4555

CONSTRUCTION QUALITY ASSURANCE
FINAL REPORT

ON-SITE DISPOSAL FACILITY
PHASE III CELL 1
FINAL COVER CONSTRUCTION

United States Department of Energy
Fernald Environmental Management Project
Fernald, Ohio

prepared by

GEOSYNTEC CONSULTANTS
1100 Lake Hearn Drive, NE
Suite 200
Atlanta, Georgia 30342

under

Fluor Fernald, Inc.
Contract No. 95PS005028
Document No. 20103-CA-0001

000001

REVISION 0
VOLUME V of VI
MAY 2002

APPENDIX I

GEOMEMBRANE PANEL PLACEMENT MONITORING LOGS

GEOSYNTEC CONSULTANTS

FLUOR FERNALD

PANEL PLACEMENT LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: GQ1341 TASK NO.: 041

DESCRIPTION: CELL #1 CAP CONSTRUCTION YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: CAP PRODUCT TYPE: 60-MIL TEXTURED HDPE GEOMEMBRANE

PANEL NO.	BATCH / ROLL NO.	DATE (day/mo)	TIME	PLACEMENT LOCATION COMMENTS	APPROX WIDTH (ft)	APPROX LENGTH (ft)	QA ID
P-1	114110162	03 JULY	1141	WEST SLOPE / SOUTH END	23	375	KS
P-2	114110117	03 JULY	1320	WEST SLOPE / SOUTH END	23	366	TBU
P-3	114110156	6 July	1305	West Slope South end	23	343	KS
P-4	114110118	6 July	1630	West slope North end	23	314	KS
P-5	114110135	6 July	1645	West slope North end	23	284	KS
P-6	114110177	7 July	0830	West slope North end	23	258	KS
P-7	114110180	10 July	1615	West Slope North end	23	231	KS
P-8	114110155	10 July	1640	West slope North end	23	205	KS
P-9	114110155	10 July	1803	West Slope North end	23	180	KS
P-10	114110156	11 July	1335	West/North slope - NW Corner	23	51	KS
P-11	114110177	11 July	1359	West/North slope - NW Corner	23	69	KS
P-12	114110177	11 July	1425	North slope west end	23	72	KS
P-13	114110~~177~~ KS 160	11 July	1515	North slope west end	23	103	KS
P-14	114110160	11 July	1625	West slope North end	23	92	KS
P-15	114110160	11 July	1647	North slope NW corner	23	20	KS
P-16	114110160	11 July	1651	North slope NW Corner	23	35	KS
P-17	114110166	12 July	~~0435~~ KS 1535	West slope North end	23	111	KS
P-18	114110106	12 July	0935	West slope North end	~~23~~ KS 14	153	KS
P-19	114110106	12 July	1012	West slope North end	23	131	KS
P-20	114110050	12 July	1110	~~West~~ North Slope ~~North~~ West end	23	134	KS
P-21	114110050	12 July	1500	~~West~~ North Slope ~~North~~ West end	23	159	KS
P-22	114110172	12 July	1630	~~West~~ North Slope ~~North~~ West end	23	184	KS
P-23	114110172	13 July	1309	~~West~~ North KS Slope West end	23	209	KS
				TOTALS:(1)		3,926	(- P-18)

2,14 SG

NOTE: (1) APPROXIMATE AREA: THIS PAGE: 90,298 + 2,142 = 92,440 (ft²) ACCUMULATED: 92,440 (ft²)

NOTES:

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GEOSYNTEC CONSULTANTS

FLUOR FERNALD

PANEL PLACEMENT LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: GQ134 TASK NO.: 04.1

DESCRIPTION: CELL #1 CAP CONSTRUCTION YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: CAP PRODUCT TYPE: 60-MIL HDPE TEXTURED GEOMEMBRANE

PANEL NO.	BATCH / ROLL NO.	DATE (day/mo)	TIME	PLACEMENT LOCATION COMMENTS	APPROX WIDTH (ft)	APPROX LENGTH (ft)	QA ID
P-24	11411074	14 July	0820	North Slope west end	23	234	KS
P-25	11411082	14 July	1022	North Slope west end	23	257	KS
P-26	11411080	14 July	1340	North Slope west end	23	276	KS
P-27	11411136	17 July	1115	North Slope west end	23	294	KS
P-28	11411079 KS 179	17 July	1440	North Slope west end	23	313	KS
* ~~P-29~~	~~11411081~~	~~26 July~~	~~1330~~	~~North Slope west end~~	~~23~~		~~KS~~ *
* ~~P-30~~	~~11411081~~	~~20 July~~	~~1340~~	~~NORTH SLOPE WEST END~~	~~23~~		~~TBU~~ *
P-29	11411181	24 July	1140	North Slope West end	23	255	KS
P-30	11411181	24 July	1320	North slope west end	23	103	KS
P-31	11411163	24 July	1527	North Slope east end	23	354	KS
P-32	11411061	25 July	1015	North slope east end	23	~~355~~ 347 KS	KS
P-33	11411154	25 July	1325	North Slope east end	23	328	KS
P-34	11411171	27 July	1350	East slope South end	23	335	KS
P-35	11411166	27 July	1428	East slope South end	23	315	KS
P-36	11411068	27 July	1520	East Slope South end	23	293	KS
P-37	11411175	27 July	1615	East slope South end	23	270	KS
P-38	11411170	27 July	1649	East slope north end	23	247	KS
P-39	11411079	01 AUG	1505	EAST SLOPE NORTH END	23	222	TBU
P-40	11411079	01 AUG	1520	EAST SLOPE NORTH END	23	197	TBU
P-41	11411074	01 AUG	1535	EAST SLOPE NORTH END	23	173	TBU
P-42	11411170	01 AUG	1555	EAST SLOPE NORTH END	23	149	TBU
P-43	11411175	01 AUG	1645	EAST SLOPE NORTH END	23	124	TBU
				TOTALS:(1)		5,086	

NOTE: (1) APPROXIMATE AREA: THIS PAGE: 116,978 (ft²) ACCUMULATED: 209,418 (ft²)

NOTES: * - PANELS REMOVED AND REPLACED DUE TO INAPPROPRIATE HORIZONTAL SEAMS.

