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**Department of Energy**  
**Ohio Field Office**  
**Fernald Environmental Management Project**  
**P. O. Box 538705**  
**Cincinnati, Ohio 45253-8705**  
**(513) 648-3155**



JUN 07 2004

Mr. James A. Saric, Remedial Project Manager  
United States Environmental Protection Agency  
Region V, SR-6J  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

DOE-0290-04

Mr. Tom Schneider, Project Manager  
Ohio Environmental Protection Agency  
401 East 5<sup>th</sup> Street

Dear Mr. Saric and Mr. Schneider:

**TRANSMITTAL OF THE MARCH 11, 2004 INSPECTION CHECKLIST FOR ON-SITE DISPOSAL FACILITY CELL 1 AND 2 CAPS**

The purpose of this letter is to transmit the completed checklist for the March 11, 2004 inspection of the On-Site Disposal Facility (OSDF) Cell 1 and 2 Caps for your review. The inspection was conducted with participation from Tetra Tech, Inc. (supporting the United States Environmental Protection Agency (USEPA)), Ohio Environmental Protection Agency (OEPA), Ohio Department of Health (ODH), Department of Energy, Fernald Closure Project (DOE-FCP) and Fluor Fernald, Inc. The inspection was the fifth conducted on the Cell 1 Cap and the first conducted on the Cell 2 Cap, and generally found both caps to be in good condition.

During the March 2004 inspection, the team identified woody plant species growing in the drainage channel surrounding the Cell 1 and 2 Caps that will require herbicide application prior to the next inspection. Several erosion rills were also identified that will be filled and seeded. Several additional minor maintenance issues are outlined on the enclosed checklist. Photographs showing the condition of the Cell 1 and 2 Caps on the day of inspection are also enclosed for your review.

The next inspection of the Cell 1 and 2 Caps is scheduled for June 8, 2004 at 8:30 a.m.

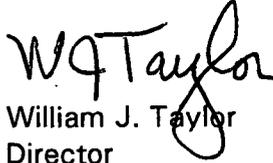
Mr. James A. Saric  
Mr. Tom Schneider

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DOE-0290-04

Any questions regarding this matter, please contact Johnny Reising at (513) 648-3139.

Sincerely,

  
William J. Taylor  
Director

FCP:Reising

Enclosure: As Stated

cc w/enclosure:

J. Craig, DOE-LM  
J. Powell, DOE-LM  
J. Reising, OH/FCP  
D. Pfister, OH/FCP  
E. Skintik, OH/FCP  
G. Stegner, OH/FCP  
T. Schneider, OEPA-Dayton (three copies of enclosure)  
G. Jablonowski, USEPA-V, SR-6J  
D. Bidwell, FCAB  
D. Sarno, FCAB  
F. Bell, ATSDR  
M. Cullerton, Tetra Tech  
M. Shupe, HSI GeoTrans  
R. Vandegrift, ODH  
AR Coordinator, Fluor Fernald, Inc./MS78

cc w/o enclosure:

N. Akgunduz, OH/FCP  
K. Alkema, Fluor Fernald, Inc./MS1  
J. Chiou, Fluor Fernald, Inc./MS64  
T. Hagen, Fluor Fernald, Inc./MS1  
J. Homer, Fluor Fernald, Inc./MS90  
W. Hooper, Fluor Fernald, Inc./MS64  
U. Kumthekar, Fluor Fernald, Inc./MS64  
L. Ludwick, Fluor Fernald, Inc./MS90  
T. Poff, Fluor Fernald, Inc./MS65-2  
D. Powell, Fluor Fernald, Inc./MS64  
H. Swiger, Fluor Fernald, Inc./MS90  
S. Walpole, Fluor Fernald, Inc./MS76  
E. Woods, Fluor Fernald, Inc./MS90  
ECDC, Fluor Fernald, Inc./MS52-7

**OSDF CELL 1**  
**POST CLOSURE INSPECTION CHECKLIST**

# OSDF Cell 1 Post Closure Inspection Checklist

Date of Inspection: March 11, 2004

Weather Conditions: Cloudy

Time of Inspection: 9:00 a.m.

Temperature: °F      Wind Speed (Miles per hour) and Direction:

Inspection By: Fluor Fernald, DOE, OEPA, Ohio Department of Health, Tetra Tech Inc.

