW	Calc. +/- 230 ft.	340	4/17/1969	Hiemstra, Lester

Statistics: IGS Well Database

Count: 2

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
9042	5808	T91N, R39W, Sec. 27, NE, NE, SW	Calc. +/- 570m.	35	n.a.	Roethler, Ralph
9043	14665	T91N, R39W, Sec. 27, NE, NE, SW	Calc. +/- 140m.	35	n.a.	Roethler, Ralph
9261	31471	T91N, R39W, Sec. 26, NE, NE, NW	Calc. +/- 140m.	15	n.a.	Lundsgaard, Inc., Warren

Statistics: Registered abandoned wells

Count: 3

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
9191	11115	T91N, R39W, Sec. 26, SW, NW, NW	Calc. +/- 140m.	30	1940	Gustafson, David

Statistics: Wells registered for testing

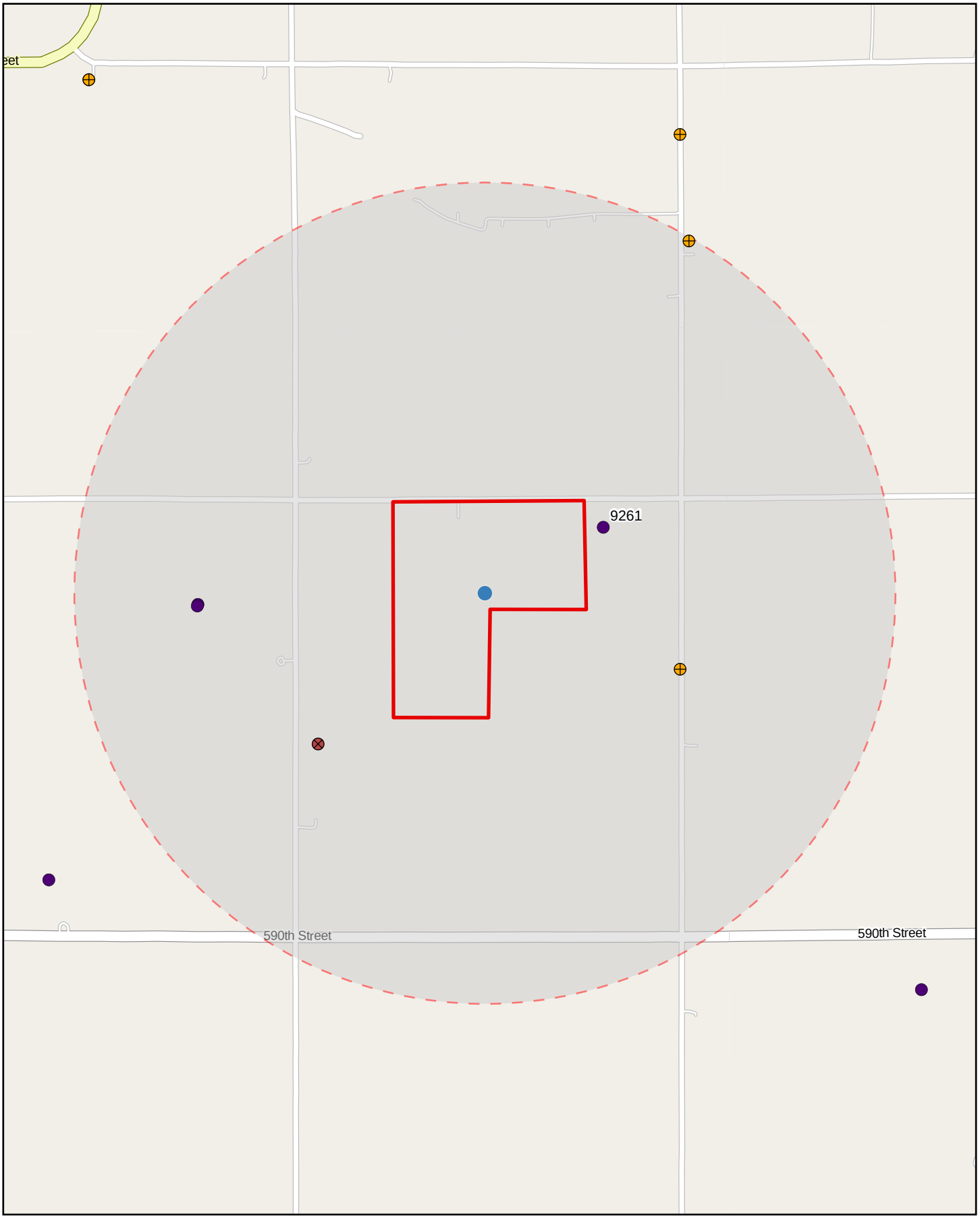
Count: 1

Report Totals

Count: 6

Date Exported: 5/8/2026 4:44 PM

Site: 1797
Subject: XY UTM Coordinates: 15N 301901 4727410
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1798



Unsuitable for Land Application

Ben Sand Phone: (712)261-3151 Spreadable Acres: 147 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1798



Unsuitable for Land Application

Ben Sand Phone: (712)261-3151 Gypsum Only

Permitted Acres: 147 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Buena Vista County, Iowa
(Site 1798)



Map Scale: 1:6,360 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
91	Primghar silty clay loam, 0 to 2 percent slopes	30.4	17.8%
92	Marcus silty clay loam, 0 to 2 percent slopes	118.4	69.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	22.2	13.0%
Totals for Area of Interest		**171.0**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
91	Primghar silty clay loam, 0 to 2 percent slopes	5	30.4	17.8%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	118.4	69.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	22.2	13.0%
Totals for Area of Interest			**171.0**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
91	Primghar silty clay loam, 0 to 2 percent slopes	30	30.4	17.8%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	118.4	69.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	22.2	13.0%
Totals for Area of Interest			**171.0**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1798

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
165907	91225	T90N, R38W, 23, NE	Calc. +/- 3730 ft.	0		Lucas-95
168207	497	T90N, R38W, 26, NE SE SE	Calc. +/- 470 ft.	321	1/1/1936	Schmidt, W.H.
183061	15489	T90N, R38W, 23, SE SW SW SE	Calc. +/- 230 ft.	328	6/30/1961	Brisbois, Henry
251189	84000	T90N, R38W, 23, SE SW SW	Calc. +/- 470 ft.	325	7/6/2015	Arnts, Bernard
251190	84000	T90N, R38W, 23, SE SW SW	Calc. +/- 470 ft.	325	7/6/2015	Arnts, Bernard

Statistics: IGS Well Database

Count: 5

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
11761	32367	T90N, R38W, Sec. 24, NE, NE, NE	Calc. +/- 140m.	8	n.a.	Lillie, Charles
11806	43215	T90N, R38W, Sec. 26, NE, SE, SW	Calc. +/- 140m.	24	n.a.	Stille & Hafe Farms
11998	5503	T90N, R38W, Sec. 24, SE, SE, SE	Calc. +/- 140m.	35	n.a.	Kestel, Greg
12000	14273	T90N, R38W, Sec. 24, SE, SE, SE	Calc. +/- 140m.	35	n.a.	Kestel, Greg

Statistics: Registered abandoned wells

Count: 4

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
11613	6719	T90N, R38W, Sec. 24, NW, NW, NW	Calc. +/- 285m.	360	1986	Rice, Ed
11614	8812	T90N, R38W, Sec. 24, NW, NW, NW	Calc. +/- 285m.	320	1987	O'Bannon, Norman
11615	12034	T90N, R38W, Sec. 24, NW, NW, NE	Calc. +/- 285m.	320	1987	O'Bannon, Norman
11616	8813	T90N, R38W, Sec. 24, NW, NW, SW	Calc. +/- 285m.	320	1987	O'Bannon, Norman
11617	2059	T90N, R38W, Sec. 24, NW, NW, NE	Calc. +/- 285m.	320	1987	O'Bannon, Norm
11752	14925	T90N, R38W, Sec. 24, SE, NW, NW	Calc. +/- 1135m.	30	1940	O'Bannon, Norm
11759	6718	T90N, R38W, Sec. 24, NE, NE, NE	Calc. +/- 285m.	30	unkn	Lillie, Charles
11760	17747	T90N, R38W, Sec. 24, NE, NE, NE	Calc. +/- 140m.	80	unkn	

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Lilley, Charles
12044	2060	T90N, R38W, Sec. 25, NE, SW, SW	Calc. +/- 1135m.	320	1993	Grundmeier, Gary

Statistics: Wells registered for testing

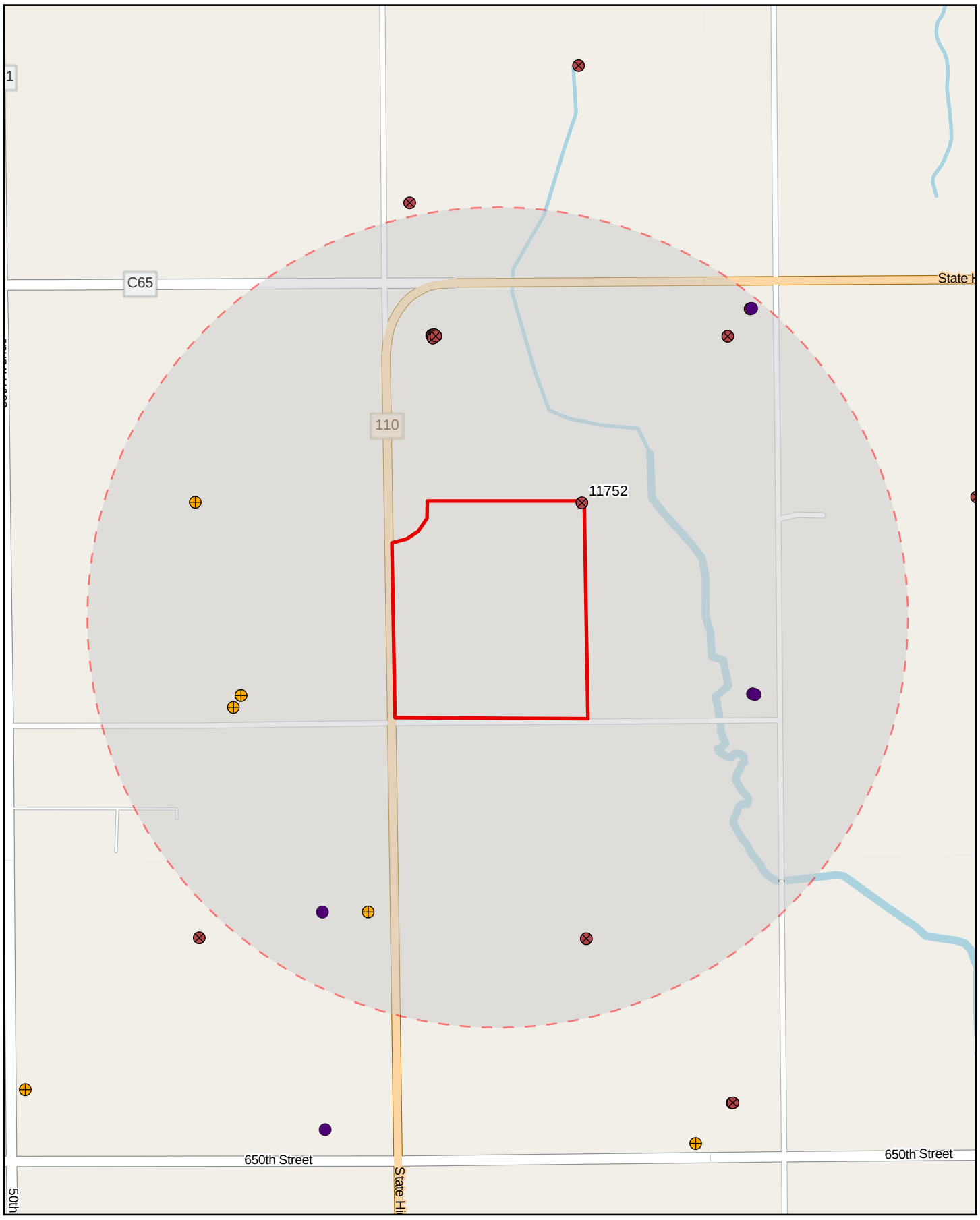
Count: 9

Report Totals

Count: 18

Date Exported: 5/8/2026 4:48 PM

Site: 1798
Subject: XY UTM Coordinates: 15N 312603 4718189
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1799



Unsuitable for Land Application

Ben Sand Phone: (712)261-3151 Spreadable Acres: 266 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1799



Unsuitable for Land Application

Ben Sand Phone: (712)261-3151 Gypsum Only

Permitted Acres: 271 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Buena Vista County, Iowa, and Sac County, Iowa
(Site 1799)



Map Scale: 1:8,890 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	1.0	0.3%
91	Primghar silty clay loam, 0 to 2 percent slopes	1.7	0.6%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0.2	0.1%
310B	Galva silty clay loam, 2 to 5 percent slopes	1.5	0.5%
Subtotals for Soil Survey Area		**4.4**	**1.4%**
Totals for Area of Interest		**310.7**	**100.0%**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	20.9	6.7%
78B	Sac silty clay loam, 2 to 5 percent slopes	27.3	8.8%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	21.7	7.0%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	4.8	1.5%
91	Primghar silty clay loam, 0 to 2 percent slopes	82.5	26.6%
92	Marcus silty clay loam, 0 to 2 percent slopes	21.6	6.9%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	7.3	2.4%
310	Galva silty clay loam, 0 to 2 percent slopes	3.9	1.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	78.8	25.4%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	9.9	3.2%
397B	Letri silty clay loam, 1 to 4 percent slopes	3.8	1.2%
733	Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded	9.6	3.1%
Z24C2	Shelby clay loam, deep loess, 5 to 9 percent slopes, eroded	9.1	2.9%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Z24D2	Shelby clay loam, deep loess, 9 to 14 percent slopes, eroded	5.0	1.6%
Subtotals for Soil Survey Area		**306.3**	**98.6%**
Totals for Area of Interest		**310.7**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	5	1.0	0.3%
91	Primghar silty clay loam, 0 to 2 percent slopes	5	1.7	0.6%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	0.2	0.1%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	1.5	0.5%
Subtotals for Soil Survey Area			**4.4**	**1.4%**
Totals for Area of Interest			**310.7**	**100.0%**

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	5	20.9	6.7%
78B	Sac silty clay loam, 2 to 5 percent slopes	5	27.3	8.8%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	5	21.7	7.0%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	5	4.8	1.5%
91	Primghar silty clay loam, 0 to 2 percent slopes	5	82.5	26.6%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	21.6	6.9%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	7.3	2.4%
310	Galva silty clay loam, 0 to 2 percent slopes	5	3.9	1.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	78.8	25.4%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	9.9	3.2%

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
397B	Letri silty clay loam, 1 to 4 percent slopes	5	3.8	1.2%
733	Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded	5	9.6	3.1%
Z24C2	Shelby clay loam, deep loess, 5 to 9 percent slopes, eroded	5	9.1	2.9%
Z24D2	Shelby clay loam, deep loess, 9 to 14 percent slopes, eroded	5	5.0	1.6%
Subtotals for Soil Survey Area			**306.3**	**98.6%**
Totals for Area of Interest			**310.7**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	0	1.0	0.3%
91	Primghar silty clay loam, 0 to 2 percent slopes	30	1.7	0.6%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	0.2	0.1%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	1.5	0.5%
Subtotals for Soil Survey Area			**4.4**	**1.4%**
Totals for Area of Interest			**310.7**	**100.0%**

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	0	20.9	6.7%
78B	Sac silty clay loam, 2 to 5 percent slopes	122	27.3	8.8%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	122	21.7	7.0%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	122	4.8	1.5%
91	Primghar silty clay loam, 0 to 2 percent slopes	30	82.5	26.6%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	21.6	6.9%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	7.3	2.4%
310	Galva silty clay loam, 0 to 2 percent slopes	>200	3.9	1.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	78.8	25.4%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	9.9	3.2%
397B	Letri silty clay loam, 1 to 4 percent slopes	0	3.8	1.2%

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
733	Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded	0	9.6	3.1%
Z24C2	Shelby clay loam, deep loess, 5 to 9 percent slopes, eroded	>200	9.1	2.9%
Z24D2	Shelby clay loam, deep loess, 9 to 14 percent slopes, eroded	>200	5.0	1.6%
Subtotals for Soil Survey Area			**306.3**	**98.6%**
Totals for Area of Interest			**310.7**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1799

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
234730	83179	T89N, R38W, 3, SE SE SW	Calc. +/- 470 ft.	391	10/18/2005	Wendel, Dan
234731	83179	T89N, R38W, 3, SE SE SW	Calc. +/- 470 ft.	391	10/18/2005	Wendel, Dan

Statistics: IGS Well Database

Count: 2

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
11895	21564	T90N, R38W, Sec. 34, SE, SE, NW	Calc. +/- 140m.	45	n.a.	Sand, Pat

Statistics: Registered abandoned wells

Count: 1

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
12023	77285	T89N, R38W, Sec. 3, NE, NE, SE	Calc. +/- 285m.	30	1910	Wendel, Lorrie

Statistics: Wells registered for testing

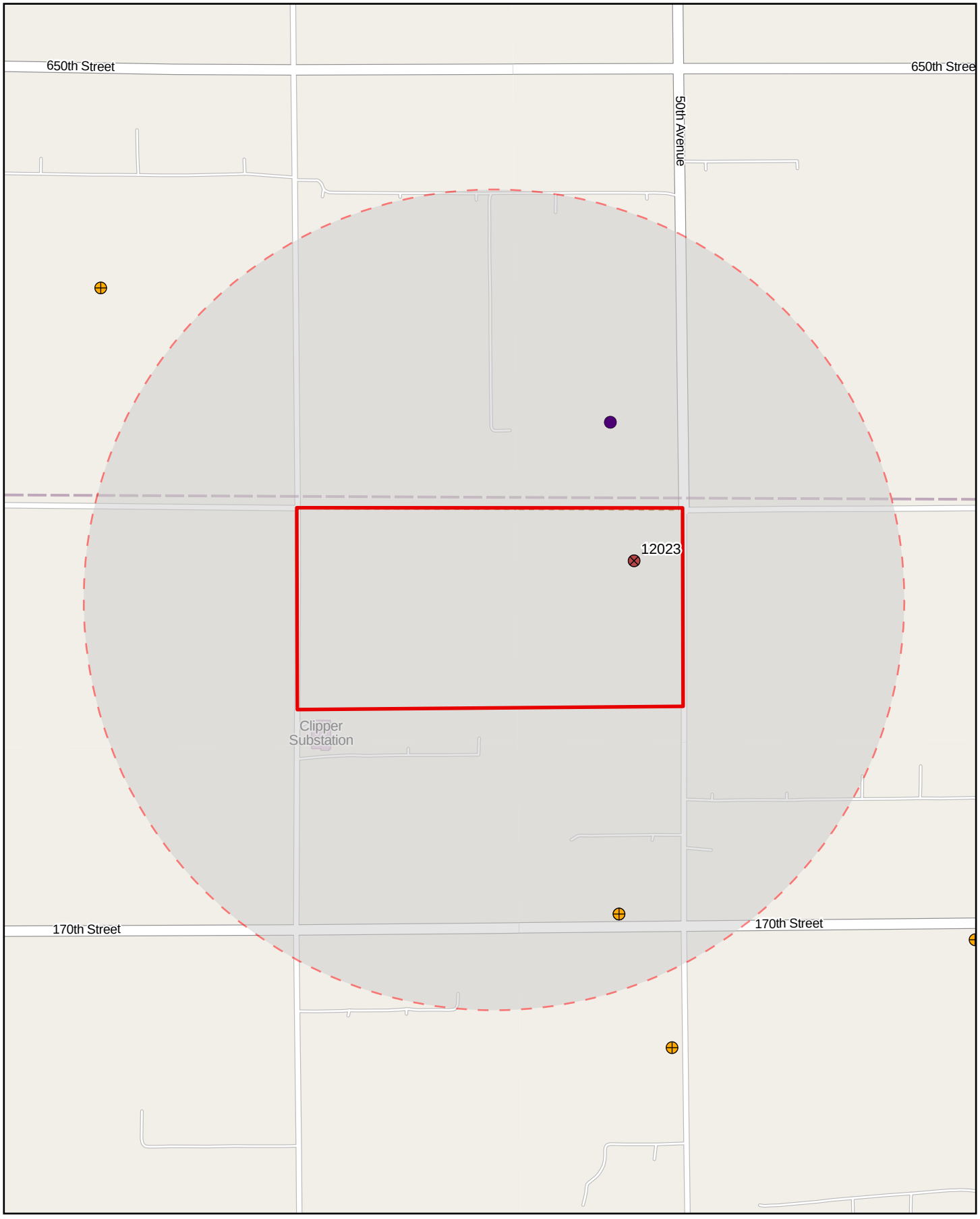
Count: 1

Report Totals

Count: 4

Date Exported: 5/8/2026 5:08 PM

Site: 1799
Subject: XY UTM Coordinates: 15N 309666 4714321
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1800



Unsuitable for Land Application

Fordyce Family Farms Phone: (712)261-3151 Spreadable Acres: 179 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1800



Unsuitable for Land Application

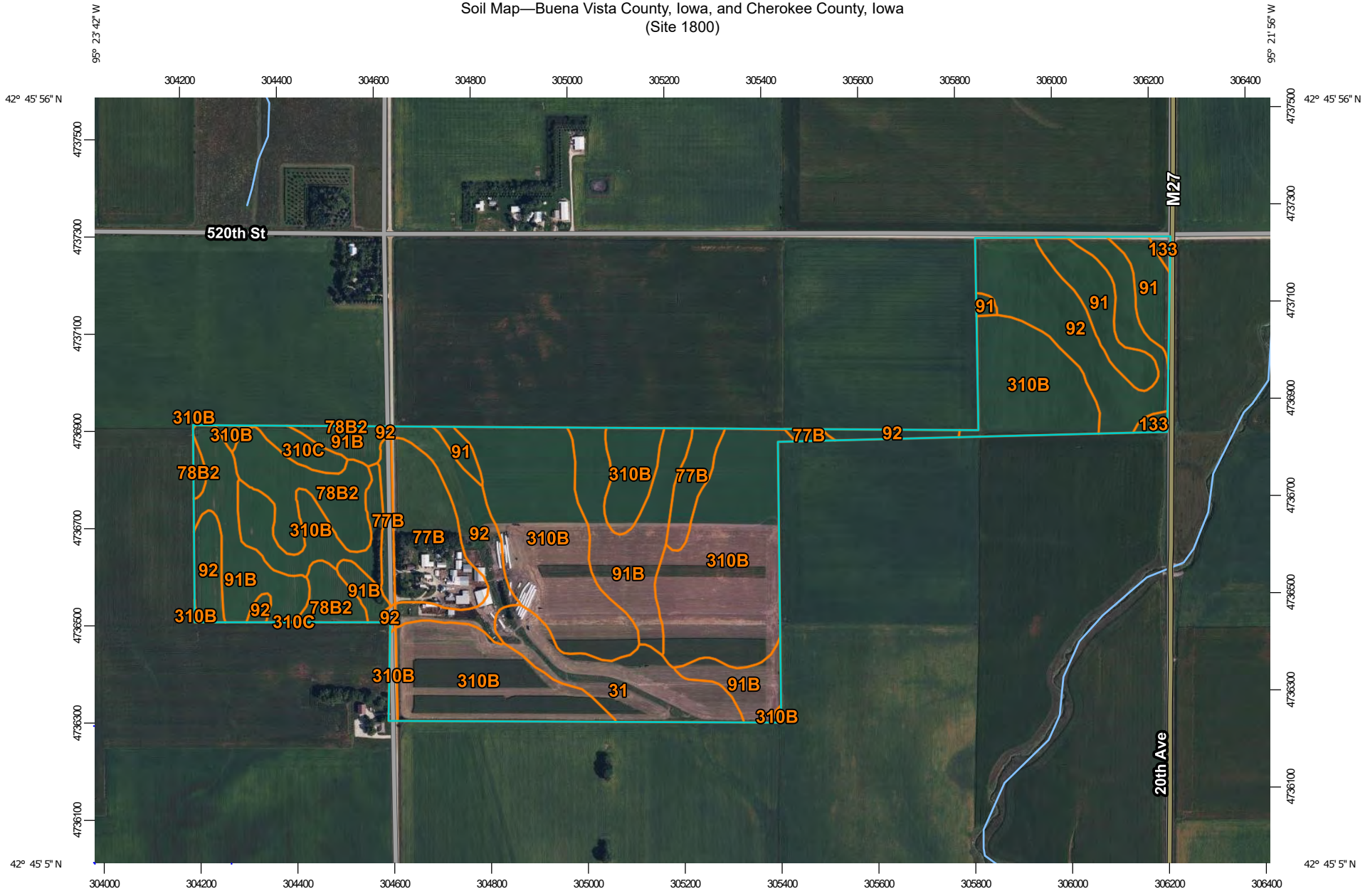
Fordyce Family Farms Phone: (712)261-3151 Gypsum Only

Permitted Acres: 179 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Buena Vista County, Iowa, and Cherokee County, Iowa
(Site 1800)



Map Scale: 1:11,100 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 150 300 600 900

Feet
0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	12.2	6.0%
77B	Sac silty clay loam, loam substratum, 2 to 5 percent slopes	14.9	7.3%
91	Primghar silty clay loam, 0 to 2 percent slopes	10.9	5.4%
91B	Primghar silty clay loam, 2 to 5 percent slopes	16.7	8.2%
92	Marcus silty clay loam, 0 to 2 percent slopes	26.5	13.0%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	1.0	0.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	79.1	38.9%
Subtotals for Soil Survey Area		**161.4**	**79.3%**
Totals for Area of Interest		**203.5**	**100.0%**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
77B	Sac silty clay loam, loam substratum, 2 to 5 percent slopes	2.0	1.0%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	12.6	6.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	12.7	6.2%
92	Marcus silty clay loam, 0 to 2 percent slopes	3.9	1.9%
310B	Galva silty clay loam, 2 to 5 percent slopes	8.6	4.2%
310C	Galva silty clay loam, 5 to 9 percent slopes	2.2	1.1%
Subtotals for Soil Survey Area		**42.1**	**20.7%**
Totals for Area of Interest		**203.5**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	5	12.2	6.0%
77B	Sac silty clay loam, loam substratum, 2 to 5 percent slopes	5	14.9	7.3%
91	Primghar silty clay loam, 0 to 2 percent slopes	5	10.9	5.4%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	16.7	8.2%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	26.5	13.0%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	1.0	0.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	79.1	38.9%
Subtotals for Soil Survey Area			**161.4**	**79.3%**
Totals for Area of Interest			**203.5**	**100.0%**

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
77B	Sac silty clay loam, loam substratum, 2 to 5 percent slopes	5	2.0	1.0%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	5	12.6	6.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	12.7	6.2%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	3.9	1.9%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	8.6	4.2%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	2.2	1.1%
Subtotals for Soil Survey Area			**42.1**	**20.7%**
Totals for Area of Interest			**203.5**	**100.0%**

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	0	12.2	6.0%
77B	Sac silty clay loam, loam substratum, 2 to 5 percent slopes	122	14.9	7.3%
91	Primghar silty clay loam, 0 to 2 percent slopes	30	10.9	5.4%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	16.7	8.2%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	26.5	13.0%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	1.0	0.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	79.1	38.9%
Subtotals for Soil Survey Area			**161.4**	**79.3%**
Totals for Area of Interest			**203.5**	**100.0%**

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
77B	Sac silty clay loam, loam substratum, 2 to 5 percent slopes	122	2.0	1.0%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	122	12.6	6.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	12.7	6.2%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	3.9	1.9%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	8.6	4.2%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	2.2	1.1%
Subtotals for Soil Survey Area			**42.1**	**20.7%**
Totals for Area of Interest			**203.5**	**100.0%**

Well Search Report Site: 1800

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
185822	16355	T92N, R39W, 25, SE NE SE NE	Calc. +/- 230 ft.	90	11/21/1963	Fordyce, Eldon
195294	23387	T92N, R38W, 30, NW SW SW NW	Calc. +/- 230 ft.	310	1/6/1973	Fordyce, E.
222021	51008	T92N, R38W, 19, SW SW SE	Maps/Air Photos +/- 20 m.	396	12/1/1999	Sleezer Jr., Dale

Statistics: IGS Well Database

Count: 3

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
8449	25875	T92N, R38W, Sec. 19, SW, SW, SW	Calc. +/- 140m.	unkn	11/24/1999	Sleezer Fertility Center

Statistics: Permitted private wells

Count: 1

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
8443	56574	T92N, R39W, Sec. 25, NE, NE, NW	Calc. +/- 285m.	50	1950	Kent, Duane
8444	1672	T92N, R39W, Sec. 25, NE, NE, NW	Calc. +/- 285m.	50	1950	Kent, Duane
8445	56824	T92N, R39W, Sec. 25, NE, NE, NE	Calc. +/- 285m.	50	1950	Kent, Duane
8454	31312	T92N, R38W, Sec. 19, SW, SE, NW	Calc. +/- 570m.	80	unkn	Caskey, Tom
8706	13252	T92N, R38W, Sec. 30, SE, SE, SE	Calc. +/- 285m.	80	unkn	Caskey, Tom

Statistics: Wells registered for testing

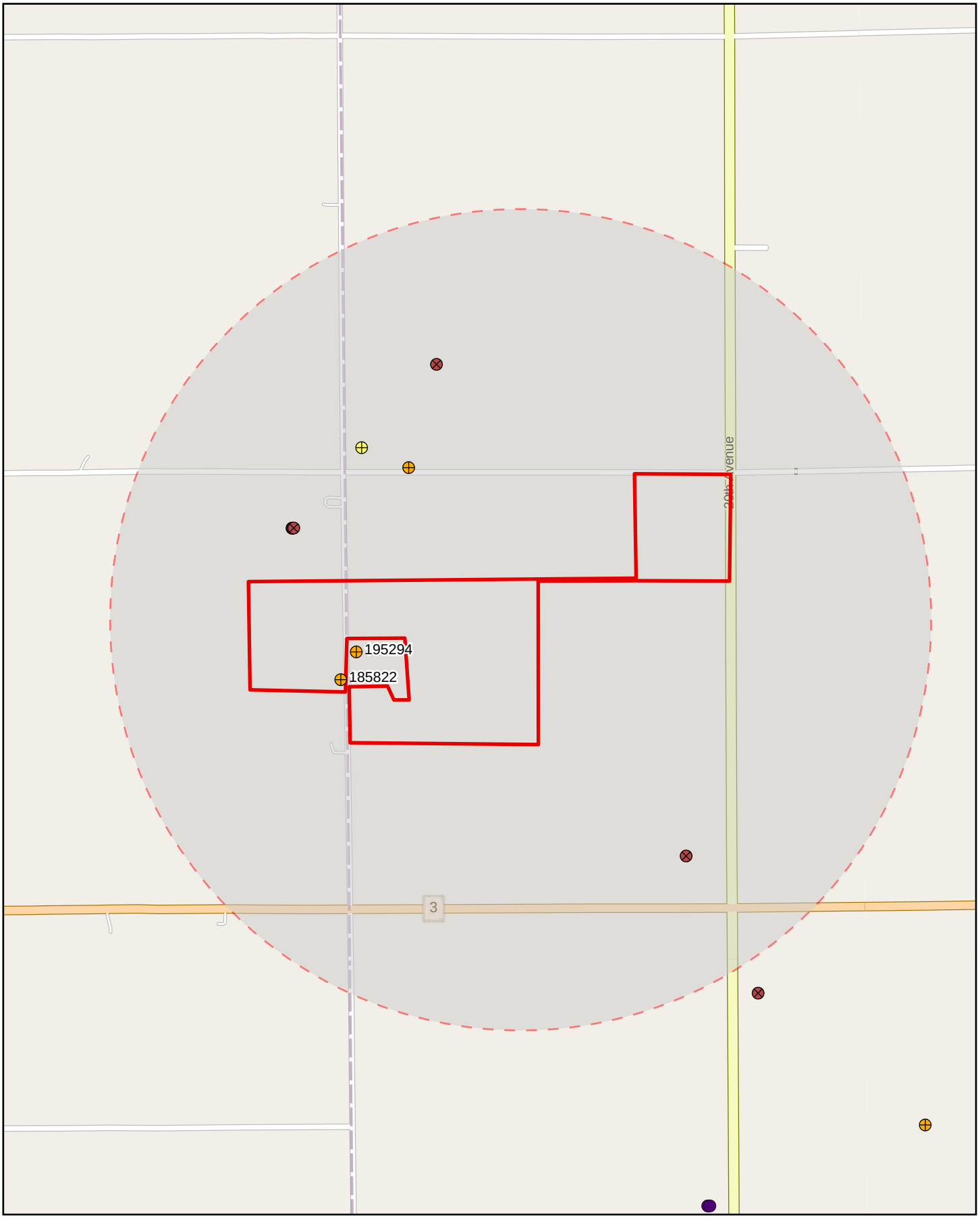
Count: 5

Report Totals

Count: 9

Date Exported: 5/8/2026 5:18 PM

Site: 1800
Subject: XY UTM Coordinates: 15N 305348 4736720
Search Radius (miles): 1



Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Steve Pitts
Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Signed: Adam Pigott Adam Pigott - Agronomist for Steve Pitts Date: _____

Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Bruce Husman
Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Signed: Adam Pigott Adam Pigott - Agronomist for Bruce Husman Date: _____

Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Darren Stowater
Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Signed: Adam Pigott Adam Pigott - Agronomist for Darren Stowater Date: _____

Environmental Land Management, LLC.
Contractual Consent of Landowner

Mike Vondrak

Landowner, Lessee and/or Landoperator: _____

Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.

Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Adam Pigott - Agronomist for Mike Vondrak

Signed: _____ Date: _____

Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Ben Sand
Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected
pH	2.3		Barium	11.4 mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected
Ammonia Nitrogen	0.02	%	Chromium	none detected
Phosphorus	0.1	%	Copper	none detected
Phosphate	0.2	%	Iron	444.1 mg/kg
Potassium	0.03	%	Lead	none detected
Potash	0.03	%	Manganese	5 mg/kg
Calcium	0.4	%	Mercury	0.42 mg/kg
Magnesium	0.02	%	Molybdenum	none detected
Sodium	0.2	%	Nickel	none detected
Sulfur	0.4	%	Selenium	none detected
Zinc	0.0004	%	Silver	none detected

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected
pH	4.8		Barium	0.7 mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected
Ammonia Nitrogen	0.2	%	Chromium	none detected
Phosphorus	0.4	%	Copper	2.7 mg/kg
Phosphate	1.0	%	Iron	59.3 mg/kg
Potassium	0.5	%	Lead	none detected
Potash	0.6	%	Manganese	3.8 mg/kg
Calcium	2.5	%	Mercury	none detected
Magnesium	0.3	%	Molybdenum	none detected
Sodium	0.1	%	Nickel	none detected
Sulfur	0.3	%	Selenium	none detected
Zinc	0.01	%	Silver	none detected

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Signed: _____ Date: 12-15-24

Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Fordyce Family Farms
Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Signed:  Adam Pigott - Agronomist for Fordyce Family Farms _____

Cargill Corn Milling Blair: Permit # 00-SDP-07-14P - IDNR New Site List P3 5.14.26

Site Name	Section Information/Site Detail	Township	County	State	Acres	Slope Acceptable Acre	Operator
1780	W 1/2 Sec 34, SE 1/4 Sec 33 - 91N 40W	Pilot	Cherokee	IA	250	250	Peterson Farms
1781	N 1/2 Sec 3 - 91N 42W	Tilden	Cherokee	IA	250	250	Peterson Farms
1782	N 1/2 Sec 22 - 91N 42W	Tilden	Cherokee	IA	125	125	Peterson Farms
1783	NW 1/4 Sec 22, NE 1/4 Sec 21 - 93N 40W	Cedar	Cherokee	IA	91	91	Peterson Farms
1784	NW 1/4 Sec 4 - 90N 40W	Silver	Cherokee	IA	49	44	Peterson Farms
1785	NW 1/4 Sec 17 - 92N 39W	Afton	Cherokee	IA	53	53	Peterson Farms
1786	NE 1/4 Sec 35 - 92N 41W	Sheridan	Cherokee	IA	143	143	Peterson Farms
1787	SE 1/4 Sec 29 - 93N 39W	Spring	Cherokee	IA	99	99	Peterson Farms
1788	N 1/2 Sec 1 - 90N 42W	Grand Meadow	Cherokee	IA	306	273	Peterson Farms
1789	NW 1/4 Sec 20 - 92N 39W	Afton	Cherokee	IA	149	149	Peterson Farms
1790	W 1/2 Sec 18 - 90N 40W	Silver	Cherokee	IA	178	178	Peterson Farms

EXTended Ag Services, Inc.

202 South Highway 86
Lakefield, MN 56150
507.662.5005 phone
507.662.5105 fax
info@extendedag.com

December 23, 2025

Environmental Land Management

1602 11th Drive NE

Austin, MN 55912

RE: Review of Potential Land Application Sites – Cargill Blair: Cherokee County

Michael,

We have completed our review of the proposed land application sites for the Cargill facility in Blair, Nebraska. Thank you for the opportunity to provide our input on this project. The following field was included in this review, all acres are approximate:

Site Name	Acres
1780	254.7
1781	294.1
1782	171.4
1783	121.0
1784	59.3
1785	56.1
1786	157.3
1787	106.1
1788	345.1
1789	149.9
1790	248.1
Grand Total	**1963.0**

Imagery provided by the National Ag Imagery Program (2021) was utilized to determine whether land application sites were in crop production, pasture/hay or non-farmed land. Overall, the land application sites have some limitations regarding slope steepness and length and general erosion potential.

There are approximately 1,963.0 acres available for land application of the industrial by-product. The land application site is dominated by silt clay loams. All soils are classified by the NRCS as having an acceptable soil texture for land application.

According to the NRCS, 95.3% of the sites have acceptable slopes for the land application of the Cargill byproducts (0-9%). According to the NRCS, 36.0% of the soils are classified as having moderate potential for erosion, 58.0% as having moderate potential, and the remaining amount having no concerns for erosion potential.

Field specific planning and/or residue management should be utilized when applying the byproduct to reduce the potential for movement offsite, on all sites. Application can and should be limited to areas with the lowest slope first and then be directed to areas the furthest from sensitive features such as water. The application of the byproduct is not expected to conflict with any Conservation Plans associated with the observed soils. A summary of slope ratings for the potential land application sites is included below:

Slope Range	Acres
N/A	3.3
0-2%	237.0
0-5%	179.4
1-4%	59.7
2-5%	722.3
2-9%	11.4
5-9%	657.2
9-14%	73.3
9-18%	5.5
14-25%	8.1
18-35%	0.7
20-50%	0.0
25-40%	3.4
25-50%	1.7
Grand Total	**1963.0**

Approximately 0.6% of the soils identified as potential land application sites are listed by the NRCS soil survey as ponded, commonly or frequently flooded. It is assumed that agricultural drain tile has been installed, to varying degrees, on soils with poor or somewhat poor drainage. Flooding frequency is not expected to be a limiting factor for land application. However, land application on saturated soils should be avoided at all times. Further, land application on fields with higher slope ranges and predicted rainfall within 24 hours should be limited. A complete breakdown of flooding frequency ratings is shown below:

NRCS Flooding Frequency	Acres
.	3.3
NONE	1654.4
OCCASSIONAL	293.9
FREQUENT	11.4
Grand Total	**1963.0**

Determining appropriate land application rates for any by-product is dependent on the most restrictive variable. This can be either slope, erosivity, flooding potential, soil fertility levels, soil texture or byproduct

characteristics, to name a few. The recommendations given herein are independent of any byproduct reviews and only consider the known field characteristics discussed in this review.

Application rates of approximately 15 Wet Tons per acre are appropriate for the field conditions of the land application sites discussed in this review. Appropriate measures should be taken to ensure minimal movement of the waste respect to adequate setbacks from sensitive features (surface water, karst features, conduits to water and high slopes) and land application rates. Special care should be given to applying wastes no less than 48 hours prior to rainfall events of greater than 0.5 inches. Wastes should be incorporated whenever possible, if such practices do not conflict with existing NRCS conservation plans. Applications of organic by-products can result in improved soil fertility, tilth and structure, if properly managed. The soils and parent material on the proposed land application site are naturally acidic in nature. Agricultural lime should be applied to ensure the soil pH is above 6.0 prior to land application of any byproducts.

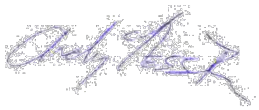
Summary

The specified land application material should be evaluated for constituents that pose a risk to the general health and welfare of the public. In general, land utilized for the land application of solid waste containing nutrients needed for pasture or crop production will benefit from such applications. Careful consideration should be taken to ensure nutrients are not applied at levels greater than crop need, once soils have reached the high fertility range as defined by Iowa State University.

In summary, we believe the field conditions are suitable for land application of solid wastes if done in accordance with all applicable rules, permits and laws. If you have any questions, please do not hesitate to contact us.