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GEOSYNTEC CONSULTANTS

FLUOR FERNALD

PANEL PLACEMENT LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: GQ1341 TASK NO.: 04.1

DESCRIPTION: CELL #1 CAP CONSTRUCTION YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: CAP PRODUCT TYPE: 60-MIL TEXTURED HDPE GEOMEMBRANE

PANEL NO.	BATCH / ROLL NO.	DATE (day/mo)	TIME	PLACEMENT LOCATION COMMENTS	APPROX WIDTH (ft)	APPROX LENGTH (ft)	QA ID
P-44	11411 0080	01 Aug	1725	East Slope North End	23	97	TBU
P-45	11411 0166	01 Aug	1745	East Slope North End	23	71	TBU
P-46	11411 0135	02 Aug	1240	N. East Corner	23	45	TBU
P-47	11411 0135	02 Aug	1250	N. East Corner	23	31	TBU
P-48	11411 0068	02 Aug	1415	N. East Corner	23	50	TBU
P-49	11411 0068	02 Aug	1420	N. East Corner	23	74	TBU
P-50	11411 0082	02 Aug	1530	N. East Corner	23	99	TBU
P-51	11411 0050	7 Aug	1020	N. East Corner	23	122	KS
P-52	11411 0136	7 Aug	1348	North Slope east end	23	146 (128) KS	KS
P-53	11411 0172	7 Aug	1509	North Slope east end	23	~~169~~ (18) KS	KS
P-54	11411 0085	8 Aug	0810	North Slope east end	23	169	KS
P-55	11411 0085	8 Aug	0850	North Slope east end	23	191	KS
P-56	11411 0178	8 Aug	0932	North Slope east end	23	212	KS
P-57	11411 0178	8 Aug	1030	North Slope east end	23	229	KS
P-58	11411 0176	8 Aug	1320	North Slope east end	23	238	KS
P-59	11411 0176	8 Aug	1415	North Slope east end	23	235	KS
P-60	11411 0168	8 Aug	1644	North Slope east end	23	230	KS
P-61	11411 0168	8 Aug	1738	North Slope east end	23	233	KS
* P-62	11411 0144	8 Aug	1810	North Slope east end	*	*	*
P-63	11411 0176	8 Aug	1430	North Slope east end	23	17	KS
				TOTALS:(1)		3,489	

NOTE: (1) APPROXIMATE AREA: THIS PAGE: 57,247 (ft²) ACCUMULATED: 266,665 (ft²)

NOTES: * 80-mil - temporary ⇒ REMOVED

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GEOSYNTEC CONSULTANTS

FLUOR FERNALD

PANEL PLACEMENT LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: GQ134 TASK NO.: 04.1

DESCRIPTION: CELL #1 CAP CONSTRUCTION YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: CAP PRODUCT TYPE: 60-MIL TEXTURED HDPE GEOMEMBRANE

PANEL NO.	BATCH / ROLL NO.	DATE (day/mo)	TIME	PLACEMENT LOCATION COMMENTS	APPROX WIDTH (ft)	APPROX LENGTH (ft)	QA ID
P-62	11411079	11 AUG	0900	NORTH SLOPE-MIDDLE	14	135 •	TBY 1,8
P-64	11411006	11 Aug	0930	North Slope Middle	23	35	KS
P-65	11411018	11 Aug	0958	North Slope Middle	23	18	KS
P-66	11411018	11 Aug	1020	North Slope Middle	23	42	KS
P-67	11411006	11 Aug	1040	North Slope Middle	23	59	KS
P-68	11411079	11 Aug	1140	North Slope Middle	~~18~~ 12	83 •	KS 99
				TOTALS:(1)		154	(-P-62 -P-68)

NOTE: (1) APPROXIMATE AREA: THIS PAGE: 3,542+2,886=6,428 (ft²) ACCUMULATED: 273,093 (ft²)

NOTES:

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APPENDIX J

GEOMEMBRANE TRIAL SEAM LOGS

FIELD TENSIOMETER CALIBRATION

4555

COLUMBINE
INTERNATIONAL, Ltd.
Plastic Testing Equipment Specialists

CALIBRATION CERTIFICATE

Customer Name: THE ISTRE CO.
Tensiometer Serial Number: NAL - 0896

110 Volt [X]
220 Volt [ ]
LBS

Device Calibrated: S-Type load cell
Range: 0-500 lbs. Tension
Model No: M2300-500
Serial No: 126721

Calibration Apparatus:
Dead Weight system w/
Fluke Model 8840A Multimeter

		W1	2	R1	812
Readout Model No:	2840AG-24123	W2	152	R2	2688
Readout Serial No:	10553035-149	W3	302	R3	4564
Channel No:	N/A				

Indicator reading with no load: 0

Applied Force lbs.	Output (mv):	Display reading:	Deviation Error:
2	2.436	2	0.00
52	4.311	52	0.00
102	6.183	102	0.00
152	8.060	152	0.00
202	9.933	202	0.00
252	11.811	252	0.00
302	13.691	302	0.00

Total Deviation Error (%): 0.00%

Temperature at time of calibration: 73 degrees F
Exitation Voltage: 10 V DC

Scale Factor (1):	0.0800	Offset (1):	-63
Scale Factor (2):	0.0800	Offset (2):	-63
Break point:	2688	Calibration Check #	

Traceable to NIST Standards

***NOTE: Readout and load cell above have been systems calibrated and are considered a matched pair. In general, calibrated readouts and load cells are not interchangeable.**

This calibration conforms to the standards set by ASTM E4.

Calibration performed by: BILL AULTZ

Signature: Bill Aultz Date: 5/9/01

000009

5441 Merchant Circle
Placerville, CA 95667
800-625-6693

Ph: (530) 622-2791
Fax: (530) 622-2704

The Jay Industrial Technologies Group, Inc.

