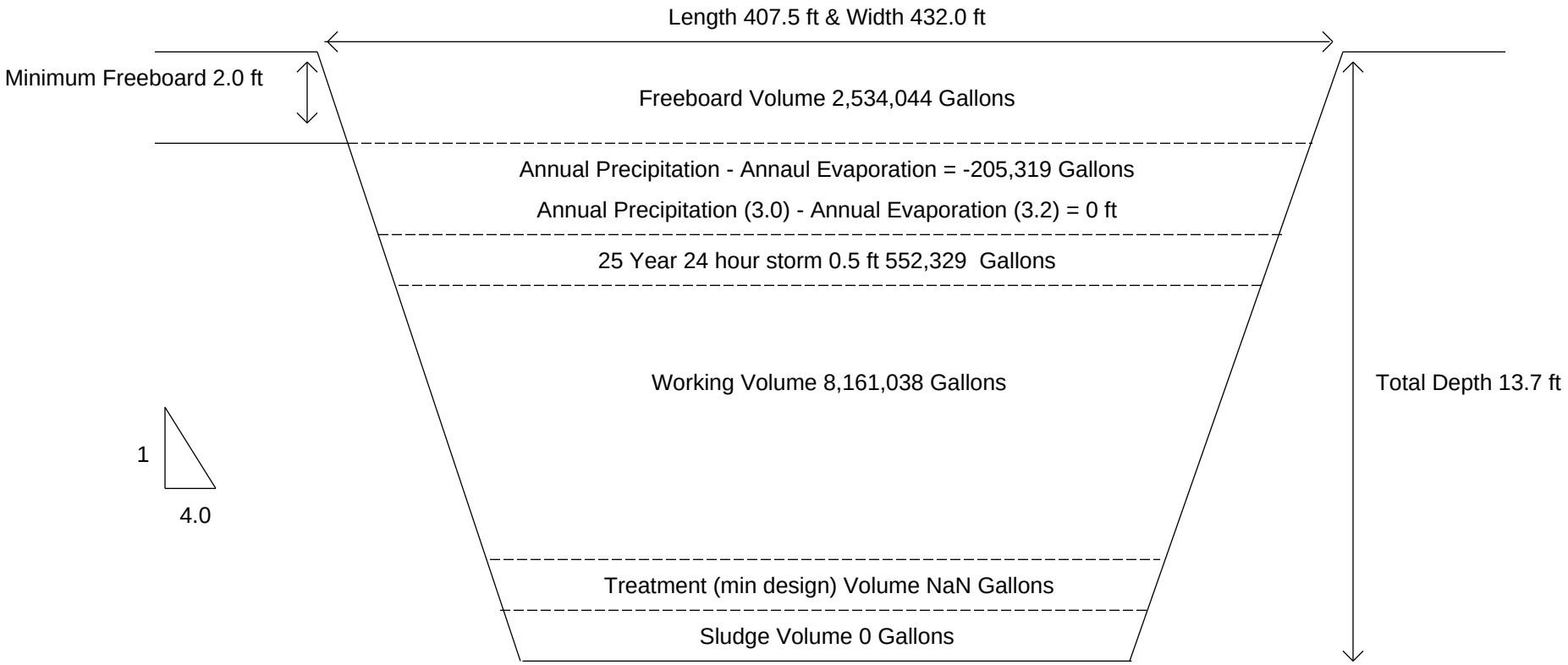
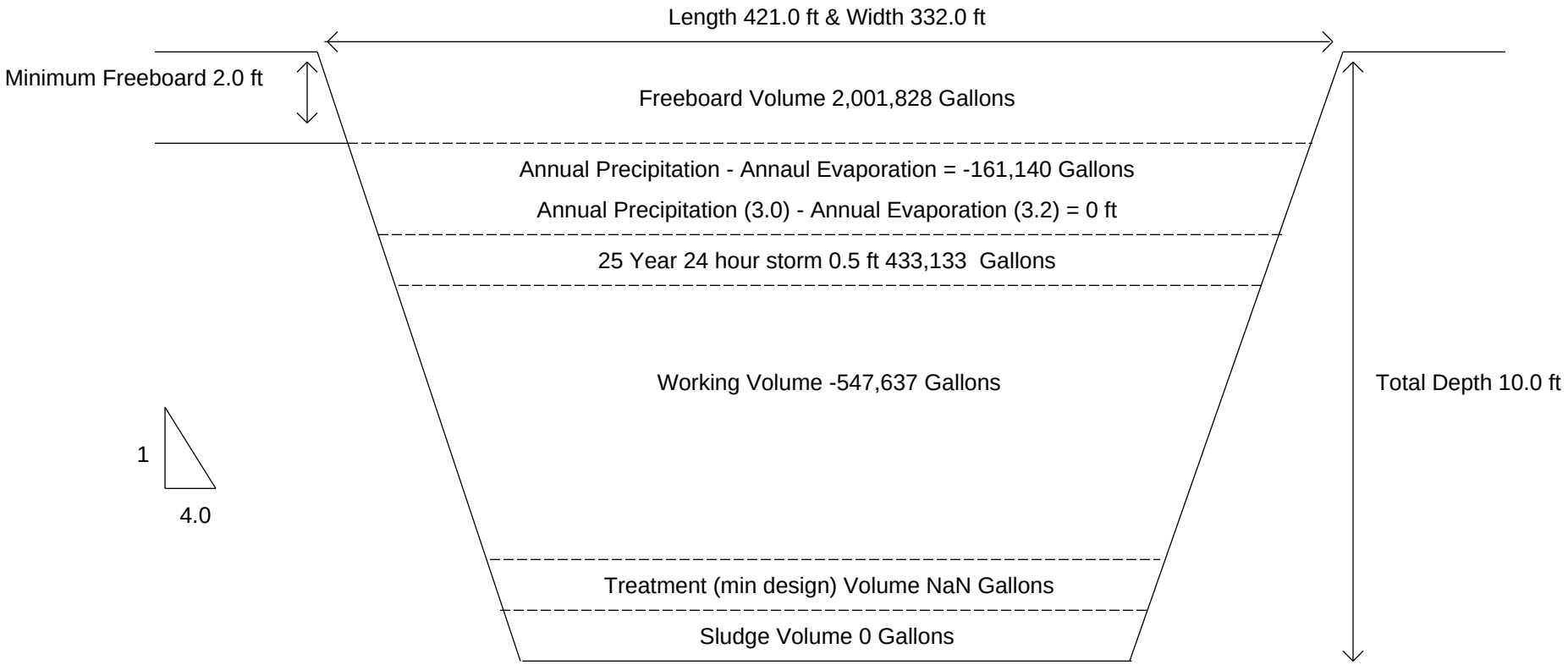
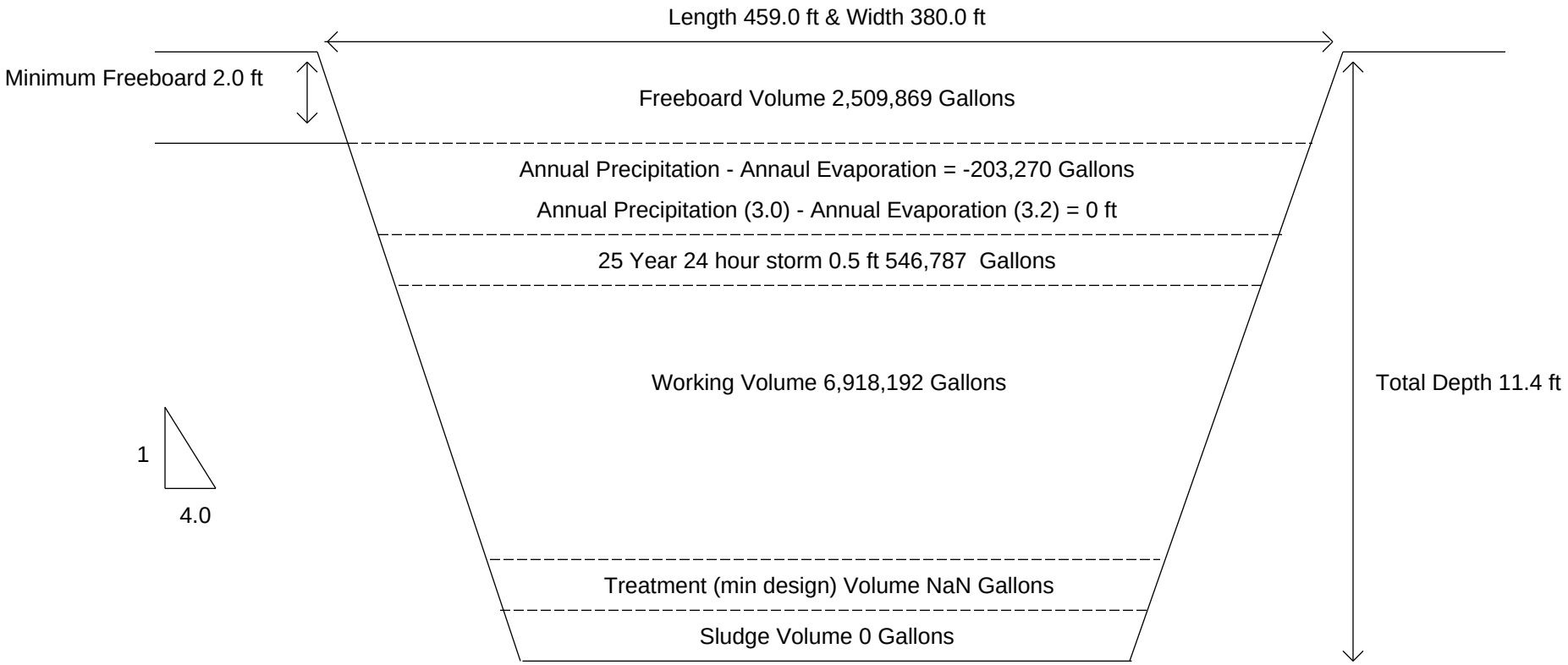