Sincerely,





Jim Nesseth
Certified Agronomist
License #: 17118

Andrew Nesseth
Environmental Consultant
NRCS Technical Service Provider

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1780



Unsuitable for Land Application

Peterson Farms Phone: (712)261-3151 Spreadable Acres: 250 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1780



Unsuitable for Land Application

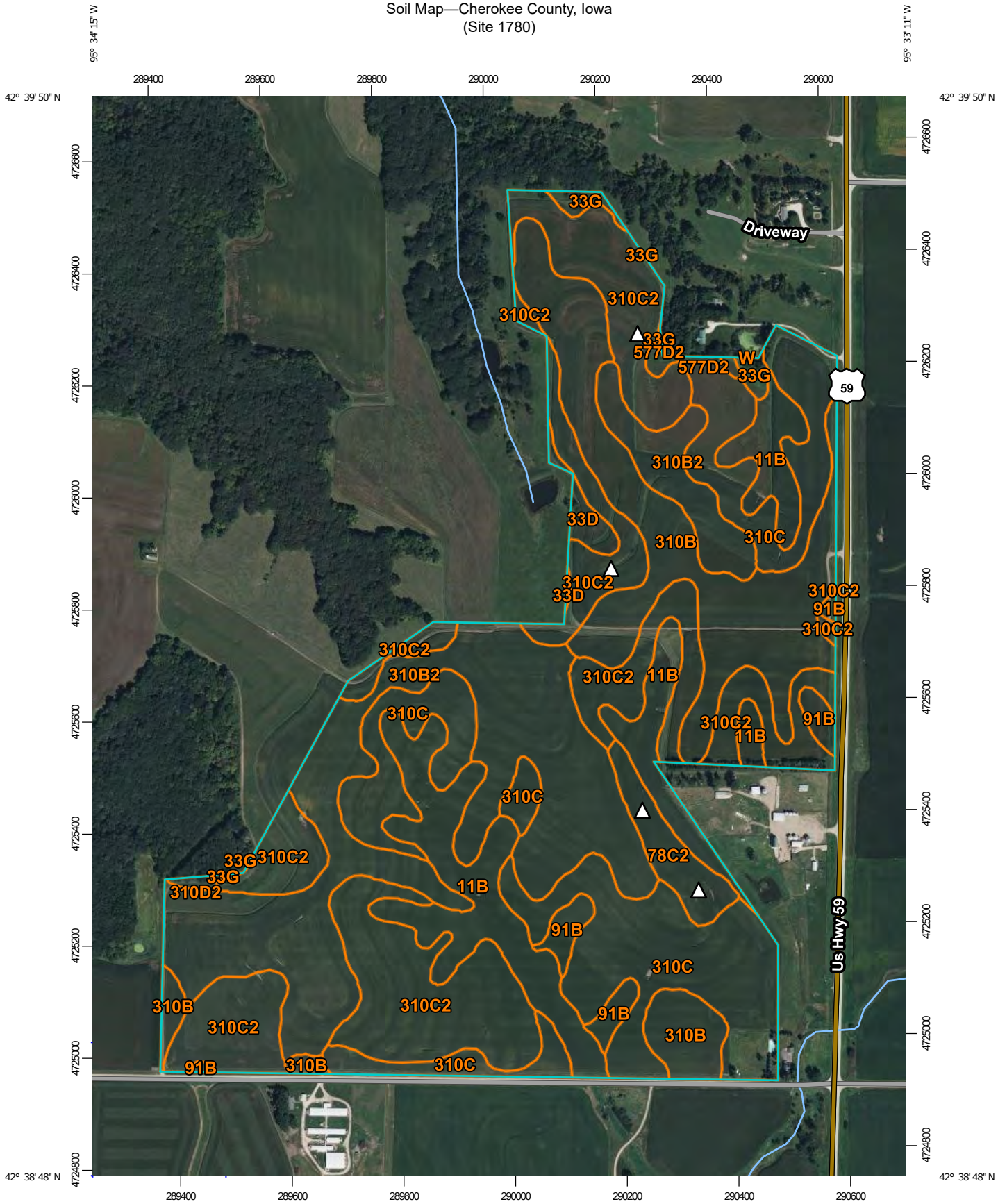
Peterson Farms Phone: (712)261-3151 Gypsum Only

Permitted Acres: 250 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1780)



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	30.6	11.6%
33D	Steinauer clay loam, 9 to 14 percent slopes	1.9	0.7%
33G	Steinauer clay loam, 25 to 40 percent slopes	1.8	0.7%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	5.3	2.0%
91B	Primghar silty clay loam, 2 to 5 percent slopes	4.5	1.7%
310B	Galva silty clay loam, 2 to 5 percent slopes	39.9	15.1%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	59.6	22.6%
310C	Galva silty clay loam, 5 to 9 percent slopes	52.9	20.0%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	66.5	25.2%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	0.4	0.1%
577D2	Everly clay loam, 9 to 14 percent slopes, moderately eroded	0.7	0.3%
W	Water	0.0	0.0%
Totals for Area of Interest		**264.2**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	30.6	11.6%
33D	Steinauer clay loam, 9 to 14 percent slopes	5	1.9	0.7%
33G	Steinauer clay loam, 25 to 40 percent slopes	5	1.8	0.7%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	5	5.3	2.0%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	4.5	1.7%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	39.9	15.1%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5	59.6	22.6%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	52.9	20.0%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	66.5	25.2%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	5	0.4	0.1%
577D2	Everly clay loam, 9 to 14 percent slopes, moderately eroded	5	0.7	0.3%
W	Water		0.0	0.0%
Totals for Area of Interest			**264.2**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	30.6	11.6%
33D	Steinauer clay loam, 9 to 14 percent slopes	>200	1.9	0.7%
33G	Steinauer clay loam, 25 to 40 percent slopes	>200	1.8	0.7%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	122	5.3	2.0%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	4.5	1.7%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	39.9	15.1%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	>200	59.6	22.6%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	52.9	20.0%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	66.5	25.2%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	>200	0.4	0.1%
577D2	Everly clay loam, 9 to 14 percent slopes, moderately eroded	152	0.7	0.3%
W	Water	>200	0.0	0.0%
Totals for Area of Interest			**264.2**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Well Search Report Site: 1780

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
176237	7123	T91N, R40W, 33, SW SE SW SE	Calc. +/- 230 ft.	253	1/1/1955	Perrin Fur Farms
186959	17303	T90N, R40W, 4, NW NE NE SE	Calc. +/- 230 ft.	295	10/12/1964	Koch, Fred
189232	19388	T91N, R40W, 34, SE NW SE SW	Calc. +/- 230 ft.	30	10/10/1966	Simons, W.W.
214079	49480	T91N, R40W, 33, SW SE SW	Calc. +/- 470 ft.	283	7/12/1996	Perrin & Sons Fur Farm Inc.
251296	83542	T91N, R40W, 33, SW SE SE	Calc. +/- 470 ft.	409	7/25/2015	Perrin, Kelly

Statistics: IGS Well Database

Count: 5

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
8306	14687	T91N, R40W, Sec. 34, SE, NE, NW	Calc. +/- 285m.	50	6/16/1989	Unknown

Statistics: Permitted private wells

Count: 1

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
8210	2398	T90N, R40W, Sec. 4, NE, NW, NE	Calc. +/- 285m.	240	n.a.	Martenson, Robert
8308	90	T91N, R40W, Sec. 34, SE, NE, SW	Calc. +/- 140m.	24	n.a.	Lochner, Richard
8311	2400	T91N, R40W, Sec. 34, SE, NE, SE	Calc. +/- 285m.	24	n.a.	Lochner, Richrd
8368	3987	T90N, R40W, Sec. 3, NE, NE, NW	Calc. +/- 140m.	30	n.a.	Mortenson, Walter
8373	14653	T90N, R40W, Sec. 3, NE, NE, NW	Calc. +/- 140m.	30	n.a.	Mortenson, Walter

Statistics: Registered abandoned wells

Count: 5

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
8116	12682	T91N, R40W, Sec. 33, SW, SW, SE	Calc. +/- 140m.	340	unkn	Perrin Fur Farm, C/O Kelly Perrin
8117	11120	T91N, R40W, Sec. 33, SW, SW, SE	Calc. +/- 140m.	340	1975	Perrinfur Farm
8261	11059	T90N, R40W, Sec. 3, NW, NW, NW	Calc. +/- 140m.	300	1960	C-Lect Pigs
8264	11058	T90N, R40W, Sec. 4, NE, NE, SE	Calc. +/- 140m.	15	1940	Mortenson, Robert
8307	56889	T91N, R40W, Sec. 34, SE, NE, NW	Calc. +/- 285m.	38	1989	Lechner, Dick
8310	56887	T91N, R40W, Sec. 34, SE, NE, SW	Calc. +/- 285m.	38	1989	Lochner, Dick
8312	57265	T91N, R40W, Sec. 34, SE, NE, SE	Calc. +/- 285m.	38	1989	Lechner, Dick
8391	11073	T90N, R40W, Sec. 3, NE, NE, NE	Calc. +/- 140m.	30	1983	

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Mortenson, Walt

Statistics: Wells registered for testing

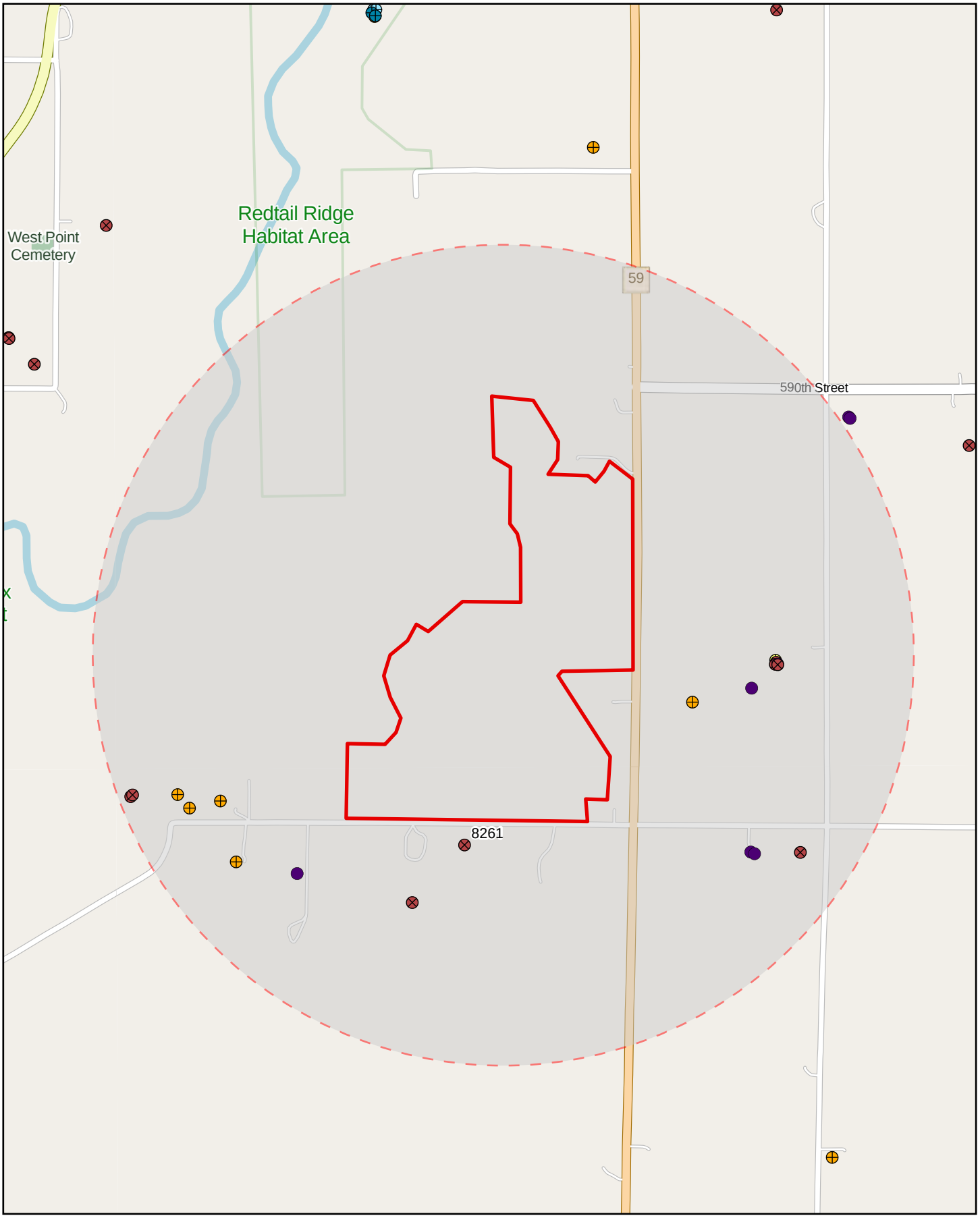
Count: 8

Report Totals

Count: 19

Date Exported: 4/30/2026 4:19 PM

Site: 1780
Subject: XY UTM Coordinates: 15N 290056 4725556
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1781



Unsuitable for Land Application

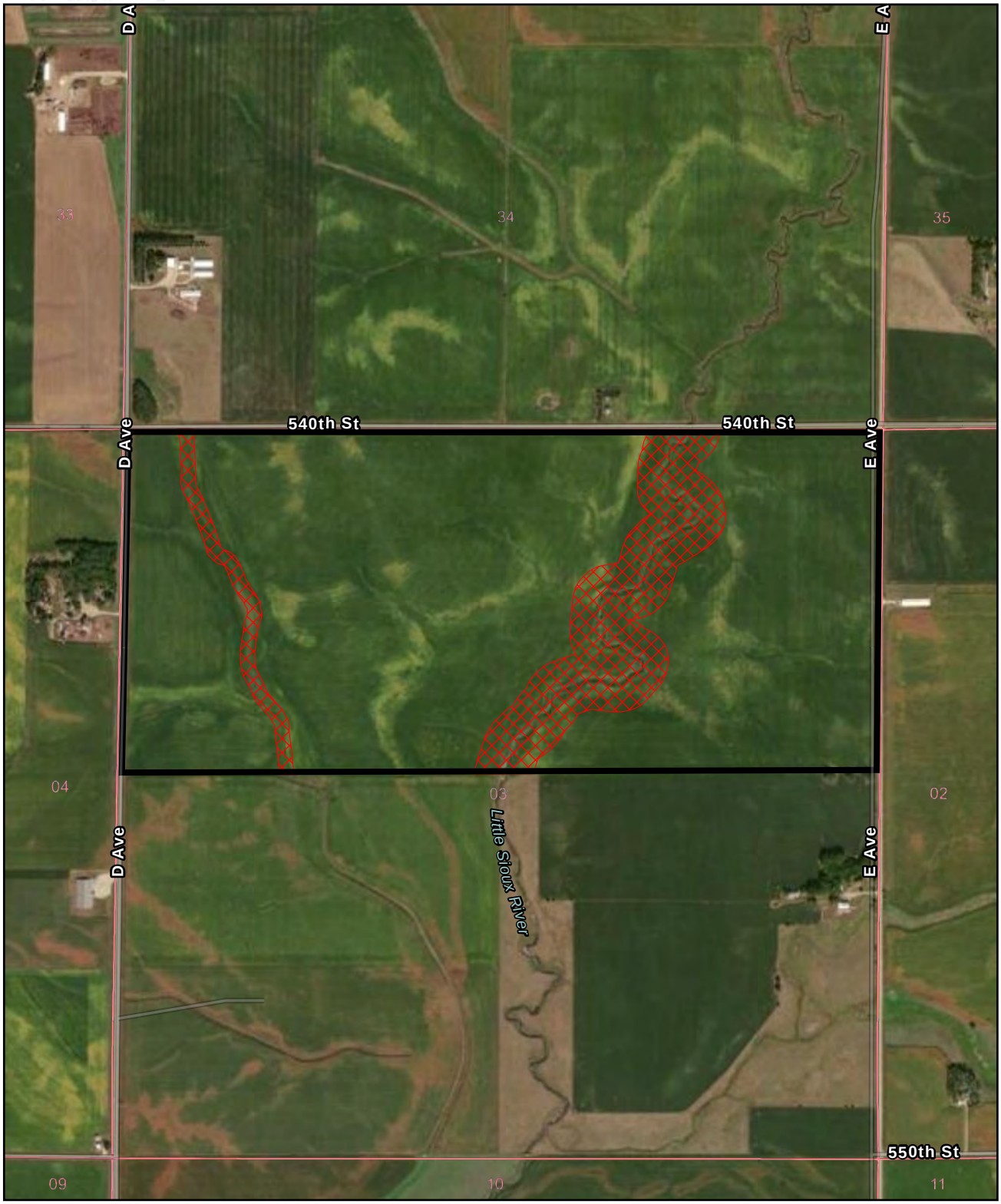
Peterson Farms Phone: (712)261-3151 Spreadable Acres: 250 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1781



Unsuitable for Land Application

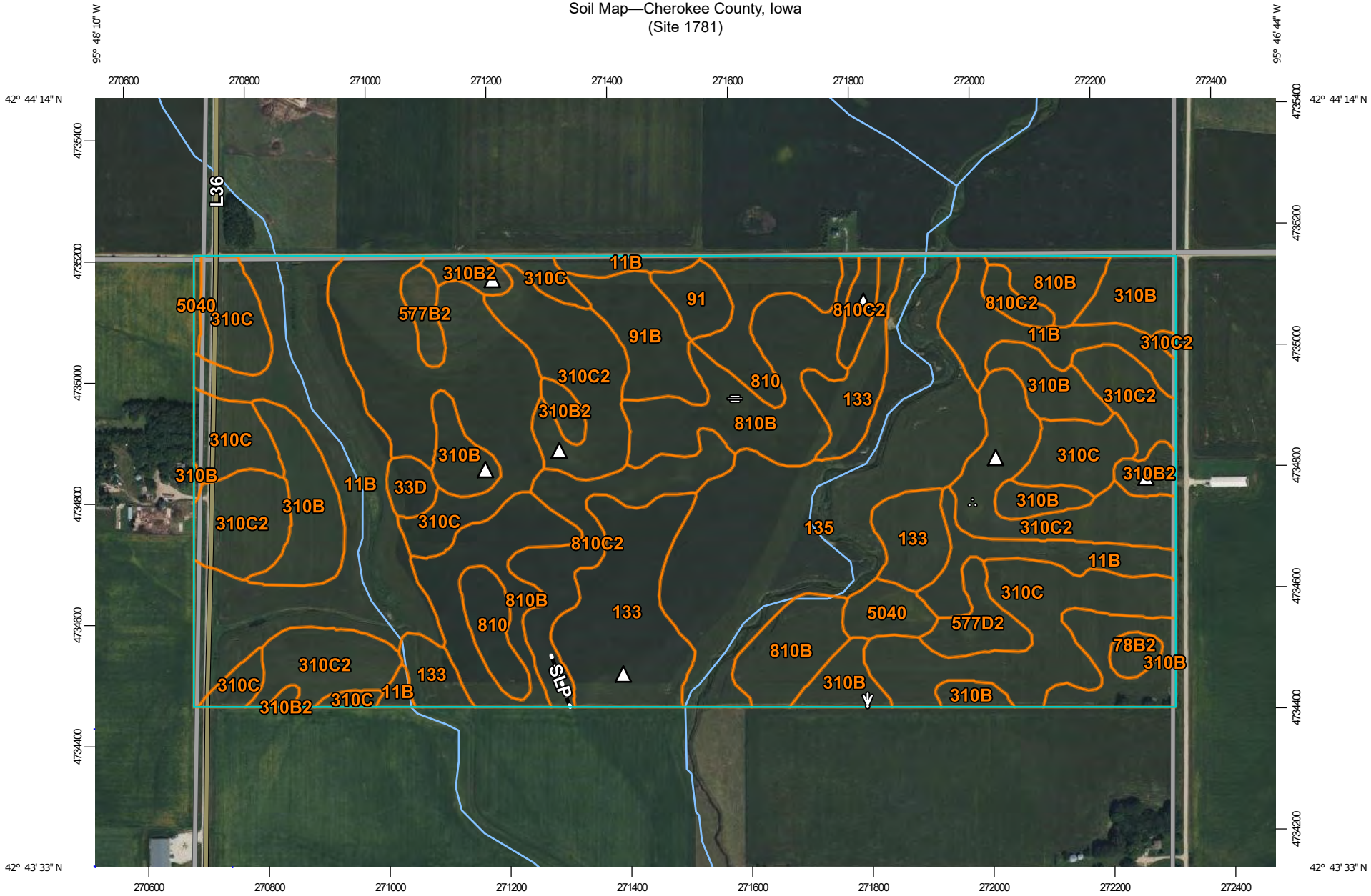
Peterson Farms Phone: (712)261-3151 Gypsum Only

Permitted Acres: 250 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1781)



Map Scale: 1:8,940 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	42.8	14.3%
33D	Steinauer clay loam, 9 to 14 percent slopes	1.7	0.6%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	1.2	0.4%
91	Primghar silty clay loam, 0 to 2 percent slopes	2.6	0.9%
91B	Primghar silty clay loam, 2 to 5 percent slopes	6.5	2.2%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	25.3	8.4%
135	Coland clay loam, 0 to 2 percent slopes	36.2	12.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	27.4	9.1%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	4.7	1.6%
310C	Galva silty clay loam, 5 to 9 percent slopes	52.0	17.3%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	36.5	12.2%
577B2	Everly clay loam, 2 to 5 percent slopes, moderately eroded	1.8	0.6%
577D2	Everly clay loam, 9 to 14 percent slopes, moderately eroded	3.4	1.1%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	9.7	3.2%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	32.0	10.7%
810C2	Galva silty clay loam, terrace, 5 to 9 percent slopes, eroded	13.1	4.4%
5040	Udorthents, loamy	3.3	1.1%
Totals for Area of Interest		**300.3**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	42.8	14.3%
33D	Steinauer clay loam, 9 to 14 percent slopes	5	1.7	0.6%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	5	1.2	0.4%
91	Primghar silty clay loam, 0 to 2 percent slopes	5	2.6	0.9%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	6.5	2.2%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	25.3	8.4%
135	Coland clay loam, 0 to 2 percent slopes	5	36.2	12.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	27.4	9.1%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5	4.7	1.6%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	52.0	17.3%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	36.5	12.2%
577B2	Everly clay loam, 2 to 5 percent slopes, moderately eroded	5	1.8	0.6%
577D2	Everly clay loam, 9 to 14 percent slopes, moderately eroded	5	3.4	1.1%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	5	9.7	3.2%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	5	32.0	10.7%
810C2	Galva silty clay loam, terrace, 5 to 9 percent slopes, eroded	5	13.1	4.4%
5040	Udorthents, loamy	5	3.3	1.1%

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	42.8	14.3%
33D	Steinauer clay loam, 9 to 14 percent slopes	>200	1.7	0.6%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	122	1.2	0.4%
91	Primghar silty clay loam, 0 to 2 percent slopes	30	2.6	0.9%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	6.5	2.2%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	25.3	8.4%
135	Coland clay loam, 0 to 2 percent slopes	0	36.2	12.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	27.4	9.1%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	>200	4.7	1.6%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	52.0	17.3%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	36.5	12.2%
577B2	Everly clay loam, 2 to 5 percent slopes, moderately eroded	152	1.8	0.6%
577D2	Everly clay loam, 9 to 14 percent slopes, moderately eroded	152	3.4	1.1%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	>200	9.7	3.2%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	>200	32.0	10.7%
810C2	Galva silty clay loam, terrace, 5 to 9 percent slopes, eroded	>200	13.1	4.4%
5040	Udorthents, loamy	>200	3.3	1.1%

Well Search Report Site: 1781

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
254996	89498	T91N, R42W, 4, SE NE SE	Calc. +/- 470 ft.	420	6/22/2018	Ebert, Eric

Statistics: IGS Well Database

Count: 1

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
3848	11259	T92N, R42W, Sec. 34, SW, SW, NW	Calc. +/- 140m.	30	1940	Slota, George Mrs., C/O Alan Hoefling
4080	1841	T91N, R42W, Sec. 3, SE, NE, NW	Calc. +/- 285m.	14	1980	Ogren, Paul
4081	67657	T91N, R42W, Sec. 3, SE, NE, NW	Calc. +/- 285m.	14	1980	Ogren, Paul
4083	67721	T91N, R42W, Sec. 3, SE, NE, SE	Calc. +/- 285m.	14	1980	Ogren, Paul

Statistics: Wells registered for testing

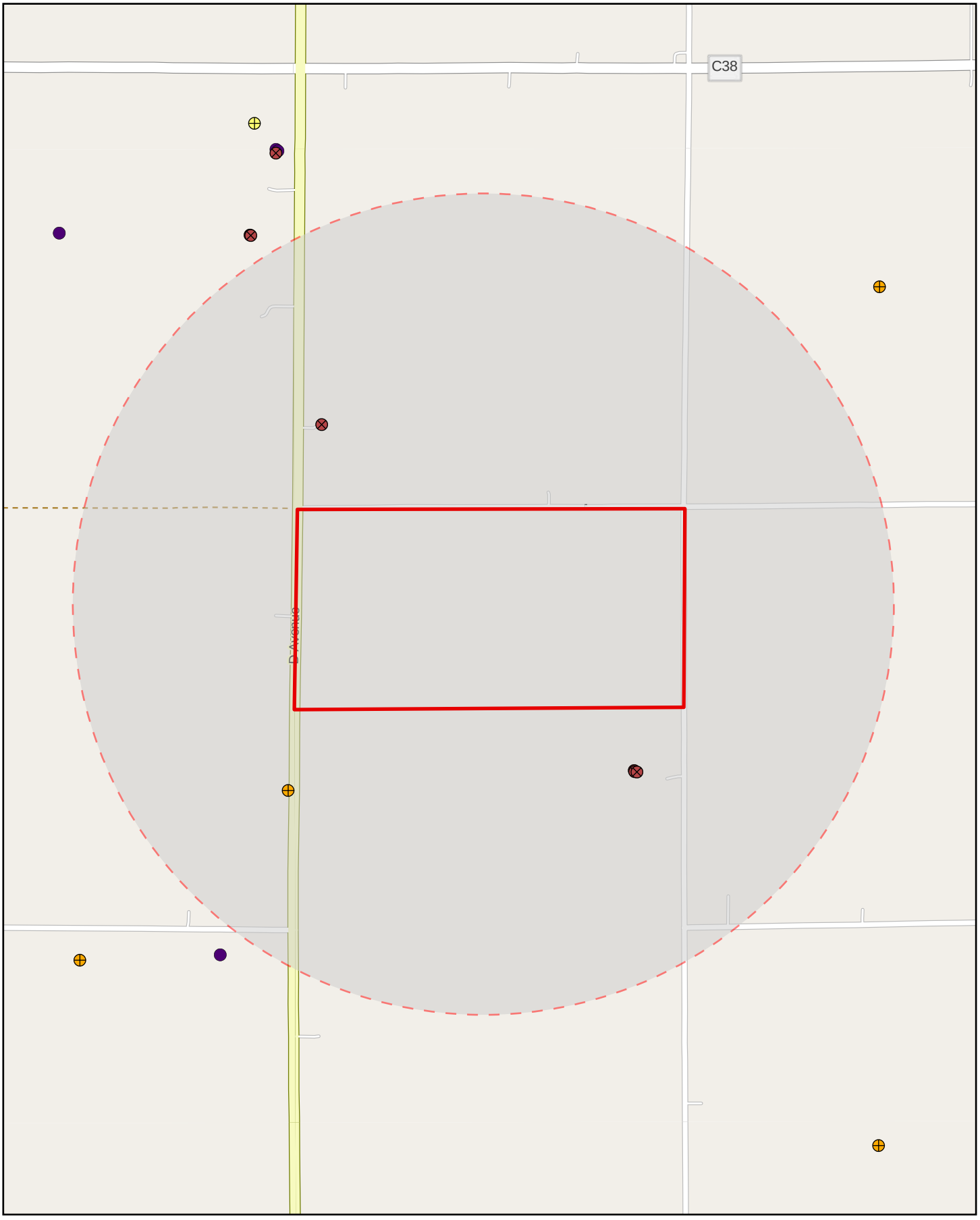
Count: 4

Report Totals

Count: 5

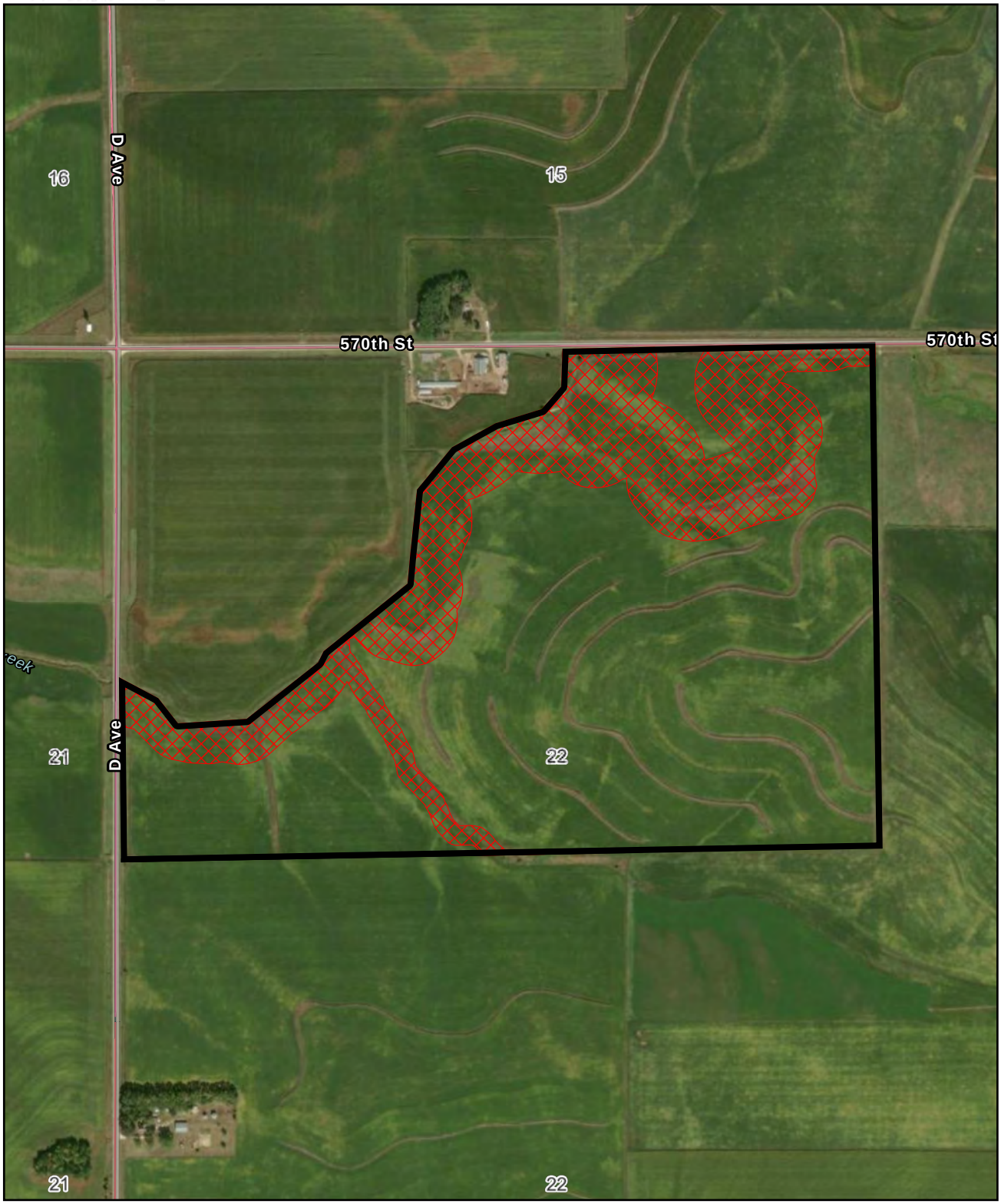
Date Exported: 4/30/2026 4:25 PM

Site: 1781
Subject: XY UTM Coordinates: 15N 271503 4734822
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1782



Unsuitable for Land Application

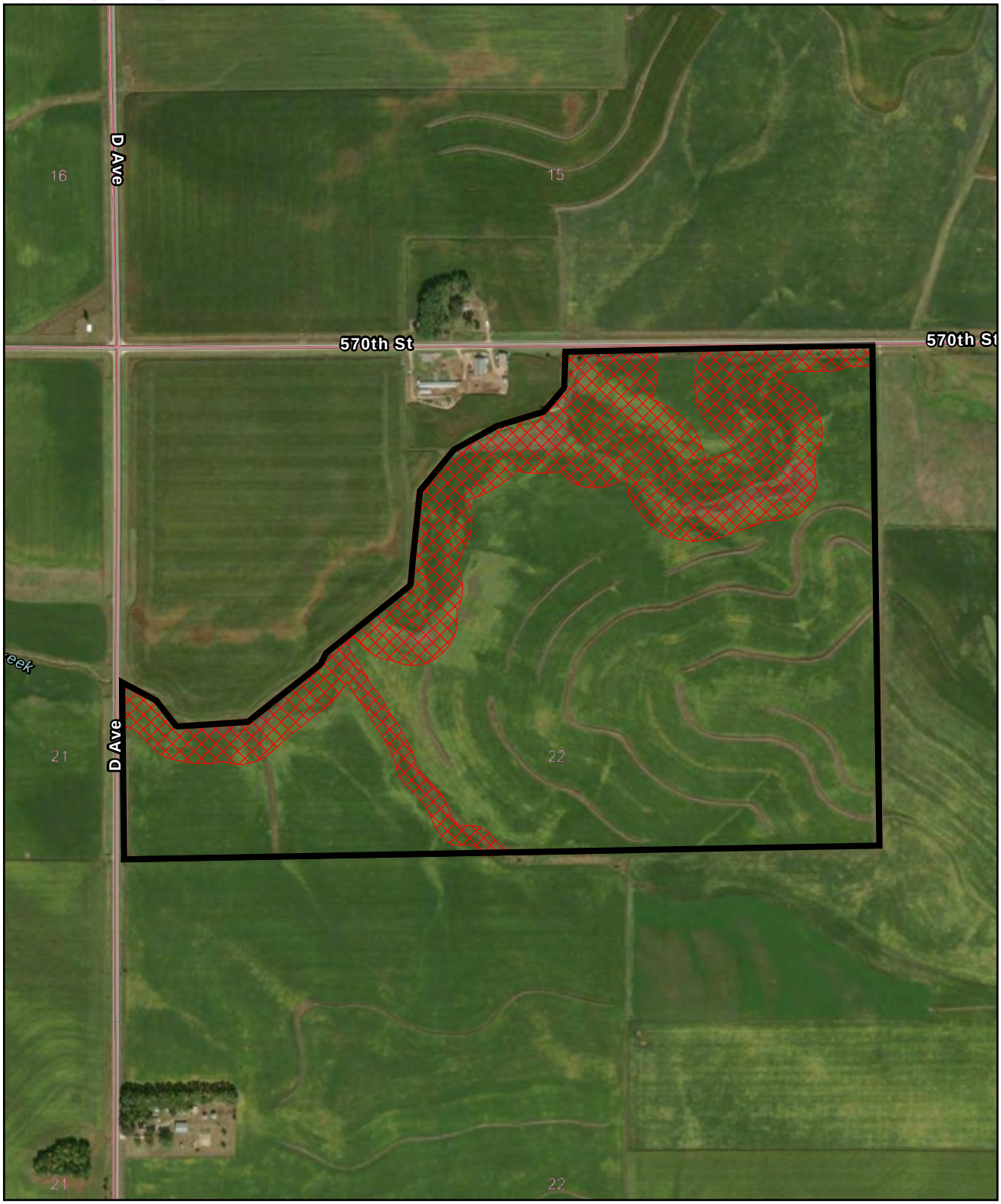
Peterson Farms Phone: (712)261-3151 Spreadable Acres: 125 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1782



Unsuitable for Land Application

Peterson Farms Phone: (712)261-3151 Gypsum Only

Permitted Acres: 125 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1782)



Map Scale: 1:6,890 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	13.2	7.6%
33G	Steinauer clay loam, 25 to 40 percent slopes	1.3	0.8%
91B	Primghar silty clay loam, 2 to 5 percent slopes	0.0	0.0%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	26.4	15.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	6.9	4.0%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	23.1	13.3%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	80.9	46.7%
577C	Everly clay loam, 5 to 9 percent slopes	1.9	1.1%
577C2	Everly clay loam, 5 to 9 percent slopes, moderately eroded	3.5	2.0%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	5.0	2.9%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	11.0	6.3%
Totals for Area of Interest		**173.1**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	13.2	7.6%
33G	Steinauer clay loam, 25 to 40 percent slopes	5	1.3	0.8%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	0.0	0.0%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	26.4	15.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	6.9	4.0%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5	23.1	13.3%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	80.9	46.7%
577C	Everly clay loam, 5 to 9 percent slopes	5	1.9	1.1%
577C2	Everly clay loam, 5 to 9 percent slopes, moderately eroded	5	3.5	2.0%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	5	5.0	2.9%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	5	11.0	6.3%
Totals for Area of Interest			**173.1**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	13.2	7.6%
33G	Steinauer clay loam, 25 to 40 percent slopes	>200	1.3	0.8%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	0.0	0.0%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	26.4	15.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	6.9	4.0%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	>200	23.1	13.3%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	80.9	46.7%
577C	Everly clay loam, 5 to 9 percent slopes	152	1.9	1.1%
577C2	Everly clay loam, 5 to 9 percent slopes, moderately eroded	152	3.5	2.0%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	>200	5.0	2.9%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	>200	11.0	6.3%
Totals for Area of Interest			**173.1**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Well Search Report Site: 1782

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
199479	25114	T91N, R42W, 16, SE SE SE SE	GPS +/- 10 m.	390	4/14/1978	Igs-Usgs
217288	49479	T91N, R42W, 14, SW SW NW	Calc. +/- 470 ft.	415	10/17/1997	Weber, John
219934	48244	T91N, R42W, 22, NW NE NW	Calc. +/- 470 ft.	32	12/10/1998	Dixson, Jim
219935	48244	T91N, R42W, 22, NW NE NW	Calc. +/- 470 ft.	32	12/10/1998	Dixson, Jim

Statistics: IGS Well Database

Count: 4

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
4360	24556	T91N, R42W, Sec. 22, NW, NE, NW	Calc. +/- 140m.	35	unkn	Dixson, Jim

Statistics: Permitted private wells

Count: 1

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
4318	8859	T91N, R42W, Sec. 15, SW, SW, SE	Calc. +/- 285m.	40	unkn	Dixson, Jim
4591	53108	T91N, R42W, Sec. 27, NW, NW, NE	Calc. +/- 285m.	14	1975	Waller, Neal

Statistics: Wells registered for testing

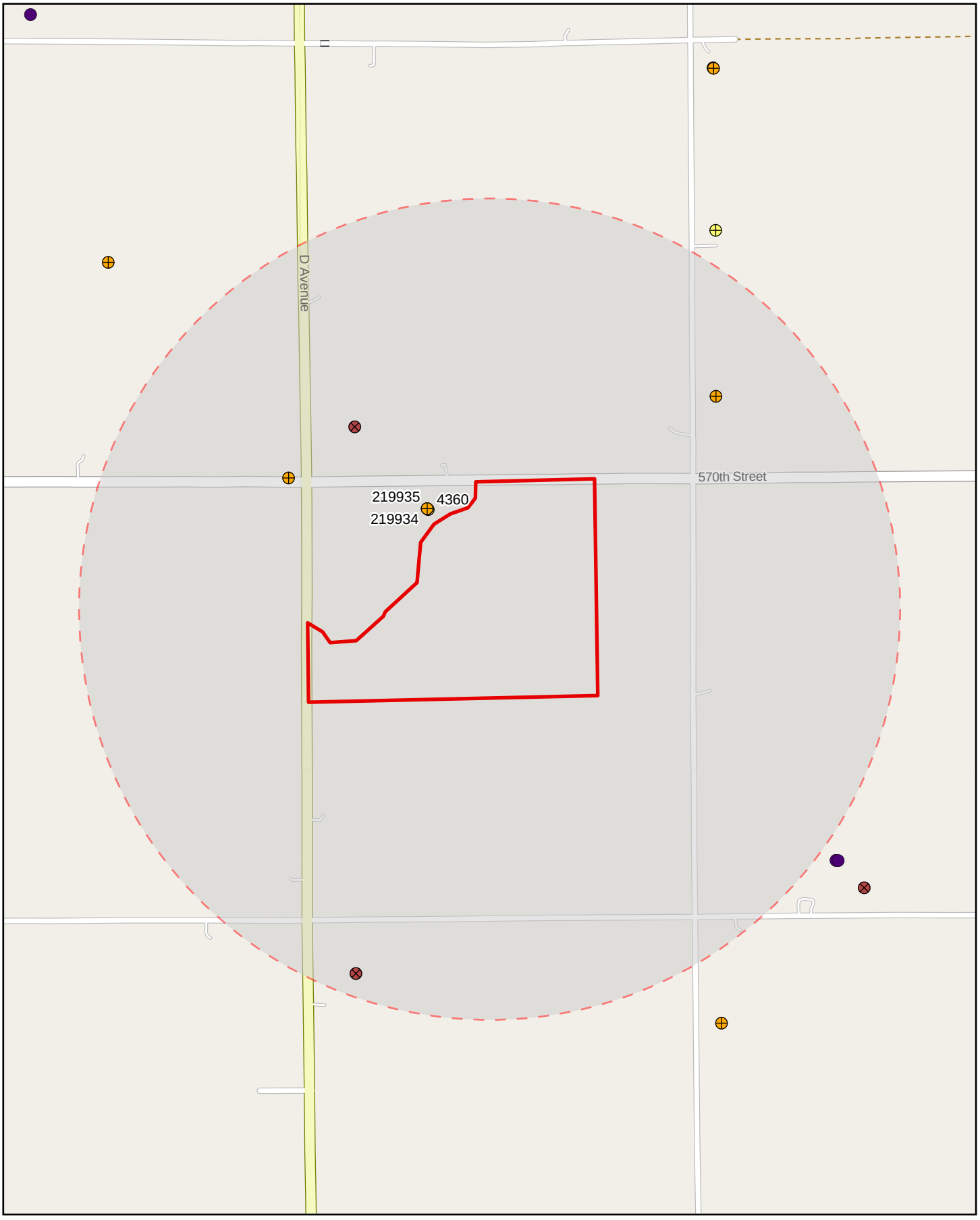
Count: 2

Report Totals

Count: 7

Date Exported: 4/30/2026 4:44 PM

Site: 1782
Subject: XY UTM Coordinates: 15N 271340 4729919
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1783



Unsuitable for Land Application

Peterson Farms Phone: (712)261-3151 Spreadable Acres: 91 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1783



Unsuitable for Land Application

Peterson Farms Phone: (712)261-3151 Gypsum Only

Permitted Acres: 91 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1783)



Map Scale: 1:6,740 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
77B2	Sac silty clay loam, loam substratum, 2 to 5 percent slopes, eroded	11.9	9.5%
77C2	Sac silty clay loam, loam substratum, 5 to 9 percent slopes, eroded	4.0	3.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	16.5	13.2%
92	Marcus silty clay loam, 0 to 2 percent slopes	21.1	16.9%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0.8	0.6%
310B	Galva silty clay loam, 2 to 5 percent slopes	66.2	53.1%
310C	Galva silty clay loam, 5 to 9 percent slopes	4.2	3.4%
Totals for Area of Interest		**124.8**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
77B2	Sac silty clay loam, loam substratum, 2 to 5 percent slopes, eroded	5	11.9	9.5%
77C2	Sac silty clay loam, loam substratum, 5 to 9 percent slopes, eroded	5	4.0	3.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	16.5	13.2%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	21.1	16.9%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	0.8	0.6%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	66.2	53.1%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	4.2	3.4%
Totals for Area of Interest			**124.8**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
77B2	Sac silty clay loam, loam substratum, 2 to 5 percent slopes, eroded	122	11.9	9.5%
77C2	Sac silty clay loam, loam substratum, 5 to 9 percent slopes, eroded	122	4.0	3.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	16.5	13.2%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	21.1	16.9%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	0.8	0.6%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	66.2	53.1%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	4.2	3.4%
Totals for Area of Interest			**124.8**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Well Search Report Site: 1783

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
155390	826	T93N, R40W, 22,	Calc. +/- 3730 ft.	315		Anderson, Elmer
168610	687	T93N, R40W, 23, NW SW NW	Meas. +/- 115 ft.	378	3/17/1938	Larrabee, City Of
181690	12276	T93N, R40W, 23, NW SW NW	Meas. +/- 230 ft.	385	3/8/1960	Larrabee, City Of
187268	17725	T93N, R40W, 21, NW NE NE NE	Calc. +/- 230 ft.	363	1/1/1965	Anderson, Opal
189878	19734	T93N, R40W, 22, NW SW NW SW	Calc. +/- 230 ft.	390	4/14/1967	Anderson, Mrs. Anna
213220	38439	T93N, R40W, 27, NW NE NW	Calc. +/- 470 ft.	117	2/13/1996	Wilkie, Scott

Statistics: IGS Well Database

Count: 6

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
4132	9005	T93N, R40W, Sec. 16, SE, SW, NW	Calc. +/- 140m.	150	n.a.	Groves, E.J.
4145	24092	T93N, R40W, Sec. 21, NW, NE, NE	Calc. +/- 140m.	25	n.a.	Anderson, Neal
4248	2374	T93N, R40W, Sec. 21, NE, SE, NE	Calc. +/- 285m.	36	n.a.	Mcloy, Charles
4257	105	T93N, R40W, Sec. 21, NE, SE, SE	Calc. +/- 140m.	36	n.a.	Meloy, Charles
4268	2372	T93N, R40W, Sec. 22, NW, SW, NE	Calc. +/- 285m.	90	n.a.	Meloy, Charles
4453	23945	T93N, R40W, Sec. 27, NW, NE, NE	Calc. +/- 140m.	174	n.a.	Wilkie, Scott

Statistics: Registered abandoned wells

Count: 6

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
4344	8864	T93N, R40W, Sec. 22, SW, NE, NW	Calc. +/- 285m.	50	1994	Kelly, Tom
4358	8861	T93N, R40W, Sec. 22, NE, NE, SE	Calc. +/- 285m.	21	1966	Westphal, Charles

Statistics: Wells registered for testing

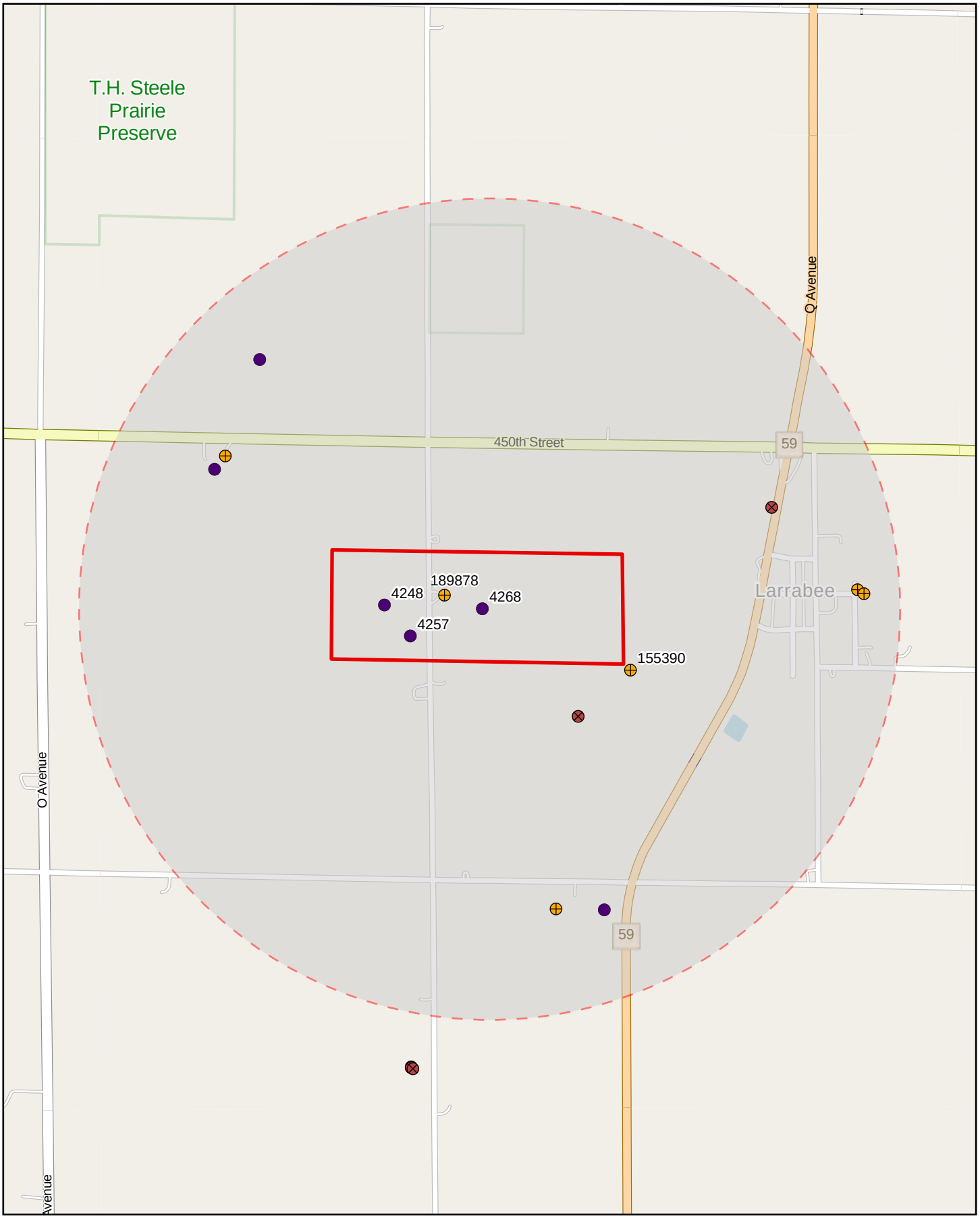
Count: 2

Report Totals

Count: 14

Date Exported: 4/30/2026 4:50 PM

Site: 1783
Subject: XY UTM Coordinates: 15N 290770 4748483
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1784