Certificate of Accuracy

Customer	ISTRE
Address	13811 EAST POPLAR
City, State, Zip	GLENPOOL, OK 74033

Certification Number: 00-65829

	Standard	Standard	Standard	Instrument Certified
NIST Number	1686-34761			
Description	ATE-PSI			PRESSURE GAUGE
Manufacturer	Ashcroft			ASHCROFT
Model Number	AQS-2			20 1005 A 02 L.
Range	0-100 PSIG			0 - 100 PSI
Accuracy	.01%			2 % FULL SCALE
Serial Number	AQS-1686			N / A
Date Certified	11/22/00			JUNE 26, 2001

Notes:

Value Applied	Value Indicated Before	Value Indicated After	Deviation Before	Deviation After
PSI		PSIG		
0		0		No Readable Error
10		10		No Readable Error
20		20		No Readable Error
30		30		No Readable Error
40		40		No Readable Error
50		50		No Readable Error
60		60		No Readable Error
70		70		No Readable Error
80		80		No Readable Error
90		90		No Readable Error
100		100		No Readable Error

Minor Division	2 PSI
Ambient Temperature	71 ° F.
Barometric Pressure	30.29 IN. HG.
Relative Humidity	45 %

Sales Order Number: J 185672

Customer Purchase Order Number: N / A

This instrument is certified using standards traceable to N.I.S.T.

We further certify that our calibration system complies with MIL. STD. 45662-A.

Certified By: Bob Utz Date: 6/26/01

R. Utz
Signature

000010

4555

The Jay Industrial Technologies Group, Inc.

Certificate of Accuracy

Customer	ISTRE
Address	13811 EAST POPLAR
City, State, Zip	GLENPOOL, OK 74033

Certification Number: 00-65829

	Standard	Standard	Standard	Instrument Certified
NIST Number	1686-34761			
Description	ATE-PSI			PRESSURE GAUGE
Manufacturer	Ashcroft			ASHCROFT
Model Number	AQS-2			20 1005 A 02 L.
Range	0-100 PSIG			0 - 100 PSI
Accuracy	.01%			2 % FULL SCALE
Serial Number	AQS-1686			N / A
Date Certified	11/22/00			JUNE 26, 2001

Notes:

Value Applied	Value Indicated Before	Value Indicated After	Deviation Before	Deviation After
PSI		PSIG		
0		0		No Readable Error
10		10		No Readable Error
20		20		No Readable Error
30		30		No Readable Error
40		40		No Readable Error
50		50		No Readable Error
60		60		No Readable Error
70		70		No Readable Error
80		80		No Readable Error
90		90		No Readable Error
100		100		No Readable Error

Minor Division	2 PSI
Ambient Temperature	71 ° F.
Barometric Pressure	30.29 IN. HG.
Relative Humidity	45 %

Sales Order Number: J 185672

Customer Purchase Order Number: N / A

This instrument is certified using standards traceable to N.I.S.T.

We further certify that our calibration system complies with MIL. STD. 45662-A.

Certified By: Bob Utz Date: 6/26/01

Signature

000011

The Jay Industrial Technologies Group, Inc.

Certificate of Accuracy

Customer	ISTRE
Address	13811 EAST POPLAR
City, State, Zip	GLENPOOL, OK 74033

Certification Number: 00-65830

	Standard	Standard	Standard	Instrument Certified
NIST Number	1686-34761			
Description	ATE-PSI			PRESSURE GAUGE
Manufacturer	Ashcroft			ASHCROFT
Model Number	AQS-2			20 1005 A 02 L.
Range	0-100 PSIG			0 - 100 PSI
Accuracy	.01%			2 % FULL SCALE
Serial Number	AQS-1686			N / A
Date Certified	11/22/00			JUNE 26, 2001

Notes:

Value Applied	Value Indicated Before	Value Indicated After	Deviation Before	Deviation After
PSI		PSIG		
0		0		No Readable Error
10		10		No Readable Error
20		20		No Readable Error
30		30		No Readable Error
40		40		No Readable Error
50		50		No Readable Error
60		60		No Readable Error
70		70		No Readable Error
80		80		No Readable Error
90		90		No Readable Error
100		100		No Readable Error

Minor Division	2 PSI
Ambient Temperature	71 ° F.
Barometric Pressure	30.29 IN. HG.
Relative Humidity	45 %

Sales Order Number: J 185672

Customer Purchase Order Number: N / A

This instrument is certified using standards traceable to N.I.S.T.

We further certify that our calibration system complies with MIL. STD. 45662-A.

Certified By: Bob Utz Date: 6/26/01

Signature

4555

The Jay Industrial Technologies Group, Inc.

Certificate of Accuracy

Customer	ISTRE
Address	13811 EAST POPLAR
City, State, Zip	GLENPOOL, OK 74033

Certification Number

00-65830

	Standard	Standard	Standard	Instrument Certified
NIST Number	1686-34761			
Description	ATE-PSI			PRESSURE GAUGE
Manufacturer	Ashcroft			ASHCROFT
Model Number	AQS-2			20 1005 A 02 L.
Range	0-100 PSIG			0 - 100 PSI
Accuracy	.01%			2 % FULL SCALE
Serial Number	AQS-1686			N / A
Date Certified	11/22/00			JUNE 26, 2001

Notes:

Value Applied	Value Indicated Before	Value Indicated After	Deviation Before	Deviation After
PSI		PSIG		
0		0		No Readable Error
10		10		No Readable Error
20		20		No Readable Error
30		30		No Readable Error
40		40		No Readable Error
50		50		No Readable Error
60		60		No Readable Error
70		70		No Readable Error
80		80		No Readable Error
90		90		No Readable Error
100		100		No Readable Error

Minor Division	2 PSI
Ambient Temperature	71 ° F.
Barometric Pressure	30.29 IN. HG.
Relative Humidity	45 %

Sales Order Number

J 185672

Customer Purchase Order Number

N / A

This instrument is certified using standards traceable to N.I.S.T.

We further certify that our calibration system complies with MIL. STD. 45662-A.

Certified By Bob Utz **Date** 6/26/01

Signature

000013

4555

The Jay Industrial Technologies Group, Inc.