Transect Direction\*\* East/West

Inspection Component	Condition A* or U*	Comments	Corrective Action(s) Proposed	Reference Source
<b>1. Entrance Road/Monitoring Access Road</b>				
1A. Verify entrance gate, lock and signage are intact and in good working order.	A	N/A	N/A	PCC&IP 20100-PL-010 Rev. 1 July 97
1B. Verify that access gates are locked to prevent unauthorized entry.	A	N/A	N/A	"
1C. Visually observe condition of access road for signs of erosion, ruts, standing water, proper drainage and excess vegetation.	A	N/A	N/A	"
1D. Verify that access road surfacing, cross slope, reflectors, and signage are intact and in good condition.	A	N/A	N/A	"
<b>2. Chain Link Fence and Signage</b>				
2A. Walk length of fence and ensure fence, posts, etc. are intact and in good condition. Ensure that gates are closed/locked to prevent unauthorized entry.	A	N/A	N/A	PCC&IP & OSDF Tech Spec #02831
2B. Verify that the proper signage is intact and in good condition at the following locations: Restricted Access; Certified Area; and Restored Area. (Some signs not installed at this time).	A	N/A	N/A	"
2C. Check for vegetation growing over fences, barricades, signs and any noxious vegetation per State of Ohio Regulations (attached) and invasive plants growing on or around OSDF perimeter.	A	N/A	N/A	"
<b>3. Surface Water Management</b>				
3A. Check integrity of drainage channels around OSDF for erosion or debris restricting water flow (see attached map). Build up of debris/sedimentation in drainage ditch is not to exceed 6 inches.	U	Construction currently on-going in northwest drainage along cell 1 near valve house 1	N/A	OSDF Tech. Spec. #02270; PCC&IP
3B. Visually check the integrity of RipRap in drainage channels for signs of deterioration or removal of rock.	A	N/A	N/A	See above & OSDF Tech. Spec. #02271
3C. Visually check for the presence of woody vegetation growing in drainage channels and in Rip-Rap	U	Woody plants growing in drainage channel	Herbicide application has been scheduled	"
3D. Visually check the integrity of run-on and run-off control features including: Ditch checks, Gravity Inlet structures, and Culverts.	A	N/A	N/A	See above & Construction Drawing # 90X- 6000-G-00073

\*A = Satisfactory \*U = Unsatisfactory (comments required)

\*\* Transect Direction should alternate each inspection (North to South & East to West)

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# OSDF Cell 1 Post Closure Inspection Checklist

Date of Inspection: March 11, 2004

Weather Conditions: Cloudy

Time of Inspection: 9:00 a.m.

Temperature: °F      Wind Speed (Miles per hour) and Direction:

Inspection By: Fluor Fernald, DOE, OEPA, Ohio Department of Health, Tetra Tech Inc.

Transect Direction\*\* East/West

Inspection Component	Condition A* or U*	Comments	Corrective Action(s) Proposed	Reference Source
<b>4. (A) Final Cover</b>				
4A. Walk cover and side slopes in 25-ft (+/- 5-ft) transects and visually inspect for the following items:**				PCC&IP
4A1. Inspect erosion rills/channels. Flag any observable rills/channels greater than 3 inches wide and 6 inches deep or excessive erosion.	U	Multiple erosion rills/channels identified on cap	Repair erosion rills/channels by hand and reseed. Map and monitor less severe rills	"
4A2. Any observable depressions, settlement/subsidence, slumping or desiccation cracks. Flag any observable depressions, slumps, settlement/subsidence or dessication cracks.	A			"
4A3. Any ponding or standing water. Flag any standing water.	A	N/A	N/A	"
4A4. Evidence of burrowing animals or other bio-intrusion. Flag any observable evidence of bio-intrusion.	U	The beginnings of animal burrows were identified. No completed burrows found.	None	"
4A5. Evidence of vehicle traffic on the OSDF cap.	A	N/A	N/A	"
4B. Walk toe of slope and visually inspect for the following:				PCC&IP & Phase III Drwgs #90X-6000-G- 00302 & 90X-6000-G- 00310
4B1. Evidence of settlement/subsidence, erosion, and seepage. Flag any observable evidence of settlement/subsidence, erosion, or seepage.	A	N/A	N/A	"
4B2. A 20-ft corridor at the toe for the presence of woody vegetation, siltation, and/or biointrusion. Flag any woody vegetation, siltation, and/or biointrusion.	A	N/A	N/A	"
4B3. Condition of rip-rap. Flag any observable abnormalities.	A	N/A	N/A	"
4C. Inspect toe at final cover for evidence of freezing or siltation. Flag any observable abnormalities.	A	N/A	N/A	"

\*A = Satisfactory \*U = Unsatisfactory (comments required)

\*\* Transect Direction should alternate each inspection (North to South & East to West)

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# OSDF Cell 1 Post Closure Inspection Checklist

Date of Inspection: March 11, 2004

Weather Conditions: Cloudy

Time of Inspection: 9:00 a.m.