Unsuitable for Land Application

Peterson Farms Phone: (712)261-3151 Spreadable Acres: 44 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1784



Unsuitable for Land Application

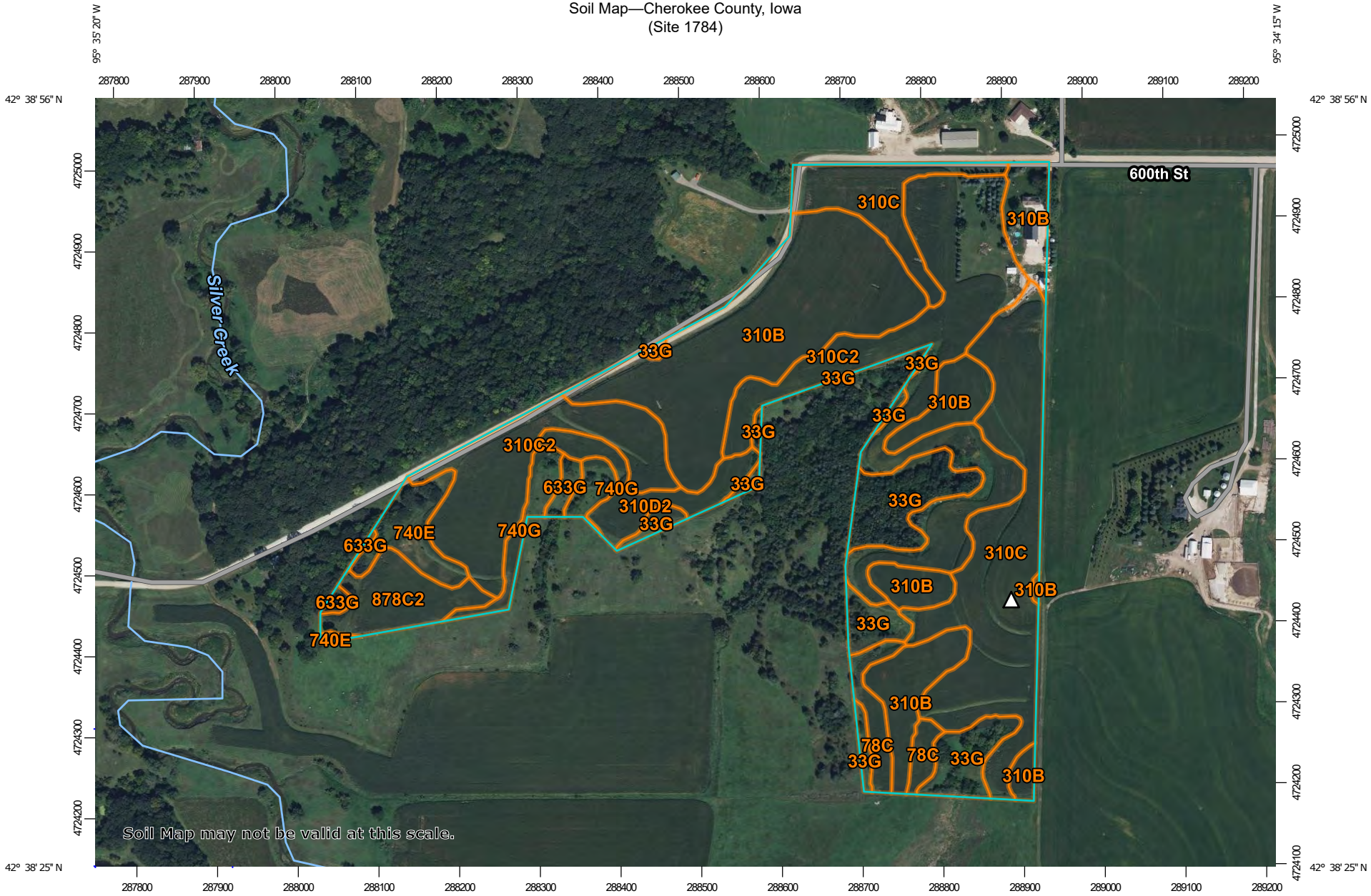
Peterson Farms Phone: (712)261-3151 Gypsum Only

Permitted Acres: 49 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1784)



Map Scale: 1:6,690 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
33G	Steinauer clay loam, 25 to 40 percent slopes	6.9	9.0%
78C	Sac silty clay loam, 5 to 9 percent slopes	1.8	2.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	21.0	27.4%
310C	Galva silty clay loam, 5 to 9 percent slopes	15.5	20.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	20.7	27.0%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	2.7	3.5%
633G	Steinauer-Steinauer variant clay loams, 20 to 50 percent slopes	0.7	0.9%
740E	Hawick sandy loam, 9 to 18 percent slopes	2.3	3.0%
740G	Hawick sandy loam, 18 to 35 percent slopes	2.1	2.7%
878C2	Ocheyedan loam, 5 to 9 percent slopes, moderately eroded	3.0	3.9%
Totals for Area of Interest		**76.6**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
33G	Steinauer clay loam, 25 to 40 percent slopes	5	6.9	9.0%
78C	Sac silty clay loam, 5 to 9 percent slopes	5	1.8	2.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	21.0	27.4%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	15.5	20.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	20.7	27.0%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	5	2.7	3.5%
633G	Steinauer-Steinauer variant clay loams, 20 to 50 percent slopes	5	0.7	0.9%
740E	Hawick sandy loam, 9 to 18 percent slopes	5	2.3	3.0%
740G	Hawick sandy loam, 18 to 35 percent slopes	5	2.1	2.7%
878C2	Ocheyedan loam, 5 to 9 percent slopes, moderately eroded	5	3.0	3.9%
Totals for Area of Interest			**76.6**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
33G	Steinauer clay loam, 25 to 40 percent slopes	>200	6.9	9.0%
78C	Sac silty clay loam, 5 to 9 percent slopes	122	1.8	2.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	21.0	27.4%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	15.5	20.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	20.7	27.0%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	>200	2.7	3.5%
633G	Steinauer-Steinauer variant clay loams, 20 to 50 percent slopes	>200	0.7	0.9%
740E	Hawick sandy loam, 9 to 18 percent slopes	>200	2.3	3.0%
740G	Hawick sandy loam, 18 to 35 percent slopes	>200	2.1	2.7%
878C2	Ocheyedan loam, 5 to 9 percent slopes, moderately eroded	122	3.0	3.9%
Totals for Area of Interest			**76.6**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
33G	Steinauer clay loam, 25 to 40 percent slopes	5	6.9	9.0%
78C	Sac silty clay loam, 5 to 9 percent slopes	5	1.8	2.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	21.0	27.4%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	15.5	20.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	20.7	27.0%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	5	2.7	3.5%
633G	Steinauer-Steinauer variant clay loams, 20 to 50 percent slopes	5	0.7	0.9%
740E	Hawick sandy loam, 9 to 18 percent slopes	5	2.3	3.0%
740G	Hawick sandy loam, 18 to 35 percent slopes	5	2.1	2.7%
878C2	Ocheyedan loam, 5 to 9 percent slopes, moderately eroded	5	3.0	3.9%
Totals for Area of Interest			**76.6**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
33G	Steinauer clay loam, 25 to 40 percent slopes	>200	6.9	9.0%
78C	Sac silty clay loam, 5 to 9 percent slopes	122	1.8	2.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	21.0	27.4%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	15.5	20.2%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	20.7	27.0%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	>200	2.7	3.5%
633G	Steinauer-Steinauer variant clay loams, 20 to 50 percent slopes	>200	0.7	0.9%
740E	Hawick sandy loam, 9 to 18 percent slopes	>200	2.3	3.0%
740G	Hawick sandy loam, 18 to 35 percent slopes	>200	2.1	2.7%
878C2	Ocheyedan loam, 5 to 9 percent slopes, moderately eroded	122	3.0	3.9%
Totals for Area of Interest			**76.6**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Well Search Report Site: 1784

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
160502	91335	T90N, R40W, 5, SE SE SE	Calc. +/- 930 ft.	0		RC DB-W-591
165681	89876	T90N, R40W, 5, SE SE SE	Maps/Air Photos +/- 20 m.	0		W-591
176237	7123	T91N, R40W, 33, SW SE SW SE	Calc. +/- 230 ft.	253	1/1/1955	Perrin Fur Farms
186959	17303	T90N, R40W, 4, NW NE NE SE	Calc. +/- 230 ft.	295	10/12/1964	Koch, Fred
214079	49480	T91N, R40W, 33, SW SE SW	Calc. +/- 470 ft.	283	7/12/1996	Perrin & Sons Fur Farm Inc.
251296	83542	T91N, R40W, 33, SW SE SE	Calc. +/- 470 ft.	409	7/25/2015	Perrin, Kelly

Statistics: IGS Well Database

Count: 6

Public Water Supply Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
446744	2413703					SILVER SIOUX-CHEROKEE CONSERVA

Statistics: Public Water Supply Wells

Count: 1

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
8210	2398	T90N, R40W, Sec. 4, NE, NW, NE	Calc. +/- 285m.	240	n.a.	Martenson, Robert

Statistics: Registered abandoned wells

Count: 1

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
8002	12684	T91N, R40W, Sec. 32, SE, SW, SW	Calc. +/- 140m.	25	1970	Cherokee Co. Cons. Bd., C/O Silver Sioux Rec
8116	12682	T91N, R40W, Sec. 33, SW, SW, SE	Calc. +/- 140m.	340	unkn	Perrin Fur Farm, C/O Kelly Perrin
8117	11120	T91N, R40W, Sec. 33, SW, SW, SE	Calc. +/- 140m.	340	1975	Perrinfur Farm
8261	11059	T90N, R40W, Sec. 3, NW, NW, NW	Calc. +/- 140m.	300	1960	C-Lect Pigs
8264	11058	T90N, R40W, Sec. 4, NE, NE, SE	Calc. +/- 140m.	15	1940	Mortenson, Robert

Statistics: Wells registered for testing

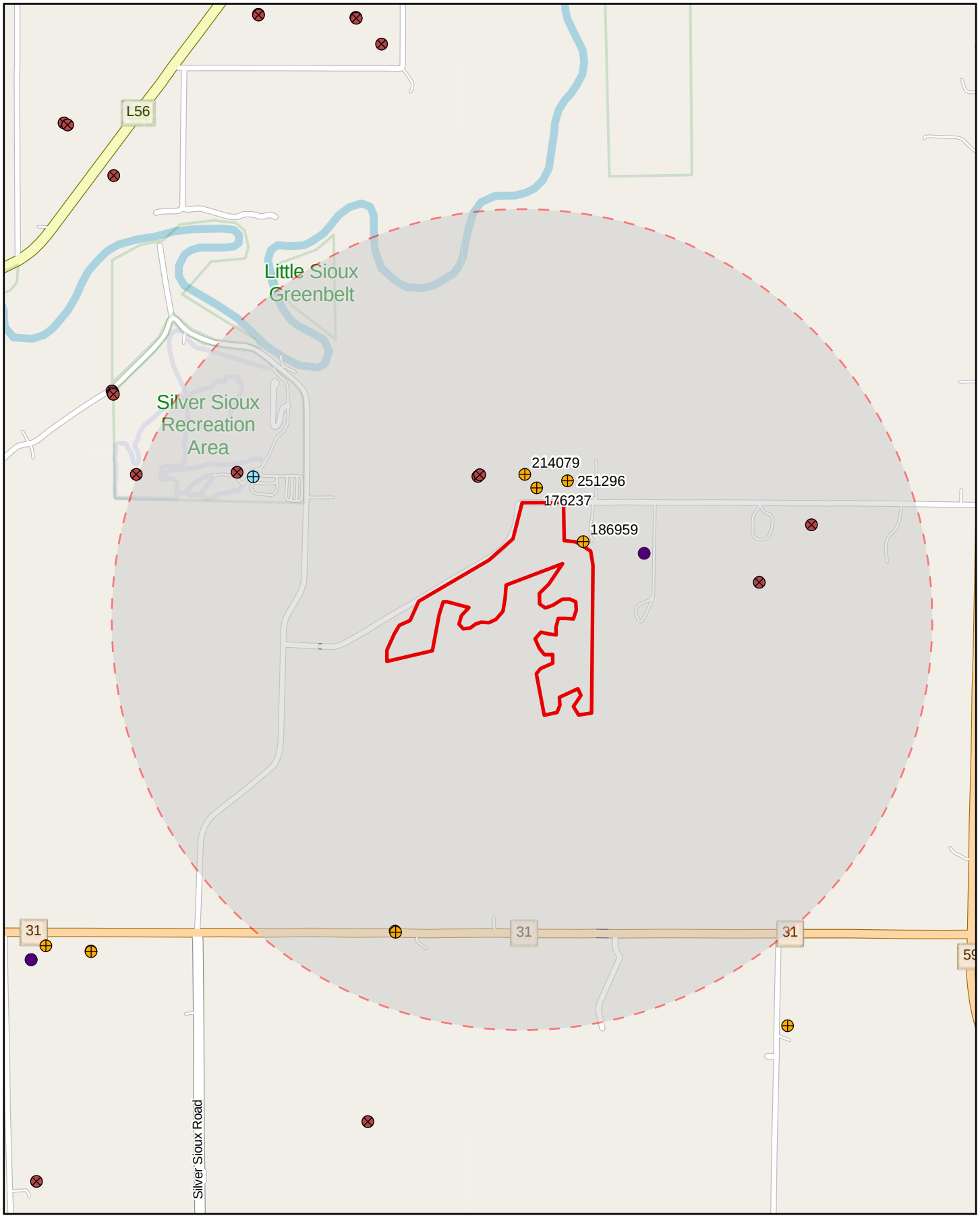
Count: 5

Report Totals

Count: 13

Date Exported: 5/1/2026 9:50 AM

Site: 1784
Subject: XY UTM Coordinates: 15N 288650 4724554
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1785



Unsuitable for Land Application

Peterson Farms Phone: (712)261-3151 Spreadable Acres: 53 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1785



Unsuitable for Land Application

Peterson Farms Phone: (712)261-3151 Gypsum Only

Permitted Acres: 53 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1785)



Map Scale: 1:3,540 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
33D	Steinauer clay loam, 9 to 14 percent slopes	4.2	6.7%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5.9	9.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	52.5	83.9%
Totals for Area of Interest		**62.6**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
33D	Steinauer clay loam, 9 to 14 percent slopes	5	4.2	6.7%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	5.9	9.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	52.5	83.9%
Totals for Area of Interest			**62.6**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
33D	Steinauer clay loam, 9 to 14 percent slopes	>200	4.2	6.7%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	5.9	9.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	52.5	83.9%
Totals for Area of Interest			**62.6**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1785

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
178073	9100	T92N, R39W, 18, NW NE SW	Calc. +/- 470 ft.	408	2/1/1957	Letsche, G.
179960	10586	T92N, R39W, 17, SW SW NE	Calc. +/- 470 ft.	280	11/19/1958	Smith, George
183285	13610	T92N, R39W, 19, NE NE SE SE SW	Calc. +/- 115 ft.	332	9/22/1961	Smith, George
189599	20584	T92N, R39W, 7, SE SW SE SW	Calc. +/- 230 ft.	205	1/1/1967	Carlson, V.G
237215	83533	T92N, R39W, 17, NE SE SE	Calc. +/- 470 ft.	350	10/27/2006	Schulenberg, Justin

Statistics: IGS Well Database

Count: 5

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
6133	9454	T92N, R39W, Sec. 7, SW, SE, SE	Calc. +/- 140m.	40	1955	Rhea, George
6209	67708	T92N, R39W, Sec. 7, SE, SW, NW	Calc. +/- 285m.	300	1960	Mcalpine, John
6234	9457	T92N, R39W, Sec. 18, NW, SE, NW	Calc. +/- 140m.	35	1928	Letsche, John
6251	9470	T92N, R39W, Sec. 18, NE, NW, NW	Calc. +/- 140m.	30	unkn	Batten, Edna
6287	56538	T92N, R39W, Sec. 18, NE, NW, SW	Calc. +/- 285m.	25	1950	Heofler, Edna
6289	57276	T92N, R39W, Sec. 18, NE, NW, NE	Calc. +/- 285m.	25	1950	Hoepler, Edna
6290	56537	T92N, R39W, Sec. 18, NE, NW, NE	Calc. +/- 285m.	25	1950	Heofler, Edna
6292	57277	T92N, R39W, Sec. 18, NE, NW, SW	Calc. +/- 285m.	25	1950	

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Hoepler, Edna
6294	1675	T92N, R39W, Sec. 18, NE, NW, SW	Calc. +/- 285m.	30	1940	Hoefler, Edna
6303	9472	T92N, R39W, Sec. 7, SE, SE, SW	Calc. +/- 140m.	200	unkn	Dilicker, Vicki
6704	56527	T92N, R39W, Sec. 17, SW, SW, SW	Calc. +/- 285m.	360	1960	Smith, Ed

Statistics: Wells registered for testing

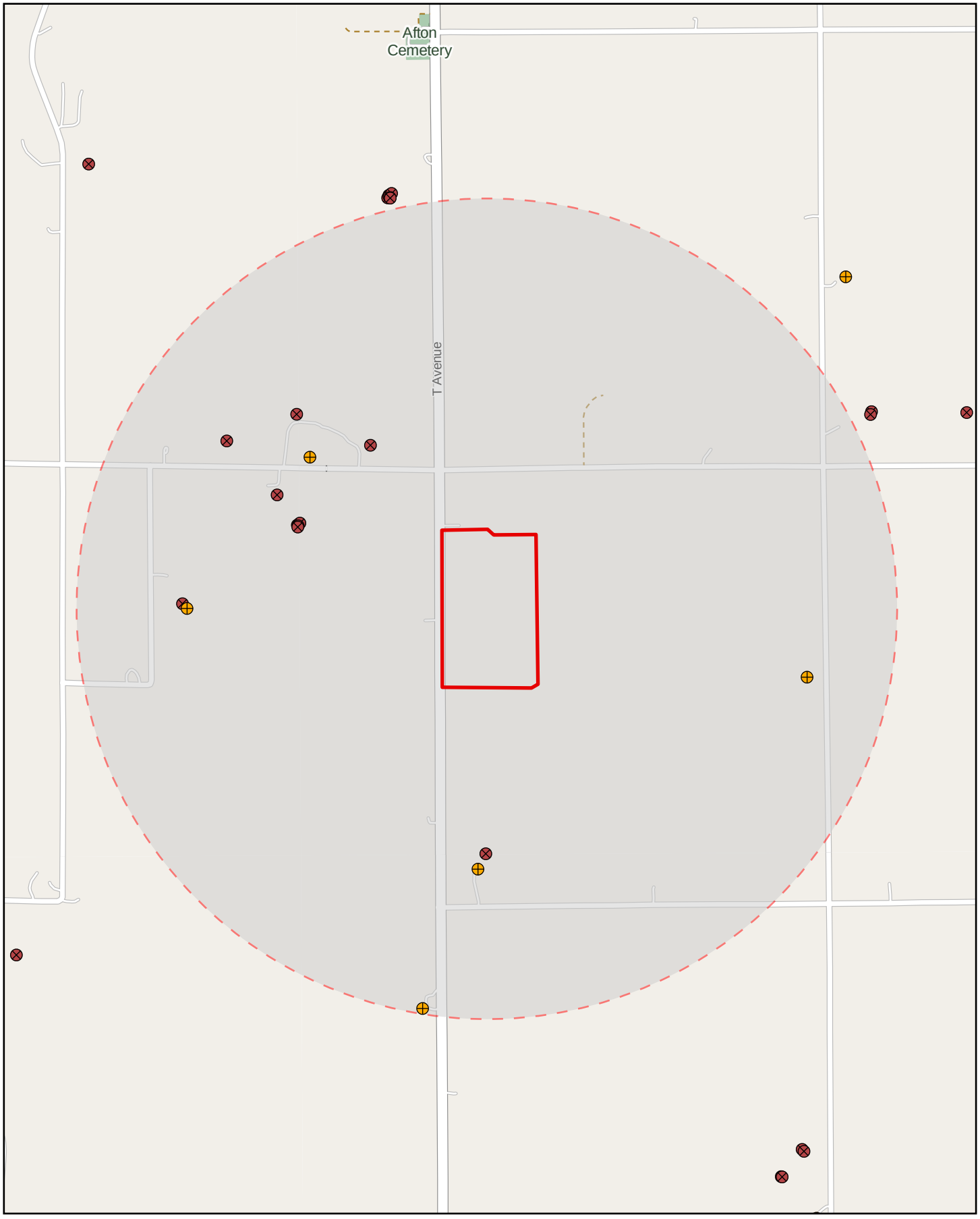
Count: 11

Report Totals

Count: 16

Date Exported: 5/1/2026 9:56 AM

Site: 1785
Subject: XY UTM Coordinates: 15N 296863 4740200
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1786



Unsuitable for Land Application

Peterson Farms Phone: (712)261-3151 Spreadable Acres: 143 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1786



Unsuitable for Land Application

Peterson Farms Phone: (712)261-3151 Gypsum Only

Permitted Acres: 143 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1786)



Map Scale: 1:6,230 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	2.1	1.3%
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	8.6	5.4%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	2.4	1.5%
91B	Primghar silty clay loam, 2 to 5 percent slopes	8.5	5.3%
92	Marcus silty clay loam, 0 to 2 percent slopes	17.0	10.6%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	7.7	4.8%
310	Galva silty clay loam, 0 to 2 percent slopes	3.6	2.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	89.0	55.4%
310C	Galva silty clay loam, 5 to 9 percent slopes	11.5	7.1%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	10.2	6.4%
Totals for Area of Interest		**160.6**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	2.9	1.7%
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	5	8.8	5.3%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	5	2.4	1.4%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	9.1	5.5%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	18.0	10.8%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	8.4	5.0%
310	Galva silty clay loam, 0 to 2 percent slopes	5	3.6	2.1%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	91.5	55.0%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	11.5	6.9%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	10.2	6.2%
Totals for Area of Interest			**166.4**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	2.1	1.3%
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	0	8.6	5.4%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	122	2.4	1.5%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	8.5	5.3%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	17.0	10.6%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	7.7	4.8%
310	Galva silty clay loam, 0 to 2 percent slopes	>200	3.6	2.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	89.0	55.4%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	11.5	7.1%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	10.2	6.4%
Totals for Area of Interest			**160.6**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Well Search Report Site: 1786

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
4950	128	T92N, R41W, Sec. 25, SE, SW, SW	Calc. +/- 140m.	17	n.a.	Peterson, Roger
4951	2389	T92N, R41W, Sec. 25, SE, SW, SW	Calc. +/- 140m.	17	n.a.	Peterson, Roger
4954	2388	T92N, R41W, Sec. 25, SE, SW, SW	Calc. +/- 140m.	35	n.a.	Peterson, Roger
4956	127	T92N, R41W, Sec. 25, SE, SW, SW	Calc. +/- 140m.	35	n.a.	Peterson, Roger
4961	2763	T92N, R41W, Sec. 35, SE, SW, SW	Calc. +/- 140m.	25	n.a.	Lux, Paul
5094	2399	T91N, R41W, Sec. 2, NE, NE, NW	Calc. +/- 285m.	28	n.a.	Lus, Ffloyd
5174	14639	T92N, R41W, Sec. 36, SW, SE, NE	Calc. +/- 140m.	76	n.a.	Lux, Floyd
5175	5800	T92N, R41W, Sec. 36, SW, SE, NE	Calc. +/- 285m.	76	n.a.	

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Lux, Floyd
5176	5801	T92N, R41W, Sec. 36, SW, SE, NE	Calc. +/- 285m.	34	n.a.	Lux, Floyd
5177	14640	T92N, R41W, Sec. 36, SW, SE, SE	Calc. +/- 140m.	34	n.a.	Lux, Floyd

Statistics: Registered abandoned wells

Count: 10

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
4649	27636	T92N, R41W, Sec. 27, SE, SE, NW	Calc. +/- 285m.	70	unkn	Rupp, Ralph
4745	53054	T92N, R41W, Sec. 26, SW, SE, NE	Calc. +/- 285m.	40	1956	Eischen, Leo
4755	18707	T92N, R41W, Sec. 26, SW, SE, SE	Calc. +/- 285m.	40	1956	Eischen, Leo J.
4866	59830	T92N, R41W, Sec. 35, NE, NE, SW	Calc. +/- 285m.	20	1965	Kohns, Paul
4867	53082	T92N, R41W, Sec. 35, NE, NE, SW	Calc. +/- 285m.	20	1950	Kohns, Paul

Statistics: Wells registered for testing

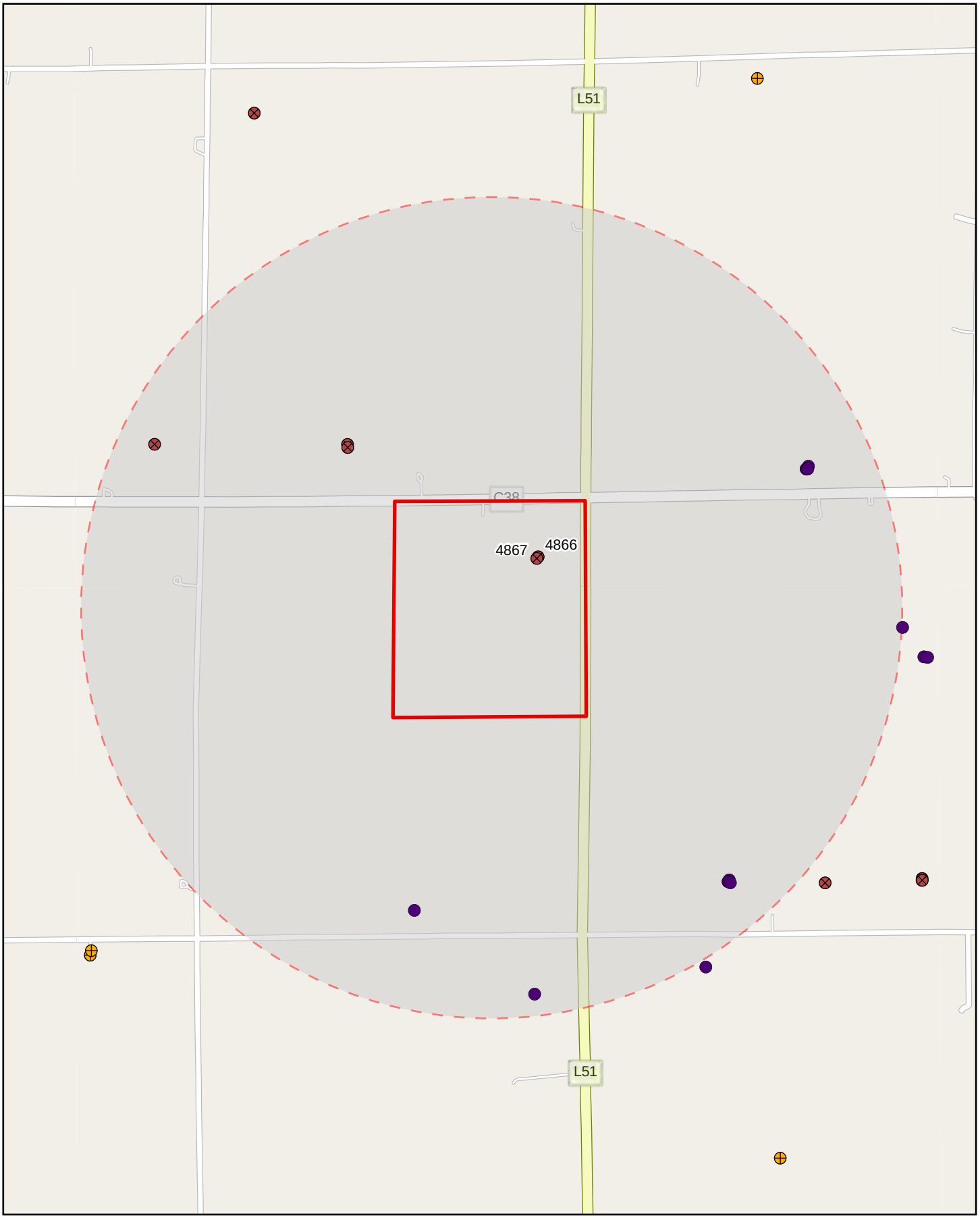
Count: 5

Report Totals

Count: 15

Date Exported: 5/1/2026 10:01 AM

Site: 1786
Subject: XY UTM Coordinates: 15N 283295 4736044
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1787



Unsuitable for Land Application

Peterson Farms Phone: (712)261-3151 Spreadable Acres: 99 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1787



Unsuitable for Land Application

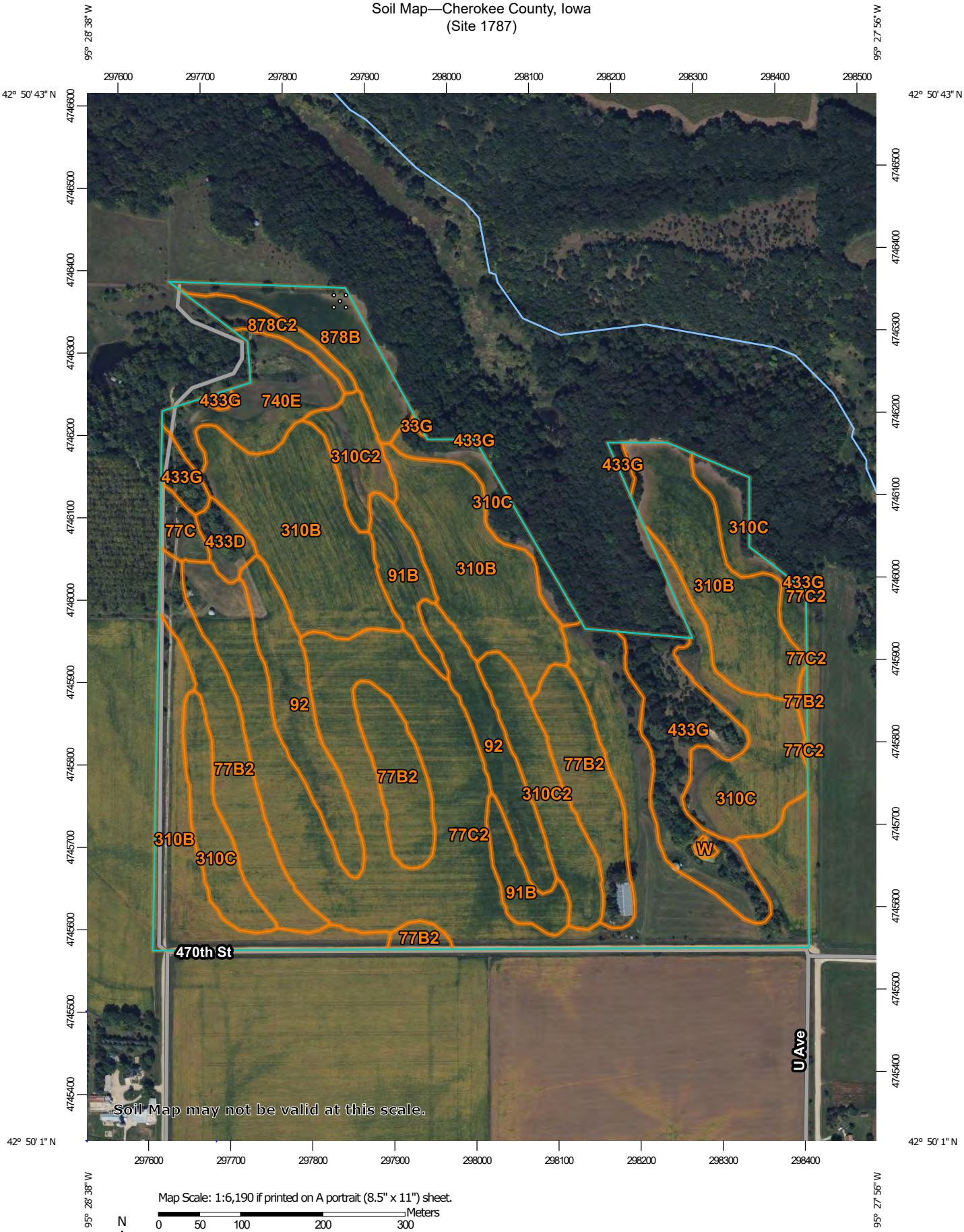
Peterson Farms Phone: (712)261-3151 Gypsum Only

Permitted Acres: 99 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1787)



Map Scale: 1:6,190 if printed on A portrait (8.5" x 11") sheet.

Meters: 0 50 100 200 300

Feet: 0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
33G	Steinauer clay loam, 25 to 40 percent slopes	0.0	0.0%
77B2	Sac silty clay loam, loam substratum, 2 to 5 percent slopes, eroded	12.9	10.8%
77C	Sac silty clay loam, loam substratum, 5 to 9 percent slopes	0.9	0.7%
77C2	Sac silty clay loam, loam substratum, 5 to 9 percent slopes, eroded	29.3	24.5%
91B	Primghar silty clay loam, 2 to 5 percent slopes	3.9	3.2%
92	Marcus silty clay loam, 0 to 2 percent slopes	7.5	6.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	28.8	24.1%
310C	Galva silty clay loam, 5 to 9 percent slopes	13.0	10.9%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	6.0	5.0%
433D	Storden loam, 9 to 14 percent slopes	1.0	0.9%
433G	Storden loam, 25 to 50 percent slopes	7.3	6.1%
740E	Hawick sandy loam, 9 to 18 percent slopes	4.1	3.4%
878B	Ocheyedan loam, 2 to 5 percent slopes	3.6	3.0%
878C2	Ocheyedan loam, 5 to 9 percent slopes, moderately eroded	1.3	1.1%
W	Water	0.1	0.1%
Totals for Area of Interest		**119.7**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
33G	Steinauer clay loam, 25 to 40 percent slopes	5	0.0	0.0%
77B2	Sac silty clay loam, loam substratum, 2 to 5 percent slopes, eroded	5	12.9	10.8%
77C	Sac silty clay loam, loam substratum, 5 to 9 percent slopes	5	0.9	0.7%
77C2	Sac silty clay loam, loam substratum, 5 to 9 percent slopes, eroded	5	29.3	24.5%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	3.9	3.2%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	7.5	6.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	28.8	24.1%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	13.0	10.9%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	6.0	5.0%
433D	Storden loam, 9 to 14 percent slopes	5	1.0	0.9%
433G	Storden loam, 25 to 50 percent slopes	5	7.3	6.1%
740E	Hawick sandy loam, 9 to 18 percent slopes	5	4.1	3.4%
878B	Ocheyedan loam, 2 to 5 percent slopes	5	3.6	3.0%
878C2	Ocheyedan loam, 5 to 9 percent slopes, moderately eroded	5	1.3	1.1%
W	Water		0.1	0.1%
Totals for Area of Interest			**119.7**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
33G	Steinauer clay loam, 25 to 40 percent slopes	>200	0.0	0.0%
77B2	Sac silty clay loam, loam substratum, 2 to 5 percent slopes, eroded	122	12.9	10.8%
77C	Sac silty clay loam, loam substratum, 5 to 9 percent slopes	122	0.9	0.7%
77C2	Sac silty clay loam, loam substratum, 5 to 9 percent slopes, eroded	122	29.3	24.5%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	3.9	3.2%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	7.5	6.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	28.8	24.1%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	13.0	10.9%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	6.0	5.0%
433D	Storden loam, 9 to 14 percent slopes	>200	1.0	0.9%
433G	Storden loam, 25 to 50 percent slopes	>200	7.3	6.1%
740E	Hawick sandy loam, 9 to 18 percent slopes	>200	4.1	3.4%
878B	Ocheyedan loam, 2 to 5 percent slopes	122	3.6	3.0%
878C2	Ocheyedan loam, 5 to 9 percent slopes, moderately eroded	122	1.3	1.1%
W	Water	>200	0.1	0.1%
Totals for Area of Interest			**119.7**	**100.0%**

Well Search Report Site: 1787

Public Water Supply Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
441363	2408282					MARTIN-LIT SIOUX-CHER CONSERVA

Statistics: Public Water Supply Wells

Count: 1

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
5421	12674	T93N, R39W, Sec. 29, NE, NW, NW	Calc. +/- 140m.	20	1950	Allan, Lon, C/ O Cherokee Co.Cons
5422	12671	T93N, R39W, Sec. 29, NE, NW, NW	Calc. +/- 140m.	20	1960	Allan, Lon, C/ O Cherokee Co.Cons
5474	12670	T93N, R39W, Sec. 29, NE, NW, NE	Calc. +/- 140m.	50	1960	Allan, Lon, C/ O Cherokee Co.Cons
5504	12676	T93N, R39W, Sec. 29, NE, NE, NW	Calc. +/- 140m.	50	1950	Allan, Lon, C/ O Cherokee Co.Cons
5579	67578	T93N, R39W, Sec. 32, NW, NE, NW	Calc. +/- 285m.	80	1965	Drefke, Mike
5599	53117	T93N, R39W, Sec. 29, SE, NE, SW	Calc. +/- 285m.	20	1960	Conservation Board
5600	9592	T93N, R39W, Sec. 29, SE, NE, NE	Calc. +/- 285m.	20	1960	Cherokee County, Conservation
5602	9593	T93N, R39W, Sec. 29, SE, NE, NE	Calc. +/- 285m.	30	1960	

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Cherokee County, Conservation
5629	59841	T93N, R39W, Sec. 29, SE, SE, SW	Calc. +/- 285m.	50	unkn	Waack, Sally
5667	67571	T93N, R39W, Sec. 32, NE, SW, NW	Calc. +/- 285m.	42	1964	Mrs. Clover, Willis
5672	734	T93N, R39W, Sec. 32, NE, SW, SE	Calc. +/- 285m.	45	1964	Clover, Emogene
5692	67574	T93N, R39W, Sec. 32, NE, NE, NE	Calc. +/- 285m.	60	1900	Mrs. Johnson, Jonas
5711	59826	T93N, R39W, Sec. 28, SW, SW, NE	Calc. +/- 285m.	400	1986	Kohn, Marty
5754	59857	T93N, R39W, Sec. 32, NE, SE, NW	Calc. +/- 285m.	42	1963	Clover, Emogene
5779	67652	T93N, R39W, Sec. 33, NW, NW, SW	Calc. +/- 285m.	20	1960	

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Becker, Valerie
5781	67650	T93N, R39W, Sec. 33, NW, NW, SE	Calc. +/- 285m.	280	1988	Criag, Robert
5818	59837	T93N, R39W, Sec. 28, SE, NW, NW	Calc. +/- 285m.	38	1977	Grashoff, Boyd

Statistics: Wells registered for testing

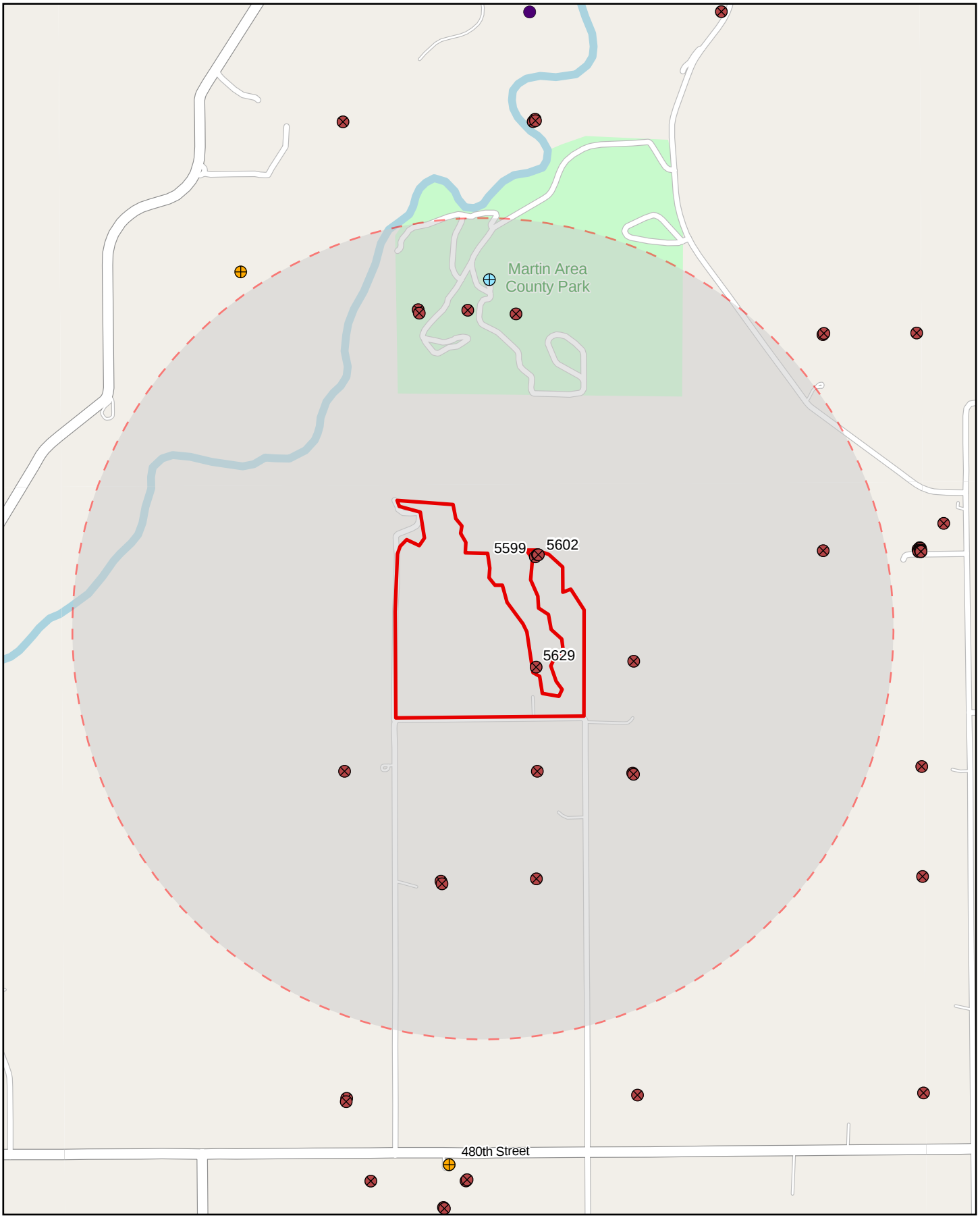
Count: 17

Report Totals

Count: 18

Date Exported: 5/1/2026 10:30 AM

Site: 1787
Subject: XY UTM Coordinates: 15N 298007 4745894
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1788



Unsuitable for Land Application

Peterson Farms Phone: (712)261-3151 Spreadable Acres: 273 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1788



Unsuitable for Land Application

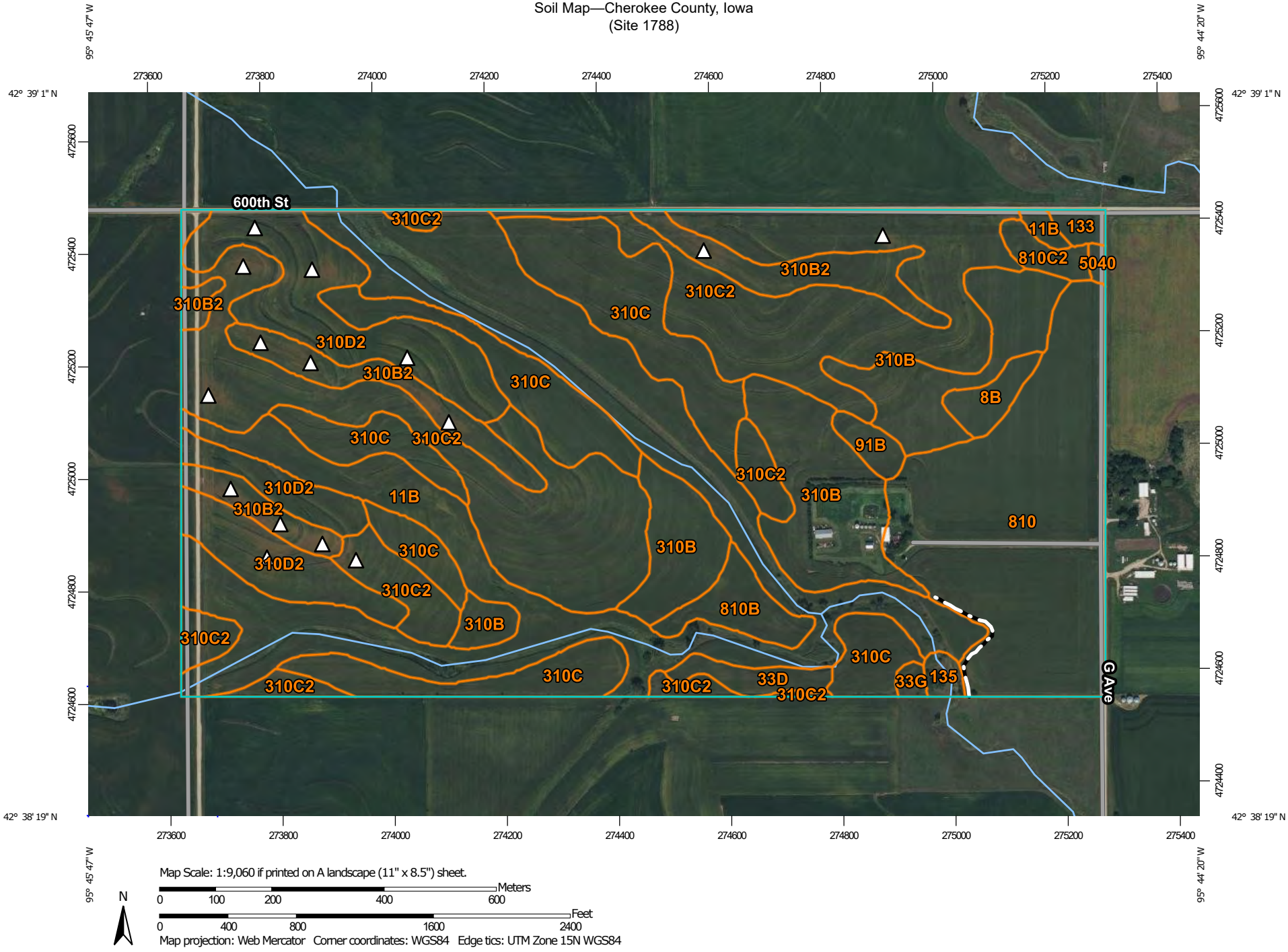
Peterson Farms Phone: (712)261-3151 Gypsum Only

Permitted Acres: 306 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1788)



Map Scale: 1:9,060 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 100 200 400 600

Feet
0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
8B	Judson silty clay loam, deep loess, 2 to 5 percent slopes	2.9	0.8%
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	71.5	20.2%
33D	Steinauer clay loam, 9 to 14 percent slopes	3.0	0.8%
33G	Steinauer clay loam, 25 to 40 percent slopes	0.7	0.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	2.0	0.6%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	1.3	0.4%
135	Coland clay loam, 0 to 2 percent slopes	1.2	0.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	37.7	10.6%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	19.2	5.4%
310C	Galva silty clay loam, 5 to 9 percent slopes	46.9	13.3%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	82.7	23.4%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	31.4	8.9%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	45.5	12.9%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	5.1	1.4%
810C2	Galva silty clay loam, terrace, 5 to 9 percent slopes, eroded	2.3	0.6%
5040	Udorthents, loamy	0.5	0.1%
Totals for Area of Interest		**353.9**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
8B	Judson silty clay loam, deep loess, 2 to 5 percent slopes	5	2.9	0.8%
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	71.5	20.2%
33D	Steinauer clay loam, 9 to 14 percent slopes	5	3.0	0.8%
33G	Steinauer clay loam, 25 to 40 percent slopes	5	0.7	0.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	2.0	0.6%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	1.3	0.4%
135	Coland clay loam, 0 to 2 percent slopes	5	1.2	0.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	37.7	10.6%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5	19.2	5.4%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	46.9	13.3%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	82.7	23.4%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	5	31.4	8.9%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	5	45.5	12.9%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	5	5.1	1.4%
810C2	Galva silty clay loam, terrace, 5 to 9 percent slopes, eroded	5	2.3	0.6%
5040	Udorthents, loamy	5	0.5	0.1%
Totals for Area of Interest			**353.9**	**100.0%**

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
8B	Judson silty clay loam, deep loess, 2 to 5 percent slopes	>200	2.9	0.8%
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	71.5	20.2%
33D	Steinauer clay loam, 9 to 14 percent slopes	>200	3.0	0.8%
33G	Steinauer clay loam, 25 to 40 percent slopes	>200	0.7	0.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	2.0	0.6%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	1.3	0.4%
135	Coland clay loam, 0 to 2 percent slopes	0	1.2	0.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	37.7	10.6%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	>200	19.2	5.4%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	46.9	13.3%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	82.7	23.4%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	>200	31.4	8.9%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	>200	45.5	12.9%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	>200	5.1	1.4%
810C2	Galva silty clay loam, terrace, 5 to 9 percent slopes, eroded	>200	2.3	0.6%
5040	Udorthents, loamy	>200	0.5	0.1%
Totals for Area of Interest			**353.9**	**100.0%**

Well Search Report Site: 1788

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
217458	45787	T90N, R41W, 6, NW NE NW	Unknown	333	11/13/1997	Willow Ridge Pork Inc
217469	45788	T90N, R41W, 6, NW NE NW	Calc. +/- 470 ft.	329	11/15/1997	Willow Ridge Pork Inc.