Certificate of Accuracy

Customer	ISTRE
Address	13811 EAST POPLAR
City, State, Zip	GLENPOOL, OK 74033

Certification Number: 00-65831

	Standard	Standard	Standard	Instrument Certified
NIST Number	1686-34761			
Description	ATE-PSI			PRESSURE GAUGE
Manufacturer	Ashcroft			ASHCROFT
Model Number	AQS-2			20 1005 A 02 L.
Range	0-100 PSIG			0 - 100 PSI
Accuracy	.01%			2 % FULL SCALE
Serial Number	AQS-1686			N / A
Date Certified	11/22/00			JUNE 26, 2001

Notes:

Value Applied	Value Indicated Before	Value Indicated After	Deviation Before	Deviation After
PSI		PSIG		
0		0		No Readable Error
10		10		No Readable Error
20		20		No Readable Error
30		30		No Readable Error
40		40		No Readable Error
50		50		No Readable Error
60		60		No Readable Error
70		70		No Readable Error
80		80		No Readable Error
90		90		No Readable Error
100		100		No Readable Error

Minor Division	2 PSI
Ambient Temperature	71 ° F.
Barometric Pressure	30.29 IN. HG.
Relative Humidity	45 %

Sales Order Number: J 185672

Customer Purchase Order Number: N / A

This instrument is certified using standards traceable to N.I.S.T.

We further certify that our calibration system complies with MIL. STD. 45662-A.

Certified By: Bob Utz Date: 6/26/01

Signature

000014

The Jay Industrial Technologies Group, Inc.

Certificate of Accuracy

Customer	ISTRE
Address	13811 EAST POPLAR
City, State, Zip	GLENPOOL, OK 74033

Certification Number: 00-65831

	Standard	Standard	Standard	Instrument Certified
NIST Number	1686-34761			
Description	ATE-PSI			PRESSURE GAUGE
Manufacturer	Ashcroft			ASHCROFT
Model Number	AQS-2			20 1005 A 02 L.
Range	0-100 PSIG			0 - 100 PSI
Accuracy	.01%			2 % FULL SCALE
Serial Number	AQS-1686			N / A
Date Certified	11/22/00			JUNE 26, 2001

Notes:

Value Applied	Value Indicated Before	Value Indicated After	Deviation Before	Deviation After
PSI		PSIG		
0		0		No Readable Error
10		10		No Readable Error
20		20		No Readable Error
30		30		No Readable Error
40		40		No Readable Error
50		50		No Readable Error
60		60		No Readable Error
70		70		No Readable Error
80		80		No Readable Error
90		90		No Readable Error
100		100		No Readable Error

Minor Division	2 PSI
Ambient Temperature	71 ° F.
Barometric Pressure	30.29 IN. HG.
Relative Humidity	45 %

Sales Order Number: J 185672

Customer Purchase Order Number: N / A

This instrument is certified using standards traceable to N.I.S.T.

We further certify that our calibration system complies with MIL. STD. 45662-A.

Certified By: Bob Utz Date: 6/26/01

Signature

4555

The Jay Industrial Technologies Group, Inc.

Certificate of Accuracy

Customer	ISTRE
Address	13811 EAST POPLAR
City, State, Zip	GLENPOOL, OK 74033

Certification Number: 00-65832

	Standard	Standard	Standard	Instrument Certified
NIST Number	10113-36847			
Description	ATE-PSI			VACUUM GAUGE
Manufacturer	Ashcroft			ASHCROFT
Model Number	AQS-2			15 1005 A 01 B.
Range	-14/+15°F			0 - 30 IN. HG. VACUUM
Accuracy	.25%			2 % FULL SCALE
Serial Number	10113			N / A
Date Certified	11/22/00			JUNE 26, 2001

Notes:

Value Applied	Value Indicated Before	Value Indicated After	Deviation Before	Deviation After
IN. HG. VAC.		IN. HG.		
0		0		No Readable Error
3		3		No Readable Error
6		6		No Readable Error
9		9		No Readable Error
12		12		No Readable Error
15		15		No Readable Error
18		18		No Readable Error
21		21		No Readable Error
24		24		No Readable Error
27		27		No Readable Error

Minor Division	0.5 IN. HG.
Ambient Temperature	71 ° F.
Barometric Pressure	30.29 IN. HG.
Relative Humidity	45 %

Sales Order Number: J 185672

Customer Purchase Order Number: N / A

This instrument is certified using standards traceable to N.I.S.T.

We further certify that our calibration system complies with MIL. STD. 45662-A.

Certified By: Bob Utz Date: 6/26/01

R. Ly

Signature

000016

Measurement Computation Final Contro

4555

The Jay Industrial Technologies Group, Inc.

Certificate of Accuracy

Customer	ISTRE
Address	13811 EAST POPLAR
City, State, Zip	GLENPOOL, OK 74033

Certification Number: 00-65832

	Standard	Standard	Standard	Instrument Certified
NIST Number	10113-36847			
Description	ATE-PSI			VACUUM GAUGE
Manufacturer	Ashcroft			ASHCROFT
Model Number	AQS-2			15 1005 A 01 B.
Range	-14/+15°F			0 - 30 IN. HG. VACUUM
Accuracy	.25%			2 % FULL SCALE
Serial Number	10113			N / A
Date Certified	11/22/00			JUNE 26, 2001

Notes:

Value Applied	Value Indicated Before	Value Indicated After	Deviation Before	Deviation After
IN. HG. VAC.		IN. HG.		
0		0		No Readable Error
3		3		No Readable Error
6		6		No Readable Error
9		9		No Readable Error
12		12		No Readable Error
15		15		No Readable Error
18		18		No Readable Error
21		21		No Readable Error
24		24		No Readable Error
27		27		No Readable Error

Minor Division	0.5 IN. HG.
Ambient Temperature	71 ° F.
Barometric Pressure	30.29 IN. HG.
Relative Humidity	45 %

Sales Order Number: J 185672

Customer Purchase Order Number: N / A

This instrument is certified using standards traceable to N.I.S.T.
We further certify that our calibration system complies with MIL. STD. 45662-A.