Length 407.5 ft & Width 432.0 ft
Minimum Freeboard 2.0 ft
Freeboard Volume 2,534,044 Gallons
Annual Precipitation - Annaul Evaporation = -205,319 Gallons
Annual Precipitation (3.0) - Annual Evaporation (3.2) = 0 ft
25 Year 24 hour storm 0.5 ft 552,329 Gallons
Working Volume 8,161,038 Gallons
Total Depth 13.7 ft
1
4.0
Treatment (min design) Volume NaN Gallons
Sludge Volume 0 Gallons


Length 421.0 ft & Width 332.0 ft
Minimum Freeboard 2.0 ft
Freeboard Volume 2,001,828 Gallons
Annual Precipitation - Annaul Evaporation = -161,140 Gallons
Annual Precipitation (3.0) - Annual Evaporation (3.2) = 0 ft
25 Year 24 hour storm 0.5 ft 433,133 Gallons
Working Volume -547,637 Gallons
Total Depth 10.0 ft
1
4.0
Treatment (min design) Volume NaN Gallons
Sludge Volume 0 Gallons


Length 459.0 ft & Width 380.0 ft
Minimum Freeboard 2.0 ft
Freeboard Volume 2,509,869 Gallons
Annual Precipitation - Annaul Evaporation = -203,270 Gallons
Annual Precipitation (3.0) - Annual Evaporation (3.2) = 0 ft
25 Year 24 hour storm 0.5 ft 546,787 Gallons
Working Volume 6,918,192 Gallons
Total Depth 11.4 ft
1
4.0
Treatment (min design) Volume NaN Gallons
Sludge Volume 0 Gallons

ARCHERY

Primary Stage Lagoon

Treatment Volume

Phase	Head	VS Factor (lbs VS/hd/d)	VS (lbs VS/d)
ISO	216	0.80	173
BG	1,966	0.59	1,160
F	416	2.03	844
GD	1,030	1.00	1,030
		Total (lbs VS/d)	3,207
		VS Loading Rate (lbs VS/cu ft/d)	0.0045
		Treatment Volume (cu ft)	712,716
		Treatment Volume (gal)	**5,331,112**

References: *VS Factor. MWPS-18 Section 1. Table 6*
VS Loading Rate. MWPS-18 Section 2. Figure A-5.