Temperature: °F      Wind Speed (Miles per hour) and Direction:

Inspection By: Fluor Fernald, DOE, OEPA, Ohio Department of Health, Tetra Tech Inc.

Transect Direction\*\* East/West

Inspection Component	Condition A* or U*	Comments	Corrective Action(s) Proposed	Reference Source
<b>4. (B) Final Cover — Vegetation</b>				
4D. Walk cover and side slopes in 25-ft (+/- 5-ft) transects and visually check vegetative cover for the following:				OSDF Tech. Spec. #02930
4D1. General health of grass cover and signs of stressed or dead grass should be noted.	A	N/A	N/A	"
4D2. Adequate grass coverage/density with no bares spots greater than 3-ft in diameter. Flag any bare spots greater than 3-ft in diameter. Any areas with questionable vegetative coverage will be sampled for percent cover and type of vegetation using meter-square quadrats.	A	N/A	N/A	"
4D3. Inspect the cover for the presence of woody vegetation (i.e., trees or shrubs) or noxious/invasive plants growing. Flag any woody and/or noxious/invasive vegetation for removal/herbicide.	A	N/A	N/A	"
<b>5. Cover Monitoring System</b>				
5A. Visually inspect the integrity of the cover monitoring system: check Junction boxes, manholes, pressure transducer risers, soil water status nest headers, and settlement plates of the remote monitoring system for evidence of damage (see attached map). Check that lids and caps on enclosures are intact and in good working order.	N/A	N/A	N/A	OSDF Drwg. # 90X-5500-E-00581 & 90X-5500-G-00577
5B. Visually inspect monitoring system manholes and junction boxes for the presence of animals, insects, rodents or misc. biota. Note the presence or evidence of any biota.	N/A	N/A	N/A	"
5C. Visually inspect manholes and junction boxes and their immediate vicinity for the presence of standing water. Flag all standing water.	N/A	N/A	N/A	"
<b>6. Groundwater Monitoring Wells</b>				
6A. Visually inspect all groundwater wells for damage and integrity of well infrastructure.	A	N/A	N/A	PPC&IP
6A1. Groundwater Monitoring Wells	A	N/A	N/A	"
6A2. Horizontal Monitoring Wells	A	N/A	N/A	"

\*A = Satisfactory \*U = Unsatisfactory (comments required)

# OSDF Cell 1 Post Closure Inspection Checklist

Date of Inspection: March 11, 2004

Weather Conditions: Cloudy

Time of Inspection: 9:00 a.m.

Temperature: °F      Wind Speed (Miles per hour) and Direction:

Inspection By: Fluor Fernald, DOE, OEPA, Ohio Department of Health, Tetra Tech Inc.

Transect Direction\*\* East/West

Inspection Component	Condition A* or U*	Comments	Corrective Action(s) Proposed	Reference Source
<b>7. Miscellaneous</b>				
7A. Visually inspect the integrity of survey benchmarks. Flag/note any abnormalities.	A	N/A	N/A	PPC&IP
7B. Visually inspect the integrity of the perched water interceptor trench (once installed). Note any abnormalities.	A	N/A	N/A	
7C. Visually observe/inspect the corridor 50-ft outside of OSDF for signs/evidence of land use changes, settlement/subsidence, erosion, standing water, encroachment, livestock grazing or noxious vegetation. Note any changes/abnormalities.	A	N/A	N/A	
7D. Visually inspect all infrastructure for any act of vandalism.	A	N/A	N/A	"
7E. List any other observations not noted in the categories above.	A	N/A	N/A	"

\*A = Satisfactory \*U = Unsatisfactory (comments required)

**OSDF CELL 2**  
**POST CLOSURE INSPECTION CHECKLIST**

# OSDF Cell 2 Post Closure Inspection Checklist

Date of Inspection: March 11, 2004

Weather Conditions: Cloudy

Time of Inspection: 9:00 a.m.