Certified By: Bob Utz Date: 6/26/01

R. U.
Signature

000017

urement Computation Final Contro

4555

COLUMBINE
INTERNATIONAL, Ltd.
Precision Weighing Equipment & Systems

CALIBRATION CERTIFICATE

Customer Name: THE ISTRE CO.
Tensiometer Serial Number: NAL - 0896

110 Volt [X]
220 Volt [ ]
LBS

Device Calibrated: S-Type load cell
Range: 0-500 lbs. Tension
Model No: M2300-500
Serial No: 126721

Calibration Apparatus:
Dead Weight system w/
Fluke Model 8840A Multimeter

		W1	2	R1	812
Readout Model No:	2840AG-24123	W2	152	R2	2688
Readout Serial No:	10553035-149	W3	302	R3	4564
Channel No:	N/A				

Indicator reading with no load: 0

Applied Force lbs.	Output (mv):	Display reading:	Deviation Error:
2	2.436	2	0.00
52	4.311	52	0.00
102	6.183	102	0.00
152	8.060	152	0.00
202	9.933	202	0.00
252	11.811	252	0.00
302	13.691	302	0.00

Total Deviation Error (%): 0.00%

Temperature at time of calibration: 73 degrees F
Exitation Voltage: 10 V DC

Scale Factor (1):	0.0800	Offset (1):	-63
Scale Factor (2):	0.0800	Offset (2):	-63
Break point:	2688	Calibration Check #	

Traceable to NIST Standards

***NOTE: Readout and load cell above have been systems calibrated and are considered a matched pair. In general, calibrated readouts and load cells are not interchangeable.**

This calibration conforms to the standards set by ASTM E4.

Calibration performed by: BILL AULTZ

Signature: Bill Aultz Date: 5/9/01

000009

5441 Merchant Circle
Placerville, CA 95667
800-635-6693

Ph: (530) 622-2791
Fax: (530) 622-2704

The Jay Industrial Technologies Group, Inc.

Certificate of Accuracy

Customer	ISTRE
Address	13811 EAST POPLAR
City, State, Zip	GLENPOOL, OK 74033

Certification Number: 00-65829

	Standard	Standard	Standard	Instrument Certified
NIST Number	1686-34761			
Description	ATE-PSI			PRESSURE GAUGE
Manufacturer	Ashcroft			ASHCROFT
Model Number	AQS-2			20 1005 A 02 L.
Range	0-100 PSIG			0 - 100 PSI
Accuracy	.01%			2 % FULL SCALE
Serial Number	AQS-1686			N / A
Date Certified	11/22/00			JUNE 26, 2001

Notes:

Value Applied	Value Indicated Before	Value Indicated After	Deviation Before	Deviation After
PSI		PSIG		
0		0		No Readable Error
10		10		No Readable Error
20		20		No Readable Error
30		30		No Readable Error
40		40		No Readable Error
50		50		No Readable Error
60		60		No Readable Error
70		70		No Readable Error
80		80		No Readable Error
90		90		No Readable Error
100		100		No Readable Error

Minor Division	2 PSI
Ambient Temperature	71 ° F.
Barometric Pressure	30.29 IN. HG.
Relative Humidity	45 %

Sales Order Number: J 185672

Customer Purchase Order Number: N / A

This instrument is certified using standards traceable to N.I.S.T.

We further certify that our calibration system complies with MIL. STD. 45662-A.

Certified By: Bob Utz Date: 6/26/01

R. Uz
Signature

4555

The Jay Industrial Technologies Group, Inc.

Certificate of Accuracy

Customer	ISTRE
Address	13811 EAST POPLAR
City, State, Zip	GLENPOOL, OK 74033

Certification Number: 00-65829

	Standard	Standard	Standard	Instrument Certified
NIST Number	1686-34761			
Description	ATE-PSI			PRESSURE GAUGE
Manufacturer	Ashcroft			ASHCROFT
Model Number	AQS-2			20 1005 A 02 L.
Range	0-100 PSIG			0 - 100 PSI
Accuracy	.01%			2 % FULL SCALE
Serial Number	AQS-1686			N / A
Date Certified	11/22/00			JUNE 26, 2001

Notes:

Value Applied	Value Indicated Before	Value Indicated After	Deviation Before	Deviation After
PSI		PSIG		
0		0		No Readable Error
10		10		No Readable Error
20		20		No Readable Error
30		30		No Readable Error
40		40		No Readable Error
50		50		No Readable Error
60		60		No Readable Error
70		70		No Readable Error
80		80		No Readable Error
90		90		No Readable Error
100		100		No Readable Error

Minor Division	2 PSI
Ambient Temperature	71 ° F.
Barometric Pressure	30.29 IN. HG.
Relative Humidity	45 %

Sales Order Number: J 185672

Customer Purchase Order Number: N / A

This instrument is certified using standards traceable to N.I.S.T.

We further certify that our calibration system complies with MIL. STD. 45662-A.

Certified By: Bob Utz Date: 6/26/01

Signature

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4555

The Jay Industrial Technologies Group, Inc.

Certificate of Accuracy

Customer	ISTRE
Address	13811 EAST POPLAR
City, State, Zip	GLENPOOL, OK 74033

Certification Number: 00-65830

	Standard	Standard	Standard	Instrument Certified
NIST Number	1686-34761			
Description	ATE-PSI			PRESSURE GAUGE
Manufacturer	Ashcroft			ASHCROFT
Model Number	AQS-2			20 1005 A 02 L.
Range	0-100 PSIG			0 - 100 PSI
Accuracy	.01%			2 % FULL SCALE
Serial Number	AQS-1686			N / A
Date Certified	11/22/00			JUNE 26, 2001

Notes:

Value Applied	Value Indicated Before	Value Indicated After	Deviation Before	Deviation After
PSI		PSIG		
0		0		No Readable Error
10		10		No Readable Error
20		20		No Readable Error
30		30		No Readable Error
40		40		No Readable Error
50		50		No Readable Error
60		60		No Readable Error
70		70		No Readable Error
80		80		No Readable Error
90		90		No Readable Error
100		100		No Readable Error

Minor Division	2 PSI
Ambient Temperature	71 ° F.
Barometric Pressure	30.29 IN. HG.
Relative Humidity	45 %

Sales Order Number: J 185672

Customer Purchase Order Number: N / A

This instrument is certified using standards traceable to N.I.S.T.