Sludge Volume

Phase	Head	TS Factor (lbs TS/hd/d)	TS (lbs TS/d)
ISO	216	1.00	216
BG	1,966	0.69	1,357
F	416	2.25	936
GD	1,030	1.30	1,339
		Total (lbs TS/d)	3,848
		TS Annual (lbs TS/yr)	1,404,352
		Sludge Accumulation Ratio (cu ft/lb TS)	0.02
		Sludge Accumulation Period (yrs)	15
		Sludge Volume (cu ft)	421,306
		Sludge Volume (gal)	**3,151,366**

References: *TS Factor. MWPS-18 Section 1. Table 6*
TS Ratio. MWPS-18 Section 2. Table 2-3.

Precipitation

Precipitation *(MWPS-Section 2. Figure A-3)*	36
Evaporation *(MWPS-Section 2. Figure A-4)*	38
Net Precipitation-Evaporation (inches/yr)	-2

Lagoon Volumes

	Total	Freeboard	Storm	Net Precip-Evap
Top L (ft)	399.5	399.5	399.5	399.5
Top W (ft)	407.0	407.0	407.0	407.0
Depth (ft)	14.5	2.0	0.46	-0.17
Slope (run:rise)	4	4	4	4
Volume (cu ft)	1,744,420	312,460	73,848	(27,189)
Volume (gal)	**13,048,262**	**2,337,198**	**552,381**	**(203,375)**

VOLUMES (gal)	
Treatment	5,331,112
Sludge	3,151,366
Freeboard	2,337,198
Storm	552,381
Net Precip-Evap	(203,375)
TOTAL	**11,168,683**

ARCHERY

Secondary Stage Storage

Manure Production

Phase	Head	Manure Factor (gal/hd/d)	Daily Manure Production (gal/d)	Annual Manure Production (gal/yr)
ISO	216	3.50	756	275,940
BG	1,966	7.00	13,762	5,023,130
F	416	10.00	4,160	1,518,400
GD	1,030	2.00	2,060	751,900
		Total (gal)	20,738	**7,569,370**

References: *Manure factors based on actual records of water consumption and manure application.*

Precipitation

Precipitation *(MWPS-Section 2. Figure A-3)*	36
Evaporation *(MWPS-Section 2. Figure A-4)*	38
Net Precipitation-Evaporation (inches/yr)	-2

Lagoon Volume Calculations

	Total	Freeboard	Storm	Precipitation	Evaporation	Unpumpable
Top L (ft)	432.0	432.0	432.0	432.0	432.0	432.0
Top W (ft)	407.5	407.5	407.5	407.5	407.5	407.5
Depth (ft)	13.74	2.0	0.46	3.00	3.17	2.00
Slope (run:rise)	4	4	4	4	4	4
Volume (cu ft)	1,840,178	338,819	79,982	498,474	(524,464)	338,819
Volume (gal)	**13,764,533**	**2,534,364**	**598,263**	**3,728,586**	**(3,922,992)**	**2,534,364**

Summary

Freeboard	2,534,364
Storm	598,263
Precipitation	3,728,586
Evaporation	(3,922,992)
Umpumpable	2,534,364
Storage Volume (gal)	**8,291,950**
Storage Duration (days)	**400**

BALD EAGLE

Primary Stage Lagoon

Treatment Volume

Phase	Head	VS Factor (lbs VS/hd/d)	VS (lbs VS/d)
ISO	216	0.80	173
BG	1,966	0.59	1,160
F	416	2.03	844
		Total (lbs VS/d)	2,177
		VS Loading Rate (lbs VS/cu ft/d)	0.0045
		Treatment Volume (cu ft)	483,827
		Treatment Volume (gal)	**3,619,023**

References: *VS Factor. MWPS-18 Section 1. Table 6*
VS Loading Rate. MWPS-18 Section 2. Figure A-5.

Sludge Volume

Phase	Head	TS Factor (lbs TS/hd/d)	TS (lbs TS/d)
ISO	216	1.00	216
BG	1,966	0.69	1,357
F	416	2.25	936
		Total (lbs TS/d)	2,509
		TS Annual (lbs TS/yr)	915,617
		Sludge Accumulation Ratio (cu ft/lb TS)	0.02
		Sludge Accumulation Period (yrs)	15
		Sludge Volume (cu ft)	274,685
		Sludge Volume (gal)	**2,054,645**

References: *TS Factor. MWPS-18 Section 1. Table 6*
TS Ratio. MWPS-18 Section 2. Table 2-3.

Precipitation

Precipitation *(MWPS-Section 2. Figure A-3)*	36
Evaporation *(MWPS-Section 2. Figure A-4)*	38
Net Precipitation-Evaporation (inches/yr)	-2

Lagoon Volumes

	Total	Freeboard	Storm	Net Precip-Evap
Top L (ft)	332.4	332.4	332.4	332.4
Top W (ft)	421.5	421.5	421.5	421.5
Depth (ft)	9.8	2.0	0.46	(0.17)
Slope (run:rise)	4	4	4	4
Volume (cu ft)	1,106,117	268,321	63,584	(23,435)
Volume (gal)	**8,273,759**	**2,007,045**	**475,609**	**(175,294)**

Volume Summary (gal)	
Treatment	3,619,023
Sludge	2,054,645
Freeboard	2,007,045
Storm	475,609
Net Precip-Evap	(175,294)
TOTAL	**7,981,028**

BALD EAGLE

Secondary Stage Storage

Manure Production

Phase	Head	Manure Factor (gal/hd/d)	Daily Manure Production (gal/d)	Annual Manure Production (gal/yr)
ISO	216	3.50	756	275,940
BG	1,966	7.00	13,762	5,023,130
F	416	10.00	4,160	1,518,400
		Total (gal)	18,678	**6,817,470**