Statistics: IGS Well Database

Count: 2

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
5565	13945	T90N, R42W, Sec. 2, SE, NE, SW	Calc. +/- 140m.	42	1945	Waller, Roderick
5643	9581	T90N, R42W, Sec. 1, NE, SE, SE	Calc. +/- 285m.	10	1956	Rupp, Floyd
5664	13962	T90N, R41W, Sec. 6, NW, SW, NW	Calc. +/- 140m.	20	1920	Carlson, Robert
5688	13943	T90N, R42W, Sec. 1, NE, SE, SE	Calc. +/- 140m.	12	1950	Rupp, Floyd

Statistics: Wells registered for testing

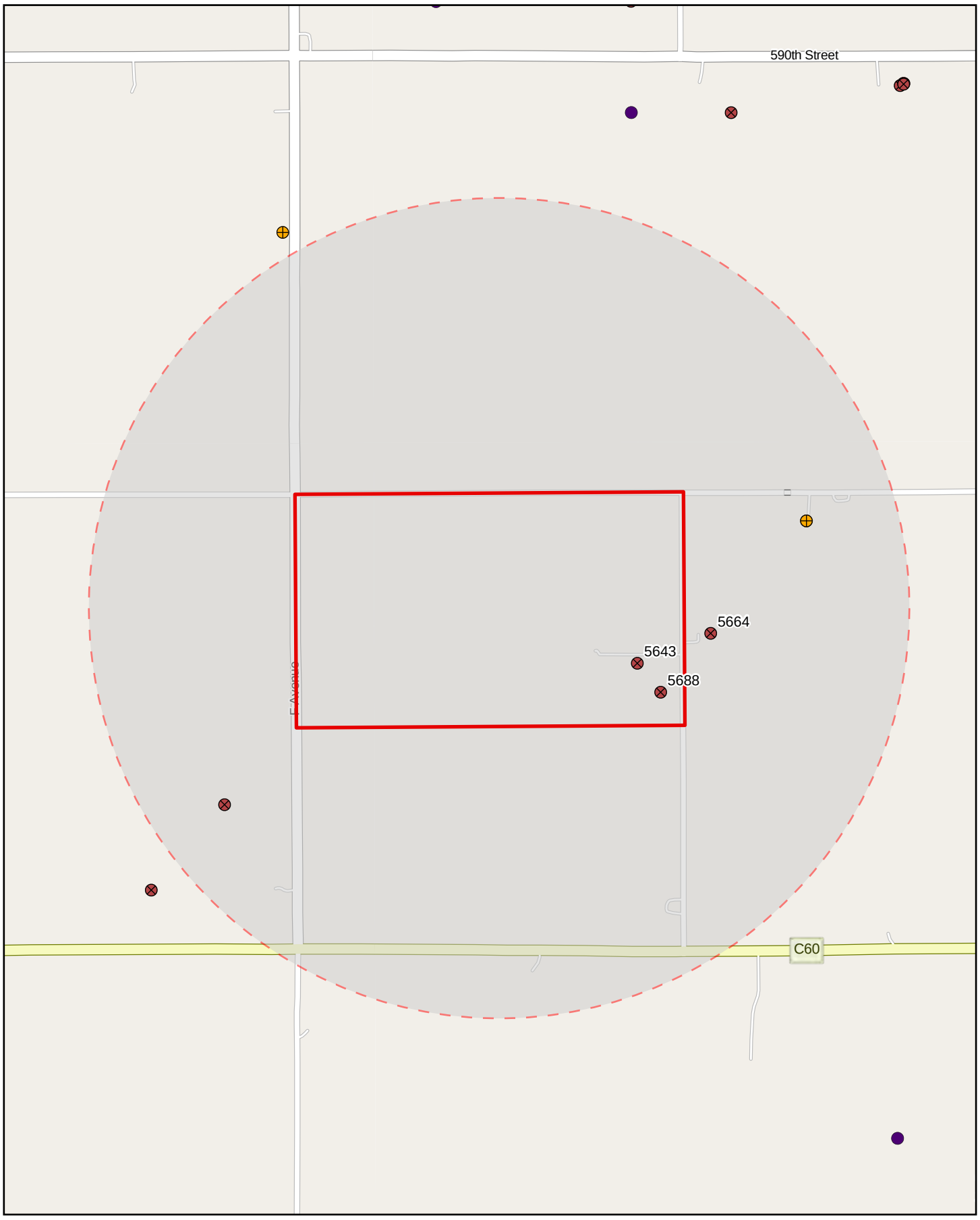
Count: 4

Report Totals

Count: 6

Date Exported: 5/1/2026 10:37 AM

Site: 1788
Subject: XY UTM Coordinates: 15N 274519 4725019
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1789



Unsuitable for Land Application

Peterson Farms Phone: (712)261-3151 Spreadable Acres: 149 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1789



Unsuitable for Land Application

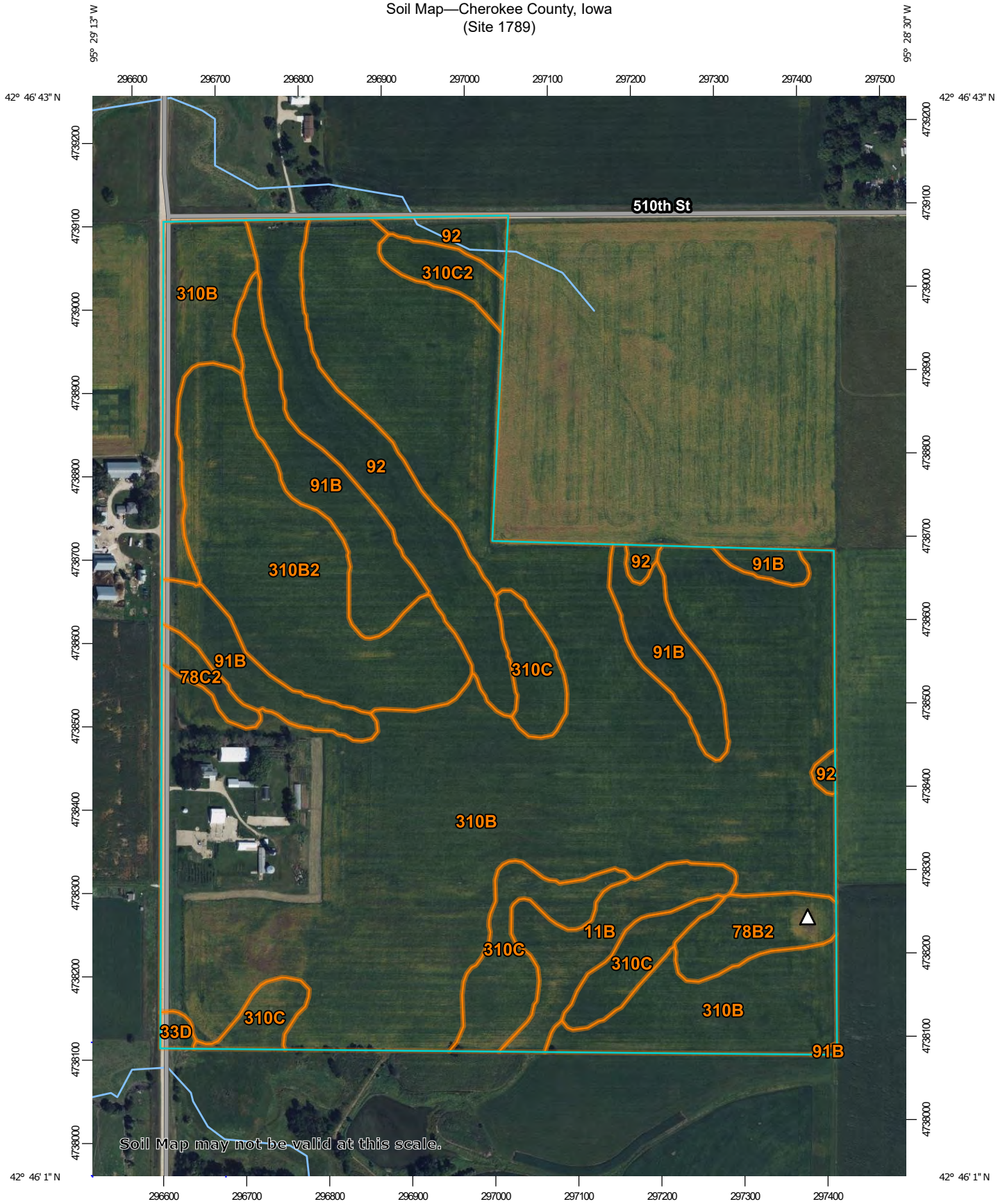
Peterson Farms Phone: (712)261-3151 Gypsum Only

Permitted Acres: 149 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1789)



Map Scale: 1:6,310 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	4.8	3.0%
33D	Steinauer clay loam, 9 to 14 percent slopes	0.4	0.2%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	3.3	2.0%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	1.1	0.7%
91B	Primghar silty clay loam, 2 to 5 percent slopes	13.8	8.6%
92	Marcus silty clay loam, 0 to 2 percent slopes	11.7	7.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	97.9	60.5%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	16.2	10.0%
310C	Galva silty clay loam, 5 to 9 percent slopes	10.5	6.5%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	1.9	1.1%
Totals for Area of Interest		**161.8**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	4.8	3.0%
33D	Steinauer clay loam, 9 to 14 percent slopes	5	0.4	0.2%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	5	3.3	2.0%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	5	1.1	0.7%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	13.8	8.6%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	11.7	7.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	97.9	60.5%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5	16.2	10.0%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	10.5	6.5%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	1.9	1.1%
Totals for Area of Interest			**161.8**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	4.8	3.0%
33D	Steinauer clay loam, 9 to 14 percent slopes	>200	0.4	0.2%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	122	3.3	2.0%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	122	1.1	0.7%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	13.8	8.6%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	11.7	7.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	97.9	60.5%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	>200	16.2	10.0%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	10.5	6.5%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	1.9	1.1%
Totals for Area of Interest			**161.8**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Well Search Report Site: 1789

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
179960	10586	T92N, R39W, 17, SW SW NE	Calc. +/- 470 ft.	280	11/19/1958	Smith, George
183285	13610	T92N, R39W, 19, NE NE SE SE SW	Calc. +/- 115 ft.	332	9/22/1961	Smith, George
183388	15205	T92N, R39W, 20, SW SW NW NW NE	Calc. +/- 115 ft.	308	11/3/1961	Smith, Doyle
195585	23361	T92N, R39W, 20, SE NE SE SE	Calc. +/- 230 ft.	330	6/19/1973	Nelson, George

Statistics: IGS Well Database

Count: 4

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
7462	24560	T92N, R39W, Sec. 21, SW, SW, SE	Calc. +/- 285m.	309	unkn	Phipps

Statistics: Permitted private wells

Count: 1

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
6704	56527	T92N, R39W, Sec. 17, SW, SW, SW	Calc. +/- 285m.	360	1960	Smith, Ed
7135	14146	T92N, R39W, Sec. 29, NW, NW, NW	Calc. +/- 140m.	60	1974	Alquist, Clarence
7289	14157	T92N, R39W, Sec. 20, SE, NE, NE	Calc. +/- 140m.	250	unkn	Nelson, Ron
7291	24463	T92N, R39W, Sec. 20, SE, NE, NE	Calc. +/- 285m.	400	1967	Nelson, Ron
7292	17544	T92N, R39W, Sec. 20, SE, NE, NE	Calc. +/- 285m.	400	1967	Nelson, Ron
7295	14160	T92N, R39W, Sec. 20, SE, NE, NE	Calc. +/- 140m.	400	1967	Nelson, Ron
7455	67670	T92N, R39W, Sec. 21, SW, SW, NW	Calc. +/- 285m.	270	1950	Phipps, Dana

Statistics: Wells registered for testing

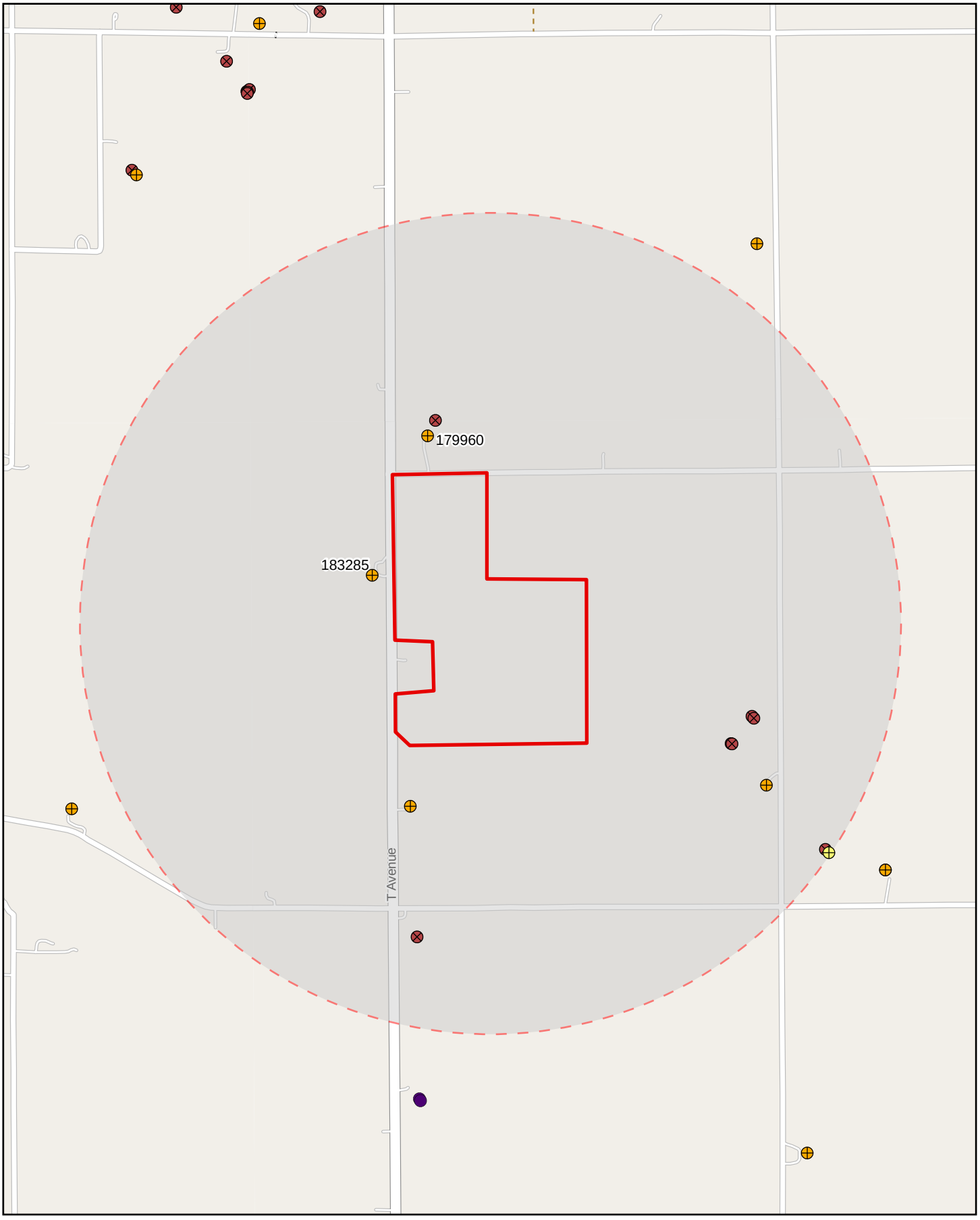
Count: 7

Report Totals

Count: 12

Date Exported: 5/1/2026 10:48 AM

Site: 1789
Subject: XY UTM Coordinates: 15N 297030 4738542
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1790



Unsuitable for Land Application

Peterson Farms Phone: (712)261-3151 Spreadable Acres: 178 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1790



Unsuitable for Land Application

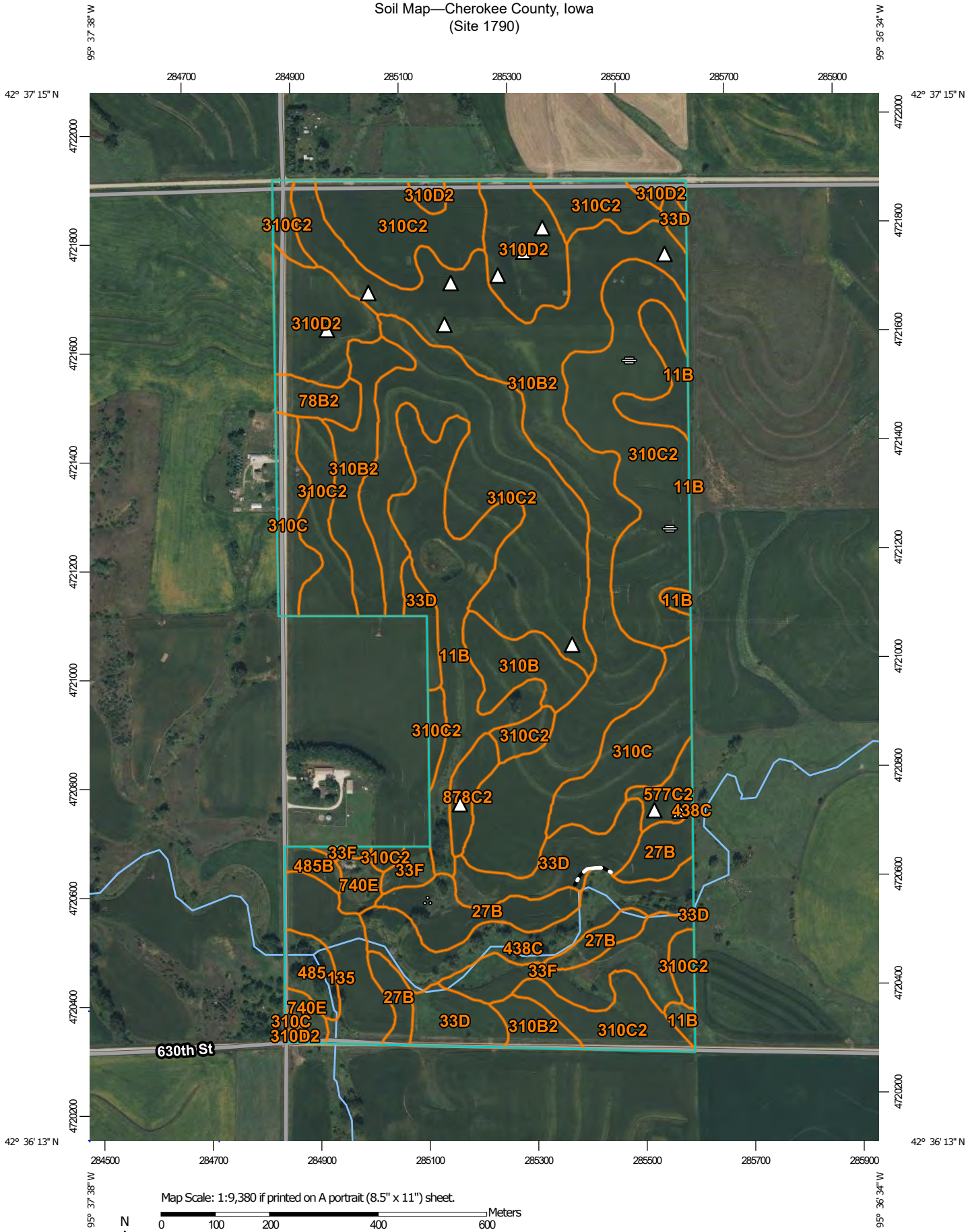
Peterson Farms Phone: (712)261-3151 Gypsum Only

Permitted Acres: 178 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1790)



Map Scale: 1:9,380 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 450 900 1800 2700

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	22.9	8.5%
27B	Terril loam, 2 to 5 percent slopes	12.4	4.6%
33D	Steinauer clay loam, 9 to 14 percent slopes	13.3	4.9%
33F	Steinauer clay loam, 14 to 25 percent slopes	10.0	3.7%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	2.8	1.0%
135	Coland clay loam, 0 to 2 percent slopes	7.4	2.7%
310B	Galva silty clay loam, 2 to 5 percent slopes	5.6	2.1%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	55.6	20.5%
310C	Galva silty clay loam, 5 to 9 percent slopes	14.7	5.4%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	85.7	31.6%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	18.0	6.6%
438C	Terril-Coland, occasionally flooded complex, 2 to 9 percent slopes	11.1	4.1%
485	Spillville loam, 0 to 2 percent slopes, occasionally flooded	2.8	1.0%
485B	Spillville loam, 2 to 5 percent slopes	1.3	0.5%
577C2	Everly clay loam, 5 to 9 percent slopes, moderately eroded	2.3	0.9%
740E	Hawick sandy loam, 9 to 18 percent slopes	2.9	1.1%
878C2	Ocheyedan loam, 5 to 9 percent slopes, moderately eroded	2.5	0.9%
Totals for Area of Interest		**271.1**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	22.9	8.5%
27B	Terril loam, 2 to 5 percent slopes	5	12.4	4.6%
33D	Steinauer clay loam, 9 to 14 percent slopes	5	13.3	4.9%
33F	Steinauer clay loam, 14 to 25 percent slopes	5	10.0	3.7%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	5	2.8	1.0%
135	Coland clay loam, 0 to 2 percent slopes	5	7.4	2.7%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	5.6	2.1%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5	55.6	20.5%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	14.7	5.4%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	85.7	31.6%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	5	18.0	6.6%
438C	Terril-Coland, occasionally flooded complex, 2 to 9 percent slopes	5	11.1	4.1%
485	Spillville loam, 0 to 2 percent slopes, occasionally flooded	5	2.8	1.0%
485B	Spillville loam, 2 to 5 percent slopes	5	1.3	0.5%
577C2	Everly clay loam, 5 to 9 percent slopes, moderately eroded	5	2.3	0.9%
740E	Hawick sandy loam, 9 to 18 percent slopes	5	2.9	1.1%
878C2	Ocheyedan loam, 5 to 9 percent slopes, moderately eroded	5	2.5	0.9%

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	22.9	8.5%
27B	Terril loam, 2 to 5 percent slopes	122	12.4	4.6%
33D	Steinauer clay loam, 9 to 14 percent slopes	>200	13.3	4.9%
33F	Steinauer clay loam, 14 to 25 percent slopes	>200	10.0	3.7%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	122	2.8	1.0%
135	Coland clay loam, 0 to 2 percent slopes	0	7.4	2.7%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	5.6	2.1%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	>200	55.6	20.5%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	14.7	5.4%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	85.7	31.6%
310D2	Galva silty clay loam, 9 to 14 percent slopes, eroded	>200	18.0	6.6%
438C	Terril-Coland, occasionally flooded complex, 2 to 9 percent slopes	122	11.1	4.1%
485	Spillville loam, 0 to 2 percent slopes, occasionally flooded	30	2.8	1.0%
485B	Spillville loam, 2 to 5 percent slopes	122	1.3	0.5%
577C2	Everly clay loam, 5 to 9 percent slopes, moderately eroded	152	2.3	0.9%
740E	Hawick sandy loam, 9 to 18 percent slopes	>200	2.9	1.1%
878C2	Ocheyedan loam, 5 to 9 percent slopes, moderately eroded	122	2.5	0.9%

Well Search Report Site: 1790

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
8196	16362	T90N, R41W, Sec. 13, NE, SE, NE	Calc. +/- 140m.	265	1942	Volkert, Alvin
8268	13993	T90N, R40W, Sec. 18, SW, NW, SW	Calc. +/- 140m.	25	1950	Leonard, Albert
8402	13992	T90N, R40W, Sec. 17, SW, NW, SW	Calc. +/- 140m.	25	1925	Simmons, Dave
8408	8045	T90N, R40W, Sec. 18, SE, SE, NW	Calc. +/- 285m.	300	unkn	Kerns, Alfred
8409	56649	T90N, R40W, Sec. 18, SE, SE, NE	Calc. +/- 285m.	300	1950	Rodenburg, Les
8410	56829	T90N, R40W, Sec. 18, SE, SE, SE	Calc. +/- 285m.	300	1950	Rodenburg, Les

Statistics: Wells registered for testing

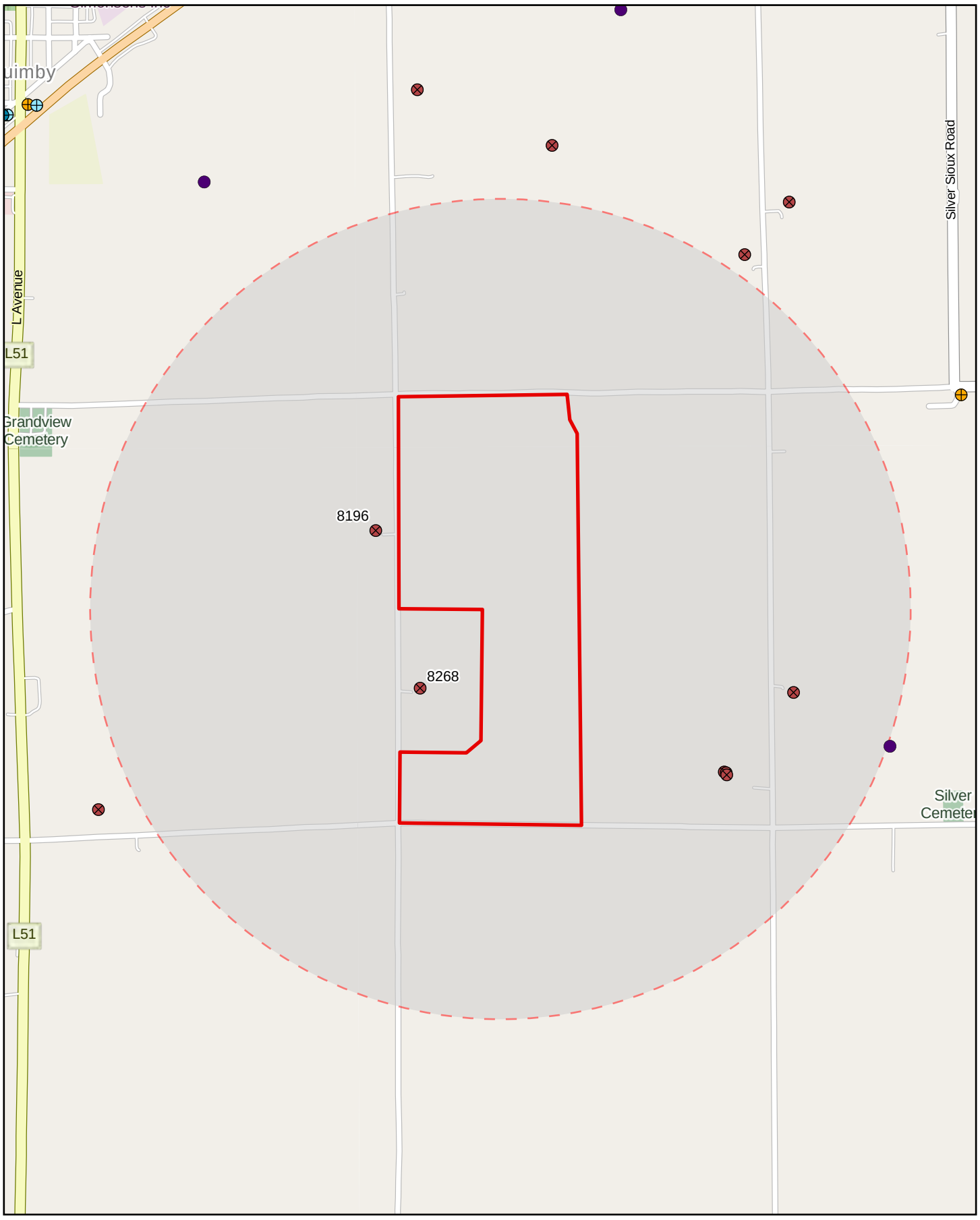
Count: 6

Report Totals

Count: 6

Date Exported: 5/8/2026 4:13 PM

Site: 1790
Subject: XY UTM Coordinates: 15N 285293 4721096
Search Radius (miles): 1



Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Peterson Farms
Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected
pH	2.3		Barium	11.4 mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected
Ammonia Nitrogen	0.02	%	Chromium	none detected
Phosphorus	0.1	%	Copper	none detected
Phosphate	0.2	%	Iron	444.1 mg/kg
Potassium	0.03	%	Lead	none detected
Potash	0.03	%	Manganese	5 mg/kg
Calcium	0.4	%	Mercury	0.42 mg/kg
Magnesium	0.02	%	Molybdenum	none detected
Sodium	0.2	%	Nickel	none detected
Sulfur	0.4	%	Selenium	none detected
Zinc	0.0004	%	Silver	none detected

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected
pH	4.8		Barium	0.7 mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected
Ammonia Nitrogen	0.2	%	Chromium	none detected
Phosphorus	0.4	%	Copper	2.7 mg/kg
Phosphate	1.0	%	Iron	59.3 mg/kg
Potassium	0.5	%	Lead	none detected
Potash	0.6	%	Manganese	3.8 mg/kg
Calcium	2.5	%	Mercury	none detected
Magnesium	0.3	%	Molybdenum	none detected
Sodium	0.1	%	Nickel	none detected
Sulfur	0.3	%	Selenium	none detected
Zinc	0.01	%	Silver	none detected

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Signed: _____ Adam Pigott - Agronomist for Peterson Farms

Date: _____

Cargill Corn Milling Blair: Permit # 00-SDP-07-14P - IDNR New Site List P2 5.14.26

Site Name	Section Information/Site Detail	Township	County	State	Acres	Slope Acceptable Acres	Operator
1770	SW 1/4 Sec 32 - 92N 43W	Remsen	Plymouth	IA	45	45	Adam Schroeder
1771	E 1/2 Sec 33 - 96N 41W	Summit	O'Brien	IA	135	135	O'Brien County Ag
1772	SW 1/4 Sec 23 - 97N 39W	Hartley	O'Brien	IA	66	66	O'Brien County Ag
1773	NE 1/4 Sec 28 - 97N 40W	Lincoln	O'Brien	IA	75	75	O'Brien County Ag
1774	NW 1/4 Sec 18 - 97N 40W	Lincoln	O'Brien	IA	69	69	O'Brien County Ag
1775	SW 1/4 Sec 8, NW 1/4 Sec 17 - 92N 39W	Afton	Cherokee	IA	219	219	Ryan Husman
1776	NW 1/4 Sec 17 - 91N 41W	Rock	Cherokee	IA	158	158	Ryan Husman
1777	S 1/2 Sec 17, N 1/2 Sec 19 - 91N 41W	Rock	Cherokee	IA	154	154	Ryan Husman
1778	NW 1.4 Sec 19 - 91N 40W	Pilot	Cherokee	IA	150	112	Ryan Husman
1779	NE 1/4 Sec 14 - 91N 42W	Tilden	Cherokee	IA	54	54	Tom Lehnhoff

EXTended Ag Services, Inc.
202 South Highway 86
Lakefield, MN 56150
507.662.5005 phone
507.662.5105 fax
info@extendedag.com

December 23, 2025

Environmental Land Management

1602 11th Drive NE

Austin, MN 55912

RE: Review of Potential Land Application Sites – Cargill Blair: Cherokee County, O'Brien County, Plymouth County, Iowa

Michael,

We have completed our review of the proposed land application sites for the Cargill facility in Blair, Nebraska. Thank you for the opportunity to provide our input on this project. The following field was included in this review, all acres are approximate:

Site Name	Acres
Cherokee	779.5
1775	229.6
1776	157.7
1777	179.1
1778	158.9
1779	54.0
O'Brien	366.3
1771	151.6
1772	68.4
1773	75.3
1774	71.1
Plymouth	46.2
1770	46.2
Grand Total	**1192.0**

Imagery provided by the National Ag Imagery Program (2021) was utilized to determine whether land application sites were in crop production, pasture/hay or non-farmed land. Overall, the land application sites have some limitations regarding slope steepness and length and general erosion potential.

There are approximately 1,192 acres available for land application of the industrial by-product. The land application site is dominated by silt clay loams and silt clays. All soils are classified by the NRCS as having an acceptable soil texture for land application.

According to the NRCS, 96.7% of the sites have acceptable slopes for the land application of the Cargill byproducts (0-9%). The USDA classified 0.3% of the soils as having severe potential for erosion, 13.9% as having moderate potential, and 78.4% for slight potential and the remaining 7.4% as having no erosion concerns.

Field specific planning and/or residue management should be utilized when applying the byproduct to reduce the potential for movement offsite, on all sites. Application can and should be limited to areas with the lowest slope first and then be directed to areas the furthest from sensitive features such as water. The application of the byproduct is not expected to conflict with any Conservation Plans associated with the observed soils. A summary of slope ratings for the potential land application sites is included below:

Slope Range	Acres
0-2%	456.6
0-5%	45.1
1-4%	37.0
2-4%	7.5
2-5%	420.4
2-9%	1.2
5-9%	184.5
9-14%	36.8
9-18%	1.2
14-20%	1.3
14-25%	0.6
Grand Total	**1192.0**

Approximately 0.6% of the soils identified as potential land application sites are listed by the NRCS soil survey as ponded, commonly or frequently flooded. It is assumed that agricultural drain tile has been installed, to varying degrees, on soils with poor or somewhat poor drainage. Flooding frequency is not expected to be a limiting factor for land application. However, land application on saturated soils should be avoided at all times. Further, land application on fields with higher slope ranges and predicted rainfall within 24 hours should be limited. A complete breakdown of flooding frequency ratings is shown below:

NRCS Flooding Frequency	Acres
NONE	1057.8
OCCASSIONAL	127.0
COMMON	6.1
FREQUENT	1.2
Grand Total	**1192.0**

Determining appropriate land application rates for any by-product is dependent on the most restrictive variable. This can be either slope, erosivity, flooding potential, soil fertility levels, soil texture or byproduct

characteristics, to name a few. The recommendations given herein are independent of any byproduct reviews and only consider the known field characteristics discussed in this review.

Application rates of approximately 15 Wet Tons per acre are appropriate for the field conditions of the land application sites discussed in this review. Appropriate measures should be taken to ensure minimal movement of the waste respect to adequate setbacks from sensitive features (surface water, karst features, conduits to water and high slopes) and land application rates. Special care should be given to applying wastes no less than 48 hours prior to rainfall events of greater than 0.5 inches. Wastes should be incorporated whenever possible, if such practices do not conflict with existing NRCS conservation plans. Applications of organic by-products can result in improved soil fertility, tilth and structure, if properly managed. The soils and parent material on the proposed land application site are naturally acidic in nature. Agricultural lime should be applied to ensure the soil pH is above 6.0 prior to land application of any byproducts.

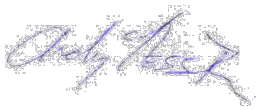
Summary

The specified land application material should be evaluated for constituents that pose a risk to the general health and welfare of the public. In general, land utilized for the land application of solid waste containing nutrients needed for pasture or crop production will benefit from such applications. Careful consideration should be taken to ensure nutrients are not applied at levels greater than crop need, once soils have reached the high fertility range as defined by Iowa State University.

In summary, we believe the field conditions are suitable for land application of solid wastes if done in accordance with all applicable rules, permits and laws. If you have any questions, please do not hesitate to contact us.

Sincerely,



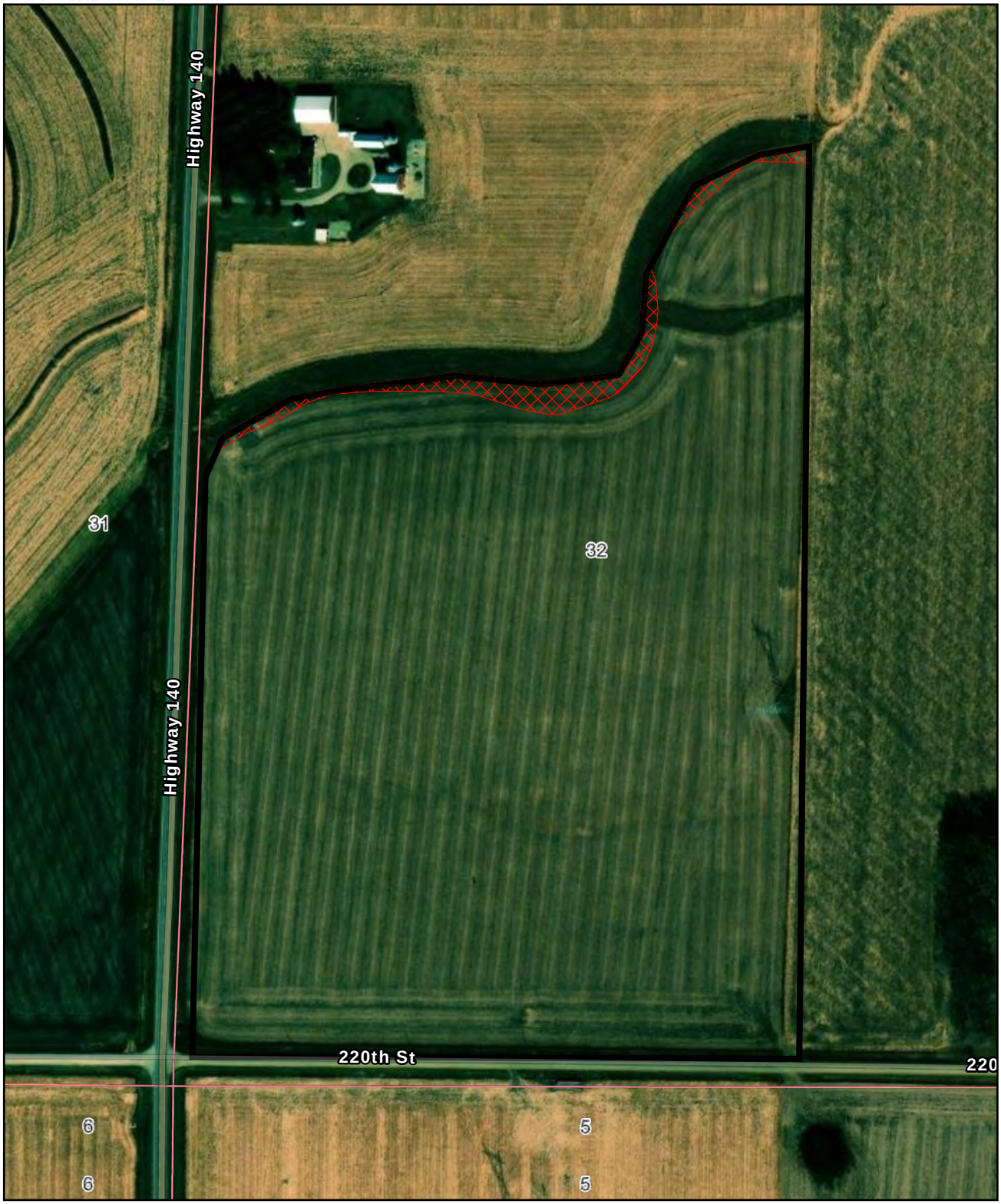


Jim Nesseth
Certified Agronomist
License #: 17118

Andrew Nesseth
Environmental Consultant
NRCS Technical Service Provider

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1770



Unsuitable for Land Application

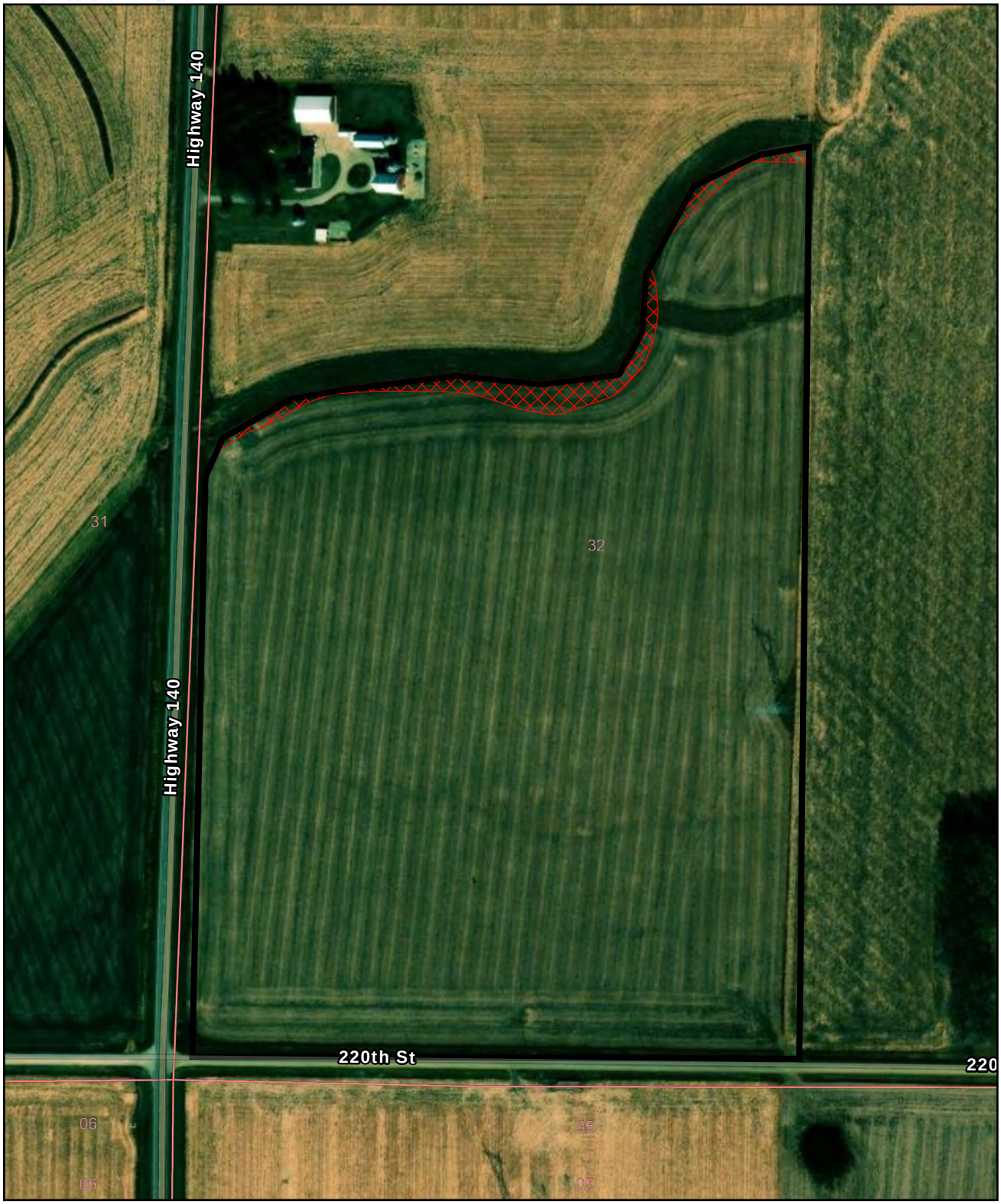
Adam Schroeder Phone: (712)261-3151 Spreadable Acres: 45 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1770



Unsuitable for Land Application

Adam Schroeder Phone: (712)261-3151 Gypsum Only

Permitted Acres: 45 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Plymouth County, Iowa
(Site 1770)



Map Scale: 1:3,600 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
91B	Primghar silty clay loam, 2 to 5 percent slopes	5.2	10.4%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	7.7	15.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	37.2	74.1%
Totals for Area of Interest		**50.1**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	5.2	10.4%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	7.7	15.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	37.2	74.1%
Totals for Area of Interest			**50.1**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	5.2	10.4%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	7.7	15.4%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	37.2	74.1%
Totals for Area of Interest			**50.1**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Having issues? A prototype of a new version of Facility Explorer is available at https://facilityexplorer.iowadnr.gov/FacilityExplorer4/ x

Well Search

Well Search Report Site: 1770

Included in search	No. of wells	Database
X	0	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	3	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	2	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 258077/4735878
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
3140	45122	T91N, R43W, Sec. 6, NE, NW, SE	Calc. +/- 570m.	932 (m)	30	unkn	Bahnenkamp, Steve	Drilling method: Augured;
3144	45580	T91N, R43W, Sec. 6, NE, NE, SW	Calc. +/- 570m.	926 (m)	30	unkn	Bohnencamp, Steve	Drilling method: Augered; Known well depth
3211	39214	T91N, R43W, Sec. 5, NE, SE, NW	Calc. +/- 570m.	1133 (m)	50	1935	Erichsen, Allen	Drilling method: Dug; Known well depth

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information

3131	10766	T92N, R43W, Sec. 32, SW, SW, SW	Calc. +/- 140m.	77 (m)	20	n.a.	Paskert, Tony	Well plugged: 6/15/1993; Well type: not reported
3039	9835	T92N, R43W, Sec. 31, NE, NW, SE	Calc. +/- 570m.	1172 (m)	60	n.a.	Wiebke, Dave	Well plugged: 5/27/1993; Well type: > 18" dia.