We further certify that our calibration system complies with MIL. STD. 45662-A.

Certified By: Bob Utz Date: 6/26/01

R. Ly
Signature

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4555

The Jay Industrial Technologies Group, Inc.

Certificate of Accuracy

Customer	ISTRE
Address	13811 EAST POPLAR
City, State, Zip	GLENPOOL, OK 74033

Certification Number: 00-65830

	Standard	Standard	Standard	Instrument Certified
NIST Number	1686-34761			
Description	ATE-PSI			PRESSURE GAUGE
Manufacturer	Ashcroft			ASHCROFT
Model Number	AQS-2			20 1005 A 02 L.
Range	0-100 PSIG			0 - 100 PSI
Accuracy	.01%			2 % FULL SCALE
Serial Number	AQS-1686			N / A
Date Certified	11/22/00			JUNE 26, 2001

Notes:

Value Applied	Value Indicated Before	Value Indicated After	Deviation Before	Deviation After
PSI		PSIG		
0		0		No Readable Error
10		10		No Readable Error
20		20		No Readable Error
30		30		No Readable Error
40		40		No Readable Error
50		50		No Readable Error
60		60		No Readable Error
70		70		No Readable Error
80		80		No Readable Error
90		90		No Readable Error
100		100		No Readable Error

Minor Division	2 PSI
Ambient Temperature	71 ° F.
Barometric Pressure	30.29 IN. HG.
Relative Humidity	45 %

Sales Order Number: J 185672

Customer Purchase Order Number: N / A

This instrument is certified using standards traceable to N.I.S.T.

We further certify that our calibration system complies with MIL. STD. 45662-A.

Certified By: Bob Utz Date: 6/26/01

Signature

000013

4555

The Jay Industrial Technologies Group, Inc.

Certificate of Accuracy

Customer	ISTRE
Address	13811 EAST POPLAR
City, State, Zip	GLENPOOL, OK 74033

Certification Number: 00-65831

	Standard	Standard	Standard	Instrument Certified
NIST Number	1686-34761			
Description	ATE-PSI			PRESSURE GAUGE
Manufacturer	Ashcroft			ASHCROFT
Model Number	AQS-2			20 1005 A 02 L.
Range	0-100 PSIG			0 - 100 PSI
Accuracy	.01%			2 % FULL SCALE
Serial Number	AQS-1686			N / A
Date Certified	11/22/00			JUNE 26, 2001

Notes:

Value Applied	Value Indicated Before	Value Indicated After	Deviation Before	Deviation After
PSI		PSIG		
0		0		No Readable Error
10		10		No Readable Error
20		20		No Readable Error
30		30		No Readable Error
40		40		No Readable Error
50		50		No Readable Error
60		60		No Readable Error
70		70		No Readable Error
80		80		No Readable Error
90		90		No Readable Error
100		100		No Readable Error

Minor Division	2 PSI
Ambient Temperature	71 ° F.
Barometric Pressure	30.29 IN. HG.
Relative Humidity	45 %

Sales Order Number: J 185672

Customer Purchase Order Number: N / A

This instrument is certified using standards traceable to N.I.S.T.

We further certify that our calibration system complies with MIL. STD. 45662-A.

Certified By: Bob Utz Date: 6/26/01

R. Ly
Signature

000014

The Jay Industrial Technologies Group, Inc.

Certificate of Accuracy

Customer	ISTRE
Address	13811 EAST POPLAR
City, State, Zip	GLENPOOL, OK 74033

Certification Number: 00-65831

	Standard	Standard	Standard	Instrument Certified
NIST Number	1686-34761			
Description	ATE-PSI			PRESSURE GAUGE
Manufacturer	Ashcroft			ASHCROFT
Model Number	AQS-2			20 1005 A 02 L.
Range	0-100 PSIG			0 - 100 PSI
Accuracy	.01%			2 % FULL SCALE
Serial Number	AQS-1686			N / A
Date Certified	11/22/00			JUNE 26, 2001

Notes:

Value Applied	Value Indicated Before	Value Indicated After	Deviation Before	Deviation After
PSI		PSIG		
0		0		No Readable Error
10		10		No Readable Error
20		20		No Readable Error
30		30		No Readable Error
40		40		No Readable Error
50		50		No Readable Error
60		60		No Readable Error
70		70		No Readable Error
80		80		No Readable Error
90		90		No Readable Error
100		100		No Readable Error

Minor Division	2 PSI
Ambient Temperature	71 ° F.
Barometric Pressure	30.29 IN. HG.
Relative Humidity	45 %

Sales Order Number: J 185672

Customer Purchase Order Number: N / A

This instrument is certified using standards traceable to N.I.S.T.

We further certify that our calibration system complies with MIL. STD. 45662-A.

Certified By: Bob Utz Date: 6/26/01

Signature

The Jay Industrial Technologies Group, Inc.

Certificate of Accuracy

Customer	ISTRE
Address	13811 EAST POPLAR
City, State, Zip	GLENPOOL, OK 74033

Certification Number: 00-65832

	Standard	Standard	Standard	Instrument Certified
NIST Number	10113-36847			
Description	ATE-PSI			VACUUM GAUGE
Manufacturer	Ashcroft			ASHCROFT
Model Number	AQS-2			15 1005 A 01 B.
Range	-14/+15°F			0 - 30 IN. HG. VACUUM
Accuracy	.25%			2 % FULL SCALE
Serial Number	10113			N / A
Date Certified	11/22/00			JUNE 26, 2001

Notes:

Value Applied	Value Indicated Before	Value Indicated After	Deviation Before	Deviation After
IN. HG. VAC.		IN. HG.		
0		0		No Readable Error
3		3		No Readable Error
6		6		No Readable Error
9		9		No Readable Error
12		12		No Readable Error
15		15		No Readable Error
18		18		No Readable Error
21		21		No Readable Error
24		24		No Readable Error
27		27		No Readable Error

Minor Division	0.5 IN. HG.
Ambient Temperature	71 ° F.
Barometric Pressure	30.29 IN. HG.
Relative Humidity	45 %

Sales Order Number: J 185672

Customer Purchase Order Number: N / A

This instrument is certified using standards traceable to N.I.S.T.