References: *Manure factors based on actual records of water consumption and manure application.*

Precipitation

Precipitation *(MWPS-Section 2. Figure A-3)*	36
Evaporation *(MWPS-Section 2. Figure A-4)*	38
Net Precipitation-Evaporation (inches/yr)	-2

Lagoon Volume Calculations

	Total	Freeboard	Storm	Precipitation	Evaporation	Unpumpable
Top L (ft)	459.0	459.0	459.0	459.0	459.0	459.0
Top W (ft)	379.5	379.5	379.5	379.5	379.5	379.5
Depth (ft)	11.4	2.0	0.46	3.00	3.17	2.00
Slope (run:rise)	4	4	4	4.0	4.0	4.0
Volume (cu ft)	1,578,309	335,136	79,135	492,962	(518,648)	335,136
Volume (gal)	**11,805,749**	**2,506,815**	**591,928**	**3,687,352**	**(3,879,483)**	**2,506,815**

Summary

Freeboard	2,506,815
Storm	591,928
Precipitation	3,687,352
Evaporation	(3,879,483)
Umpumpable	2,506,815
Storage Volume (gal)	**6,392,322**
Storage Duration (days)	**342**

Storages

System Name	Storage Name	Type	Length (ft)	Width (ft)	Depth (ft) Total/Working	Slope (ft of rise)	Working Storage[a] (gal)	Total Annual Manure Productions (gal)
ARCS	ARCS1	Lagoon	400	407	14 / NaN	4	163,593	
	ARCS2	Lagoon	408	432	14 / NaN	4	8,161,038	
						System Total (Gallons):	8,324,631	7,569,370
BLDS	BLDS1	Lagoon	421	332	10 / NaN	4	-547,637	
	BLDS2	Lagoon	459	380	11 / NaN	4	6,918,192	
						System Total (Gallons):	6,370,556	6,817,470
						Farm Totals (Gallons):	14,695,187	14,386,840
							Total Farm Storage Capacity (Days):	373

[a] Manure Storages,2001 Midwest Plan Service-18 Section 2 p 24

Nutrient Profile

Storage	Laboratory	Lab #
ARCS2	587 - A & L Great	50846

Sample Date	Manure Analysis Lbs per 1000 gal		Availability Factor b	1st Year Availability lbs/1000 gal	2nd Year Availability Organic N lbs/1000 gal	3rd Year Availability Organic N lbs/1000 gal	4th Year Availability Organic N lbs/1000 gal
7/8/2010							
Analysis Date	TKN	4.10					
7/8/2010	Organic N	0.60	0.35	0.21	0.11	0.05	0.03
PAN lbs/1000 gal	NH4-N	3.50	0.60	2.10			
	P2O5	1.10	1.00	1.10			
2.31	K2O	5.60	1.00	5.60			

Nutrient Profile

Storage	Laboratory	Lab #
ARCS	587 - A & L Great	45337

Sample Date	Manure Analysis Lbs per 1000 gal		Availability Factor b	1st Year Availability lbs/1000 gal	2nd Year Availability Organic N lbs/1000 gal	3rd Year Availability Organic N lbs/1000 gal	4th Year Availability Organic N lbs/1000 gal
4/30/2009							
Analysis Date	TKN	5.70					
4/30/2009	Organic N	1.00	0.35	0.35	0.18	0.09	0.04
PAN lbs/1000 gal	NH4-N	4.70	0.60	2.82			
	P2O5	0.50	1.00	0.50			
3.17	K2O	6.20	1.00	6.20			

Nutrient Profile

Storage	Laboratory	Lab #
ARCS	587 - A & L Great	46381

Sample Date	Manure Analysis Lbs per 1000 gal		Availability Factor b	1st Year Availability lbs/1000 gal	2nd Year Availability Organic N lbs/1000 gal	3rd Year Availability Organic N lbs/1000 gal	4th Year Availability Organic N lbs/1000 gal
7/15/2009							
Analysis Date	TKN	4.50					
7/15/2009	Organic N	1.00	0.35	0.35	0.18	0.09	0.04
PAN lbs/1000 gal	NH4-N	3.50	0.60	2.10			
	P2O5	0.60	1.00	0.60			
2.45	K2O	6.20	1.00	6.20			

Nutrient Profile

Storage	Laboratory	Lab #
ARCS	582 - A & L Great	46010

Sample Date	Manure Analysis Lbs per 1000 gal		Availability Factor b	1st Year Availability lbs/1000 gal	2nd Year Availability Organic N lbs/1000 gal	3rd Year Availability Organic N lbs/1000 gal	4th Year Availability Organic N lbs/1000 gal
6/10/2009							
Analysis Date	TKN	4.30					
6/10/2009	Organic N	1.00	0.35	0.35	0.18	0.09	0.04
PAN lbs/1000 gal	NH4-N	3.30	0.60	1.98			
	P2O5	0.60	1.00	0.60			
2.33	K2O	6.20	1.00	6.20			

Nutrient Profile

Storage	Laboratory	Lab #
BLDS2	587 - A & L Great	50610

Sample Date 5/27/2010	Manure Analysis Lbs per 1000 gal		Availability Factor b	1st Year Availability lbs/1000 gal	2nd Year Availability Organic N lbs/1000 gal	3rd Year Availability Organic N lbs/1000 gal	4th Year Availability Organic N lbs/1000 gal
Analysis Date 5/27/2010	TKN	3.50					
	Organic N	0.60	0.35	0.21	0.11	0.05	0.03
PAN lbs/1000 gal	NH4-N	2.90	0.60	1.74			
	P2O5	0.50	1.00	0.50			
1.95	K2O	4.90	1.00	4.90			