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes

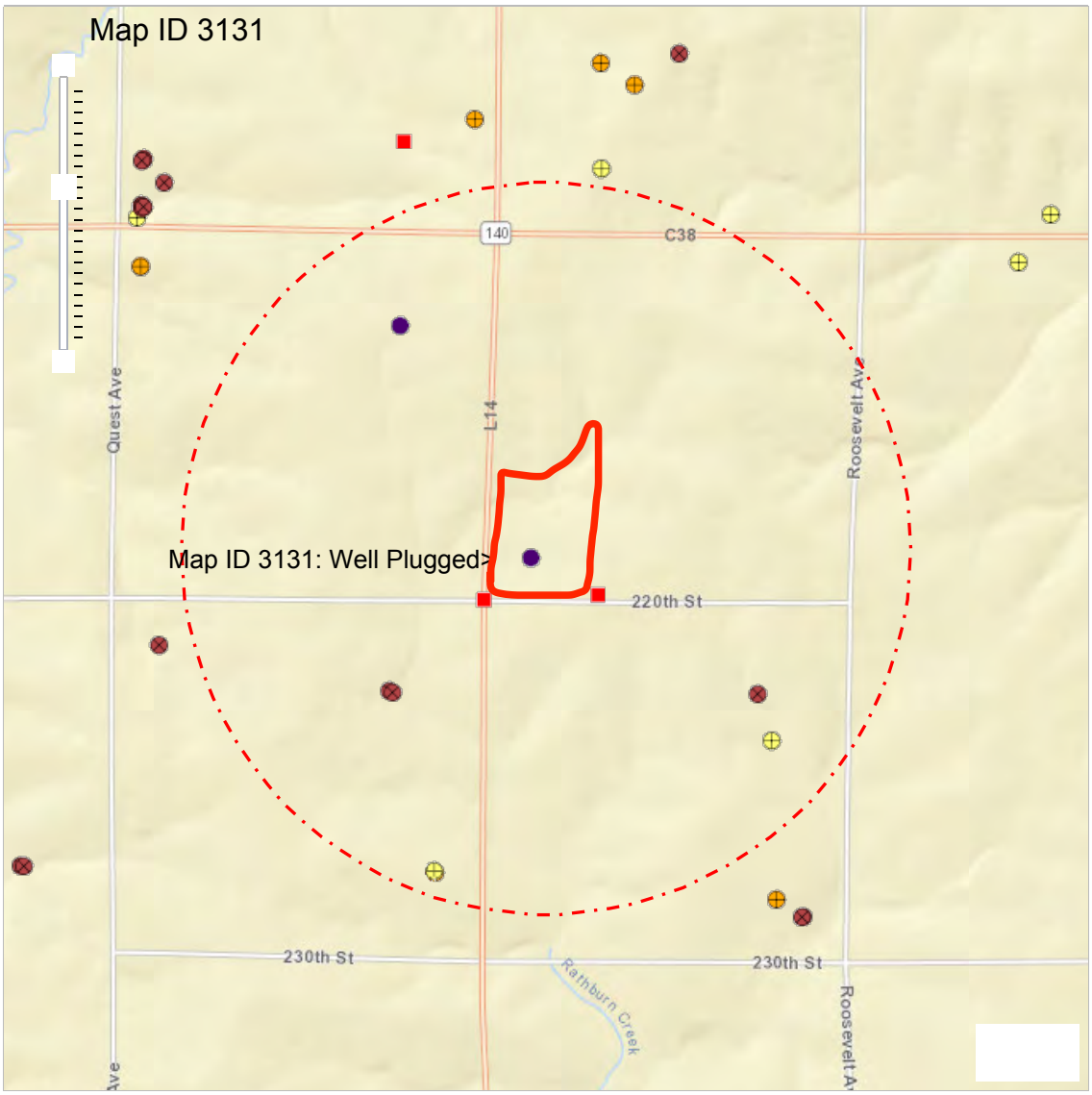
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 258077/4735878
Search Radius (mi): 1

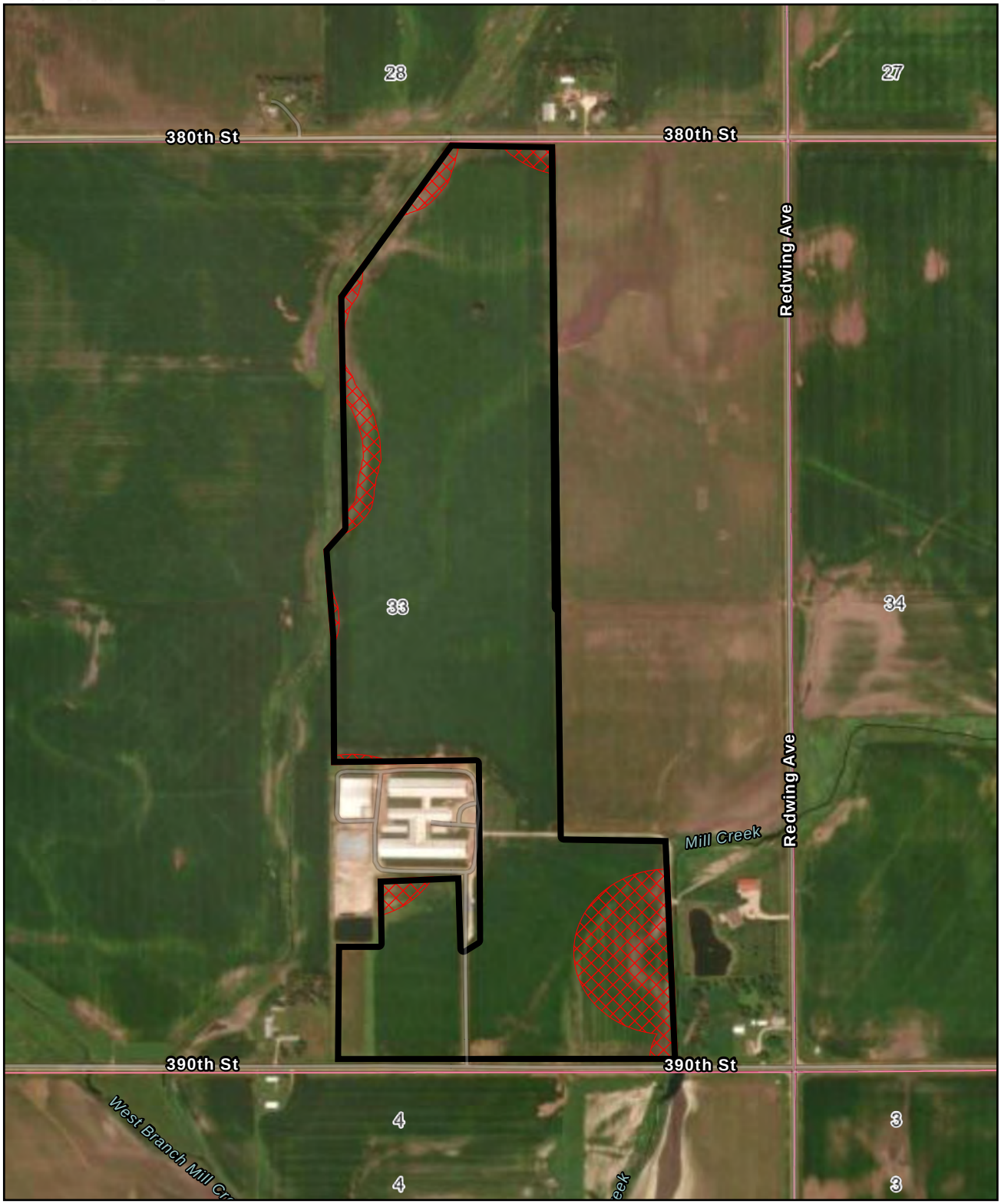


Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1771



Unsuitable for Land Application

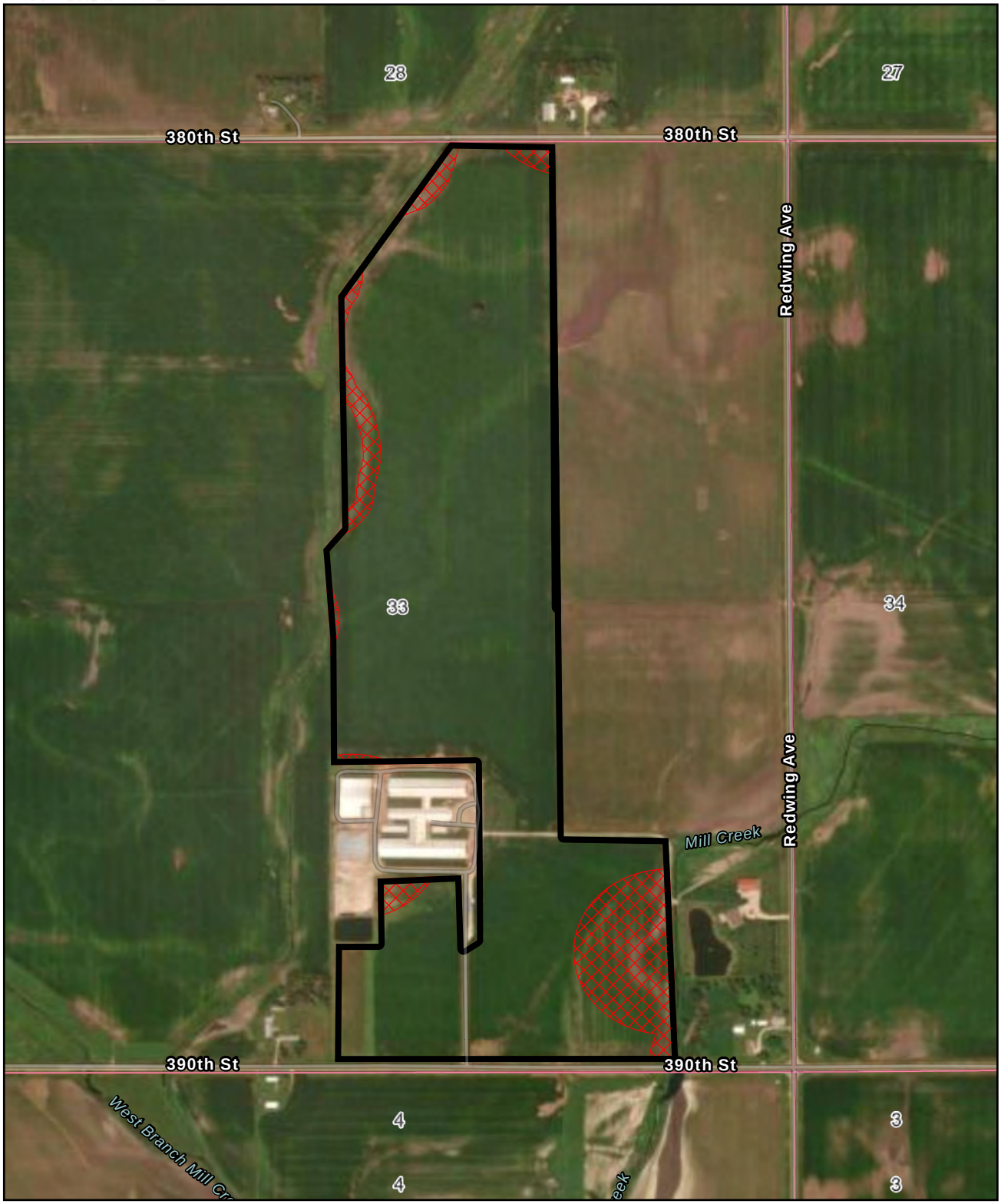
O'Brien County Ag Phone: (712)261-3151 Spreadable Acres: 135 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1771



Unsuitable for Land Application

O'Brien County Ag Phone: (712)261-3151 Gypsum Only

Permitted Acres: 135 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—O'Brien County, Iowa
(Site 1771)



Map Scale: 1:9,390 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 100 200 400 600

Feet
0 450 900 1800 2700

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
32	Spicer silty clay loam, 0 to 2 percent slopes	12.7	7.5%
91	Primghar silty clay loam, 0 to 2 percent slopes	27.0	16.0%
92	Marcus silty clay loam, 0 to 2 percent slopes	14.0	8.3%
310	Galva silty clay loam, 0 to 2 percent slopes	9.3	5.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	3.0	1.8%
311	Galva silty clay loam, stratified substratum, 0 to 2 percent slopes	74.9	44.3%
709	Fairhaven silt loam, 32 to 40 inches to sand and gravel, 0 to 2 percent slopes	0.7	0.4%
733	Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded	27.3	16.2%
Totals for Area of Interest		**168.9**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
32	Spicer silty clay loam, 0 to 2 percent slopes	5	12.7	7.5%
91	Primghar silty clay loam, 0 to 2 percent slopes	5	27.0	16.0%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	14.0	8.3%
310	Galva silty clay loam, 0 to 2 percent slopes	5	9.3	5.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	3.0	1.8%
311	Galva silty clay loam, stratified substratum, 0 to 2 percent slopes	5	74.9	44.3%
709	Fairhaven silt loam, 32 to 40 inches to sand and gravel, 0 to 2 percent slopes	3	0.7	0.4%
733	Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded	5	27.3	16.2%
Totals for Area of Interest			**168.9**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
32	Spicer silty clay loam, 0 to 2 percent slopes	0	12.7	7.5%
91	Primghar silty clay loam, 0 to 2 percent slopes	30	27.0	16.0%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	14.0	8.3%
310	Galva silty clay loam, 0 to 2 percent slopes	>200	9.3	5.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	3.0	1.8%
311	Galva silty clay loam, stratified substratum, 0 to 2 percent slopes	>200	74.9	44.3%
709	Fairhaven silt loam, 32 to 40 inches to sand and gravel, 0 to 2 percent slopes	>200	0.7	0.4%
733	Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded	0	27.3	16.2%
Totals for Area of Interest			**168.9**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Having issues? A prototype of a new version of Facility Explorer is available at https://facilityexplorer.iowadnr.gov/FacilityExplorer4/ x

Well Search

Well Search Report Site: 1771

Included in search	No. of wells	Database
X	0	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	1	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 280921/4774559
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
2169	65814	T96N, R41W, Sec. 28, SE, SE, NE	Calc. +/- 285m.	1071 (m)	13	unkn	Tesch, Michael	Drilling method: Dug; Known well depth

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes

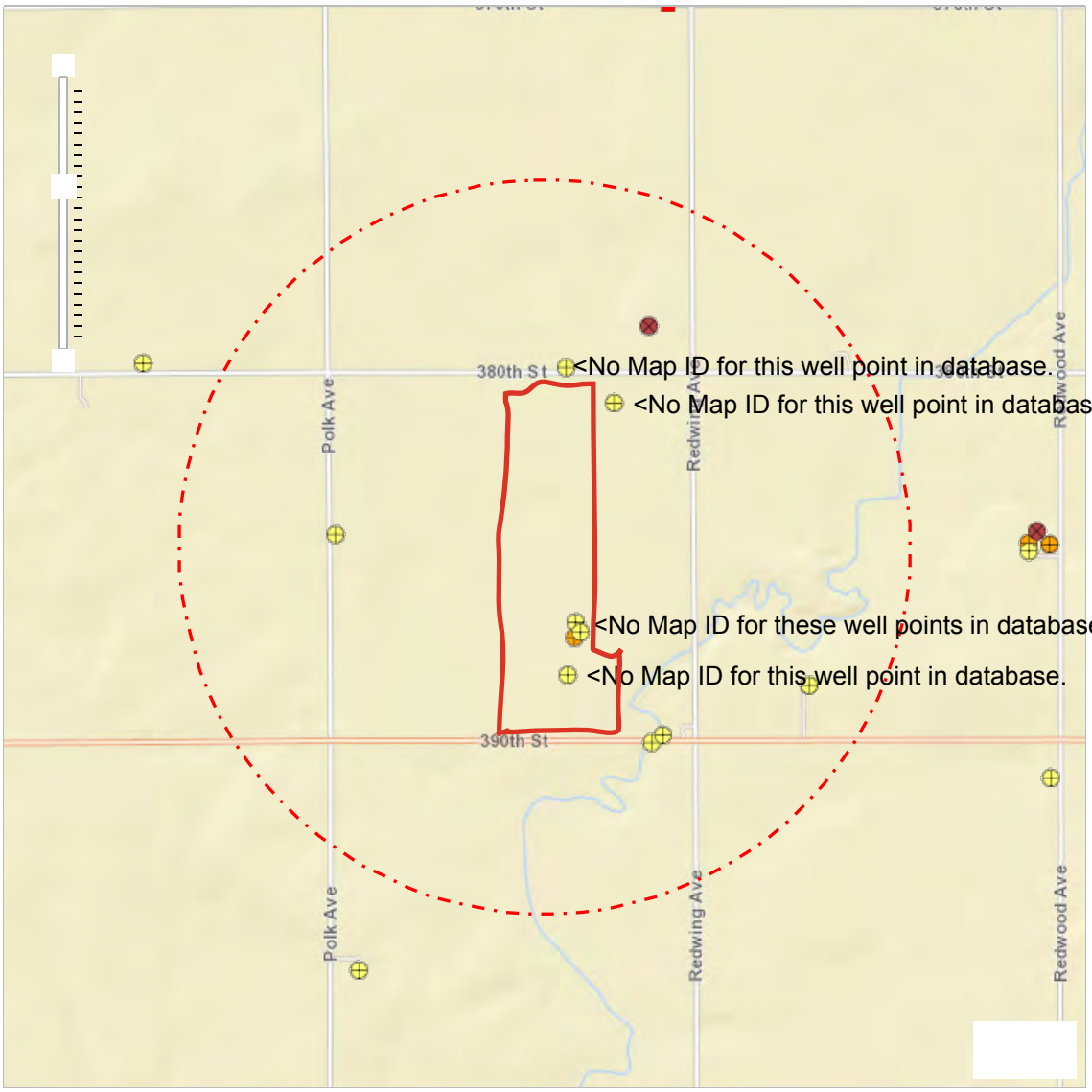
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 280921/4774559
Search Radius (mi): 1



Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1772



Unsuitable for Land Application

O'Brien County Ag Phone: (712)261-3151 Spreadable Acres: 66 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1772



Unsuitable for Land Application

O'Brien County Ag Phone: (712)261-3151 Gypsum Only

Permitted Acres: 66 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—O'Brien County, Iowa
(Site 1772)



Map Scale: 1:4,530 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: O'Brien County, Iowa
Survey Area Data: Version 30, Sep 9, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 5, 2021—Oct 15, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
77B	Sac silty clay loam, loam substratum, 2 to 5 percent slopes	1.8	2.2%
91	Primghar silty clay loam, 0 to 2 percent slopes	57.3	68.0%
91B	Primghar silty clay loam, 2 to 5 percent slopes	2.2	2.6%
92	Marcus silty clay loam, 0 to 2 percent slopes	14.6	17.3%
310	Galva silty clay loam, 0 to 2 percent slopes	5.6	6.7%
310B	Galva silty clay loam, 2 to 5 percent slopes	2.8	3.3%
Totals for Area of Interest		**84.3**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
77B	Sac silty clay loam, loam substratum, 2 to 5 percent slopes	5	1.8	2.2%
91	Primghar silty clay loam, 0 to 2 percent slopes	5	57.3	68.0%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	2.2	2.6%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	14.6	17.3%
310	Galva silty clay loam, 0 to 2 percent slopes	5	5.6	6.7%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	2.8	3.3%
Totals for Area of Interest			**84.3**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
77B	Sac silty clay loam, loam substratum, 2 to 5 percent slopes	122	1.8	2.2%
91	Primghar silty clay loam, 0 to 2 percent slopes	30	57.3	68.0%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	2.2	2.6%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	14.6	17.3%
310	Galva silty clay loam, 0 to 2 percent slopes	>200	5.6	6.7%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	2.8	3.3%
Totals for Area of Interest			**84.3**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Having issues? A prototype of a new version of Facility Explorer is available at https://facilityexplorer.iowadnr.gov/FacilityExplorer4/ x

Well Search

Print Help

Well Search Report Site: 1772

Included in search	No. of wells	Database
X	2	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	0	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 303180/4785988
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
179730	10238	T97N, R39W, 22, SE SW SW	Calc. +/- 470 ft.	1126 (m)	493	7/10/1958	Pike, Dorothy	Bedrock Depth: 355 Well Type: Private
180867	11567	T97N, R39W, 23, SE NW SE	Calc. +/- 470 ft.	707 (m)	538	8/1/1959	Russman, Art	Bedrock Depth: 290 Well Type: Private

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

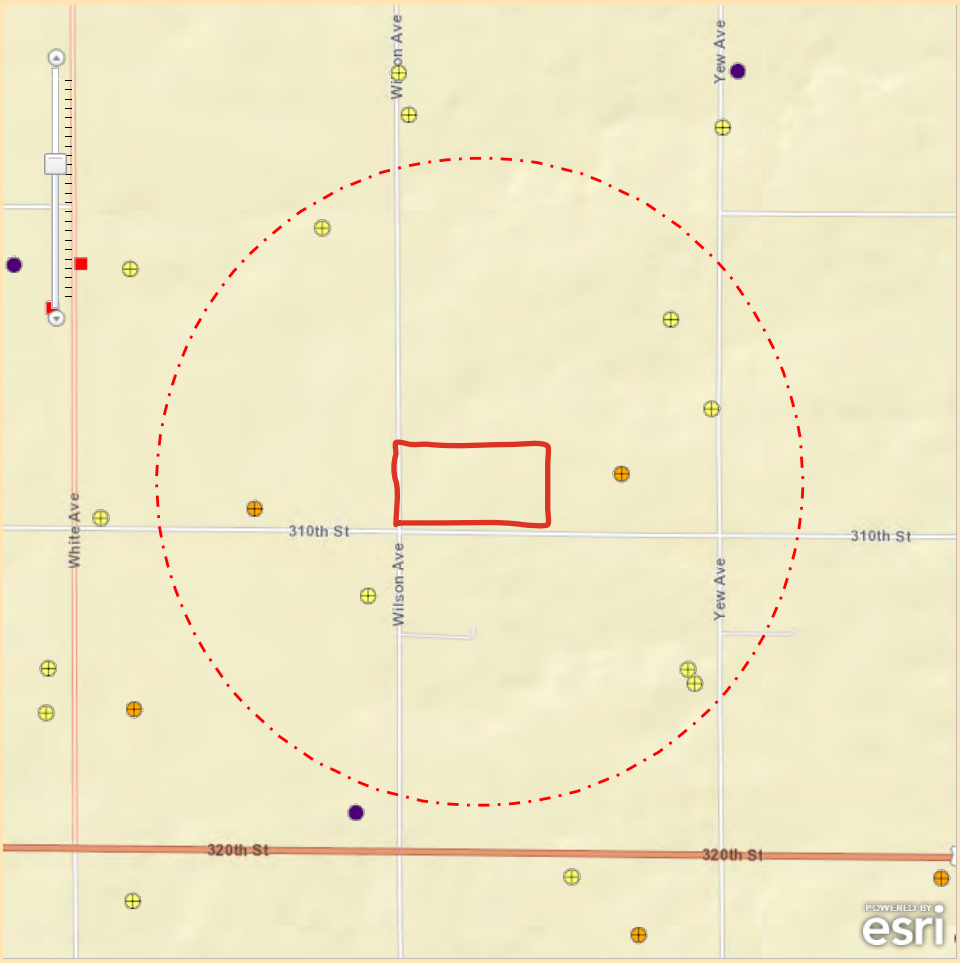
Municipal Wells And Intakes

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Ag Drainage Wells								
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 303180/4785988
Search Radius (mi): 1



Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1773



Unsuitable for Land Application

O'Brien County Ag Phone: (712)261-3151 Spreadable Acres: 75 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1773



Unsuitable for Land Application

O'Brien County Ag Phone: (712)261-3151 Gypsum Only

Permitted Acres: 75 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Having issues? A prototype of a new version of Facility Explorer is available at https://facilityexplorer.iowadnr.gov/FacilityExplorer4/ x

Well Search

Print Help

Well Search Report Site: 1773

Included in search	No. of wells	Database
X	1	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	0	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 291321/4785803
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
172487	3792	T97N, R40W, 29, NE SE SE	Calc. +/- 470 ft.	(m)	20	8/12/1949	Wright, C.C.	Bedrock Depth: 0 Well Type: Private

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes

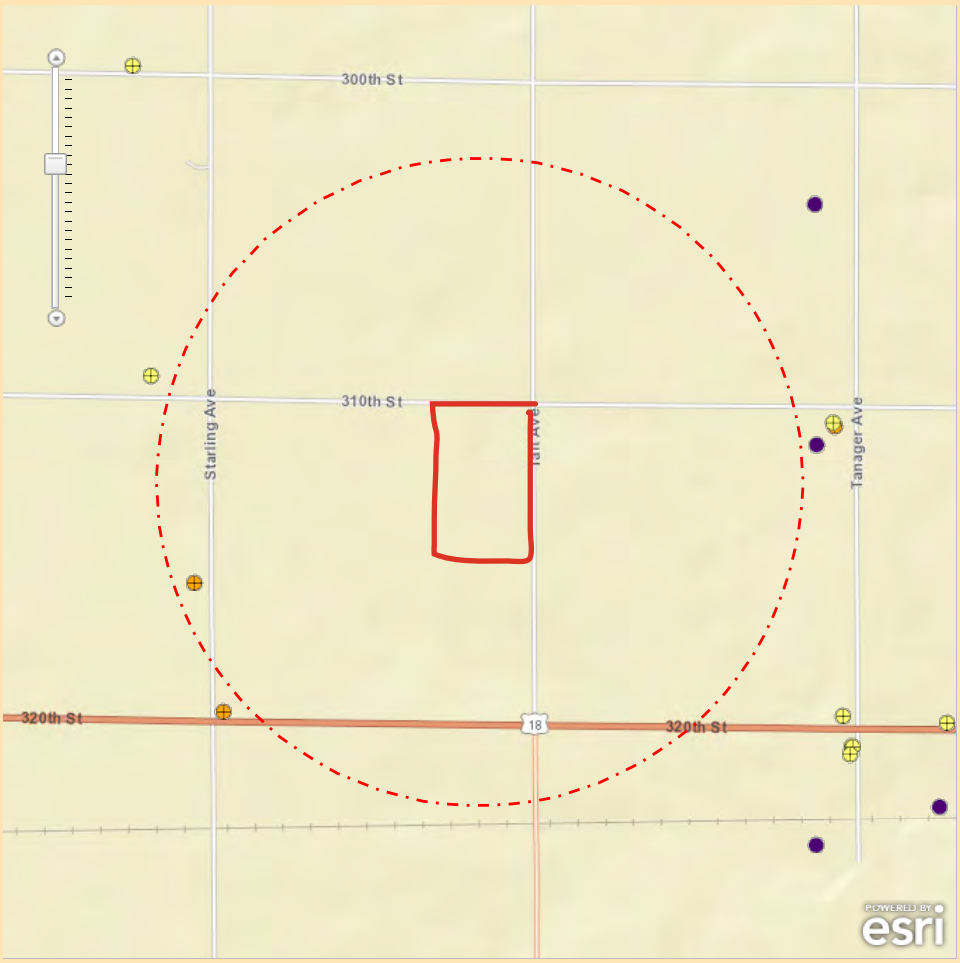
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 291321/4785803
Search Radius (mi): 1



Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1774



Unsuitable for Land Application

O'Brien County Ag Phone: (712)261-3151 Spreadable Acres: 69 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1774



Unsuitable for Land Application

O'Brien County Ag Phone: (712)261-3151 Gypsum Only

Permitted Acres: 69 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Having issues? A prototype of a new version of Facility Explorer is available at https://facilityexplorer.iowadnr.gov/FacilityExplorer4/ x

Well Search

Print Help

Well Search Report Site: 1774

Included in search	No. of wells	Database
X	0	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	0	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	5	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 287114/4789249
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
1995	26809	T97N, R41W, Sec. 13, NE, SE, SW	Calc. +/- 285m.	484 (m)	28	n.a.	Maris, Paul, John, & Rachel	Well plugged: 11/1/1996; Well type: unkn
1996	26808	T97N, R41W, Sec. 13, NE, SE, SW	Calc. +/- 285m.	482 (m)	30	n.a.	Maris, Paul, John, & Rachel	Well plugged: 11/1/1996; Well type: unkn
1997	26807	T97N, R41W, Sec. 13, NE, SE, SE	Calc. +/- 285m.	475 (m)	40	n.a.	Maris, Paul, John, & Rachel	Well plugged: 11/1/1996; Well type: unkn
2166	13206	T97N, R40W, Sec. 17, NW, SW, NW	Calc. +/- 140m.	1583 (m)	26	n.a.	O'Brien County	Well plugged: 9/17/1991; Well type: > 18" dia.
1999	19116	T97N, R40W, Sec. 7, SW, SW, SW	Calc. +/- 285m.	559 (m)	28	n.a.	Verhoef, Clarence	Well plugged: 4/26/1994; Well type: > 18" dia.

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information

Point
No records found from this data source

Municipal Wells And Intakes

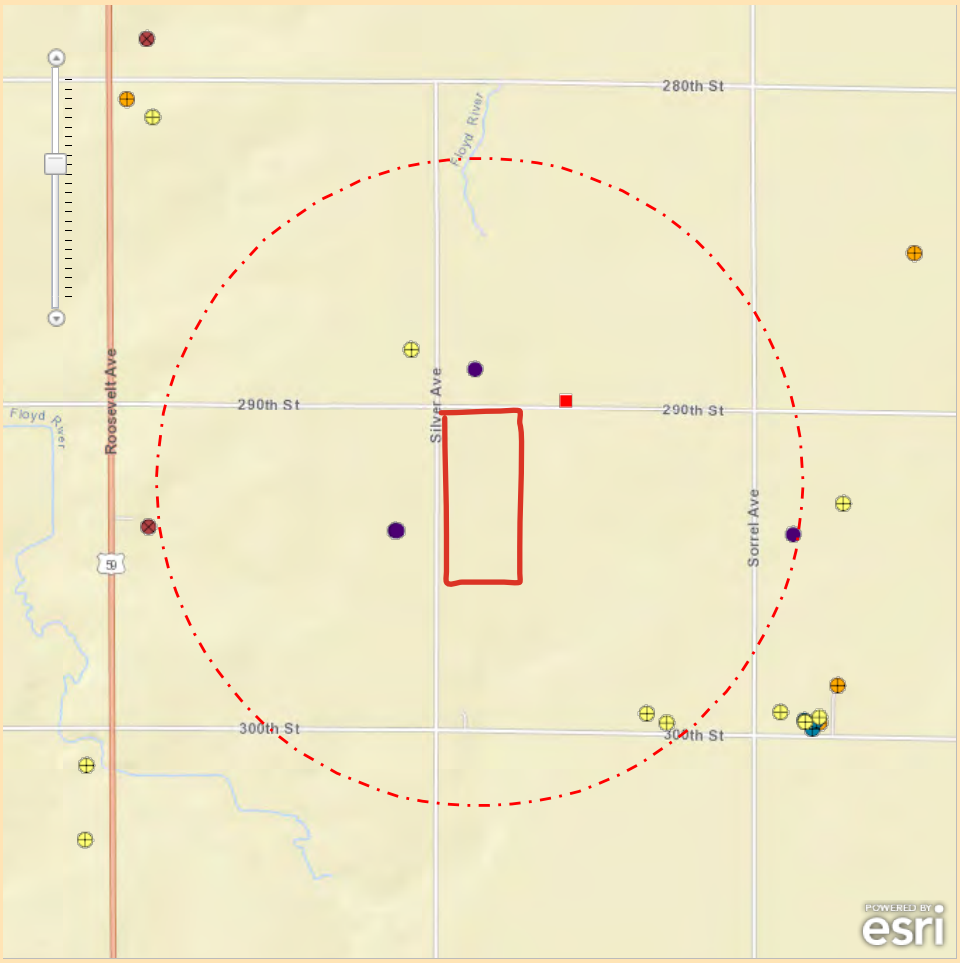
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 287114/4789249
Search Radius (mi): 1

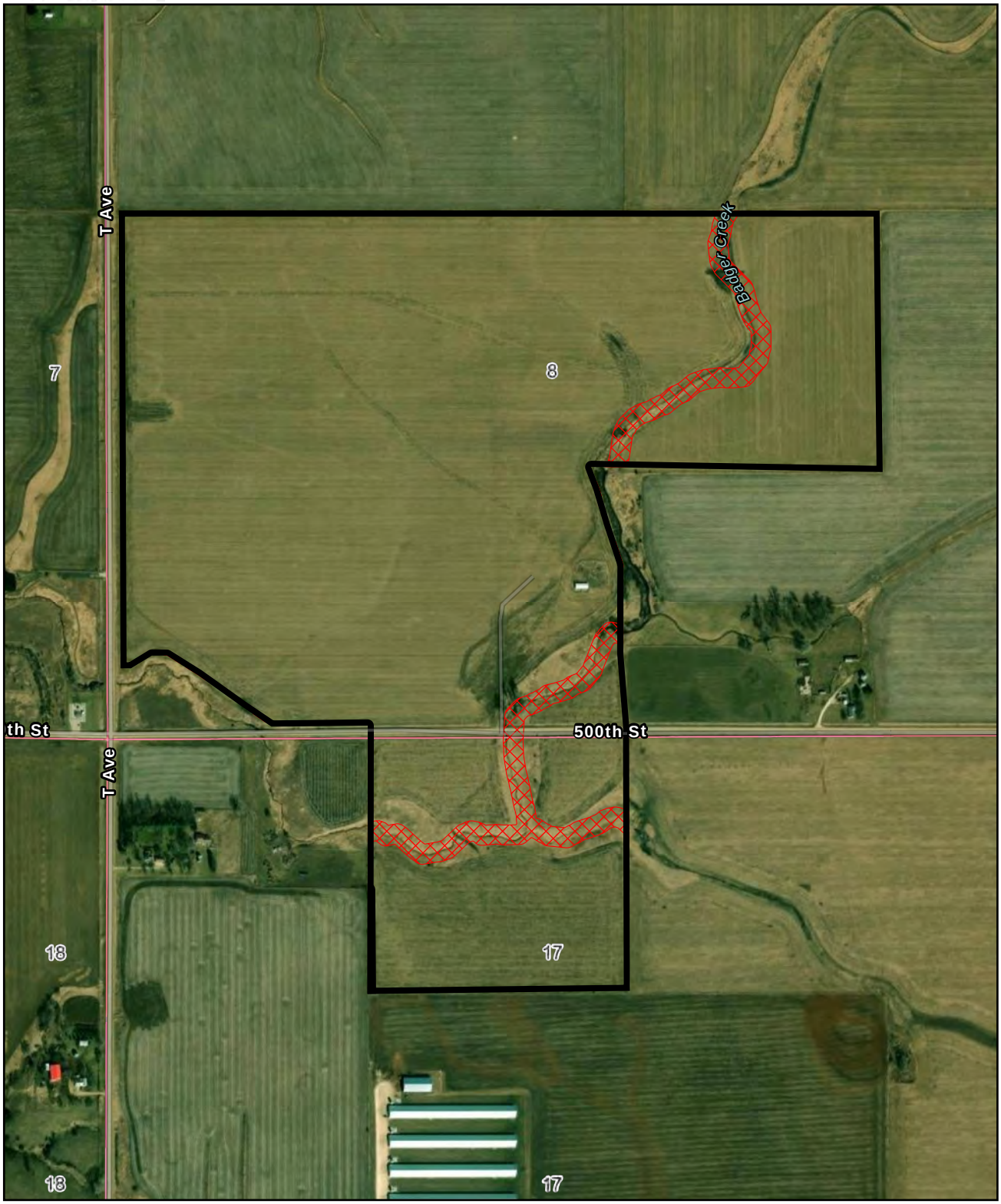


Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1775



Unsuitable for Land Application

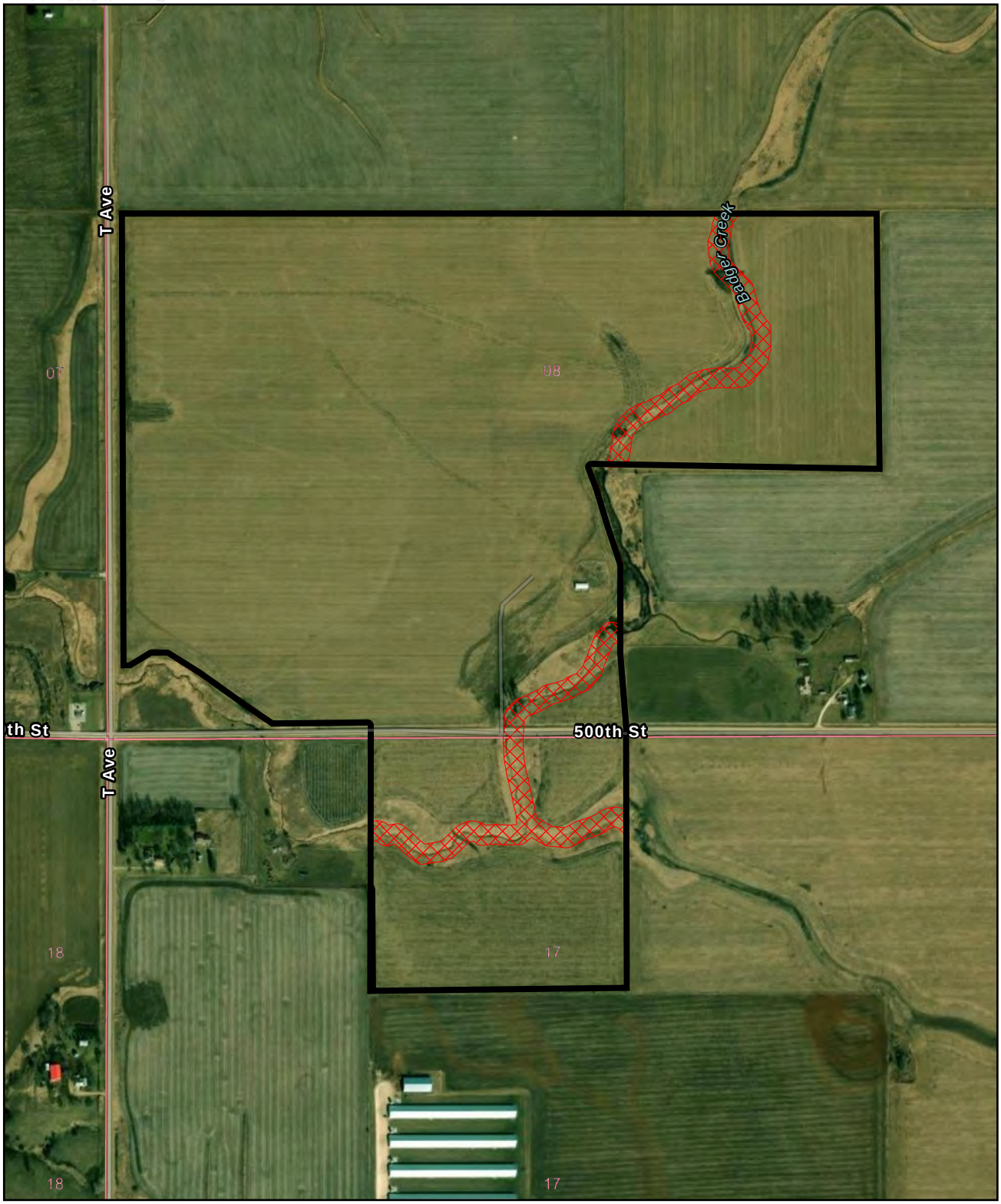
Ryan Husman Phone: (712)261-3151 Spreadable Acres: 219 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1775



Unsuitable for Land Application

Ryan Husman Phone: (712)261-3151 Gypsum Only

Permitted Acres: 219 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Having issues? A prototype of a new version of Facility Explorer is available at https://facilityexplorer.iowadnr.gov/FacilityExplorer4/ x

Well Search

Print Help

Well Search Report Site: 1775

Included in search	No. of wells	Database
X	2	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	18	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 297128/4741205
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
189599	20584	T92N, R39W, 7, SE SW SE SW	Calc. +/- 230 ft.	1068 (m)	205	1/1/1967	Carlson, V.G	Bedrock Depth: 0 Well Type: Private
178208	8229	T92N, R39W, 9, SW NW NW	Calc. +/- 470 ft.	1288 (m)	329	3/8/1957	Smith, Joseph R.	Bedrock Depth: 275 Well Type: Private

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
6251	9470	T92N, R39W, Sec. 18, NE, NW, NW	Calc. +/- 140m.	1254 (m)	30	unkn	Batten, Edna	Drilling method: Bored;
6749	728	T92N, R39W, Sec. 9, SW, SW, NE	Calc. +/- 285m.	1407 (m)	30	1940	Benson, Mark	Drilling method: Bored;
6751	739	T92N, R39W, Sec. 9, SW, SW, SE	Calc. +/- 285m.	1405 (m)	30	1940	Benson, Mark	Drilling method: Dug; Estimated well depth
6303	9472	T92N, R39W, Sec. 7, SE, SE, SW	Calc. +/- 140m.	824 (m)	200	unkn	Dilicker, Vicki	Drilling method: Drilled; Known well depth
6290	56537	T92N, R39W, Sec. 18, NE, NW, NE	Calc. +/- 285m.	1227 (m)	25	1950	Heofler, Edna	Drilling method: Bored; Known well depth
6287	56538	T92N, R39W, Sec. 18, NE, NW, SW	Calc. +/- 285m.	1240 (m)	25	1950	Heofler, Edna	Drilling method: Bored; Known well depth
6294	1675	T92N, R39W, Sec. 18, NE, NW, SW	Calc. +/- 285m.	1242 (m)	30	1940	Hoefler, Edna	Drilling method: Bored; Estimated well depth
6292	57277	T92N, R39W, Sec. 18, NE, NW, SW	Calc. +/- 285m.	1238 (m)	25	1950	Hoepler, Edna	Drilling method: Bored; Known well depth
6289	57276	T92N, R39W, Sec. 18, NE, NW, NE	Calc. +/- 285m.	1235 (m)	25	1950	Hoepler, Edna	Drilling method: Bored; Known well depth

6234	9457	T92N, R39W, Sec. 18, NW, SE, NW	Calc. +/- 140m.	(m)	35	1928	Letsche, John	Drilling method: Bored;
6102	17543	T92N, R39W, Sec. 7, NE, SE, SW	Calc. +/- 285m.	813 (m)	36	1960	Massengale, Terry L.	Drilling method: Bored; Estimated well depth
6107	17542	T92N, R39W, Sec. 7, NE, SE, SE	Calc. +/- 285m.	805 (m)	36	1960	Massengale, Terry L.	Drilling method: Bored; Estimated well depth
6209	67708	T92N, R39W, Sec. 7, SE, SW, NW	Calc. +/- 285m.	1064 (m)	300	1960	Mcalpine, John	Drilling method: Drilled; Estimated well depth
6103	67665	T92N, R39W, Sec. 7, NE, SE, NE	Calc. +/- 285m.	812 (m)	50	1940	Pitts, Mike	Drilling method: Bored; Estimated well depth
6106	67671	T92N, R39W, Sec. 7, NE, SE, SE	Calc. +/- 285m.	807 (m)	50	1940	Pitts, Mike	Drilling method: Bored; Estimated well depth
6100	56638	T92N, R39W, Sec. 7, NE, SE, NW	Calc. +/- 285m.	816 (m)	50	1940	Pitts, Mike	Drilling method: Bored; Estimated well depth
6101	67675	T92N, R39W, Sec. 7, NE, SE, SW	Calc. +/- 285m.	814 (m)	50	1940	Pitts, Mike	Drilling method: Bored; Known well depth
6133	9454	T92N, R39W, Sec. 7, SW, SE, SE	Calc. +/- 140m.	1372 (m)	40	1955	Rhea, George	Drilling method: Bored;

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes

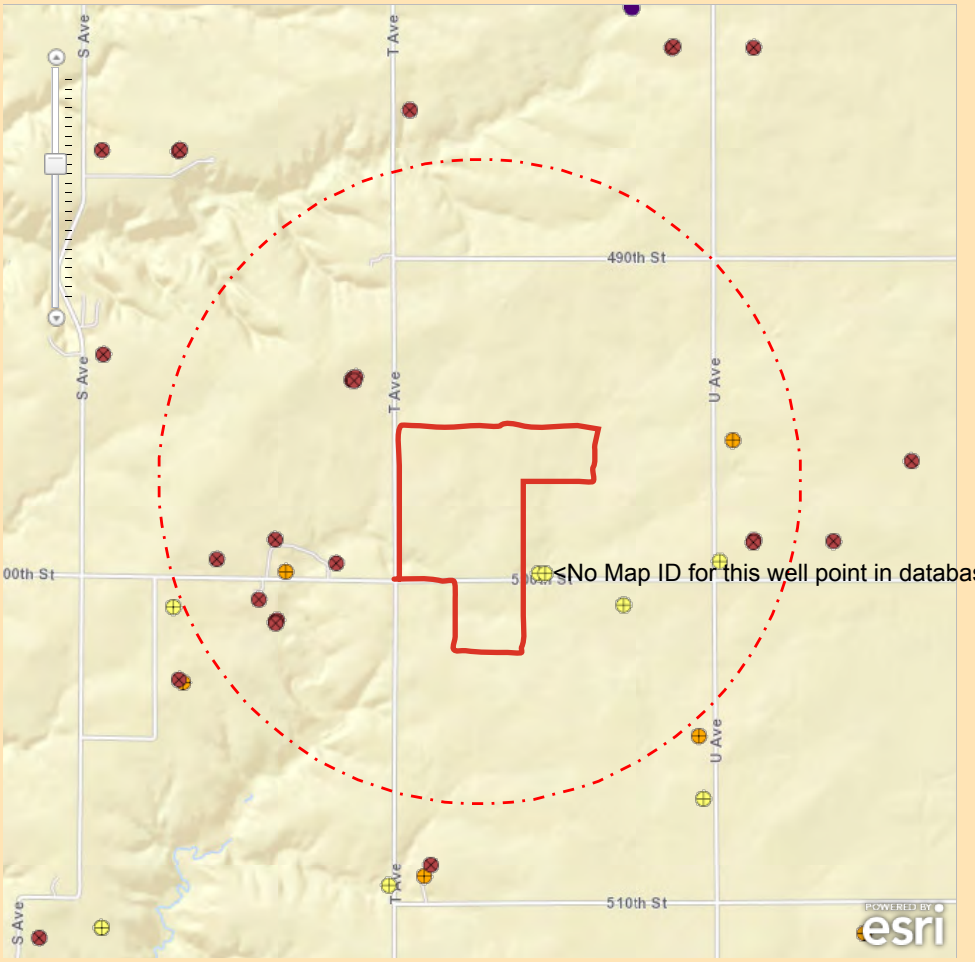
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 297128/4741205
Search Radius (mi): 1



<No Map ID for this well point in database.

Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1776



Unsuitable for Land Application

Ryan Husman Phone: (712)261-3151 Spreadable Acres: 158 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1776



Unsuitable for Land Application

Ryan Husman Phone: (712)261-3151 Gypsum Only

Permitted Acres: 158 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Having issues? A prototype of a new version of Facility Explorer is available at https://facilityexplorer.iowadnr.gov/FacilityExplorer4/ x

Well Search

Print Help

Well Search Report Site: 1776

Included in search	No. of wells	Database
X	1	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	9	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	4	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 277903/4731311
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
206838	33313	T91N, R41W, 17, NE SE	Calc. +/- 930 ft.	688 (m)	415	1/8/1990	Glassmaker, Bill	Bedrock Depth: 325 Well Type: Private

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
4684	1671	T91N, R41W, Sec. 7, SE, NE, SW	Calc. +/- 285m.	1422 (m)	55	1950	Bush, Alan	Drilling method: Drilled; Known well depth
4706	12741	T91N, R41W, Sec. 8, SW, NW, NW	Calc. +/- 140m.	1305 (m)	45	unkn	Bush, Bryan	Drilling method: Bored;
4825	25576	T91N, R41W, Sec. 8, SW, SE, NE	Calc. +/- 140m.	744 (m)	40	unkn	Bush, Bryan	Drilling method: Dug;
4678	56637	T91N, R41W, Sec. 8, NW, SW, SE	Calc. +/- 285m.	(m)	12	1930	Pose, Perry	Drilling method: Bored; Known well depth
4672	56648	T91N, R41W, Sec. 8, NW, SW, SW	Calc. +/- 285m.	1542 (m)	12	1930	Rose, Perry	Drilling method: Bored; Known well depth
4673	12747	T91N, R41W, Sec. 8, NW, SW, SW	Calc. +/- 285m.	1538 (m)	14	unkn	Rose, Perry	
4674	67654	T91N, R41W, Sec. 8, NW, SW, NE	Calc. +/- 285m.	1542 (m)	14	1930	Rose, Perry	Drilling method: Bored; Estimated well depth
4676	55461	T91N, R41W, Sec. 8, NW, SW, NE	Calc. +/- 285m.	1539 (m)	12	1930	Rose, Perry	Drilling method: Bored; Known well depth
4677	12745	T91N, R41W, Sec. 8, NW, SW, SW	Calc. +/- 285m.	1534 (m)	14	unkn	Rose, Perry	Drilling method: Bored;

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
4909	2391	T91N, R41W, Sec. 17, SW, NW, NW	Calc. +/- 285m.	783 (m)	6	n.a.	B Kohn, Lorne	Well plugged: 10/24/1989; Well type: < 18" dia.
5080	2392	T91N, R41W, Sec. 17, SE, NE, NW	Calc. +/- 285m.	863 (m)	10	n.a.	Kohar, Lorrce B	Well plugged: 10/24/1989; Well type: < 18" dia.
5082	132	T91N, R41W, Sec. 17, SE, NE, SW	Calc. +/- 140m.	865 (m)	10	n.a.	Kohn, Lorne B.	Well plugged: nil; Well type: > 18" dia.
4911	131	T91N, R41W, Sec. 17, SW, NW, SW	Calc. +/- 140m.	934 (m)	6	n.a.	Kohn, Lorne B.	Well plugged: nil; Well type: > 18" dia.

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes

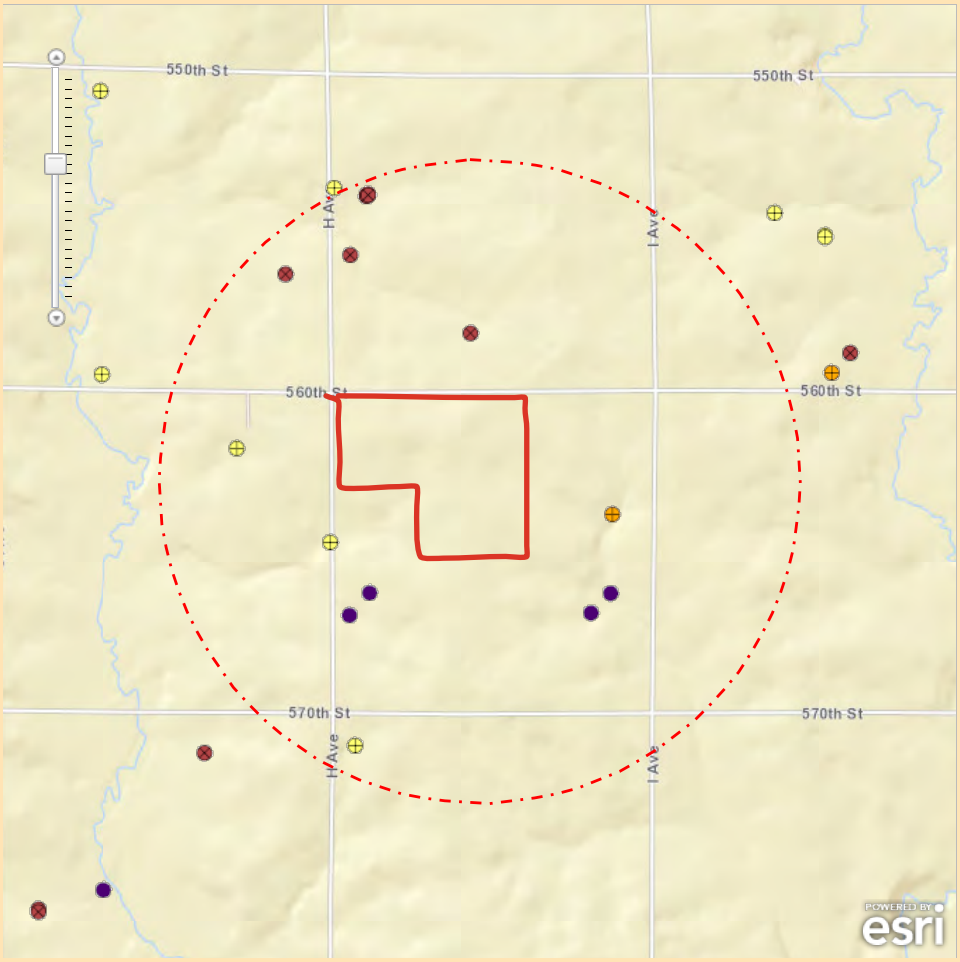
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 277903/4731311
Search Radius (mi): 1

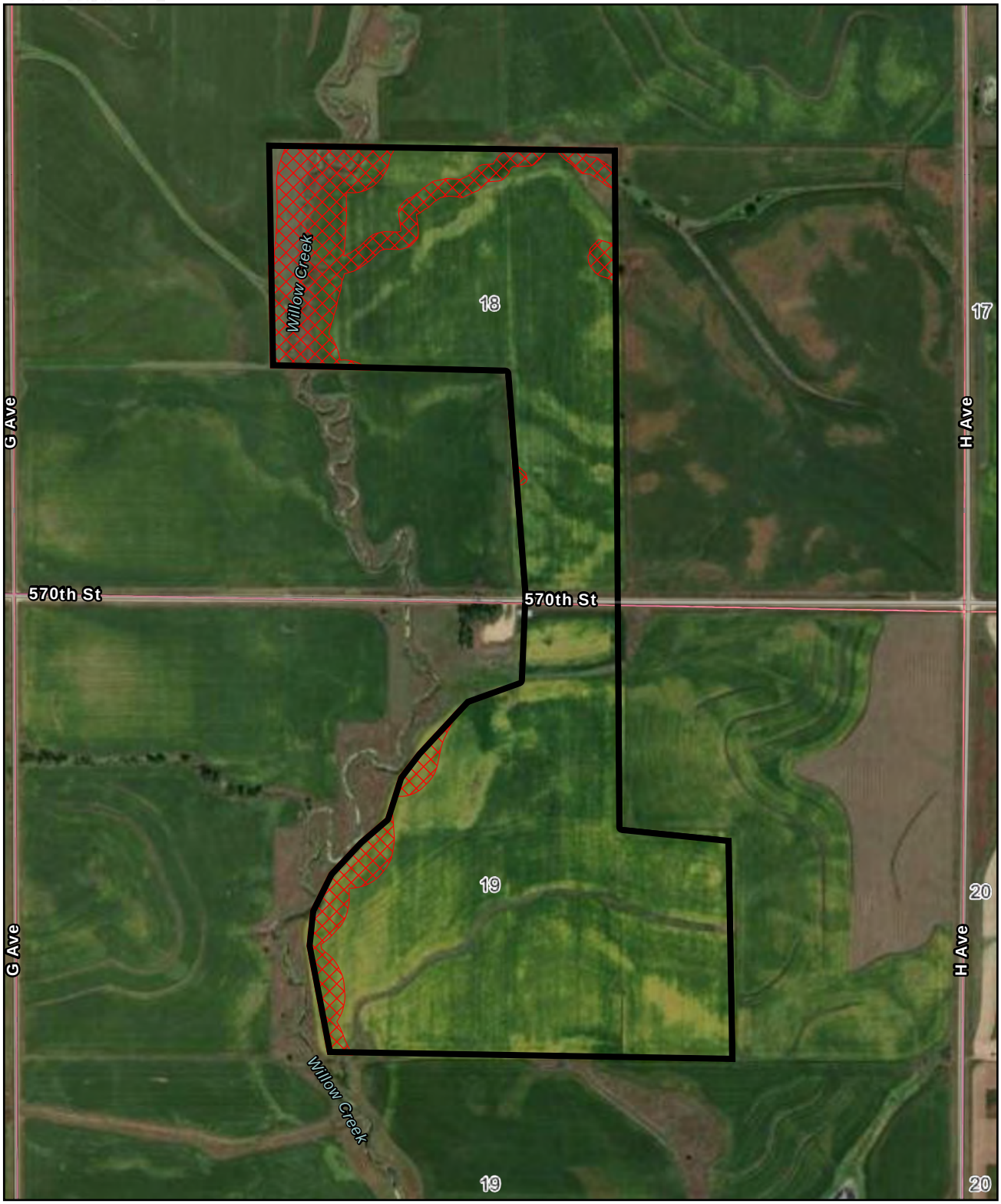


Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1777



Unsuitable for Land Application

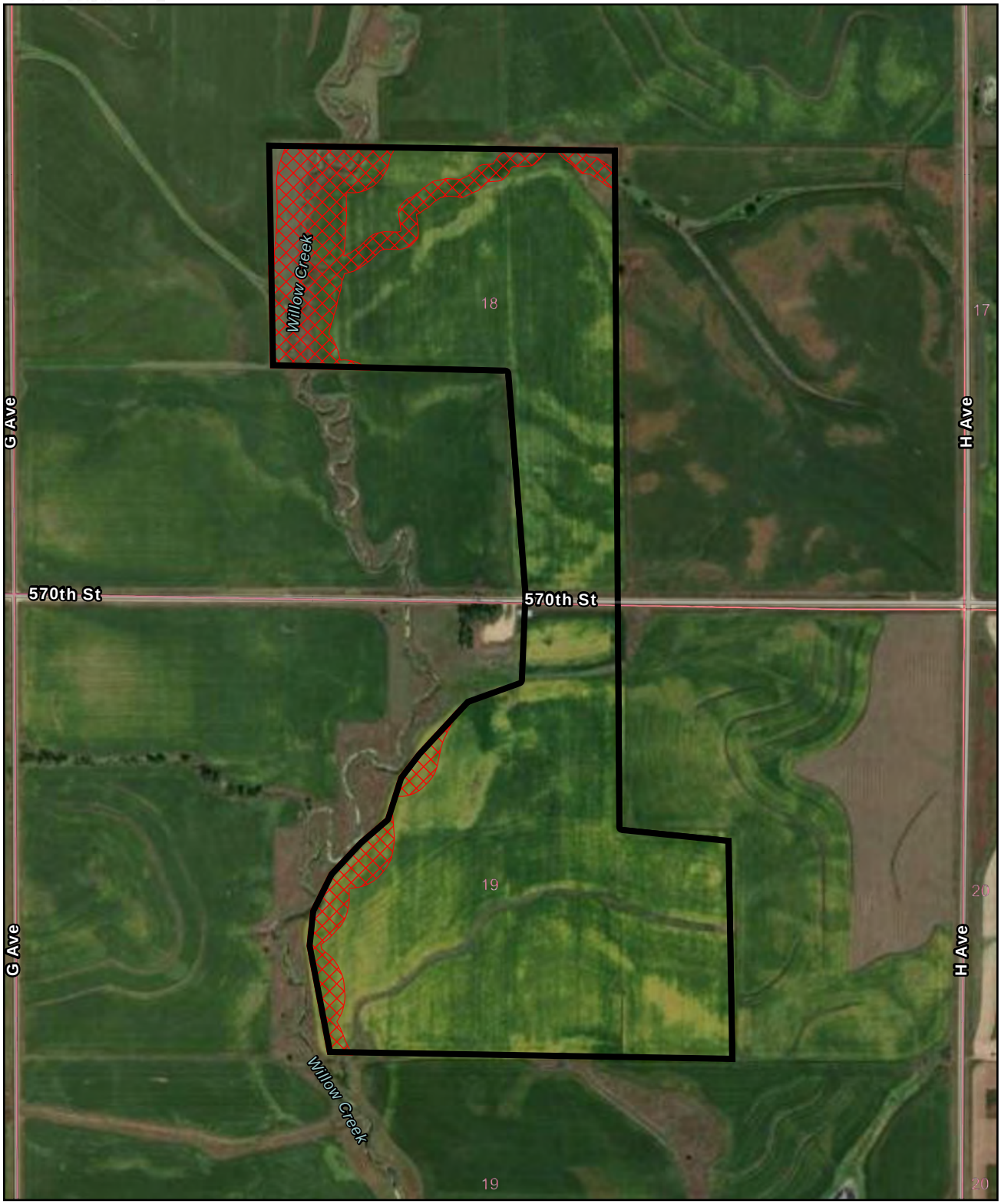
Ryan Husman Phone: (712)261-3151 Spreadable Acres: 154 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1777



Unsuitable for Land Application

Ryan Husman Phone: (712)261-3151 Gypsum Only

Permitted Acres: 154 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

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Well Search

Print Help

Well Search Report Site: 1777

Included in search	No. of wells	Database
X	0	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	1	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	2	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	4	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 276320/4730212
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
4929	56685	T91N, R41W, Sec. 19, NE, NW, SW	Calc. +/- 285m.	269 (m)	30	1940	Phipps, Brad	Drilling method: Bored; Estimated well depth

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
4953	11545	T91N, R41W, Sec. 19, SW, NW, NW	Calc. +/- 285m.	1193 (m)	30	3/13/1989	Unknown	Primary use: Domestic/ household
4958	612	T91N, R41W, Sec. 19, SW, NW, SW	Calc. +/- 285m.	(m)	30	unkn	Wilcox, Rex	Primary use: Domestic/ household

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
4909	2391	T91N, R41W, Sec. 17, SW, NW, NW	Calc. +/- 285m.	1159 (m)	6	n.a.	B Kohn, Lorne	Well plugged: 10/24/1989; Well type: < 18" dia.
4911	131	T91N, R41W, Sec. 17, SW, NW, SW	Calc. +/- 140m.	1016 (m)	6	n.a.	Kohn, Lorne B.	Well plugged: nil; Well type: > 18" dia.
4975	11479	T91N, R41W, Sec. 19, SW, NE, NW	Calc. +/- 140m.	957 (m)	25	n.a.	Stalcup Ag. Service, Boothby Farm, C/O	Well plugged: 3/22/1989; Well type: > 18" dia.
5313	4459	T91N, R41W, Sec. 20, SW, SW, NE	Calc. +/- 285m.	(m)	30	n.a.	Woltman, Irwin	Well plugged: 3/26/1990; Well type: > 18" dia.

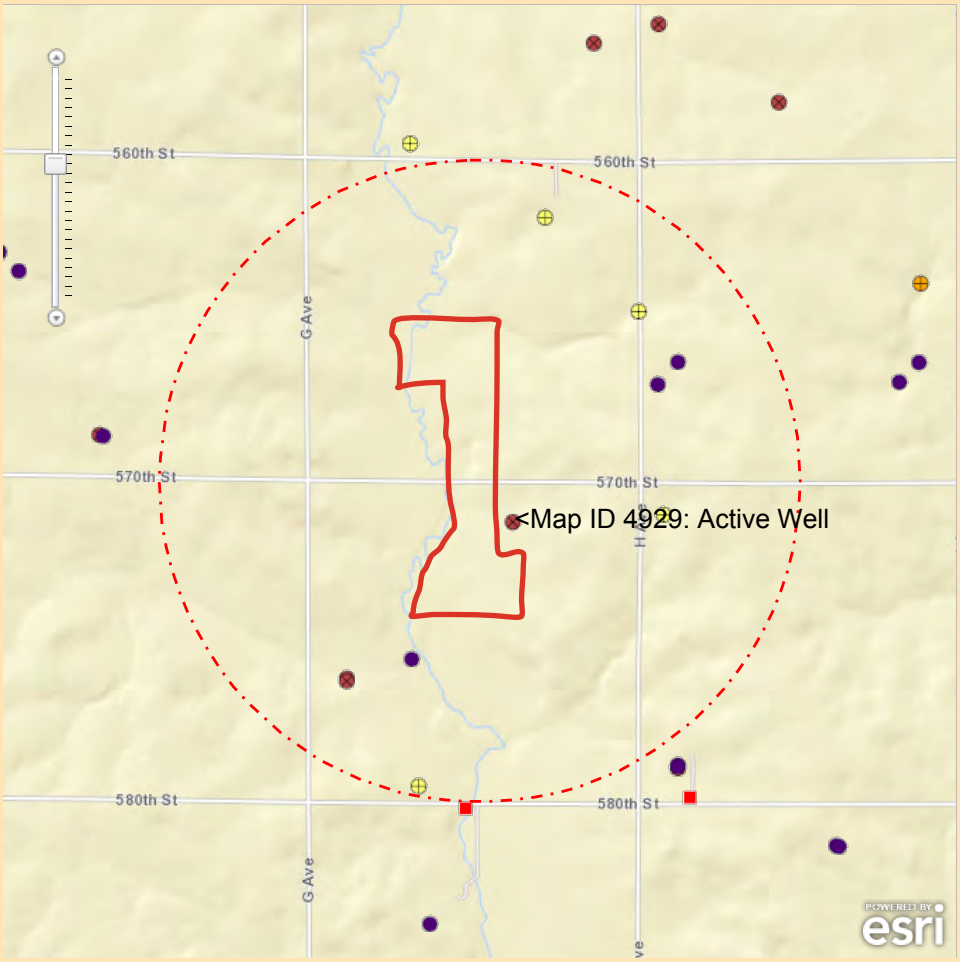
Water Use Facilities								
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes								
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Ag Drainage Wells								
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 276320/4730212
Search Radius (mi): 1

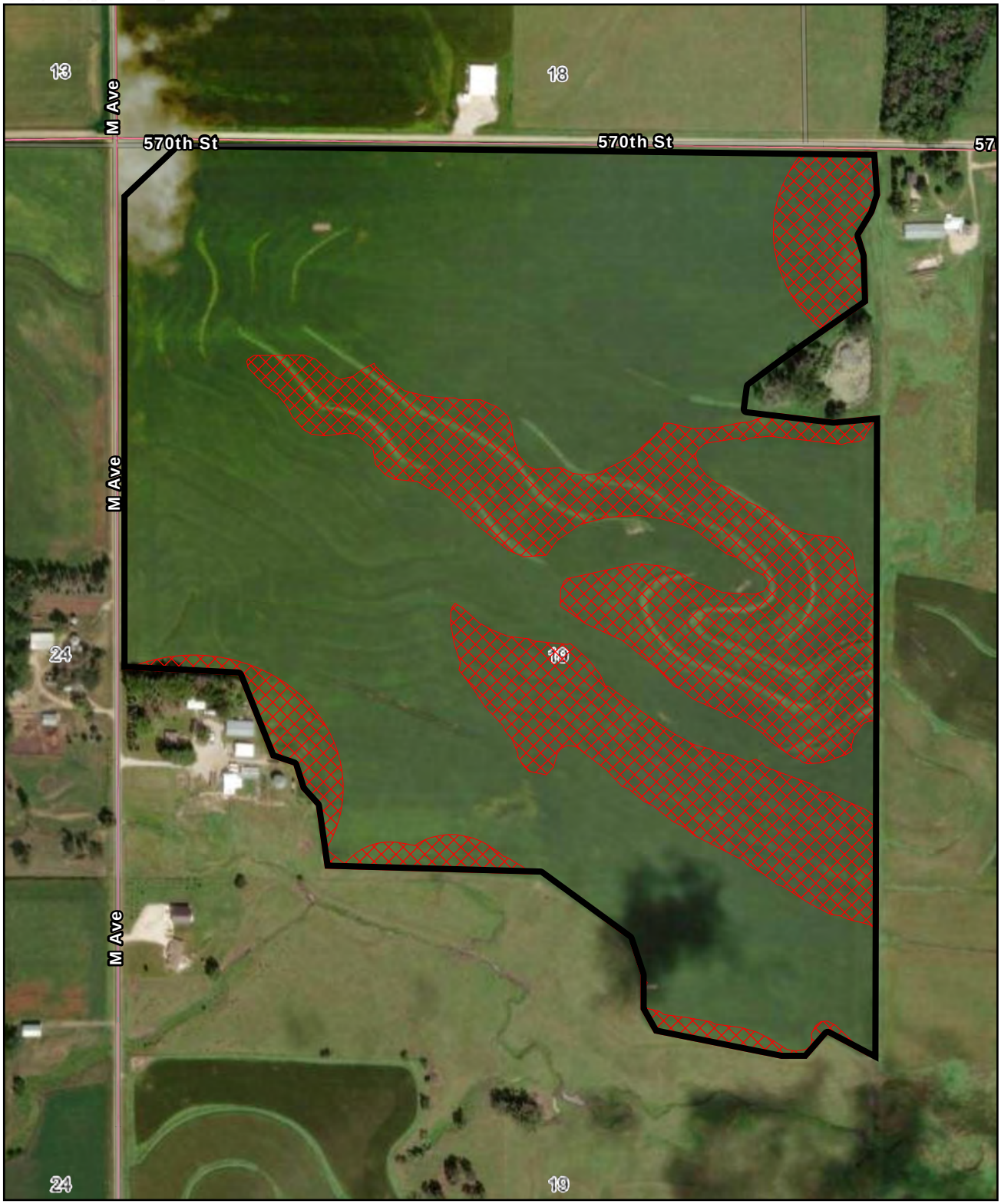


Map Notes:
- UST
- LUST
- Wells

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Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1778



Unsuitable for Land Application

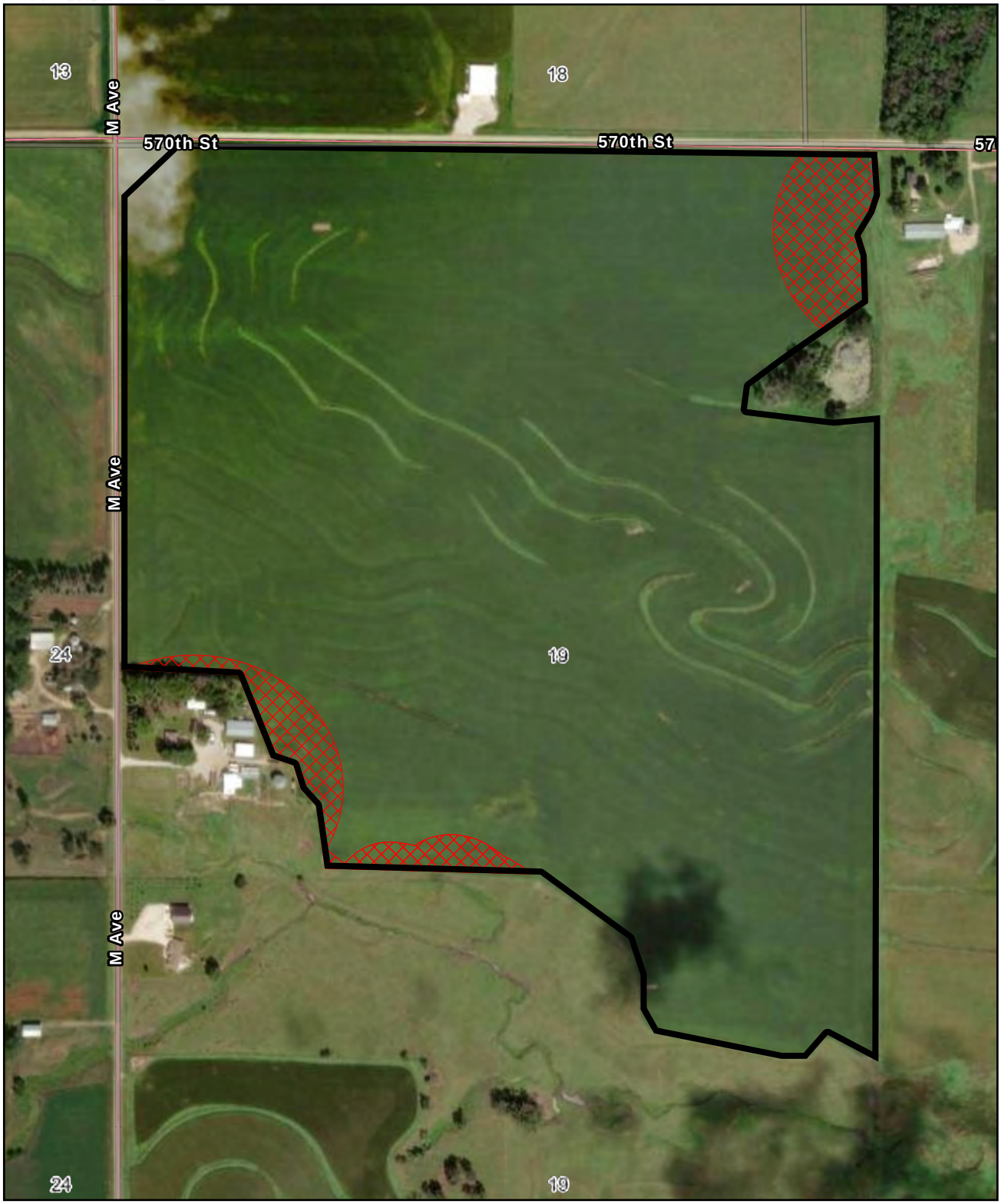
Ryan Husman Phone: (712)261-3151 Spreadable Acres: 112 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1778



Unsuitable for Land Application

Ryan Husman Phone: (712)261-3151 Gypsum Only

Permitted Acres: 150 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Having issues? A prototype of a new version of Facility Explorer is available at https://facilityexplorer.iowadnr.gov/FacilityExplorer4/ x

Well Search

Print Help

Well Search Report

Site: 1778

Included in search	No. of wells	Database
X	1	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	5	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	2	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 285463/4729557
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
196191	23532	T91N, R40W, 19, NE NW NW NW	Calc. +/- 230 ft.	599 (m)	241	1/14/1974	Robinson, Melvin	Bedrock Depth: 0 Well Type: Private

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
6399	10346	T91N, R40W, Sec. 19, NW, NW, SW	Calc. +/- 285m.	243 (m)	560	1970	Henke, Darwin	Drilling method: Drilled; Estimated well depth
7006	16694	T91N, R40W, Sec. 19, SE, SE, SW	Calc. +/- 140m.	(m)	15	1950	Rhea, Ken	Drilling method: Augered;
6557	9475	T91N, R40W, Sec. 18, SE, SE, SW	Calc. +/- 285m.	1201 (m)	40	unkn	Schwaller, Bill	Drilling method: Bored; Known well depth
6558	8044	T91N, R40W, Sec. 18, SE, SE, SE	Calc. +/- 285m.	1212 (m)	40	unkn	Schwaller, William	Drilling method: Bored; Estimated well depth
6559	24544	T91N, R40W, Sec. 18, SE, SE, NE	Calc. +/- 140m.	1351 (m)	36	unkn	Schwaller, William	Drilling method: Bored; Estimated well depth

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
6643	14657	T91N, R40W, Sec. 19, SW, NE, NW	Calc. +/- 140m.	551 (m)	45	n.a.	Husman, Ronald	Well plugged: 11/8/1991; Well type: > 18" dia.

6648	5798	T91N, R40W, Sec. 19, SW, NE, NW	Calc. +/- 140m.	560 (m)	45	n.a.	Husman, Ronald	Well plugged: 11/8/1991; Well type: > 18" dia.

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes

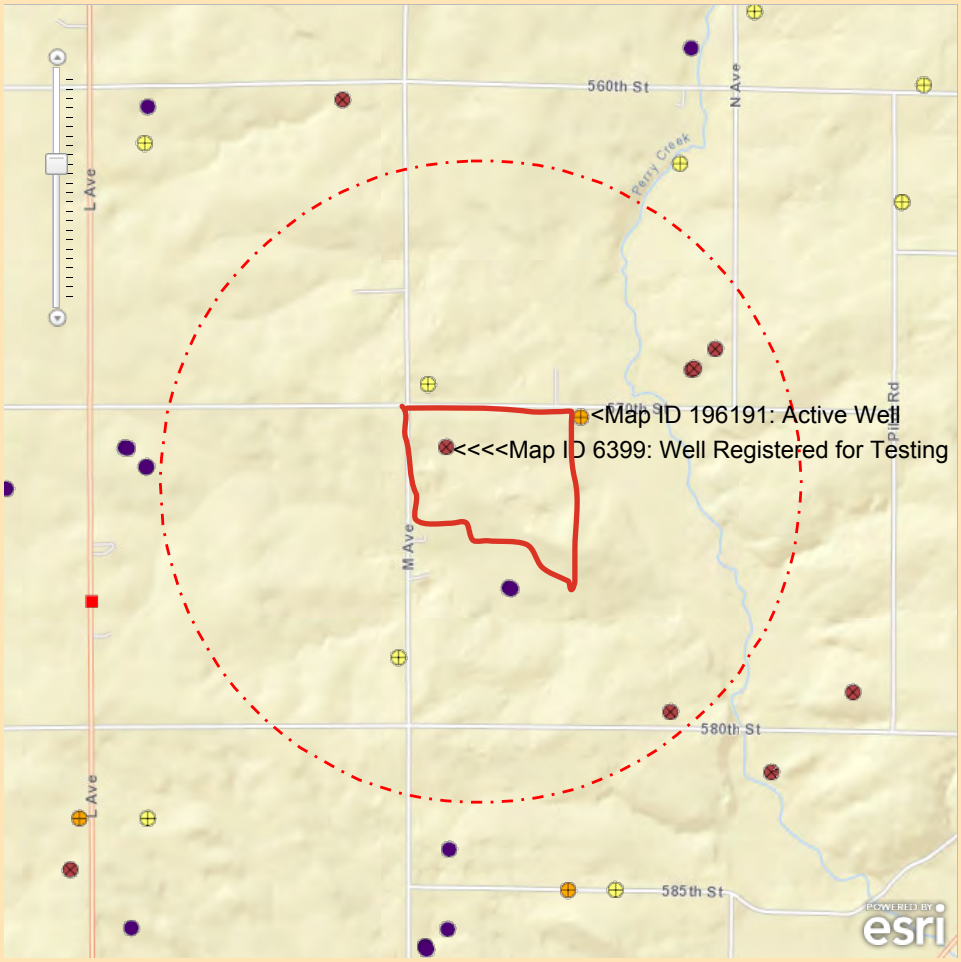
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 285463/4729557
Search Radius (mi): 1



Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1779



Unsuitable for Land Application

Tom Lehnhoff Phone: (712)261-3151 Spreadable Acres: 54 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1779



Unsuitable for Land Application

Tom Lehnhoff Phone: (712)261-3151 Gypsum Only

Permitted Acres: 54 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Having issues? A prototype of a new version of Facility Explorer is available at https://facilityexplorer.iowadnr.gov/FacilityExplorer4/ x

Well Search

Print Help

Well Search Report Site: 1779

Included in search	No. of wells	Database
X	1	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	0	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	1	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	2	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	4	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 273618/4731327
Search Radius (mi): 1

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
194922	37990	T91N, R42W, 11,	Calc. +/- 3730 ft.	1541 (m)	478	7/3/1972	Hohback, Harold	Bedrock Depth: 410 Well Type: Private

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
4681	67754	T91N, R42W, Sec. 13, SW, SE, SW	Calc. +/- 285m.	1152 (m)	40	1991	Herron, James	Drilling method: Bored;

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
4300	24550	T91N, R42W, Sec. 14, NW, NW, NW	Calc. +/- 140m.	1390 (m)	450	11/01/1997	Weber, John	Primary use: household
4350	24545	T91N, R42W, Sec. 14, NW, SW, SW	Calc. +/- 140m.	1286 (m)	450	unkn	Weber, John	Primary use: livestock

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
4497	118	T91N, R42W, Sec. 13, NW, SW, NW	Calc. +/- 140m.	345 (m)	15	n.a.	First Trust & Savings, First Trust & Saving	Well plugged: nil; Well type: > 18" dia.
4499	117	T91N, R42W, Sec. 13, NW, SW, NW	Calc. +/- 140m.	344 (m)	48	n.a.	First Trust & Savings, First Trust & Saving	Well plugged: nil; Well type: > 18" dia.
4561	2394	T91N, R42W, Sec. 13, NW, SW, NW	Calc. +/- 285m.	423 (m)	48	n.a.	First Trust & Savings, First Trust & Saving	Well plugged: 11/13/1989; Well type: < 18" dia.
4682	3986	T91N, R42W, Sec. 13, SW,	Calc. +/- 285m.	1169 (m)	unkn	n.a.	Mcwilliam, Milo	Well plugged: 1/2/1991; Well

		SE, SE						type: > 18" dia.

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes

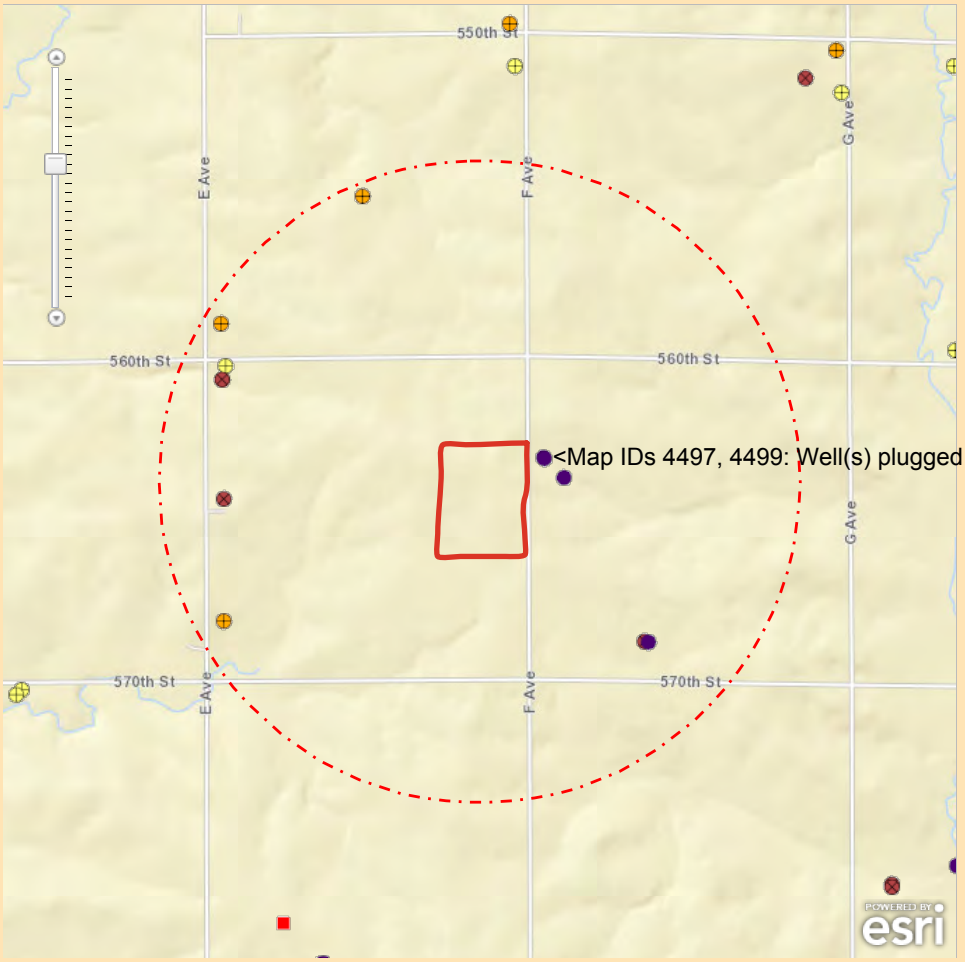
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/ Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 273618/4731327
Search Radius (mi): 1



Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Schroeder Farms

Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.

Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Adam Pigott - Agronomist for Schroeder Farms

Signed: Adam Pigott _____ Date: _____

Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Tom Lehnhoff
Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Signed: Tom Lehnhoff _____ Date: _____

Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: O'Brien County Ag

Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.

Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected
pH	2.3		Barium	11.4 mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected
Ammonia Nitrogen	0.02	%	Chromium	none detected
Phosphorus	0.1	%	Copper	none detected
Phosphate	0.2	%	Iron	444.1 mg/kg
Potassium	0.03	%	Lead	none detected
Potash	0.03	%	Manganese	5 mg/kg
Calcium	0.4	%	Mercury	0.42 mg/kg
Magnesium	0.02	%	Molybdenum	none detected
Sodium	0.2	%	Nickel	none detected
Sulfur	0.4	%	Selenium	none detected
Zinc	0.0004	%	Silver	none detected

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected
pH	4.8		Barium	0.7 mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected
Ammonia Nitrogen	0.2	%	Chromium	none detected
Phosphorus	0.4	%	Copper	2.7 mg/kg
Phosphate	1.0	%	Iron	59.3 mg/kg
Potassium	0.5	%	Lead	none detected
Potash	0.6	%	Manganese	3.8 mg/kg
Calcium	2.5	%	Mercury	none detected
Magnesium	0.3	%	Molybdenum	none detected
Sodium	0.1	%	Nickel	none detected
Sulfur	0.3	%	Selenium	none detected
Zinc	0.01	%	Silver	none detected

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Signed:  Adam Pigott - Agronomist for O'Brien County Ag

Date: _____

Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Ryan Husman

Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.

Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Adam Pigott - Agronomist for Ryan Husman

Signed:  Date: _____

Cargill Corn Milling Blair: Permit # 00-SDP-07-14P - IDNR New Site List P8 5.18.26

Site Name	Section Information/Site Detail	Township	County	State	Acres	Slope Acceptable Acres	Operator
1832	S 1/2 Sec 14 - 91N 41W	Rock	Cherokee	IA	151	151	Andrew Cronin
1833	NW 1/4 Sec 1 - 92N 42W	Amherst	Cherokee	IA	30	30	Andrew Cronin
1834	E 1/2 Sec 13 - 93N 41W	Liberty	Cherokee	IA	223	219	Andrew Cronin
1835	SE 1/4 Sec 21 - 92N 41W	Sheridan	Cherokee	IA	74	74	Andrew Cronin
1836	SW 1/4 Sec 32 - 94N 42W	Caledonia	O'Brien	IA	73	73	Andrew Cronin
1837	NW 1/4 Sec 22 - 92N 39W	Afton	Cherokee	IA	125	125	Andrew Cronin
1838	NE 1/4 Sec 29 - 89N 40W	Griggs	Ida	IA	60	60	Keldby Wulf
1839	NW 1/4 Sec 3 - 92N 41W	Sheridan	Cherokee	IA	127	127	Andrew Cronin

EXTended Ag Services, Inc.
202 South Highway 86
Lakefield, MN 56150
507.662.5005 phone
507.662.5105 fax
info@extendedag.com

April 24, 2026

Environmental Land Management

1602 11th Drive NE

Austin, MN 55912

RE: Review of Potential Land Application Sites – Cargill Blair: O'Brien, Ida, Cherokee County

Michael,

We have completed our review of the proposed land application sites for the Cargill facility in Blair, Nebraska. Thank you for the opportunity to provide our input on this project. The following field was included in this review, all acres are approximate:

COUNTY: Site Name	Acres
Obrien	**72.87**
Cargill Blair 1836	72.87
Ida	**75.83**
Cargill Blair 1838	75.83
Cherokee	**789.48**
Cargill Blair 1832	150.97
Cargill Blair 1833	30.21
Cargill Blair 1834	241.42
Cargill Blair 1835	81.76
Cargill Blair 1837	158.06
Cargill Blair 1839	127.08
Grand Total	**938.18**

Imagery provided by the National Ag Imagery Program (2024) was utilized to determine whether land application sites were in crop production, pasture/hay or non-farmed land. Overall, the land application sites have some limitations regarding slope steepness and length and general erosion potential.