We further certify that our calibration system complies with MIL. STD. 45662-A.

Certified By: Bob Utz Date: 6/26/01

R. U

Signature

4555

The Jay Industrial Technologies Group, Inc.

Certificate of Accuracy

Customer	ISTRE
Address	13811 EAST POPLAR
City, State, Zip	GLENPOOL, OK 74033

Certification Number: 00-65832

	Standard	Standard	Standard	Instrument Certified
NIST Number	10113-36847			
Description	ATE-PSI			VACUUM GAUGE
Manufacturer	Ashcroft			ASHCROFT
Model Number	AQS-2			15 1005 A 01 B.
Range	-14/+15°F			0 - 30 IN. HG. VACUUM
Accuracy	.25%			2 % FULL SCALE
Serial Number	10113			N / A
Date Certified	11/22/00			JUNE 26, 2001

Notes:

Value Applied	Value Indicated Before	Value Indicated After	Deviation Before	Deviation After
IN. HG. VAC.		IN. HG.		
0		0		No Readable Error
3		3		No Readable Error
6		6		No Readable Error
9		9		No Readable Error
12		12		No Readable Error
15		15		No Readable Error
18		18		No Readable Error
21		21		No Readable Error
24		24		No Readable Error
27		27		No Readable Error

Minor Division	0.5 IN. HG.
Ambient Temperature	71 ° F.
Barometric Pressure	30.29 IN. HG.
Relative Humidity	45 %

Sales Order Number: J 185672

Customer Purchase Order Number: N / A

This instrument is certified using standards traceable to N.I.S.T.
We further certify that our calibration system complies with MIL. STD. 45662-A.

Certified By: Bob Utz Date: 6/26/01

Signature

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FUSION

GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

TRIAL SEAM LOG - FUSION

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO: ~~GQ0408~~ GQ1341 TASK NO.: 04.1

DESCRIPTION: CELL #1 CAP CONSTRUCTION YEAR: 2001

CONTRACTOR: ISTRE CO. TENSIOMETER DESCRIPTION: COLUMBINE ACCURA-LITE

TRIAL SEAM NO.	DATE (day/mo)	TIME	MACHINE NO.	OPER ID	(1) MATERIAL DESCRIPTION	FUSION WEDGE (SET/°C/°F)	FUSION MEASURED SPEED ~~(°C/°F)~~ FT/MIN	TEST RESULTS PEEL (ppi/psi)	TEST RESULTS SHEAR (ppi/psi)	PASS	FAIL	QA ID
1	03 July	1330	01	AC	S/S	850	8.6	117/124	127	P	-	TBY
—								113/108	131	P	-	TBY
2	06 July	1420	01	AC	S/S	850	10.5	99/90	133	P	-	KS
—								109/98	118	P	-	KS
3	07 July	0859	01	AC	S/S	850	8.6	118/122	139	P	-	KS
—								125/119	~~150~~ 143	P	-	KS
4	10 July	1100	01	AC	S/S	850	9.4	113/114	124	P	-	TBC
—								121/126	120	P	-	TBC
5	10 July	1540	01	AC	S/S	850	10.1	104/106	KS ~~109~~ 122	P	-	KS
—							~~10.5~~ KS	109/108	125	P	-	KS
6	11 July	1440	01	AC	S/S	850	10.5	121/125	133	P	-	KS
—								111/120	141	P	-	KS
7	11 July	1550	02	AC	S/S	850	10.5	125/132	134	P	-	KS
—								129/128	125	P	-	KS
8	12 July	1045	02	AC	S/S	850	9.7	117/126	138	P	-	KS
—								126/122	127	P	-	KS
9	12 July	1050	02	AC	S/T	850	9.5	131/127	138	P	-	KS
—								126/123	138	P	-	KS
10	12 July	1100	02	AC	T/T	850	~~9.5~~ 11.1	131/130	135	P	-	KS
—								127/128	133	P	-	KS
11	12 July	1555	02	AC	S/S	850	11.5	119/108	119	P	-	KS
—								112/103	120	P	-	KS
12	13 July	1355	02	AC	S/S	850	9.8	125/125	122	P	-	KS
—								127/115	123	P	-	KS
~~13~~ KS	~~14~~ KS											

000019

NOTE: (1) MATERIAL DESCRIPTION REFERS TO EITHER SMOOTH/SMOOTH (S/S); SMOOTH/TEXTURED (S/T); OR TEXTURED/TEXTURED (T/T).

GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

TRIAL SEAM LOG - FUSION

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO: ~~GQ0409~~ GQ1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction YEAR: 2001

CONTRACTOR: Istre TENSIOMETER DESCRIPTION: Columbine Accura-Lite

TRIAL SEAM NO.	DATE (day/mo)	TIME	MACHINE NO.	OPER ID	(1) MATERIAL DESCRIPTION	FUSION WEDGE (SET/°C/F)	FUSION MEASURED SPEED (°C/F)	TEST RESULTS PEEL (ppi/psi)	TEST RESULTS SHEAR (ppi/psi)	PASS	FAIL	QA ID
13	14 July	0930	02	AC	S/S	850	9.5	135/130	146	P	—	KS
—								134/128	131	P	—	KS
14	14 July	1320	02	AC	S/S	850	10.5	129/117	131	P	—	KS
—								127/117	123	P	—	KS
15	17 July	1330	02	AH	S/S	850	9.0	116/120	129	P	—	KS
—								116/122	129	P	—	KS
16	24 July	1650	01	AC	S/S	850	10.5	100/101	120	P	—	KS
—								98/106	117	P	—	KS
17	25 July	1215	01	AC	S/S	850	10.0	125/118	130	P	—	KS
—								122/115	126	P	—	KS
18	27 July	~~0930~~ 1340	01	AC	S/S	850	9.8	124/103	123	P	—	KS
—								112/110	121	P	—	KS
19	01 AUG	1535	01	JI	S/S	850	10.5	114/111	125	P	—	TBK
—								123/115	115	P	—	TBK
20	02 AUG	1530	01	JB	S/S	850	9.2	109/110	123	P	—	TBK
—								110/111	126	P	—	TBK
21	7 Aug	1620	01	JB	S/S	850	9.2	116/118	125	P	—	KS
—								118/119	118	P	—	KS
22	8 Aug	0835	01	JI	S/S	850	10.5	119/120	131	P	—	KS
—								115/128	134	P	—	KS
23	8 Aug	1315	01	JI	S/S	850	12.0	107/105	114	P	—	KS
—								111/106	124	P	—	KS
24	11 Aug	1050	01	JI	S/S	850	10.0	129/124	135	P	—	KS
—								124/125	137	P	—	KS

000020

NOTE: (1) MATERIAL DESCRIPTION REFERS TO EITHER SMOOTH/SMOOTH (S/S); SMOOTH/TEXTURED (S/T); OR TEXTURED/TEXTURED (T/T).