Temperature: °F      Wind Speed (Miles per hour) and Direction:

Inspection By: Fluor Fernald, DOE, OEPA, Ohio Department of Health, Tetra Tech Inc.

Transect Direction\*\* East/West

Inspection Component	Condition A* or U*	Comments	Corrective Action(s) Proposed	Reference Source
<b>1. Entrance Road/Monitoring Access Road</b>				
1A. Verify entrance gate, lock and signage are intact and in good working order.	A	N/A	N/A	PCC&IP 20100-PL-010 Rev. 1 July 97
1B. Verify that access gates are locked to prevent unauthorized entry.	A	N/A	N/A	"
1C. Visually observe condition of access road for signs of erosion, ruts, standing water, proper drainage and excess vegetation.	U	Gravel "washouts" along east side of cell 2	Repair areas where gravel has washed away	"
1D. Verify that access road surfacing, cross slope, reflectors, and signage are intact and in good condition.	A	N/A	N/A	"
<b>2. Chain Link Fence and Signage</b>				
2A. Walk length of fence and ensure fence, posts, etc. are intact and in good condition. Ensure that gates are closed/locked to prevent unauthorized entry.	A	N/A	N/A	PCC&IP & OSDF Tech Spec #02831
2B. Verify that the proper signage is intact and in good condition at the following locations: Restricted Access; Certified Area; and Restored Area. (Some signs not installed at this time).	A	N/A	N/A	"
2C. Check for vegetation growing over fences, barricades, signs and any noxious vegetation per State of Ohio Regulations (attached) and invasive plants growing on or around OSDF perimeter.	A	N/A	N/A	"
<b>3. Surface Water Management</b>				
3A. Check integrity of drainage channels around OSDF for erosion or debris restricting water flow (see attached map). Build up of debris/sedimentation in drainage ditch is not to exceed 6 inches.	U	Construction currently on-going in northwest drainage along cell 2 near valve house 2	N/A	OSDF Tech. Spec. #02270; PCC&IP
3B. Visually check the integrity of RipRap in drainage channels for signs of deterioration or removal of rock.	A	N/A	N/A	See above & OSDF Tech. Spec. #02271
3C. Visually check for the presence of woody vegetation growing in drainage channels and in Rip-Rap	U	Woody plants growing in drainage channel	Herbicide application has been scheduled	"
3D. Visually check the integrity of run-on and run-off control features including: Ditch checks, Gravity Inlet structures, and Culverts.	A	N/A	N/A	See above & Construction Drawing # 90X- 6000-G-00073

\*A = Satisfactory \*U = Unsatisfactory (comments required)

\*\* Transect Direction should alternate each inspection (North to South & East to West)

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# OSDF Cell 2 Post Closure Inspection Checklist

Date of Inspection: March 11, 2004

Weather Conditions: Cloudy

Time of Inspection: 9:00 a.m.

Temperature: °F      Wind Speed (Miles per hour) and Direction:

Inspection By: Fluor Fernald, DOE, OEPA, Ohio Department of Health, Tetra Tech Inc.

Transect Direction\*\* East/West

Inspection Component	Condition A* or U*	Comments	Corrective Action(s) Proposed	Reference Source
<b>4. (A) Final Cover</b>				
4A. Walk cover and side slopes in 25-ft (+/- 5-ft) transects and visually inspect for the following items:**				PCC&IP
4A1. Inspect erosion rills/channels. Flag any observable rills/channels greater than 3 inches wide and 6 inches deep or excessive erosion.	U	Some erosion rills/channels beginning on cap	None	"
4A2. Any observable depressions, settlement/subsidence, slumping or desiccation cracks. Flag any observable depressions, slumps, settlement/subsidence or desiccation cracks.	U	Depressions are present along west side of the very top of the cap. Believed to be caused by heavy equipment during construction.	None	"
4A3. Any ponding or standing water. Flag any standing water.	A	N/A	N/A	"
4A4. Evidence of burrowing animals or other bio-intrusion. Flag any observable evidence of bio-intrusion.	A	N/A	N/A	"
4A5. Evidence of vehicle traffic on the OSDF cap.	A	N/A	N/A	"
4B. Walk toe of slope and visually inspect for the following:				PCC&IP & Phase III Drwgs #90X-6000-G- 00302 & 90X-6000-G- 00310
4B1. Evidence of settlement/subsidence, erosion, and seepage. Flag any observable evidence of settlement/subsidence, erosion, or seepage.	U	Erosion rills beginning along bottom edge of cap.	None	"
4B2. A 20-ft corridor at the toe for the presence of woody vegetation, siltation, and/or biointrusion. Flag any woody vegetation, siltation, and/or biointrusion.	A	N/A	N/A	"
4B3. Condition of rip-rap. Flag any observable abnormalities.	A	N/A	N/A	"
4C. Inspect toe at final cover for evidence of freezing or siltation. Flag any observable abnormalities.	A	N/A	N/A	"