There are approximately 938.2 acres available for land application of the industrial by-product. The land application site is dominated by silt clay loams and clay loams. According to the NRCS, 99.1% of the sites have acceptable slopes for the land application of the Cargill byproducts (0-9%). According to the NRCS, 19.2% of

the soils are classified as moderately eroded and 73.8% as slightly eroded. The NRCS classifies 17.2% of the soils as Highly Erodible and 1.2% as potentially Highly Erodible.

Field specific planning and/or residue management should be utilized when applying the byproduct to reduce the potential for movement offsite, on all sites. Application can and should be limited to areas with the lowest slope first and then be directed to areas the furthest from sensitive features such as water. The application of the byproduct is not expected to conflict with any Conservation Plans associated with the observed soils. A summary of slope ratings for the potential land application sites is included below:

Slope Range	Acres
0-1%	0.20
0-2%	254.96
0-5%	16.32
1-4%	95.83
2-4%	22.99
2-5%	375.64
5-9%	163.86
5-12%	0.95
5-14%	4.13
25-40%	3.30
Grand Total	**938.18**

Less than 0.1% of the soils identified as potential land application sites are listed by the NRCS soil survey as ponded, commonly or frequently flooded. It is assumed that agricultural drain tile has been installed, to varying degrees, on soils with poor or somewhat poor drainage. Flooding frequency is not expected to be a limiting factor for land application. However, land application on saturated soils should be avoided at all times. Further, land application on fields with higher slope ranges and predicted rainfall within 24 hours should be limited. A complete breakdown of flooding frequency ratings is shown below:

NRCS Flooding Frequency	Acres
NONE	856.03
OCCAS	81.95
PONDED	0.20
Grand Total	**938.18**

Determining appropriate land application rates for any by-product is dependent on the most restrictive variable. This can be either slope, erosivity, flooding potential, soil fertility levels, soil texture or byproduct characteristics, to name a few. The recommendations given herein are independent of any byproduct reviews and only consider the known field characteristics discussed in this review.

Application rates of approximately 15 Wet Tons per acre are appropriate for the field conditions of the land application sites discussed in this review. Appropriate measures should be taken to ensure minimal movement of the waste respect to adequate setbacks from sensitive features (surface water, karst features, conduits to water and high slopes) and land application rates. Special care should be given to applying wastes no less than 48 hours prior to rainfall events of greater than 0.5 inches. Wastes should be incorporated whenever possible,

if such practices do not conflict with existing NRCS conservation plans. Applications of organic by-products can result in improved soil fertility, tilth and structure, if properly managed. The soils and parent material on the proposed land application site are naturally acidic in nature. Agricultural lime should be applied to ensure the soil pH is above 6.0 prior to land application of any byproducts.

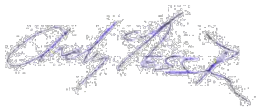
Summary

The specified land application material should be evaluated for constituents that pose a risk to the general health and welfare of the public. In general, land utilized for the land application of solid waste containing nutrients needed for pasture or crop production will benefit from such applications. Careful consideration should be taken to ensure nutrients are not applied at levels greater than crop need, once soils have reached the high fertility range as defined by Iowa State University.

In summary, we believe the field conditions are suitable for land application of solid wastes if done in accordance with all applicable rules, permits and laws. If you have any questions, please do not hesitate to contact us.

Sincerely,



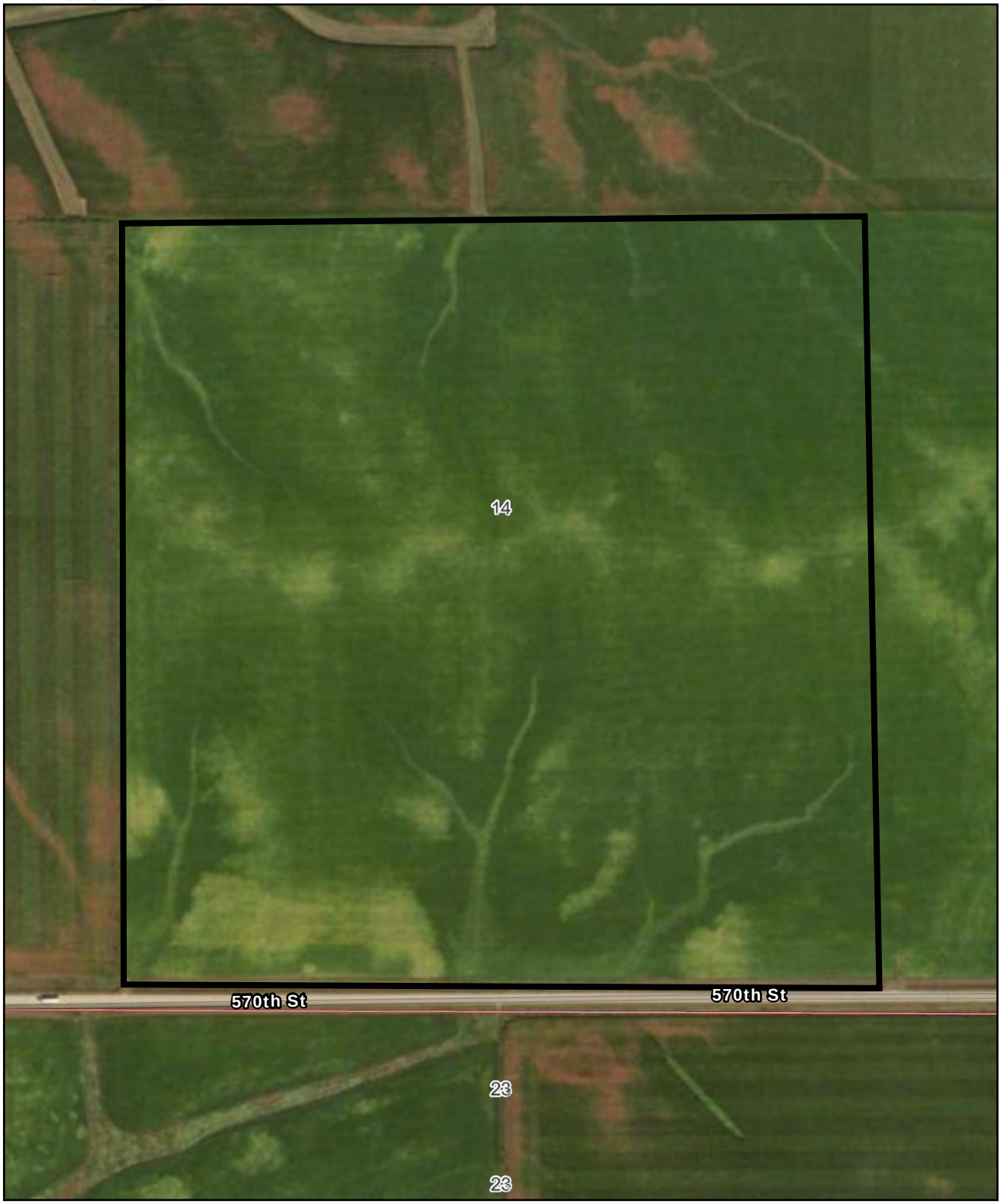


Jim Nesseth
Certified Agronomist
License #: 17118

Andrew Nesseth
Environmental Consultant
NRCS Technical Service Provider

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1832



Unsuitable for Land Application

Andrew Cronin Phone: (712)261-3151 Spreadable Acres: 151 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1832



Unsuitable for Land Application

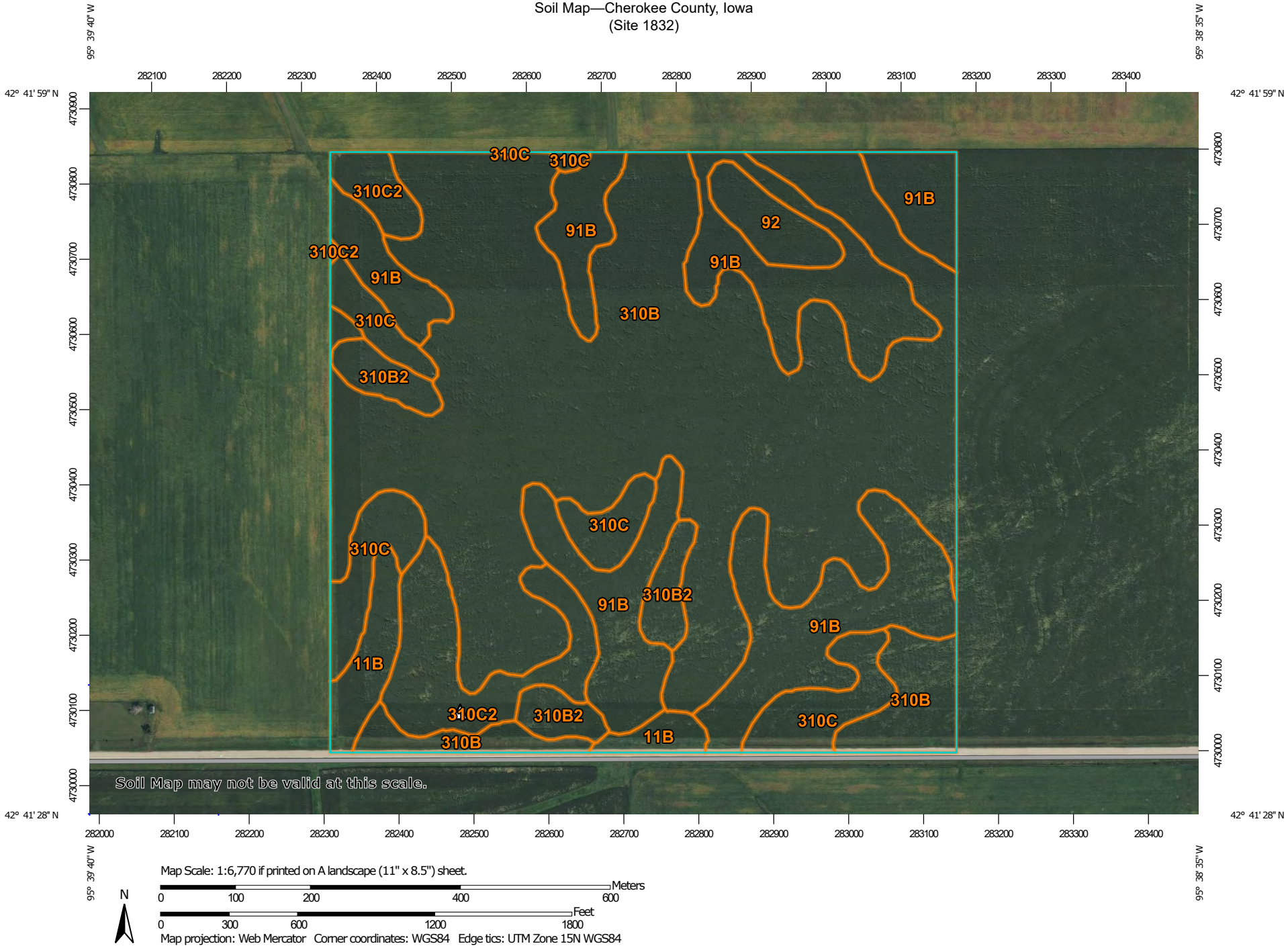
Andrew Cronin Phone: (712)261-3151 Gypsum Only

Permitted Acres: 151 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1832)



Map Scale: 1:6,770 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	4.7	2.8%
91B	Primghar silty clay loam, 2 to 5 percent slopes	38.5	23.2%
92	Marcus silty clay loam, 0 to 2 percent slopes	3.1	1.9%
310B	Galva silty clay loam, 2 to 5 percent slopes	91.8	55.4%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5.3	3.2%
310C	Galva silty clay loam, 5 to 9 percent slopes	11.8	7.1%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	10.5	6.3%
Totals for Area of Interest		**165.6**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	4.7	2.8%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	38.5	23.2%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	3.1	1.9%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	91.8	55.4%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5	5.3	3.2%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	11.8	7.1%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	10.5	6.3%
Totals for Area of Interest			**165.6**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	4.7	2.8%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	38.5	23.2%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	3.1	1.9%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	91.8	55.4%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	>200	5.3	3.2%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	11.8	7.1%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	10.5	6.3%
Totals for Area of Interest			**165.6**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Well Search Report Site: 1831

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
5638	42152	T91N, R41W, Sec. 13, NW, NW, NE	Calc. +/- 140m.	28	n.a.	Burkhalter, Ed
5799	40819	T91N, R41W, Sec. 23, NE, NW, NW	Calc. +/- 140m.	18	n.a.	Clark, Robert
5972	10026	T91N, R41W, Sec. 23, NE, SW, NE	Calc. +/- 140m.	unkn	n.a.	Trapp, Larry
5999	10027	T91N, R41W, Sec. 23, NW, SE, SE	Calc. +/- 1135m.	unkn	n.a.	Trapp, Larry
6000	10028	T91N, R41W, Sec. 23, NE, SW, SW	Calc. +/- 1135m.	unkn	n.a.	Trapp, Larry
6062	2376	T91N, R41W, Sec. 24, NW, NW, NW	Calc. +/- 285m.	30	n.a.	Fee, Williard H
6066	2375	T91N, R41W, Sec. 24, NW, NW, NE	Calc. +/- 285m.	36	n.a.	H Fee, William
6094	2726	T91N, R41W, Sec. 23, SE, NW, NW	Calc. +/- 285m.	24	n.a.	

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Graham, Robert M
6113	107	T91N, R41W, Sec. 24, NW, NW, SE	Calc. +/- 140m.	25	n.a.	Fee, Williard H.
6114	106	T91N, R41W, Sec. 24, NW, NW, SE	Calc. +/- 140m.	36	n.a.	Fee, Williard H.
6115	108	T91N, R41W, Sec. 24, NW, NW, SE	Calc. +/- 140m.	30	n.a.	Fee, Williard H.

Statistics: Registered abandoned wells

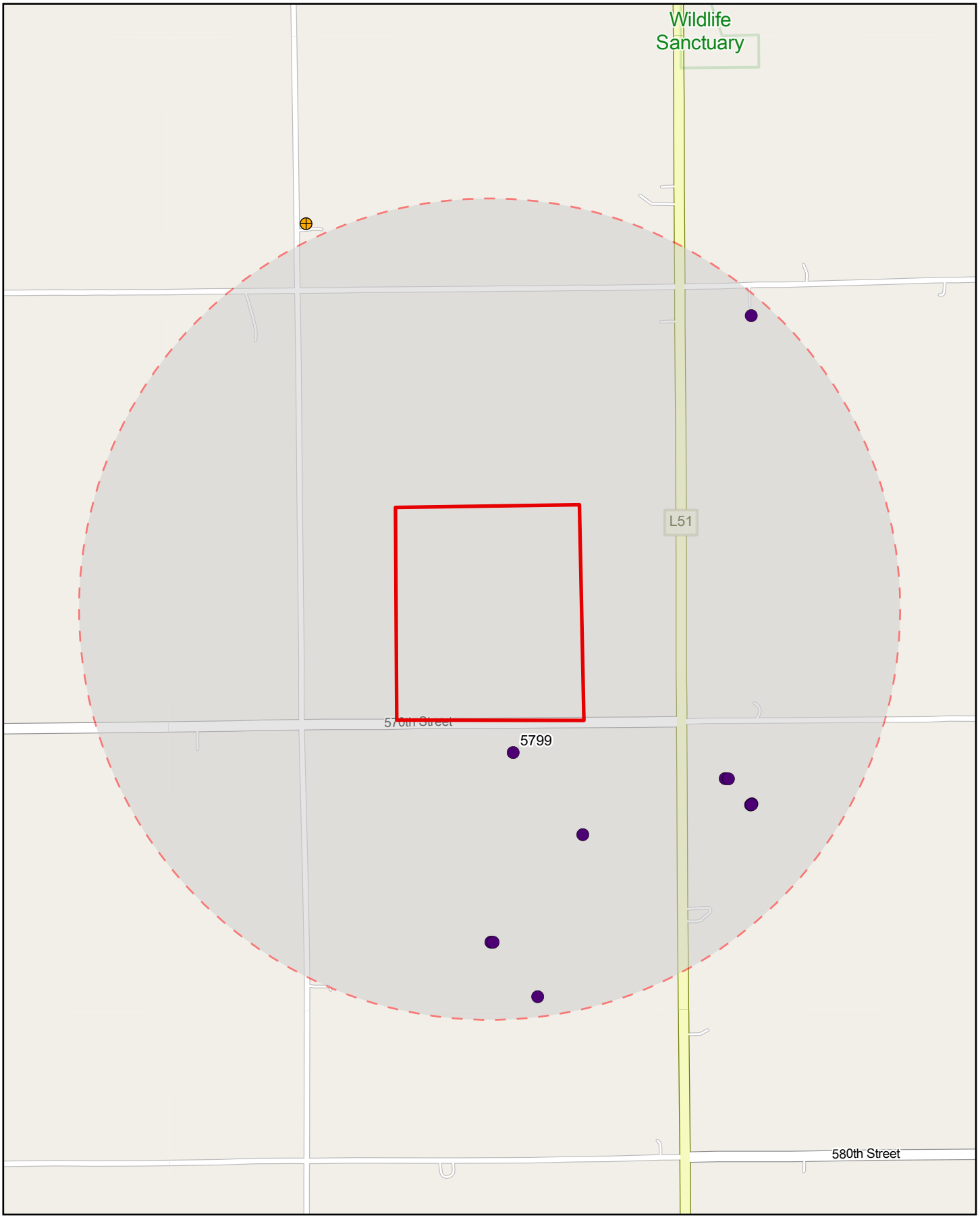
Count: 11

Report Totals

Count: 11

Date Exported: 5/12/2026 10:25 AM

Site: 1832
Subject: XY UTM Coordinates: 15T 282723 4730438
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1833



Unsuitable for Land Application

Andrew Cronin Phone: (712)261-3151 Spreadable Acres: 30 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1833



Unsuitable for Land Application

Andrew Cronin Phone: (712)261-3151 Gypsum Only

Permitted Acres: 30 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1833)



Map Scale: 1:2,910 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 40 80 160 240

Feet
0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
91B	Primghar silty clay loam, 2 to 5 percent slopes	1.3	4.0%
92	Marcus silty clay loam, 0 to 2 percent slopes	4.2	12.6%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0.9	2.6%
310	Galva silty clay loam, 0 to 2 percent slopes	3.8	11.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	19.4	58.2%
310C	Galva silty clay loam, 5 to 9 percent slopes	3.7	11.1%
Totals for Area of Interest		**33.3**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	1.3	4.0%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	4.2	12.6%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	0.9	2.6%
310	Galva silty clay loam, 0 to 2 percent slopes	5	3.8	11.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	19.4	58.2%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	3.7	11.1%
Totals for Area of Interest			**33.3**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	1.3	4.0%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	4.2	12.6%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	0.9	2.6%
310	Galva silty clay loam, 0 to 2 percent slopes	>200	3.8	11.5%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	19.4	58.2%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	3.7	11.1%
Totals for Area of Interest			**33.3**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1832

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
156365	26382	T93N, R42W, 36, SE SE SW SW	Calc. +/- 230 ft.	375		Cherokee Rwd
160324	91112	T93N, R42W, 35, NW	Calc. +/- 3730 ft.	0		Lucas-183
179884	10494	T93N, R42W, 36, SE SW SW SE SW	Calc. +/- 115 ft.	373	10/1/1958	Heline, Oscar E.
195511	23264	T93N, R42W, 36, SE SW SW SE	Calc. +/- 230 ft.	395	5/22/1973	Cherokee Rwd
195909	37948	T93N, R42W, 36, SE SW SW	GPS +/- 20 m.	376	9/29/1973	Cherokee Rwd Mill Creek Sub.
195910	37948	T93N, R42W, 36, SE SW SW	GPS +/- 20 m.	376	9/29/1973	Cherokee Rwd Mill Creek Sub.
197127	23441	T92N, R42W, 1, NW NE NE NE	Calc. +/- 230 ft.	392	5/1/1975	Cherokee Rwd
197142	23566	T93N, R42W, 36, SE SW SE SE	Calc. +/- 230 ft.	395	5/14/1975	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Cherokee Co. Rwd
197165	37949	T92N, R42W, 1, NW NE NE	GPS +/- 20 m.	375	6/1/1975	Cherokee Rwd Mill Creek Sub.
197166	37949	T92N, R42W, 1, NW NE NE	GPS +/- 20 m.	375	6/1/1975	Cherokee Rwd Mill Creek Sub.
200958	38080	T93N, R42W, 36, SE SW SE	GPS +/- 20 m.	384	5/28/1980	Cherokee Rwd Mill Creek Sub.
200959	38080	T93N, R42W, 36, SE SW SE	GPS +/- 20 m.	384	5/28/1980	Cherokee Rwd Mill Creek Sub.
227101	55193	T92N, R42W, 2, NE NE NE	Calc. +/- 470 ft.	743	1/11/2002	Little Sioux Corn Processors
227870	56148	T92N, R42W, 2, NE NE	Calc. +/- 930 ft.	910	6/26/2002	Little Sioux Corn Processors
227931	56149	T92N, R42W, 2, NE NE	Calc. +/- 930 ft.	900	7/3/2002	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Little Sioux Corn Processors
237442	63129	T92N, R42W, 2, NE NE SE NE SW	Calc. +/- 115 ft.	912	11/28/2006	Little Sioux Ethanol
254316	86947	T93N, R42W, 35, NE SE SE	Maps/Air Photos +/- 20 m.	570	10/13/2017	Tentinger, Chad
257376	94820	T92N, R42W, 1, NW NE NE	GPS	384	9/22/2020	Cherokee Rural Water District
258415	96215	T92N, R42W, 1, NE SW SW	GPS	375	11/4/2021	Cherokee Rural Water
258448	96216	T93N, R42W, 36, SE SW SE	GPS	395	11/16/2021	Cherokee Rural Water
258695	96166	T92N, R42W, 2, NE NE NE	GPS	905	4/11/2022	Little Sioux Corn Processors
259321	100601	T92N, R42W, 2, NE NW NW	GPS	910	1/13/2023	

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						Little Sioux Corn Processors

Statistics: IGS Well Database

Count: 22

Public Water Supply Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
443461	2410402					CHEROKEE RWS- MILL CREEK SUBSYSTEM
443829	2410771					CHEROKEE RWS- MILL CREEK SUBSYSTEM
446405	2413364					CHEROKEE RWS- MILL CREEK SUBSYSTEM
447321	2582309					LITTLE SIOUX CORN PROCESSORS
448973	2591840					CHEROKEE RWS- MILL CREEK SUBSYSTEM
449044	2592266					CHEROKEE RWS- MILL CREEK SUBSYSTEM
449045	2592268					CHEROKEE RWS- MILL CREEK SUBSYSTEM

Statistics: Public Water Supply Wells

Count: 7

Water Use Permit Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
450486	4422	3NR42WS3	nom. +/-100m	395	11/16/2021	Cherokee Rural Water (Mill Creek Subsystem) (PAUL HYNDMAN)
450487	4560	3NR42WS3	nom. +/-100m	375	11/4/2021	Cherokee Rural Water (Mill Creek Subsystem) (PAUL HYNDMAN)
450493	30975	92NR42WS	nom. +/-100m	910	1/13/2023	LITTLE SIOUX CORN PROCESSORS LLC
450496	584	92NR42WS	nom. +/-100m	912	11/30/2006	LITTLE SIOUX CORN PROCESSORS LLC
450499	5813	2NR42WS0	nom. +/-100m	384	9/22/2020	Cherokee Rural Water (Mill Creek Subsystem) (PAUL HYNDMAN)
450500	30544	92NR42WS	nom. +/-100m	905	4/11/2022	LITTLE SIOUX CORN PROCESSORS LLC
450502	99	3NR42WS0	nom. +/-100m	910	6/30/2002	LITTLE SIOUX CORN PROCESSORS LLC
450507	257	2NR42WS0	nom. +/-100m	900	3/30/2002	

Water Use Permit Wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
						LITTLE SIOUX CORN PROCESSORS LLC

Statistics: Water Use Permit Wells

Count: 8

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
3280	11263	T93N, R42W, Sec. 36, SW, SW, SE	Calc. +/- 140m.	27	unkn	Strub, Craig
3356	11272	T92N, R42W, Sec. 1, SW, NE, NE	Calc. +/- 140m.	32	1987	Rainboth, Bruce
3416	11257	T92N, R42W, Sec. 1, SW, SE, SW	Calc. +/- 140m.	50	1940	Schwartz, Marvin

Statistics: Wells registered for testing

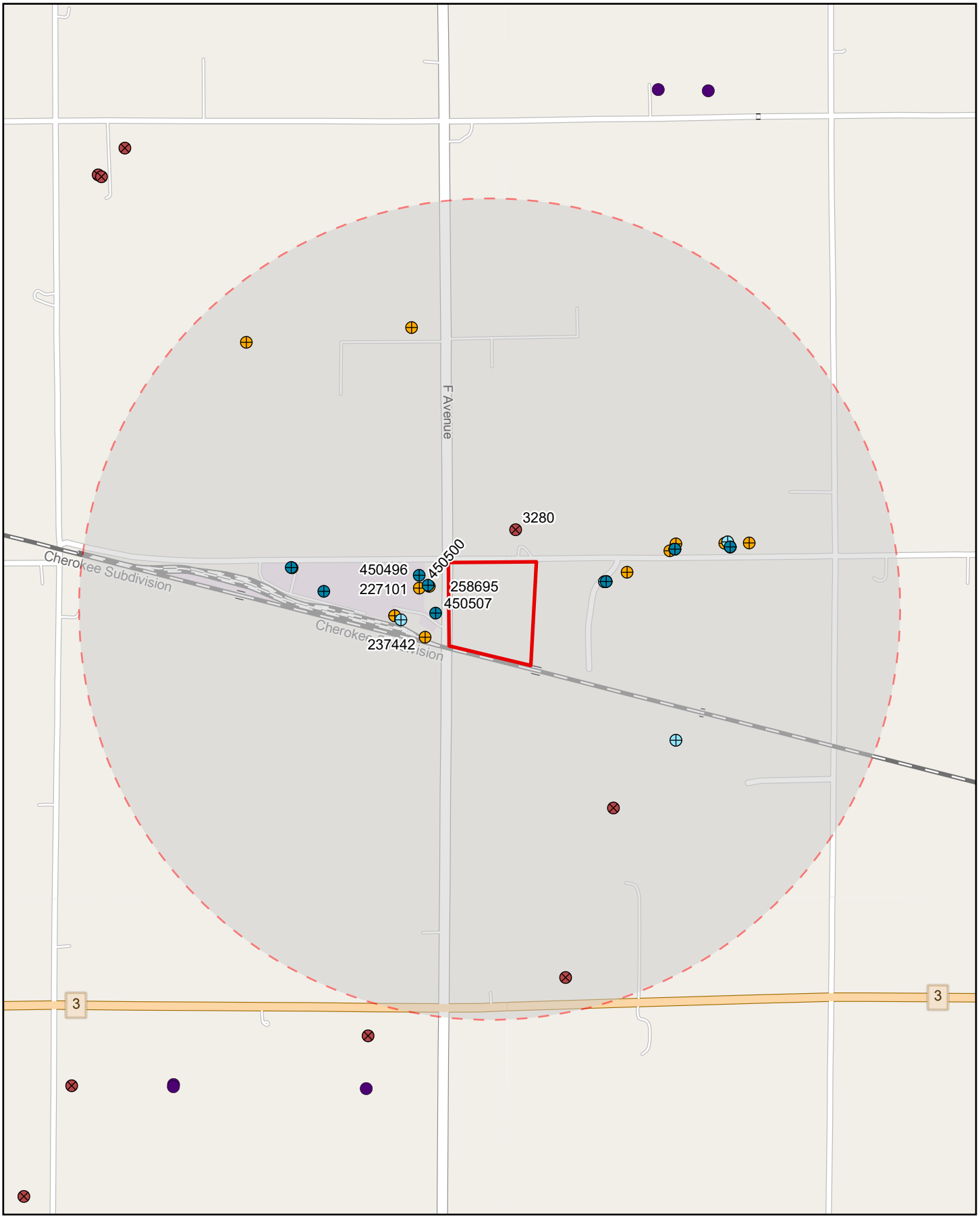
Count: 3

Report Totals

Count: 40

Date Exported: 5/12/2026 10:34 AM

Site: 1833
Subject: XY UTM Coordinates: 15T 274569 4744636
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1834



Unsuitable for Land Application

Andrew Cronin Phone: (712)261-3151 Spreadable Acres: 219 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1834



Unsuitable for Land Application

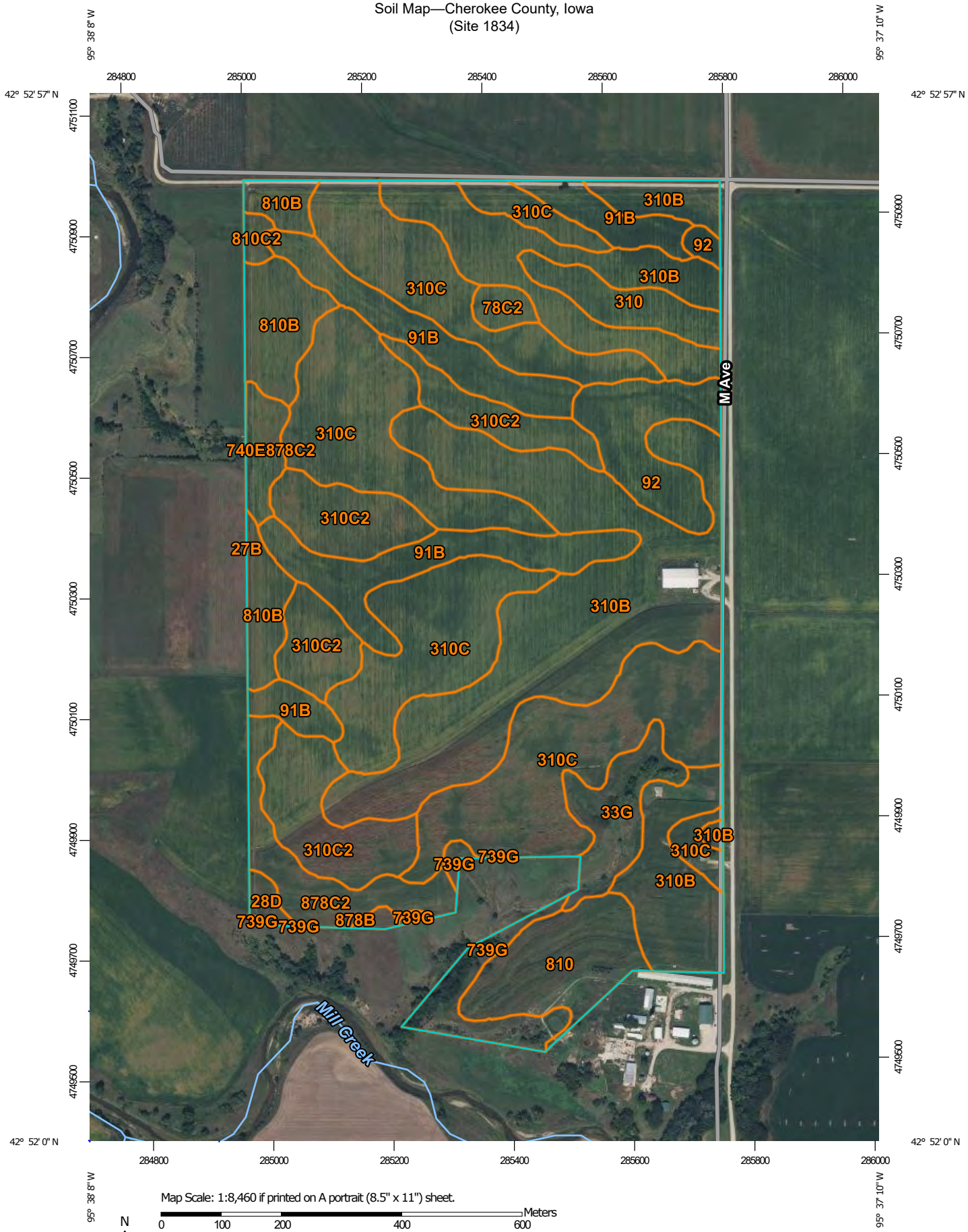
Andrew Cronin Phone: (712)261-3151 Gypsum Only

Permitted Acres: 223 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1834)



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
27B	Terril loam, 2 to 5 percent slopes	0.0	0.0%
28D	Dickman sandy loam, 5 to 12 percent slopes	1.0	0.4%
33G	Steinauer clay loam, 25 to 40 percent slopes	6.5	2.5%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	1.6	0.6%
91B	Primghar silty clay loam, 2 to 5 percent slopes	24.7	9.8%
92	Marcus silty clay loam, 0 to 2 percent slopes	9.6	3.8%
310	Galva silty clay loam, 0 to 2 percent slopes	5.1	2.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	69.0	27.3%
310C	Galva silty clay loam, 5 to 9 percent slopes	70.9	28.0%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	25.1	9.9%
739G	Steinauer-Hawick complex, 25 to 40 percent slopes	5.8	2.3%
740E	Hawick sandy loam, 9 to 18 percent slopes	0.0	0.0%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	10.2	4.0%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	11.7	4.6%
810C2	Galva silty clay loam, terrace, 5 to 9 percent slopes, eroded	0.8	0.3%
878B	Ocheyedan loam, 2 to 5 percent slopes	0.5	0.2%
878C2	Ocheyedan loam, 5 to 9 percent slopes, moderately eroded	10.5	4.2%
Totals for Area of Interest		**253.1**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
27B	Terril loam, 2 to 5 percent slopes	5	0.0	0.0%
28D	Dickman sandy loam, 5 to 12 percent slopes	2	1.0	0.4%
33G	Steinauer clay loam, 25 to 40 percent slopes	5	6.5	2.5%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	5	1.6	0.6%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	24.7	9.8%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	9.6	3.8%
310	Galva silty clay loam, 0 to 2 percent slopes	5	5.1	2.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	69.0	27.3%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	70.9	28.0%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	5	25.1	9.9%
739G	Steinauer-Hawick complex, 25 to 40 percent slopes	5	5.8	2.3%
740E	Hawick sandy loam, 9 to 18 percent slopes	5	0.0	0.0%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	5	10.2	4.0%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	5	11.7	4.6%
810C2	Galva silty clay loam, terrace, 5 to 9 percent slopes, eroded	5	0.8	0.3%
878B	Ocheyedan loam, 2 to 5 percent slopes	5	0.5	0.2%
878C2	Ocheyedan loam, 5 to 9 percent slopes, moderately eroded	5	10.5	4.2%
Totals for Area of Interest			**253.1**	**100.0%**

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
27B	Terril loam, 2 to 5 percent slopes	122	0.0	0.0%
28D	Dickman sandy loam, 5 to 12 percent slopes	>200	1.0	0.4%
33G	Steinauer clay loam, 25 to 40 percent slopes	>200	6.5	2.5%
78C2	Sac silty clay loam, 5 to 9 percent slopes, eroded	122	1.6	0.6%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	24.7	9.8%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	9.6	3.8%
310	Galva silty clay loam, 0 to 2 percent slopes	>200	5.1	2.0%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	69.0	27.3%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	70.9	28.0%
310C2	Galva silty clay loam, 5 to 9 percent slopes, eroded	>200	25.1	9.9%
739G	Steinauer-Hawick complex, 25 to 40 percent slopes	>200	5.8	2.3%
740E	Hawick sandy loam, 9 to 18 percent slopes	>200	0.0	0.0%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	>200	10.2	4.0%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	>200	11.7	4.6%
810C2	Galva silty clay loam, terrace, 5 to 9 percent slopes, eroded	>200	0.8	0.3%
878B	Ocheyedan loam, 2 to 5 percent slopes	122	0.5	0.2%
878C2	Ocheyedan loam, 5 to 9 percent slopes, moderately eroded	122	10.5	4.2%
Totals for Area of Interest			**253.1**	**100.0%**

Well Search Report Site: 1834

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
163654	66595	T93N, R41W, 13, SE SE SE	Meas. +/- 470 ft.	0		Igs
163655	66596	T93N, R41W, 14, SE SE SE	Meas. +/- 470 ft.	0		Igs
254211	89433	T93N, R41W, 13, NE SE SE	Maps/Air Photos +/- 20 m.	445	9/21/2017	Mortenson, Cody
258918	96349	T93N, R41W, 13, SE SE SE	GPS	400	7/21/2022	Mortenson, Marc
258919	96349	T93N, R41W, 13, SE SE SE	GPS	400	7/21/2022	Mortenson, Marc

Statistics: IGS Well Database

Count: 5

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
3691	116	T93N, R40W, Sec. 7, SW, SE, NW	Calc. +/- 140m.	30	n.a.	Anderson, Gust E.
3694	115	T93N, R40W, Sec. 7, SW, SE, NW	Calc. +/- 140m.	90	n.a.	Anderson, Gust E.
3695	114	T93N, R40W, Sec. 7, SW, SE, NW	Calc. +/- 140m.	30	n.a.	Anderson, Gust E.
3699	2382	T93N, R40W, Sec. 7, SW, SE, NW	Calc. +/- 285m.	30	n.a.	Anderson, Gust E
3700	2381	T93N, R40W, Sec. 7, SW, SE, SW	Calc. +/- 285m.	30	n.a.	Anderson, Gust E

Statistics: Registered abandoned wells

Count: 5

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
3853	56640	T93N, R40W, Sec. 19, NW, NE, NW	Calc. +/- 285m.	70	1944	Prunty, Chuck
3855	2976	T93N, R40W, Sec. 19, NW, NE, NW	Calc. +/- 285m.	70	1940	Prunty, Chuck

Statistics: Wells registered for testing

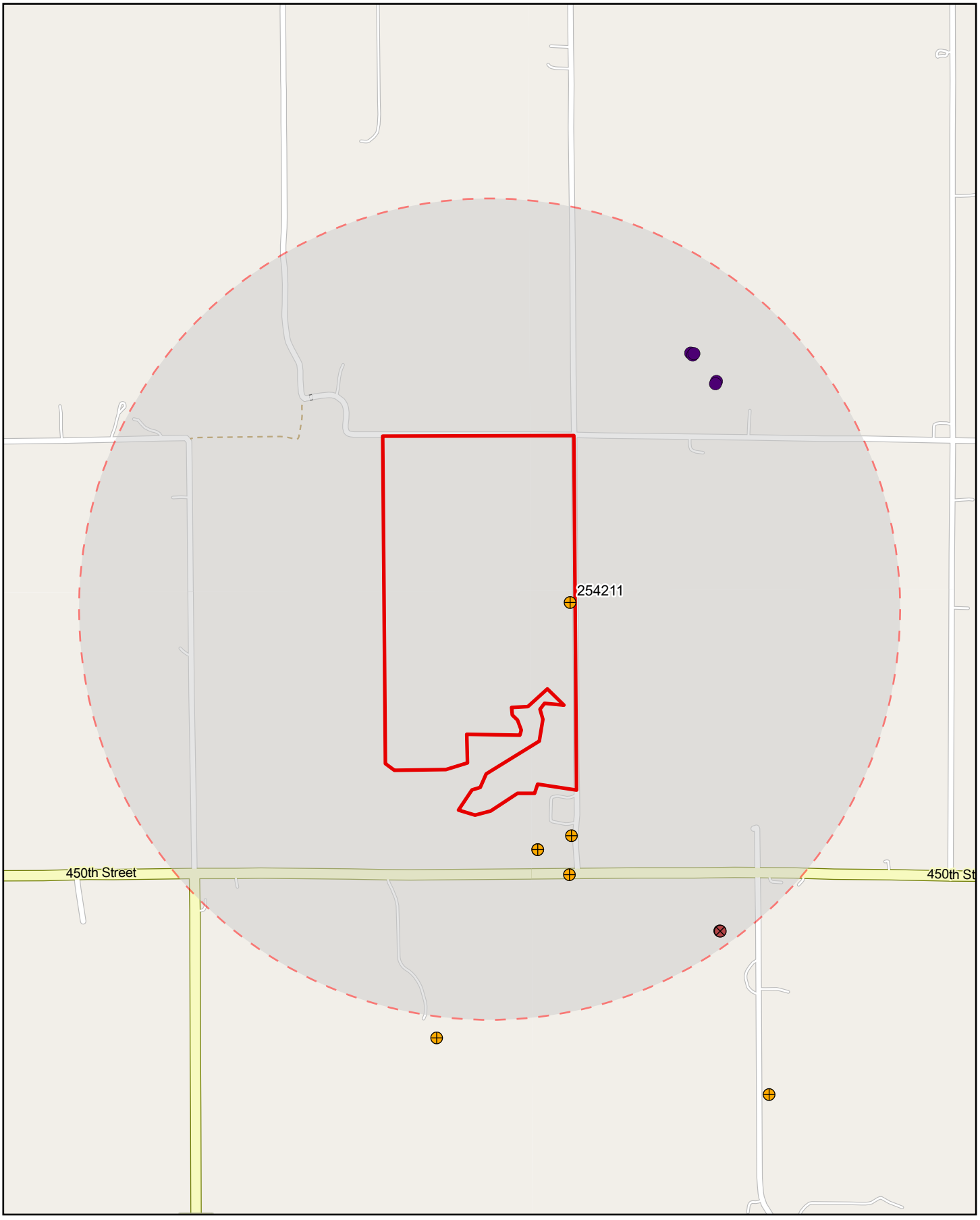
Count: 2

Report Totals

Count: 12

Date Exported: 5/12/2026 10:54 AM

Site: 1834
Subject: XY UTM Coordinates: 15T 285432 4750320
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1835



Unsuitable for Land Application

Andrew Cronin Phone: (712)261-3151 Spreadable Acres: 74 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1835



Unsuitable for Land Application

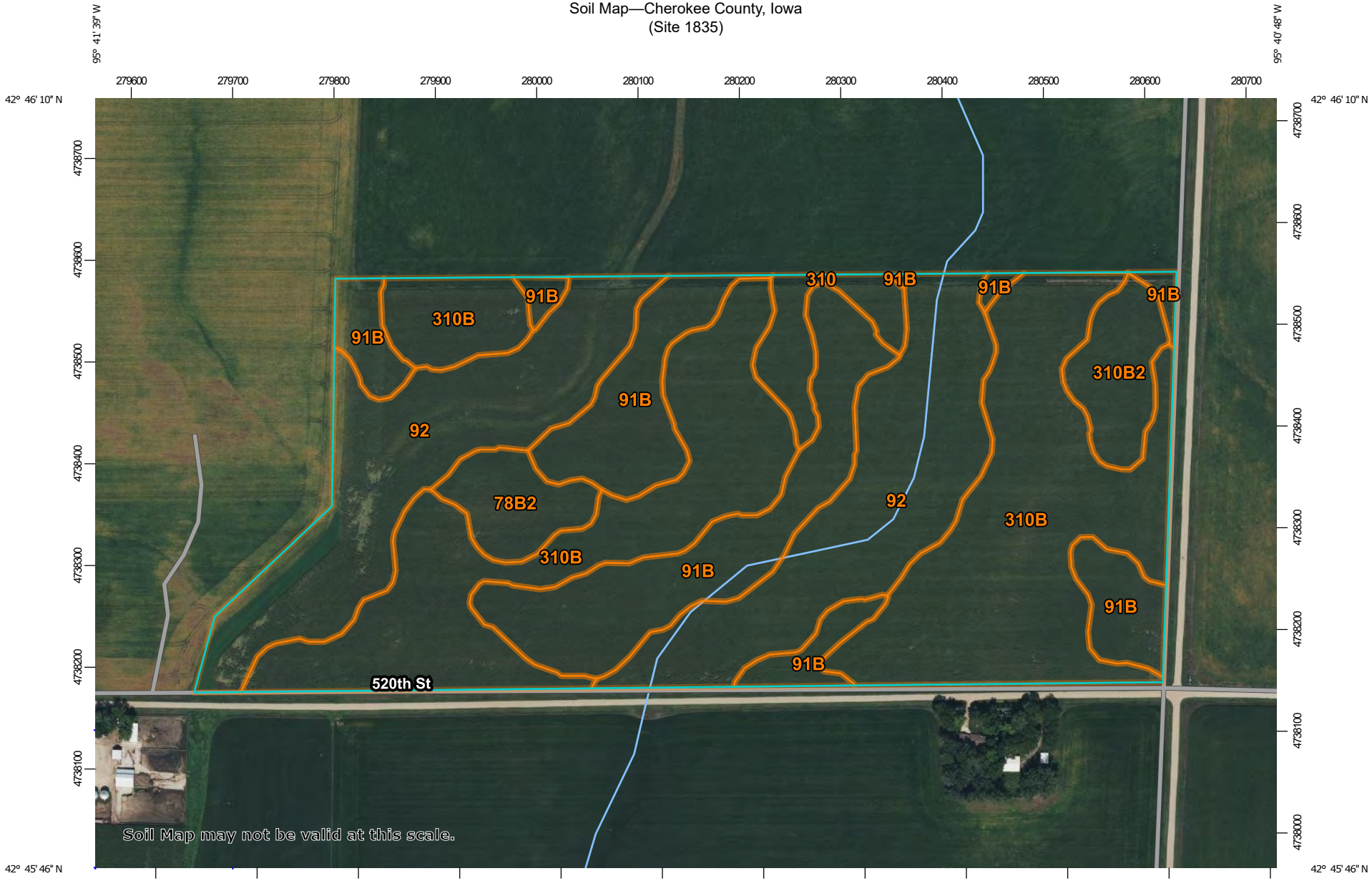
Andrew Cronin Phone: (712)261-3151 Gypsum Only

Permitted Acres: 74 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1835)