Nutrient Profile

Storage	Laboratory	Lab #
BLDS	582 - A & L Great	45943

Sample Date 6/5/2009	Manure Analysis Lbs per 1000 gal		Availability Factor b	1st Year Availability lbs/1000 gal	2nd Year Availability Organic N lbs/1000 gal	3rd Year Availability Organic N lbs/1000 gal	4th Year Availability Organic N lbs/1000 gal
Analysis Date 6/5/2009	TKN	3.70					
	Organic N	0.10	0.35	0.04	0.02	0.01	0.00
PAN lbs/1000 gal	NH4-N	3.60	0.60	2.16			
	P2O5	0.60	1.00	0.60			
2.20	K2O	6.00	1.00	6.00			

[a] Manure Storages, 2001 Midwest Plan Service-18 Section 2 p 24 [b] Livestock Waste Facilities Handbook, 1993, Midwest Plan Service-18, Table 10-2

System Name	Storage ID	Lab	Lab Number	Analysis Date	TKN lbs/1000 gal	NH4-N lbs/1000 gal	Organic N lbs/1000 gal	P2O5 lbs/1000 gal	K2O lbs/1000 gal	% Total Solids
ARCS	ARCS2	Midwest Laboratories	719313	3/28/2002	4.90	4.19	0.71	0.90	5.90	
ARCS	N/A	Midwest Laboratories	719313	3/28/2002	4.84	4.14	0.70	0.90	5.87	
ARCS	ARCS2	Midwest Laboratories	843219	3/25/2003	4.11	3.59	0.52	0.70	5.40	
ARCS	N/A	Midwest Laboratories	843219	3/25/2003	4.06	3.55	0.51	0.73	5.39	
ARCS	ARCS2	Midwest Laboratories	973925	5/18/2004	4.12	3.95	0.17	0.80	5.40	
ARCS	N/A	Midwest Laboratories	973925	5/18/2004	4.07	3.01	1.06	0.82	5.43	
ARCS	ARCS2	Midwest Laboratories	991338	7/16/2004	2.92	2.43	0.49	0.70	5.30	
ARCS	ARCS2	Midwest Laboratories	1087411	6/29/2005	2.97	2.67	0.30	0.70	5.00	
ARCS	N/A	Midwest Laboratories	1087411	6/29/2005	2.97	2.67	0.30	0.70	5.00	
ARCS	N/A	Midwest Laboratories	1175288	4/21/2006	4.59	3.92	0.67	0.60	4.30	
ARCS	N/A	A & L Great Lakes Laboratories	31137	4/25/2006	3.20	2.70	0.50	0.80	3.70	0.18
ARCS	N/A	Midwest Laboratories	1215607	8/30/2006	1.12	0.59	0.53	0.90	5.70	
ARCS	N/A	A & L Great Lakes Laboratories	35505	5/18/2007	4.50	3.60	0.90	0.50	5.10	0.25
ARCS	N/A	A & L Great Lakes Laboratories	40803	5/12/2008	3.90	3.20	0.70	0.40	5.20	0.26
ARCS	N/A	582 - A & L Great Lakes Laboratories	44356	2/3/2009	111.70	19.30	92.40	556.00	21.80	36.39

ARCS	N/A	587 - A & L Great Lakes Laboratories	45337	4/30/2009	5.70	4.70	1.00	0.50	6.20	0.29
ARCS	N/A	582 - A & L Great Lakes Laboratories	46010	6/10/2009	4.30	3.30	1.00	0.60	6.20	0.29
ARCS	N/A	587 - A & L Great Lakes Laboratories	46381	7/15/2009	4.50	3.50	1.00	0.60	6.20	0.29
ARCS	ARCS2	587 - A & L Great Lakes Laboratories	50846	7/8/2010	4.10	3.50	0.60	1.10	5.60	0.24
BLDS	N/A	Midwest Laboratories	860207	5/13/2003	5.14	4.73	0.41	0.70	3.62	
BLDS	N/A	Midwest Laboratories	973926	5/18/2004	3.37	2.83	0.54	0.87	4.58	
BLDS	N/A	Midwest Laboratories	1087412	6/29/2005	1.94	1.44	0.50	0.90	4.40	
BLDS	N/A	Midwest Laboratories	1175289	4/21/2006	3.21	2.49	0.72	0.80	4.10	
BLDS	N/A	A & L Great Lakes Laboratories	31138	4/25/2006	4.50	3.80	0.70	0.70	4.30	0.20
BLDS	N/A	Midwest Laboratories	1215608	8/30/2006	1.00	0.41	0.59	1.30	5.80	
BLDS	N/A	A & L Great Lakes Laboratories	35506	5/18/2007	3.40	2.70	0.70	0.70	4.60	0.23
BLDS	N/A	A & L Great Lakes Laboratories	40804	5/12/2008	4.60	4.50	0.10	0.70	6.20	0.32
BLDS	N/A	582 - A & L Great Lakes Laboratories	45943	6/5/2009	3.70	3.60	0.10	0.60	6.00	0.24
BLDS	BLDS2	587 - A & L Great Lakes Laboratories	50610	5/27/2010	3.50	2.90	0.60	0.50	4.90	0.20

The Maschhoffs
Deep Pit Manure Removal Protocol
Natural Ventilation

Notify regional manager 3 days prior to agitation
Notify site manager 24 hrs prior to pumping

Text in BLACK is the Site Manager's Responsibility
Text in BLUE is the Crew Leader's Responsibility

1 Pigs under 50 lbs DO NOT AGITATE (other than management approved)

Mike Kampwerth
e-mail: mike.kampwerth@pigsrus.net
cell: 618-830-8044

2 Do Not Agitate Until a minimum of 2 ft air space below slats
3 Turn the lights on inside the barn
4 Turn pit fans to manual on (need to have a minimum airflow of 30 cfm per pig space)
5 Open curtains 6" and install temporary curtain limit block to prevent curtain from closing
6 May need to install a jumper wire by curtain opener to keep pit fans operating correctly
7 Leave heaters on auto to prevent the barn from getting to cold
8 ***Walk the entire barn to do final check that all people are out of the building***
9 ***Lock (one way locks) the barn only when positive all people are out of the building***
10 Place DO NOT ENTER signs at all unlocked access points of the building
11 Walk around the barn to ensure all fans are on manual and running at full speed
12 Point agitation nozzle down and away from corners then start agitation
13 Do not allow any manure to splash onto pigs or on the slats
14 Check pig health status every 30 minutes from side curtain - DO NOT ENTER THE BARN

Are there any sick or asphyxiated pigs observed?