\*A = Satisfactory \*U = Unsatisfactory (comments required)

\*\* Transect Direction should alternate each inspection (North to South & East to West)

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# OSDF Cell 2 Post Closure Inspection Checklist

Date of Inspection: March 11, 2004

Weather Conditions: Cloudy

Time of Inspection: 9:00 a.m.

Temperature: °F      Wind Speed (Miles per hour) and Direction:

Inspection By: Fluor Fernald, DOE, OEPA, Ohio Department of Health, Tetra Tech Inc.

Transect Direction\*\* East/West

Inspection Component	Condition A* or U*	Comments	Corrective Action(s) Proposed	Reference Source
<b>4. (B) Final Cover - Vegetation</b>				
4D. Walk cover and side slopes in 25-ft (+/- 5-ft) transects and visually check vegetative cover for the following:				OSDF Tech. Spec. #02930
4D1. General health of grass cover and signs of stressed or dead grass should be noted.	A	N/A	N/A	"
4D2. Adequate grass coverage/density with no bares spots greater than 3-ft in diameter. Flag any bare spots greater than 3-ft in diameter. Any areas with questionable vegetative coverage will be sampled for percent cover and type of vegetation using meter-square quadrats.	U	Area on west side and top where grass is not growing	Reseed area	"
4D3. Inspect the cover for the presence of woody vegetation (i.e., trees or shrubs) or noxious/invasive plants growing. Flag any woody and/or noxious/invasive vegetation for removal/herbicide.	A	N/A	N/A	"
<b>5. Cover Monitoring System</b>				
5A. Visually inspect the integrity of the cover monitoring system: check Junction boxes, manholes, pressure transducer risers, soil water status nest headers, and settlement plates of the remote monitoring system for evidence of damage (see attached map). Check that lids and caps on enclosures are intact and in good working order.	N/A	N/A	N/A	OSDF Drwg. # 90X-5500-E-00581 & 90X-5500-G-00577
5B. Visually inspect monitoring system manholes and junction boxes for the presence of animals, insects, rodents or misc. biota. Note the presence or evidence of any biota.	N/A	N/A	N/A	"
5C. Visually inspect manholes and junction boxes and their immediate vicinity for the presence of standing water. Flag all standing water.	N/A	N/A	N/A	"
<b>6. Groundwater Monitoring Wells</b>				
6A. Visually inspect all groundwater wells for damage and integrity of well infrastructure.	A	N/A	N/A	PPC&IP
6A1. Groundwater Monitoring Wells	A	N/A	N/A	"
6A2. Horizontal Monitoring Wells	A	N/A	N/A	"

\*A = Satisfactory \*U = Unsatisfactory (comments required)

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## OSDF Cell 2 Post Closure Inspection Checklist

Date of Inspection: March 11, 2004

Weather Conditions: Cloudy

Time of Inspection: 9:00 a.m.

Temperature: °F      Wind Speed (Miles per hour) and Direction:

Inspection By: Fluor Fernald, DOE, OEPA, Ohio Department of Health, Tetra Tech Inc.

Transect Direction\*\* East/West

Inspection Component	Condition A* or U*	Comments	Corrective Action(s) Proposed	Reference Source
<b>7. Miscellaneous</b>				
7A. Visually inspect the integrity of survey benchmarks. Flag/note any abnormalities.	A	N/A	N/A	PPC&IP
7B. Visually inspect the integrity of the perched water interceptor trench (once installed). Note any abnormalities.	A	N/A	N/A	
7C. Visually observe/inspect the corridor 50-ft outside of OSDF for signs/evidence of land use changes, settlement/subsidence, erosion, standing water, encroachment, livestock grazing or noxious vegetation. Note any changes/abnormalities.	A	N/A	N/A	
7D. Visually inspect all infrastructure for any act of vandalism.	A	N/A	N/A	"
7E. List any other observations not noted in the categories above.	A	N/A	N/A	"

\*A = Satisfactory \*U = Unsatisfactory (comments required)