Map Scale: 1:5,330 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	2.8	3.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	19.1	22.0%
92	Marcus silty clay loam, 0 to 2 percent slopes	25.3	29.2%
310	Galva silty clay loam, 0 to 2 percent slopes	2.5	2.9%
310B	Galva silty clay loam, 2 to 5 percent slopes	34.0	39.2%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	3.1	3.6%
Totals for Area of Interest		**86.7**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	5	2.8	3.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	19.1	22.0%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	25.3	29.2%
310	Galva silty clay loam, 0 to 2 percent slopes	5	2.5	2.9%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	34.0	39.2%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	5	3.1	3.6%
Totals for Area of Interest			**86.7**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	122	2.8	3.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	19.1	22.0%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	25.3	29.2%
310	Galva silty clay loam, 0 to 2 percent slopes	>200	2.5	2.9%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	34.0	39.2%
310B2	Galva silty clay loam, 2 to 5 percent slopes, eroded	>200	3.1	3.6%
Totals for Area of Interest			**86.7**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1835

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
160322	91110	T92N, R41W, 22, NW	Calc. +/- 3730 ft.	0		Lucas-181

Statistics: IGS Well Database

Count: 1

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
4233	24546	T92N, R41W, Sec. 29, NE, SE, NE	Calc. +/- 140m.	450	unkn	Bush, Phil

Statistics: Permitted private wells

Count: 1

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
4189	53061	T92N, R41W, Sec. 21, NE, NE, SW	Calc. +/- 285m.	30	1950	Odle, Cletuis
4193	759	T92N, R41W, Sec. 21, NE, NE, SE	Calc. +/- 285m.	20	1940	Odle, Bernice

Statistics: Wells registered for testing

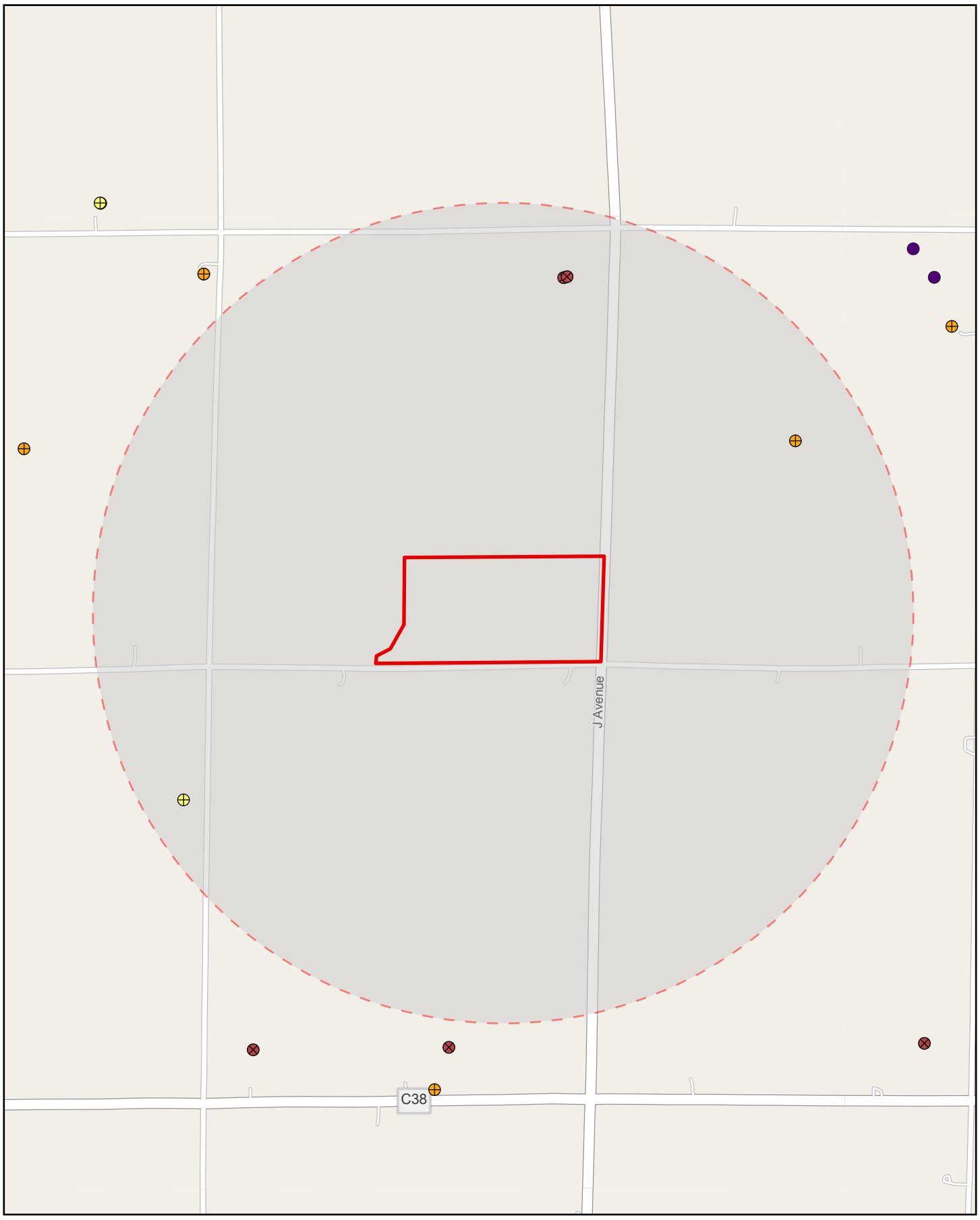
Count: 2

Report Totals

Count: 4

Date Exported: 5/13/2026 7:46 AM

Site: 1835
Subject: XY UTM Coordinates: 15T 280210 4738341
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1836



Unsuitable for Land Application

Andrew Cronin Phone: (712)261-3151 Spreadable Acres: 73 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1836



Unsuitable for Land Application

Andrew Cronin Phone: (712)261-3151 Gypsum Only

Permitted Acres: 73 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—O'Brien County, Iowa
(Site 1836)



Map Scale: 1:3,990 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	0.4	0.6%
91	Primghar silty clay loam, 0 to 2 percent slopes	5.9	8.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	20.7	28.8%
92	Marcus silty clay loam, 0 to 2 percent slopes	11.6	16.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	33.1	46.2%
Totals for Area of Interest		**71.7**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	5	0.4	0.6%
91	Primghar silty clay loam, 0 to 2 percent slopes	5	5.9	8.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	20.7	28.8%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	11.6	16.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	33.1	46.2%
Totals for Area of Interest			**71.7**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	0	0.4	0.6%
91	Primghar silty clay loam, 0 to 2 percent slopes	30	5.9	8.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	20.7	28.8%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	11.6	16.2%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	33.1	46.2%
Totals for Area of Interest			**71.7**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1836

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
253888	86221	T93N, R42W, 6, NE NE SE	Calc. +/- 230 ft.	547	7/12/2017	Miller, Kyle

Statistics: IGS Well Database

Count: 1

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
2365	42604	T94N, R42W, Sec. 29, SE, SW, SW	Calc. +/- 140m.	30	n.a.	Russell, Harold M
2366	42603	T94N, R42W, Sec. 29, SE, SW, SW	Calc. +/- 140m.	18	n.a.	Russell, Harold M

Statistics: Registered abandoned wells

Count: 2

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
2411	59827	T93N, R42W, Sec. 6, NE, NE, SW	Calc. +/- 570m.	525	1964	Miller, Bill

Statistics: Wells registered for testing

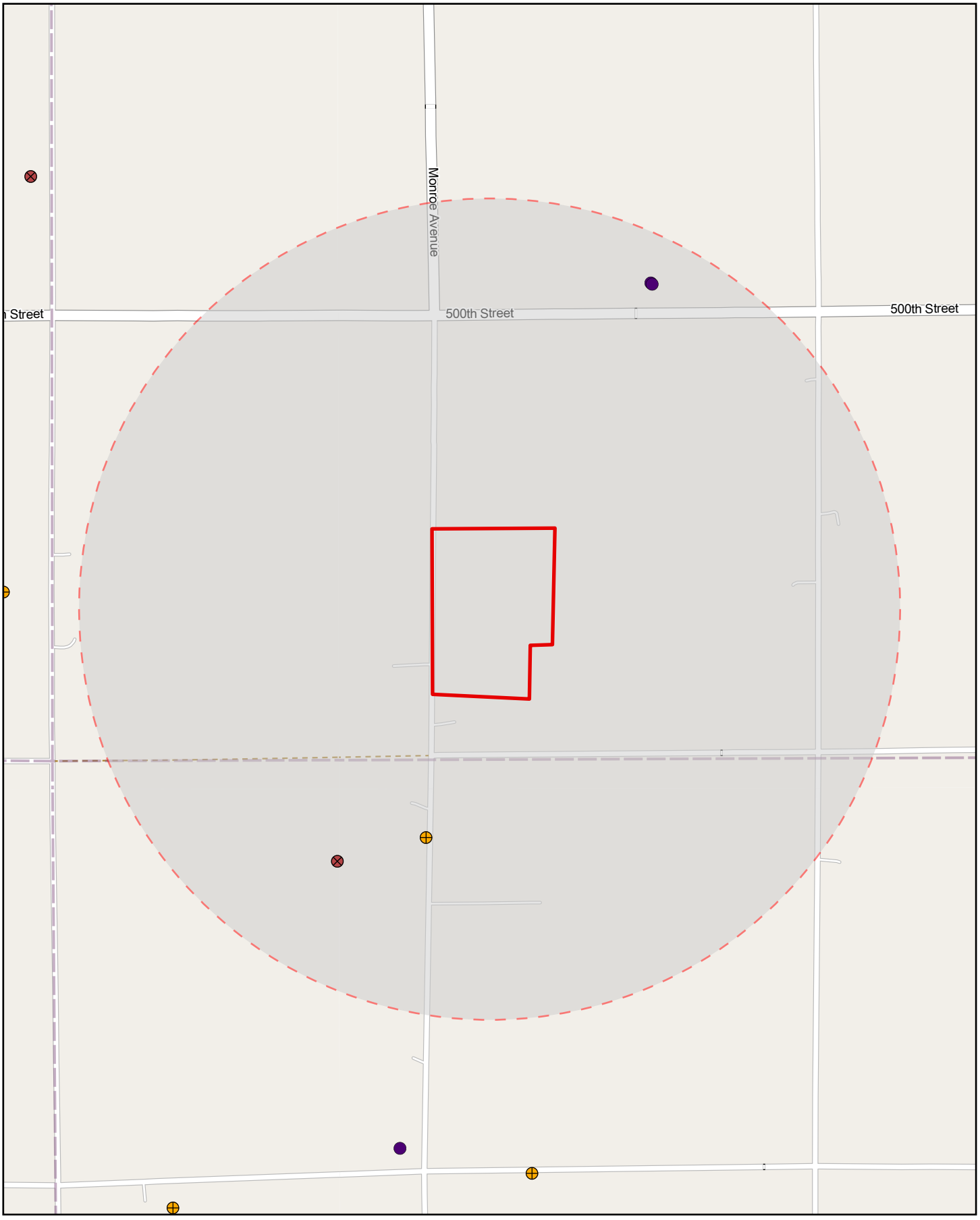
Count: 1

Report Totals

Count: 4

Date Exported: 5/13/2026 7:50 AM

Site: 1836
Subject: XY UTM Coordinates: 15T 268431 4755181
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1837



Unsuitable for Land Application

Andrew Cronin Phone: (712)261-3151 Spreadable Acres: 125 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1837



Unsuitable for Land Application

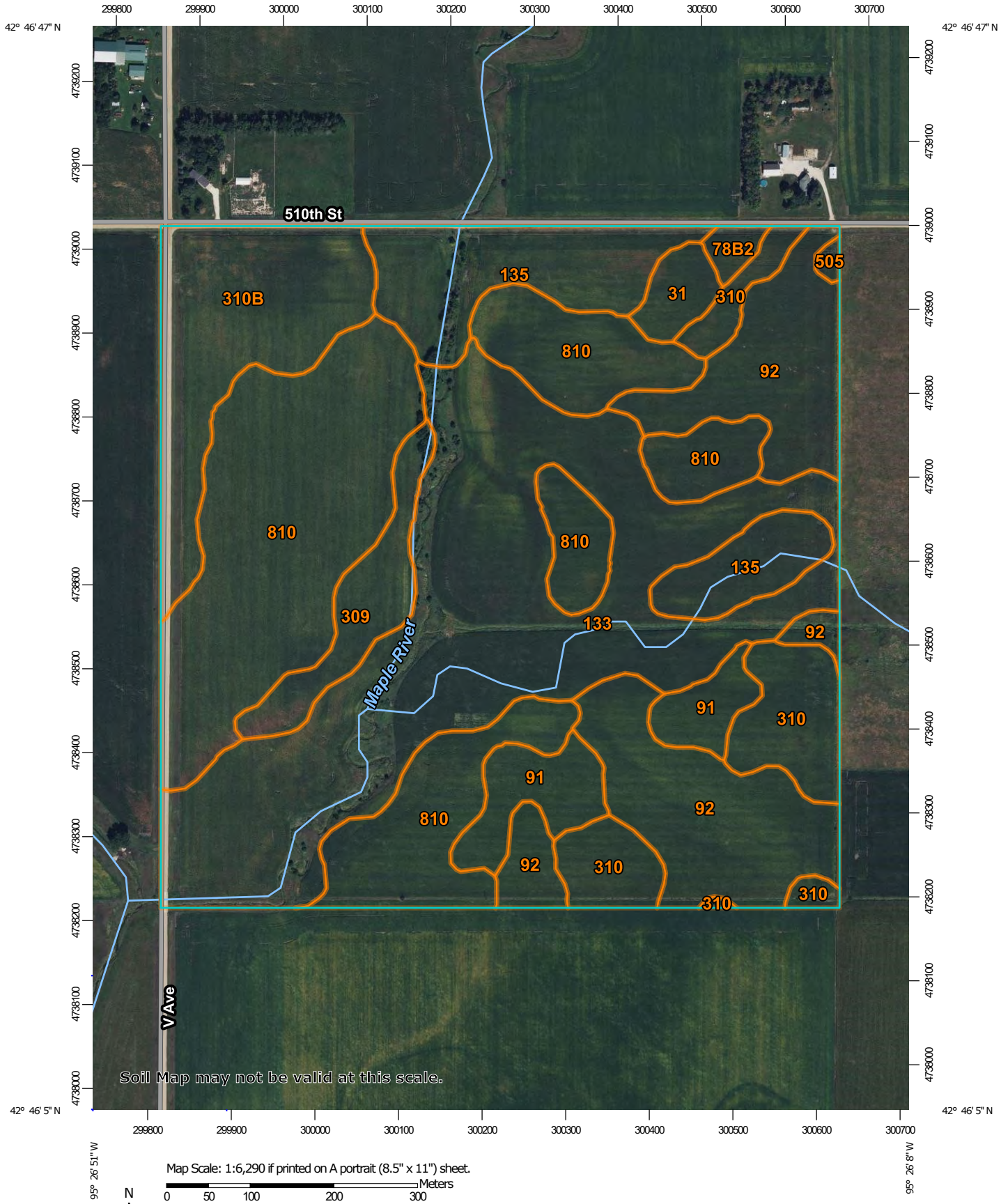
Andrew Cronin Phone: (712)261-3151 Gypsum Only

Permitted Acres: 125 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1837)



Map Scale: 1:6,290 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	2.0	1.2%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	0.8	0.5%
91	Primghar silty clay loam, 0 to 2 percent slopes	6.3	3.9%
92	Marcus silty clay loam, 0 to 2 percent slopes	23.3	14.3%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	44.3	27.1%
135	Coland clay loam, 0 to 2 percent slopes	13.4	8.2%
309	Allendorf silty clay loam, 0 to 2 percent slopes	5.2	3.2%
310	Galva silty clay loam, 0 to 2 percent slopes	9.9	6.1%
310B	Galva silty clay loam, 2 to 5 percent slopes	13.9	8.5%
505	Sperry silty clay loam, 0 to 1 percent slopes	0.3	0.2%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	44.0	26.9%
Totals for Area of Interest		**163.6**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	5	2.0	1.2%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	5	0.8	0.5%
91	Primghar silty clay loam, 0 to 2 percent slopes	5	6.3	3.9%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	23.3	14.3%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	44.3	27.1%
135	Coland clay loam, 0 to 2 percent slopes	5	13.4	8.2%
309	Allendorf silty clay loam, 0 to 2 percent slopes	3	5.2	3.2%
310	Galva silty clay loam, 0 to 2 percent slopes	5	9.9	6.1%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	13.9	8.5%
505	Sperry silty clay loam, 0 to 1 percent slopes	3	0.3	0.2%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	5	44.0	26.9%
Totals for Area of Interest			**163.6**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
31	Afton silty clay loam, 0 to 2 percent slopes, occasionally flooded	0	2.0	1.2%
78B2	Sac silty clay loam, 2 to 5 percent slopes, eroded	122	0.8	0.5%
91	Primghar silty clay loam, 0 to 2 percent slopes	30	6.3	3.9%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	23.3	14.3%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	44.3	27.1%
135	Coland clay loam, 0 to 2 percent slopes	0	13.4	8.2%
309	Allendorf silty clay loam, 0 to 2 percent slopes	>200	5.2	3.2%
310	Galva silty clay loam, 0 to 2 percent slopes	>200	9.9	6.1%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	13.9	8.5%
505	Sperry silty clay loam, 0 to 1 percent slopes	>200	0.3	0.2%
810	Galva silty clay loam, terrace, 0 to 2 percent slopes	>200	44.0	26.9%
Totals for Area of Interest			**163.6**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Well Search Report Site: 1837

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
183013	13553	T92N, R39W, 15, SE SE NE NE NE	Calc. +/- 115 ft.	54	6/12/1961	Breese, Bill
184532	15105	T92N, R39W, 22, SW SE SE SE SE	Calc. +/- 115 ft.	326	10/12/1962	Mummert, Bert
194739	23243	T92N, R39W, 21, NW NE	Calc. +/- 930 ft.	330	4/13/1972	Pingel, Harry
241662	67040	T92N, R39W, 22, SE SE NW SW NW	Unknown	180	4/30/2009	Smith, John

Statistics: IGS Well Database

Count: 4

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
7970	15526	T92N, R39W, Sec. 22, SW, SE, SE	Calc. +/- 140m.	40	n.a.	Mummert, Don

Statistics: Registered abandoned wells

Count: 1

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
7504	55201	T92N, R39W, Sec. 15, SW, NE, NE	Calc. +/- 1135m.	55	1961	Johnson, Henry

Statistics: Wells registered for testing

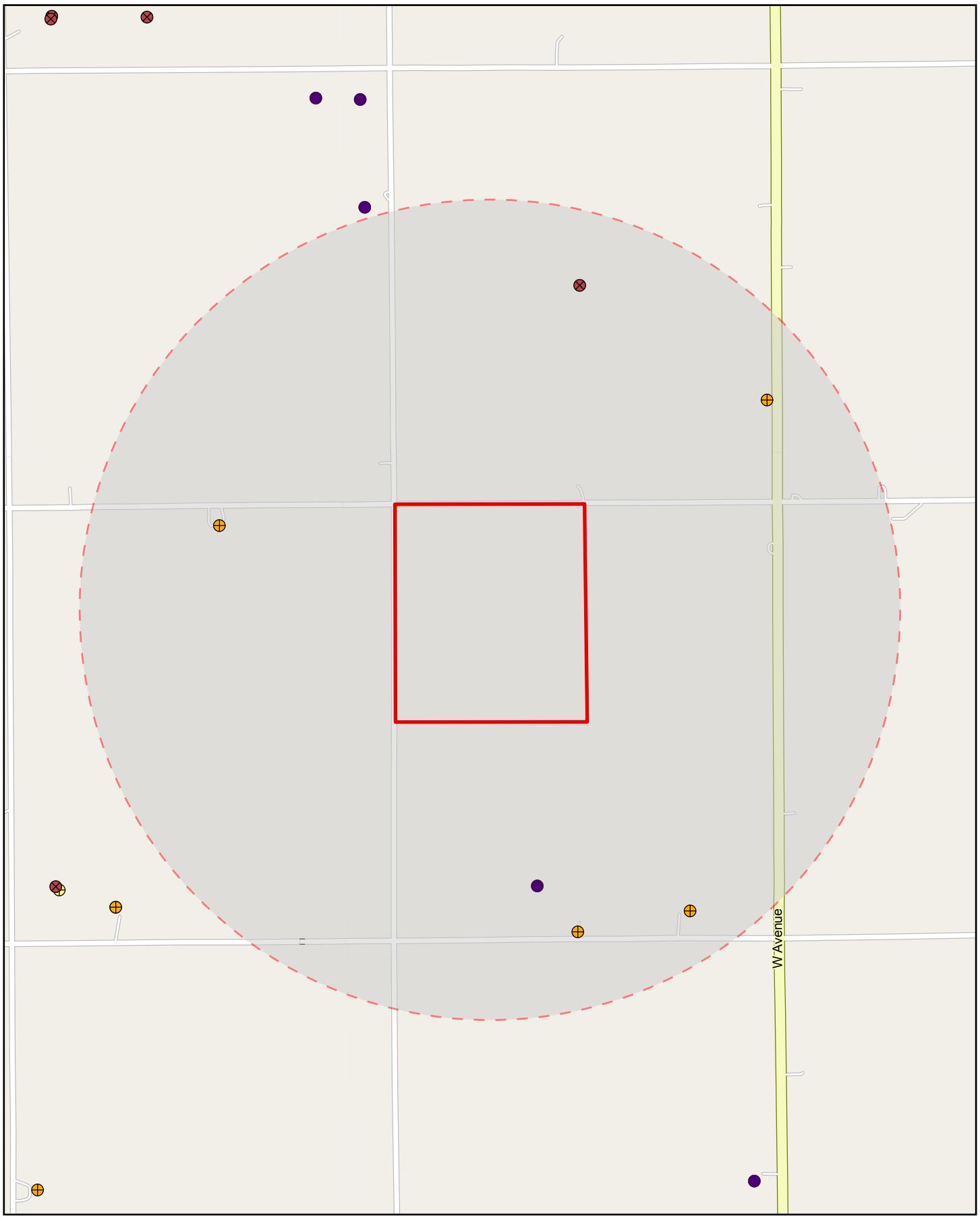
Count: 1

Report Totals

Count: 6

Date Exported: 5/13/2026 7:54 AM

Site: 1837
Subject: XY UTM Coordinates: 15T 300244 4738621
Search Radius (miles): 1



ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1838



Unsuitable for Land Application

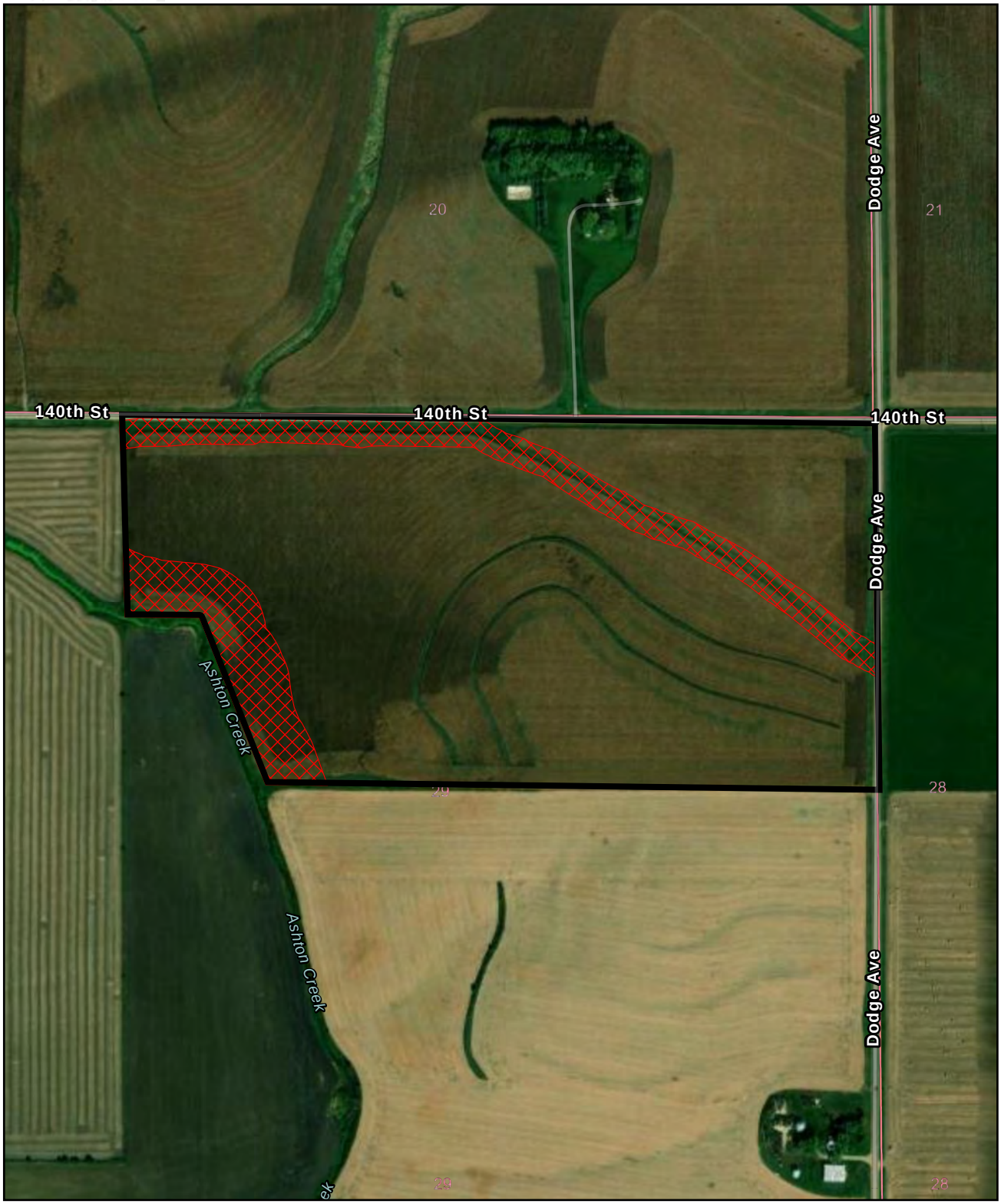
Keldby Wulf Phone: (712)261-3151 Spreadable Acres: 60 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1838



Unsuitable for Land Application

Keldby Wulf Phone: (712)261-3151 Gypsum Only

Permitted Acres: 60 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Ida County, Iowa
(Site 1838)



Map Scale: 1:4,540 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	10.9	14.5%
59D2	Burchard clay loam, 5 to 14 percent slopes	4.2	5.6%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	6.6	8.8%
310B	Galva silty clay loam, 2 to 5 percent slopes	15.0	19.9%
310C	Galva silty clay loam, 5 to 9 percent slopes	31.2	41.4%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	7.5	9.9%
Totals for Area of Interest		**75.3**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	5	10.9	14.5%
59D2	Burchard clay loam, 5 to 14 percent slopes	5	4.2	5.6%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	6.6	8.8%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	15.0	19.9%
310C	Galva silty clay loam, 5 to 9 percent slopes	5	31.2	41.4%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	5	7.5	9.9%
Totals for Area of Interest			**75.3**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
11B	Colo-Judson silty clay loams, 0 to 5 percent slopes, occasionally flooded	0	10.9	14.5%
59D2	Burchard clay loam, 5 to 14 percent slopes	>200	4.2	5.6%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	6.6	8.8%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	15.0	19.9%
310C	Galva silty clay loam, 5 to 9 percent slopes	>200	31.2	41.4%
810B	Galva silty clay loam, terrace, 2 to 5 percent slopes	>200	7.5	9.9%
Totals for Area of Interest			**75.3**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1837

IGS Well Database

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
178017	9072	T89N, R40W, 28, SW SE SE	Calc. +/- 470 ft.	510	1/8/1957	Fritz, Albert A.
187567	17593	T89N, R40W, 28, SW SW SW NW	Calc. +/- 230 ft.	397	5/17/1965	Ludvigson, Don
188161	18322	T89N, R40W, 28, NW NW NW SE	Calc. +/- 230 ft.	528	11/15/1965	Edger, Nelson
191103	20741	T89N, R40W, 20, NE SE SE SW	Calc. +/- 230 ft.	32	3/22/1968	Rolfs, Albert
239219	82908	T89N, R40W, 29, SE SE SE	Calc. +/- 470 ft.	351	11/20/2007	Ludvigson, Don

Statistics: IGS Well Database

Count: 5

Permitted private wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
9946	28511	T89N, R40W, Sec. 20, NE, SE, NE	Calc. +/- 140m.	358	unkn	Rolfe
9973	27680	T89N, R40W, Sec. 20, NE, SE, SE	Calc. +/- 140m.	350	10/16/2000	Rohlf, Wendel
9980	28379	T89N, R40W, Sec. 29, NW, NW, NE	Calc. +/- 140m.	326	unkn	Kistenmacker
10068	21821	T89N, R40W, Sec. 21, SE, NW, NW	Calc. +/- 1135m.	unkn	9/25/1997	Schuett, Adeline
10294	13477	T89N, R40W, Sec. 28, SW, SW, NE	Calc. +/- 285m.	300	12/07/1990	Unknown

Statistics: Permitted private wells

Count: 5

Registered abandoned wells

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
10283	233	T89N, R40W, Sec. 28, SE, NW, NW	Calc. +/- 1135m.	20	n.a.	Grell, Raymon L.

Statistics: Registered abandoned wells

Count: 1

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
9948	42441	T89N, R40W, Sec. 20, NE, SE, NE	Calc. +/- 285m.	21	unkn	Rolfs, Viola
9949	29012	T89N, R40W, Sec. 30, NE, NE, NE	Calc. +/- 285m.	180	unkn	Sorenson, Earl
9972	38544	T89N, R40W, Sec. 20, NE, SE, SE	Calc. +/- 140m.	unkn	unkn	Richards, Mike
10169	12464	T89N, R40W, Sec. 29, NE, SE, SE	Calc. +/- 285m.	11	unkn	Putensen, Gary
10298	34786	T89N, R40W, Sec. 28, SW, SW, SW	Calc. +/- 140m.	490	1992	Ludvigson, Don
10299	34785	T89N, R40W, Sec. 28, SW, SW, SW	Calc. +/- 140m.	490	1992	Ludvigson, Don

Statistics: Wells registered for testing

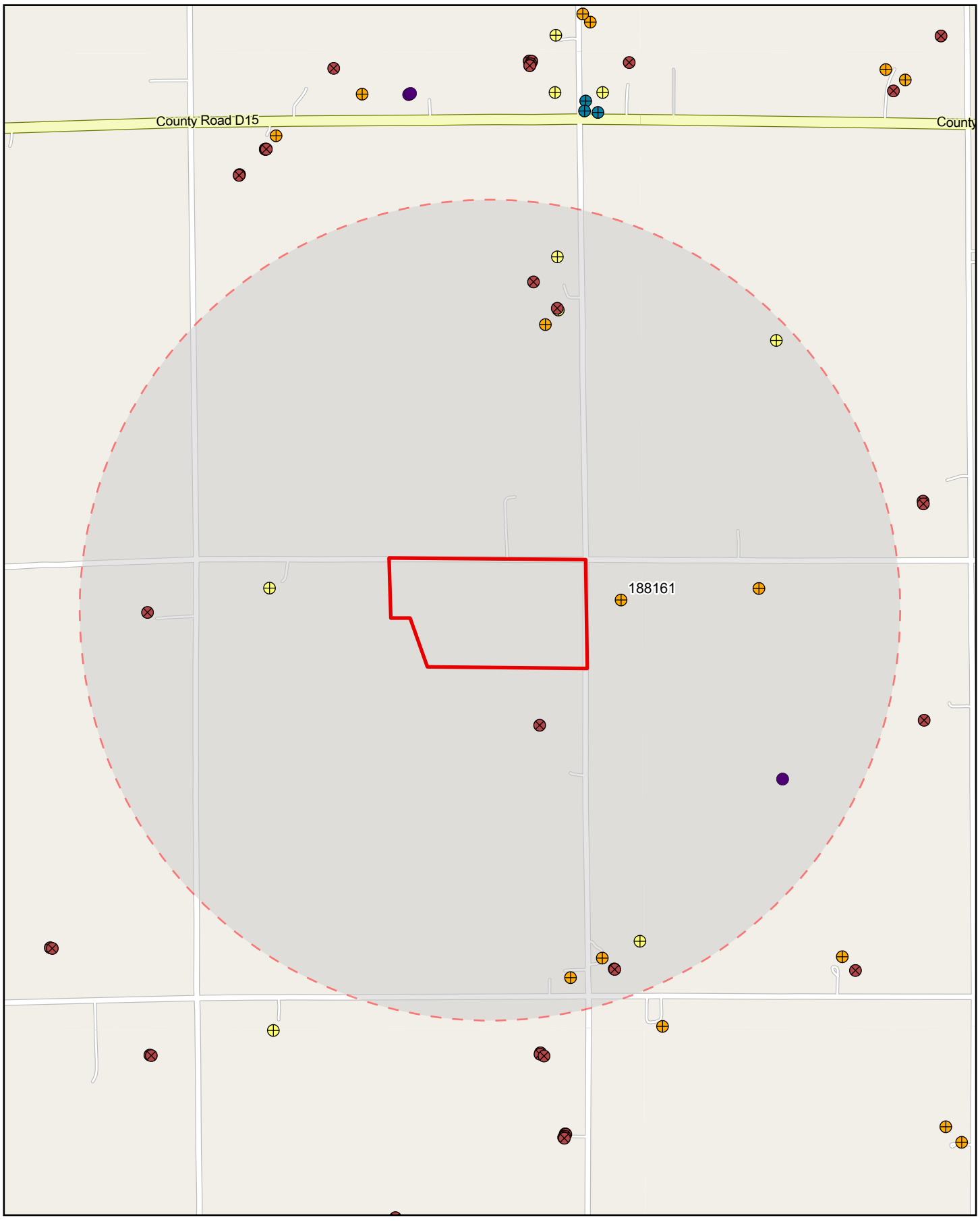
Count: 6

Report Totals

Count: 17

Date Exported: 5/13/2026 7:58 AM

Site: 1838
Subject: XY UTM Coordinates: 15T 287290 4708782
Search Radius (miles): 1



ENVIRONMENTAL
LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1839



Unsuitable for Land Application

Andrew Cronin Phone: (712)261-3151 Spreadable Acres: 127 Deliverable Tons:

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

ENVIRONMENTAL LAND MANAGEMENT LLC
waste byproduct landspreading specialists

Site Name: 1839



Unsuitable for Land Application

Andrew Cronin Phone: (712)261-3151 Gypsum Only

Permitted Acres: 127 Acres Spread: _____ Tons Delivered: _____

I certify I have followed all stockpiling and spreading rules provided by ELM.

Signature_____ Date_____

Soil Map—Cherokee County, Iowa
(Site 1839)



Map Scale: 1:6,240 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
78B	Sac silty clay loam, 2 to 5 percent slopes	0.3	0.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	16.4	13.4%
92	Marcus silty clay loam, 0 to 2 percent slopes	26.0	21.2%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0.4	0.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	79.6	64.9%
Totals for Area of Interest		**122.7**	**100.0%**

T Factor

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
78B	Sac silty clay loam, 2 to 5 percent slopes	5	0.3	0.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	5	16.4	13.4%
92	Marcus silty clay loam, 0 to 2 percent slopes	5	26.0	21.2%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	5	0.4	0.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	5	79.6	64.9%
Totals for Area of Interest			**122.7**	**100.0%**

Description

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Rating Options

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
78B	Sac silty clay loam, 2 to 5 percent slopes	122	0.3	0.2%
91B	Primghar silty clay loam, 2 to 5 percent slopes	30	16.4	13.4%
92	Marcus silty clay loam, 0 to 2 percent slopes	0	26.0	21.2%
133	Colo silty clay loam, deep loess, 0 to 2 percent slopes, occasionally flooded	0	0.4	0.3%
310B	Galva silty clay loam, 2 to 5 percent slopes	>200	79.6	64.9%
Totals for Area of Interest			**122.7**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Well Search Report Site: 1838

Wells registered for testing

MapID	WellID	LOCATION	Accuracy	DEPTH	Construction/ Permit Date	Owner
3679	25570	T93N, R41W, Sec. 33, SW, SE, NE	Calc. +/- 140m.	604	unkn	Rose, Bill
3818	67680	T93N, R41W, Sec. 34, SW, SE, NE	Calc. +/- 285m.	18	1936	Johnson, Elmer
3892	8040	T93N, R41W, Sec. 35, SW, SW, SW	Calc. +/- 285m.	39	1991	Lamont, Wilmer
3893	9583	T93N, R41W, Sec. 35, SW, SW, NE	Calc. +/- 285m.	39	1991	Lamont, Wilmer
3894	30868	T93N, R41W, Sec. 35, SW, SW, NE	Calc. +/- 285m.	39	unkn	Lamont, Wilmer

Statistics: Wells registered for testing

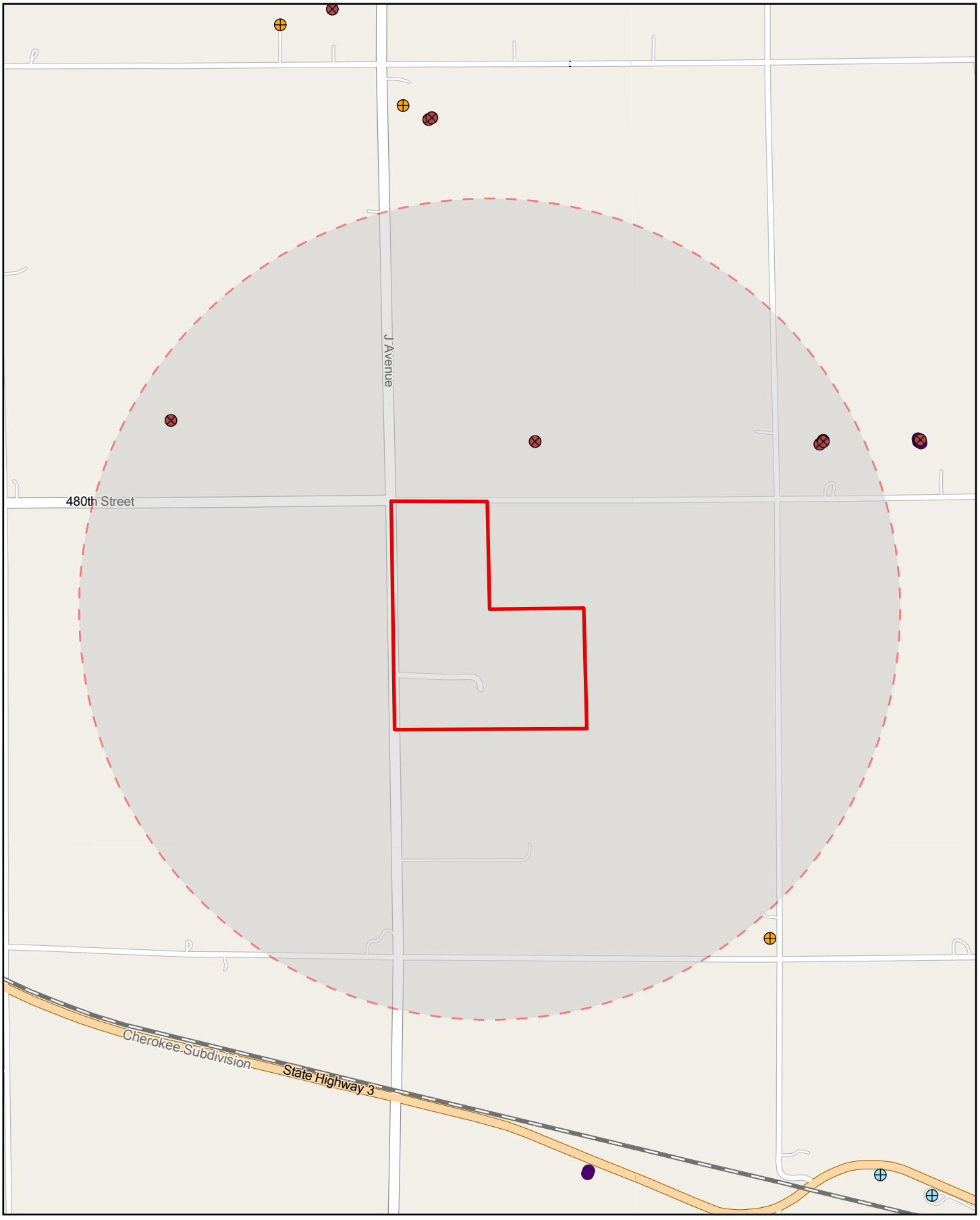
Count: 5

Report Totals

Count: 5

Date Exported: 5/13/2026 8:02 AM

Site: 1839
Subject: XY UTM Coordinates: 15T 281217 4744232
Search Radius (miles): 1



Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Andrew Cronin
Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Signed: Adam Pigott Adam Pigott - Agronomist for Andrew Cronin Date: _____

Environmental Land Management, LLC.
Contractual Consent of Landowner

Landowner, Lessee and/or Landoperator: Kelby Wulf
Location of storage sites and spreading site(s): All permitted sites owned, leased and rented.
Description of byproduct to be stored and land applied on site(s): Byproduct waste consisting of industrial wastewater solids, calcium sulfate byproduct, perlite byproduct and scrap feed generated from the Cargill Corn Milling facility in Blair, NE. The facility has a pre-treatment plant and a de-watering process, in which solids are recovered.

Water treatment plant byproduct is generated from: Cargill Corn Milling – Blair, NE

Analysis of **industrial sludge** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	14.2	%	Arsenic	none detected	
pH	7.0		Barium	45.2	mg/kg
Tot.Kjeldahl Nitrogen	7.4	%	Cadmium	0.7	mg/kg
Ammonia Nitrogen	0.4	%	Chromium	64.7	mg/kg
Phosphorus	3.0	%	Copper	41.4	mg/kg
Phosphate	6.8	%	Iron	3157	mg/kg
Potassium	0.9	%	Lead	none detected	
Potash	1.0	%	Manganese	142.3	mg/kg
Calcium	5.9	%	Mercury	none detected	
Magnesium	0.4	%	Molybdenum	5.1	mg/kg
Sodium	0.5	%	Nickel	22.4	mg/kg
Sulfur	1.6	%	Selenium	3	mg/kg
Zinc	0.05	%	Silver	none detected	

Analysis of **gypsum** byproduct on a "dry" basis:
****Analysis is not guaranteed for agronomic value. Byproduct output will be variable.*

Total Solids	59.1	%	Arsenic	none detected	
pH	3.2		Barium	none detected	
Tot.Kjeldahl Nitrogen	0.3	%	Cadmium	none detected	
Ammonia Nitrogen	0.0	%	Chromium	none detected	
Phosphorus	0.05	%	Copper	none detected	
Phosphate	0.1	%	Iron	16	mg/kg
Potassium	0.0	%	Lead	none detected	
Potash	0.0	%	Manganese	none detected	
Calcium	25.5	%	Mercury	0.13	mg/kg
Magnesium	0.00	%	Molybdenum	none detected	
Sodium	0.01	%	Nickel	none detected	
Sulfur	20.9	%	Selenium	none detected	
Zinc	0.0	%	Silver	none detected	

Analysis of **perlite** byproduct on a "dry" basis:
******Analysis is not guaranteed for agronomic value. Byproduct output will be variable.******

Total Solids	50.9	%	Arsenic	none detected	
pH	2.3		Barium	11.4	mg/kg
Tot.Kjeldahl Nitrogen	1.4	%	Cadmium	none detected	
Ammonia Nitrogen	0.02	%	Chromium	none detected	
Phosphorus	0.1	%	Copper	none detected	
Phosphate	0.2	%	Iron	444.1	mg/kg
Potassium	0.03	%	Lead	none detected	
Potash	0.03	%	Manganese	5	mg/kg
Calcium	0.4	%	Mercury	0.42	mg/kg
Magnesium	0.02	%	Molybdenum	none detected	
Sodium	0.2	%	Nickel	none detected	
Sulfur	0.4	%	Selenium	none detected	
Zinc	0.0004	%	Silver	none detected	

Analysis of **scrap feed** byproduct on a "dry" basis:
******Analysis is not guaranteed for agronomic value. Byproduct output will be variable.******

Total Solids	51.0	%	Arsenic	none detected	
pH	4.8		Barium	0.7	mg/kg
Tot.Kjeldahl Nitrogen	2.8	%	Cadmium	none detected	
Ammonia Nitrogen	0.2	%	Chromium	none detected	
Phosphorus	0.4	%	Copper	2.7	mg/kg
Phosphate	1.0	%	Iron	59.3	mg/kg
Potassium	0.5	%	Lead	none detected	
Potash	0.6	%	Manganese	3.8	mg/kg
Calcium	2.5	%	Mercury	none detected	
Magnesium	0.3	%	Molybdenum	none detected	
Sodium	0.1	%	Nickel	none detected	
Sulfur	0.3	%	Selenium	none detected	
Zinc	0.01	%	Silver	none detected	

***Check with your Agronomist to verify that these nutrients and other constituents are not harmful to the crops you are growing and to verify the availability of these nutrients during the coming year.

I have reviewed this information and am authorized to hereby give permission to Environmental Land Management, LLC to store and land apply the above byproduct on the spreading sites. If, in the future, I decide not to allow Environmental Land Management, LLC to store and land apply the aforementioned byproducts on these sites, I will inform them before it is delivered to the sites.

Signed: Kelly Wey Date: Sept 7, 2021