Yes

- Shut off pumps immediately
- DO NOT ENTER BUILDING FOR 1 HR
- Contact site manager immediately to increase ventilation if controls are in a fresh air area (if not able to contact site manager within 3 minutes drop side curtain to vent the building)
- Contact Environmental Operations Manager and Regional Field Manger
- Complete pig asphyxiation report
- Continue pumping only after corrective measures have been determined and asphyxiated animals have been removed

No

- Continue agitation and pumping
- Observe pigs every 30 mins during agitation & pumping
- Replace pit cover when finished agitating each port and pumping
- Wait 1 hour before entering barn or resetting ventilation back to auto
- **Make sure pit covers are correctly installed and are air tight again**

Stormwater Management Plan

The goal of this stormwater management plan is to improve/maintain water quality by significantly reducing potential pollutants contained in stormwater runoff at the farm. The plan identifies potential sources of pollution and describes measures that have been implements to prevent and/or control the discharge of these materials in stormwater.

1) Production Area

a. This is a Concentrated Animal Feeding Operation (CAFO). Animals are kept indoors, which prevents contact with stormwater, for the entire production cycle.

b. Liquid fuel storage containers (gasoline or diesel) stored on site and used for consumptive purposes are inspected weekly for integrity of the tank and fixtures. The volume of fuel stored on-site does not meet the requirements for secondary containment as specified by 40 CFR 112.

2) Manure Storage Systems

a. Underfloor Deep Pit – are cast in place concrete structures under the livestock production facility, which by design, excludes stormwater. Weekly inspections ensure structural integrity and proper stormwater drainage away from the facility.

b. Lagoon/Basins – are earthen (lined or unlined) or concrete structures that are designed and operated with adequate freeboard to contain a 25 year/24 hour storm, and prevent site stormwater from entering the storage structure. Weekly inspections ensure structural integrity and proper stormwater drainage away from the structure.

3) Access Roads

Access roads shall be maintained with adequate rock to prevent sediment transport by stormwater. Access roads are constructed with adequate drainage and/or diversions to prevent excessive stormwater flow on the access road.

4) Sites used for the handling of material other than livestock waste

a. Feed Systems – comprised of bulk feed bins and feed lines which exclude stormwater. Spilled feed is recovered immediately and disposed of in solid waste.

b. Mortality Composter – Structures are roofed to exclude stormwater contact and adequate drainage to prevent runoff from the structure.

c. Mortality Shed - Structures are roofed to exclude stormwater contact and adequate drainage to prevent runoff from the structure.

d. Chemicals – Chemicals are stored in designated warehouse areas inside the facility to exclude stormwater contact.

5) Refuse Sites

Non hazardous solid waste is disposed through residential trash pickup. Dumpsters are equipped with lids to exclude stormwater.

6) Material handling equipment

Material handling equipment stored on-site is cleaned and potential contaminants removed prior to storage on-site.

7) Shipping and Receiving Areas

Swine loading ramps and/or docks are cleaned after shipping/receiving to prevent stormwater from coming in contact with potential pollutants.

Field ID	Conservation Crop Rotation (NRCS Code 328)	Contour Buffer Strips (NRCS Code 332)	Contour Strip Cropping (NRCS Code 585)	Cover Crop (NRCS Code 340)	Filter Strip (NRCS Code 393)	Grassed Waterway (NRCS Code 412)	Irrigation Water Management (NRCS Code 449)	Residue Management No Till/Strip Till (NRCS Code 329A)	Residue Management Mulch Till (NRCS Code 329B)	Residue Management Ridge Till (NRCS Code 329C)	Riparian Forest Buffer (NRCS Code 391)	Terrace (NRCS Code 600)	Other Practices	Other Practices Described
CSNT							X							
FDLT							X							
HDWK							X							
KLHR							X							
WLTN							X							

RUSLE2 Profile Erosion Calculation Record

Info: ARCH-BLDE field: CSNT
File: profiles\ARCH-BLDE_Field _CSNT
Access Group: R2_NRCS_Fld_Office
Inputs:
Location: Illinois\Cass County
Soil: 54B Plainfield sand, 1 to 7 percent slopes\Plainfield sand 100%
Slope length (horiz): 150 ft
Avg. slope steepness: 3.0 %

Management	*Vegetation*	*Yield units*	*Yield (# of units)*
CMZ 16\c.Other Local Mgt Records\ARCH-BLDE_Continuous_Corn	Corn, grain	bushels	157.60

Contouring: a. rows up-and-down hill
Strips/barriers: (none)
Diversion/terrace, sediment basin: (none)
Subsurface drainage: (none)
Adjust res. burial level: Normal res. burial
General yield level: Set by user
Rock cover: 0 %

Irrigation Inputs (for first management): managements\CMZ 16\c.Other Local Mgt Records\ARCH-BLDE_Continuous_Corn
Inputs for irrigation by application rate:

Date	*Operation*	*Vegetation*	*Date*	*Appl. rate that day, in/day*
4/15/1	Disk, tandem light finishing		6/25/1	1.0
4/16/1	Cultivator, field 6-12 in sweeps		7/15/1	1.0
4/17/1	Planter, double disk opnr	Corn, grain	8/10/1	1.0
6/15/1	Manure, liquid irrigation		8/30/1	1.0
7/1/1	Manure, liquid irrigation			
7/30/1	Manure, liquid irrigation			
8/20/1	Manure, liquid irrigation			
10/28/1	Harvest, killing crop 50pct standing stubble			