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**PHOTOGRAPHS**



**North Face Cell 1**  
(looking west)

Graphic 8251.1

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**West Face Cell 1**  
**(looking north)**

Graphic 8251.2

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**Cell 1 Monitoring Instrument Marker**



**East Face Cell 2**  
(looking south)

Graphic 8251.4

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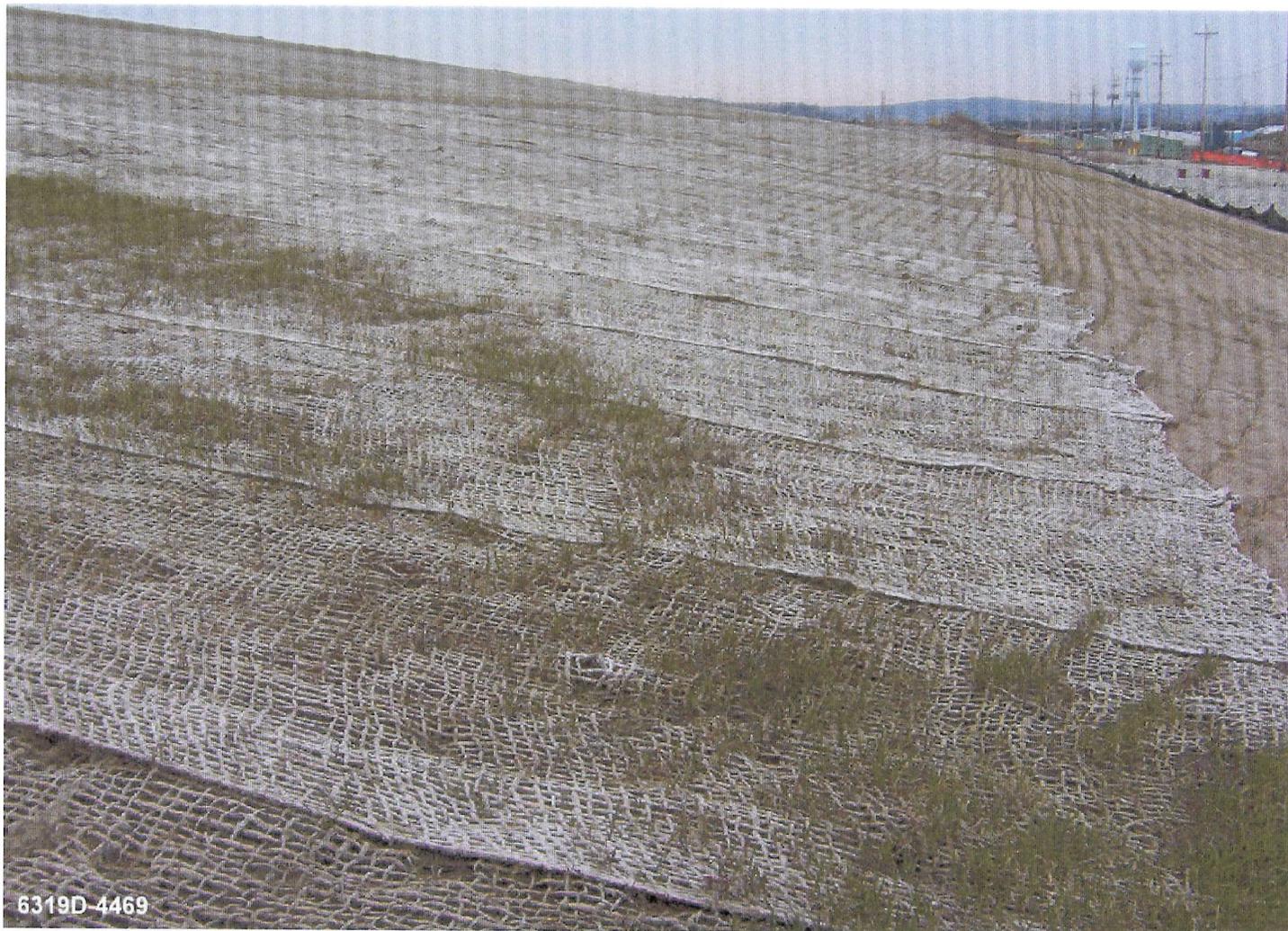
**Top Cell 2**  
**(looking south)**

Graphic 8251.5

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**West Face Cell 2**  
(looking south)



**East Face Cells 1 and 2**  
(looking south)