Outputs:
T value: 5.0 t/ac/yr
Soil loss erod. portion: 1.7 t/ac/yr
Detachment on slope: 1.7 t/ac/yr
Soil loss for cons. plan: 1.7 t/ac/yr
Sediment delivery: 1.7 t/ac/yr
Net C factor: 0.082
Net K factor: 0.29
Crit. slope length: -- ft
Surf. cover after planting: 60 %

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
4/15/0	Disk, tandem light finishing		64
4/16/0	Cultivator, field 6-12 in sweeps		58
4/17/0	Planter, double disk opnr	Corn, grain	60
6/15/0	Manure, liquid irrigation		45
7/1/0	Manure, liquid irrigation		40
7/30/0	Manure, liquid irrigation		29
8/20/0	Manure, liquid irrigation		23
10/28/0	Harvest, killing crop 50pct standing stubble		83

Soil conditioning index (SCI): 0.5
Avg. annual slope STIR: 48.7
Wind & irrigation-induced erosion for SCI: 0 t/ac/yr

RUSLE2 Profile Erosion Calculation Record

Info: ARCH-BLDE field: FDLT
File: profiles\ARCH-BLDE_Field _FDLT
Access Group: R2_NRCS_Fld_Office
Inputs:
Location: Illinois\Cass County
Soil: 54B Plainfield sand, 1 to 7 percent slopes\Plainfield sand 100%
Slope length (horiz): 150 ft
Avg. slope steepness: 3.0 %

Management	*Vegetation*	*Yield units*	*Yield (# of units)*
CMZ 16\c.Other Local Mgt Records\ARCH-BLDE_Continuous_Corn	Corn, grain	bushels	147.20

Contouring: a. rows up-and-down hill
Strips/barriers: (none)
Diversion/terrace, sediment basin: (none)
Subsurface drainage: (none)
Adjust res. burial level: Normal res. burial
General yield level: Set by user
Rock cover: 0 %

Irrigation Inputs (for first management): managements\CMZ 16\c.Other Local Mgt Records\ARCH-BLDE_Continuous_Corn
Inputs for irrigation by application rate:

Date	*Operation*	*Vegetation*	*Date*	*Appl. rate that day, in/day*
4/15/1	Disk, tandem light finishing		6/25/1	1.0
4/16/1	Cultivator, field 6-12 in sweeps		7/15/1	1.0
4/17/1	Planter, double disk opnr	Corn, grain	8/10/1	1.0
6/15/1	Manure, liquid irrigation		8/30/1	1.0
7/1/1	Manure, liquid irrigation		1/0/0	
7/30/1	Manure, liquid irrigation		1/0/0	
8/20/1	Manure, liquid irrigation		1/0/0	
10/28/1	Harvest, killing crop 50pct standing stubble		1/0/0	

Outputs:
T value: 5.0 t/ac/yr
Soil loss erod. portion: 1.9 t/ac/yr
Detachment on slope: 1.9 t/ac/yr
Soil loss for cons. plan: 1.9 t/ac/yr
Sediment delivery: 1.9 t/ac/yr
Net C factor: 0.089
Net K factor: 0.29
Crit. slope length: -- ft
Surf. cover after planting: 58 %

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
4/15/0	Disk, tandem light finishing		61
4/16/0	Cultivator, field 6-12 in sweeps		56
4/17/0	Planter, double disk opnr	Corn, grain	58
6/15/0	Manure, liquid irrigation		43
7/1/0	Manure, liquid irrigation		38
7/30/0	Manure, liquid irrigation		28
8/20/0	Manure, liquid irrigation		21
10/28/0	Harvest, killing crop 50pct standing stubble		81

Soil conditioning index (SCI): 0.4
Avg. annual slope STIR: 48.7
Wind & irrigation-induced erosion for SCI: 0 t/ac/yr

RUSLE2 Profile Erosion Calculation Record

Info: ARCH-BLDE field: HDWK
File: profiles\ARCH-BLDE_Field _HDWK
Access Group: R2_NRCS_Fld_Office
Inputs:
Location: Illinois\Cass County
Soil: 54B Plainfield sand, 1 to 7 percent slopes\Plainfield sand 100%
Slope length (horiz): 150 ft
Avg. slope steepness: 3.0 %

Management	*Vegetation*	*Yield units*	*Yield (# of units)*
CMZ 16\c.Other Local Mgt Records\ARCH-BLDE_Continuous_Corn	Corn, grain	bushels	172.00

Contouring: a. rows up-and-down hill
Strips/barriers: (none)
Diversion/terrace, sediment basin: (none)
Subsurface drainage: (none)
Adjust res. burial level: Normal res. burial
General yield level: Set by user
Rock cover: 0 %

Irrigation Inputs (for first management): managements\CMZ 16\c.Other Local Mgt Records\ARCH-BLDE_Continuous_Corn
Inputs for irrigation by application rate:

Date	*Operation*	*Vegetation*	*Date*	*Appl. rate that day, in/day*
4/15/1	Disk, tandem light finishing		6/25/1	1.0
4/16/1	Cultivator, field 6-12 in sweeps		7/15/1	1.0
4/17/1	Planter, double disk opnr	Corn, grain	8/10/1	1.0
6/15/1	Manure, liquid irrigation		8/30/1	1.0
7/1/1	Manure, liquid irrigation		1/0/0	
7/30/1	Manure, liquid irrigation		1/0/0	
8/20/1	Manure, liquid irrigation		1/0/0	
10/28/1	Harvest, killing crop 50pct standing stubble		1/0/0	

Outputs:
T value: 5.0 t/ac/yr
Soil loss erod. portion: 1.5 t/ac/yr
Detachment on slope: 1.5 t/ac/yr
Soil loss for cons. plan: 1.5 t/ac/yr
Sediment delivery: 1.5 t/ac/yr
Net C factor: 0.073
Net K factor: 0.29
Crit. slope length: -- ft
Surf. cover after planting: 63 %

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
4/15/0	Disk, tandem light finishing		67
4/16/0	Cultivator, field 6-12 in sweeps		61
4/17/0	Planter, double disk opnr	Corn, grain	63
6/15/0	Manure, liquid irrigation		48
7/1/0	Manure, liquid irrigation		42
7/30/0	Manure, liquid irrigation		31
8/20/0	Manure, liquid irrigation		24
10/28/0	Harvest, killing crop 50pct standing stubble		85

Soil conditioning index (SCI): 0.5
Avg. annual slope STIR: 48.7
Wind & irrigation-induced erosion for SCI: 0 t/ac/yr

RUSLE2 Profile Erosion Calculation Record

Info: ARCH-BLDE field: KLHR
File: profiles\ARCH-BLDE_Field _KLHR
Access Group: R2_NRCS_Fld_Office
Inputs:
Location: Illinois\Cass County
Soil: 54B Plainfield sand, 1 to 7 percent slopes\Plainfield sand 100%
Slope length (horiz): 150 ft
Avg. slope steepness: 3.0 %

Management	*Vegetation*	*Yield units*	*Yield (# of units)*
CMZ 16\c.Other Local Mgt Records\ARCH-BLDE_Continuous_Corn	Corn, grain	bushels	111.00

Contouring: a. rows up-and-down hill
Strips/barriers: (none)
Diversion/terrace, sediment basin: (none)
Subsurface drainage: (none)
Adjust res. burial level: Normal res. burial
General yield level: Set by user
Rock cover: 0 %

Irrigation Inputs (for first management): managements\CMZ 16\c.Other Local Mgt Records\ARCH-BLDE_Continuous_Corn
Inputs for irrigation by application rate:

Date	*Operation*	*Vegetation*	*Date*	*Appl. rate that day, in/day*
4/15/1	Disk, tandem light finishing		6/25/1	1.0
4/16/1	Cultivator, field 6-12 in sweeps		7/15/1	1.0
4/17/1	Planter, double disk opnr	Corn, grain	8/10/1	1.0
6/15/1	Manure, liquid irrigation		8/30/1	1.0
7/1/1	Manure, liquid irrigation		1/0/0	
7/30/1	Manure, liquid irrigation		1/0/0	
8/20/1	Manure, liquid irrigation		1/0/0	
10/28/1	Harvest, killing crop 50pct standing stubble		1/0/0	

Outputs:
T value: 5.0 t/ac/yr
Soil loss erod. portion: 2.7 t/ac/yr
Detachment on slope: 2.7 t/ac/yr
Soil loss for cons. plan: 2.7 t/ac/yr
Sediment delivery: 2.7 t/ac/yr
Net C factor: 0.13
Net K factor: 0.29
Crit. slope length: -- ft
Surf. cover after planting: 48 %

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
4/15/0	Disk, tandem light finishing		52
4/16/0	Cultivator, field 6-12 in sweeps		47
4/17/0	Planter, double disk opnr	Corn, grain	48
6/15/0	Manure, liquid irrigation		35
7/1/0	Manure, liquid irrigation		31
7/30/0	Manure, liquid irrigation		22
8/20/0	Manure, liquid irrigation		17
10/28/0	Harvest, killing crop 50pct standing stubble		72

Soil conditioning index (SCI): 0.2
Avg. annual slope STIR: 48.7
Wind & irrigation-induced erosion for SCI: 0 t/ac/yr

RUSLE2 Profile Erosion Calculation Record

Info: ARCH-BLDE field: WLTN
File: profiles\ARCH-BLDE_Field _WLTN
Access Group: R2_NRCS_Fld_Office
Inputs:
Location: Illinois\Cass County
Soil: 54B Plainfield sand, 1 to 7 percent slopes\Plainfield sand 100%
Slope length (horiz): 150 ft
Avg. slope steepness: 3.0 %

Management	*Vegetation*	*Yield units*	*Yield (# of units)*
CMZ 16\c.Other Local Mgt Records\ARCH-BLDE_Continuous_Corn	Corn, grain	bushels	157.60

Contouring: a. rows up-and-down hill
Strips/barriers: (none)
Diversion/terrace, sediment basin: (none)
Subsurface drainage: (none)
Adjust res. burial level: Normal res. burial
General yield level: Set by user
Rock cover: 0 %

Irrigation Inputs (for first management): managements\CMZ 16\c.Other Local Mgt Records\ARCH-BLDE_Continuous_Corn
Inputs for irrigation by application rate:

Date	*Operation*	*Vegetation*	*Date*	*Appl. rate that day, in/day*
4/15/1	Disk, tandem light finishing		6/25/1	1.0
4/16/1	Cultivator, field 6-12 in sweeps		7/15/1	1.0
4/17/1	Planter, double disk opnr	Corn, grain	8/10/1	1.0
6/15/1	Manure, liquid irrigation		8/30/1	1.0
7/1/1	Manure, liquid irrigation		1/0/0	
7/30/1	Manure, liquid irrigation		1/0/0	
8/20/1	Manure, liquid irrigation		1/0/0	
10/28/1	Harvest, killing crop 50pct standing stubble		1/0/0	

Outputs:
T value: 5.0 t/ac/yr
Soil loss erod. portion: 1.7 t/ac/yr
Detachment on slope: 1.7 t/ac/yr
Soil loss for cons. plan: 1.7 t/ac/yr
Sediment delivery: 1.7 t/ac/yr
Net C factor: 0.082
Net K factor: 0.29
Crit. slope length: -- ft
Surf. cover after planting: 60 %

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
4/15/0	Disk, tandem light finishing		64
4/16/0	Cultivator, field 6-12 in sweeps		58
4/17/0	Planter, double disk opnr	Corn, grain	60
6/15/0	Manure, liquid irrigation		45
7/1/0	Manure, liquid irrigation		40
7/30/0	Manure, liquid irrigation		29
8/20/0	Manure, liquid irrigation		23
10/28/0	Harvest, killing crop 50pct standing stubble		83

Soil conditioning index (SCI): 0.5
Avg. annual slope STIR: 48.7
Wind & irrigation-induced erosion for SCI: 0 t/ac/yr