EXTRUSION

GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

TRIAL SEAM LOG - EXTRUSION

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO: ~~G00409~~ 621341 KS TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction YEAR: 2001

CONTRACTOR: Istre Co. TENSIOMETER DESCRIPTION: Columbine Accuralite

TRIAL SEAM NO.	DATE (day/mo)	TIME	MACHINE NO.	OPER ID	(1) MATERIAL DESCRIPTION	EXTRUSION PREHEAT (SET/°C/°F)	EXTRUSION BARREL (°C/°F)	TEST RESULTS PEEL (ppi/psi)	TEST RESULTS SHEAR (ppi/psi)	PASS	FAIL	RE-TEST NO.	QA ID
1	10 July	1002	Ø3	JB	T/T	500	466	119/137	133/130	P	—	—	KS
2	10 July	1004	Ø3	JB	S/T	500	466	127/120	135/143 KS	P	—	—	KS
3	11 July	1004	Ø3	JB	T/T	475	450	132/131	154/153	P	—	—	KS
4	11 July	1454	~~Ø6~~ Ø4	JB	T/T	475	450	127/132	135/141	P	—	—	KS
5	13 July	1440	Ø4	JB	T/T	450	450	121/120	138/131	P	—	—	KS
6	16 July	Ø74Ø	Ø4	JB	T/T	45Ø	45Ø	1ØØ/1Ø7	153/157	P	—	—	KS
7	16 July	132Ø	Ø4	JB	T/T	45Ø	45Ø	127/128	136/125	P	—	—	KS
8	17 July	Ø74Ø	Ø4	JB	T/T	45Ø	45Ø	123/114	144/146	P	—	—	KS
9	23 July	13Ø5	Ø4	JB	T/T	45Ø	45Ø	1Ø4/102	122/121	P	—	—	KS
10	23 July	1845	Ø4	JB	T/T	45Ø	45Ø	1Ø9/1Ø8	122/126	P	—	—	KS
11	24 July	Ø8Ø5	Ø4	JB2	T/T	4ØØ	45Ø	97/125	142/14Ø	P	—	—	KS
12	24 July	1545	Ø4	JB2	T/T	4ØØ	45Ø	1Ø1/1Ø4	122/12Ø	P	—	—	KS
13	25 July	Ø817	Ø4	JB2	T/T	4ØØ	45Ø	13Ø/134	143/145	P	—	—	KS
14	25 July	123Ø	Ø4	JB2	T/T	4ØØ	45Ø	1Ø4/12Ø	135/132	P	—	—	KS
15	26 July	Ø835	Ø4	JB	T/T	45Ø	45Ø	11Ø/1Ø7	155/154	P	—	—	KS
16	26 July	Ø84Ø	Ø4	JB2	T/T	45Ø	45Ø	115/11Ø	154/154	P	—	—	KS
17	27 July	Ø822	Ø4	JB2	T/T	45Ø	45Ø	132/117	16Ø/161	P	—	—	KS
18	27 July	1332	Ø4	JB2	T/T	45Ø	45Ø	1Ø3/98	126/131	P	—	—	KS
19	3Ø July	Ø815	Ø4	JB2	T/T	45Ø	45Ø	1Ø6/112	145/149	P	—	—	KS
2Ø	3Ø July	Ø845	Ø6	JB2	T/T	45Ø	45Ø	115/112	156/157	P	—	—	KS
21	3Ø July	1315	Ø4	JB	T/T	45Ø	45Ø	118/127	122/124	P	—	—	KS
22	3Ø July	1325	Ø6	JB2	T/T	45Ø	45Ø	122 KS/122	128/141	P	—	—	KS
23	31 July	Ø91Ø	Ø4	JB2	T/T	45Ø	45Ø	121/119	142/146	P	—	—	KS
24	Ø1 AUG	Ø745	Ø4	JB2	T/T	45Ø	45Ø	1ØØ/1Ø5	125/131	P	—	—	KS
25	Ø2 AUG	13ØØ	Ø4	JB2	T/T	45Ø	45Ø	129/128	13Ø/125	P	—	—	KS

000022

NOTE: (1) MATERIAL DESCRIPTION REFERS TO EITHER SMOOTH/SMOOTH (S/S); SMOOTH/TEXTURED (S/T); OR TEXTURED/TEXTURED (T/T).

GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

TRIAL SEAM LOG - EXTRUSION

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO: ~~GQ0409~~ 601341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction YEAR: 2001

CONTRACTOR: Istre TENSIOMETER DESCRIPTION: Columbine Accuralite

TRIAL SEAM NO.	DATE (day/mo)	TIME	MACHINE NO.	OPER ID	(1) MATERIAL DESCRIPTION	EXTRUSION PREHEAT (SET/°C/°F)	EXTRUSION BARREL (°C/°F)	TEST RESULTS PEEL (ppi/psi)	TEST RESULTS SHEAR (ppi/psi)	PASS	FAIL	RE-TEST NO.	QA ID
26	6 Aug	1440	04	JB	T/T	425	450	119/120	123/124	P	–	–	KS
27	7 Aug	0820	04	JB2	T/T	450	450	124/147	145/149	P	–	–	KS
28	7 Aug	1310	04	JB2	T/T	450	450	95/119	138/127	P	–	–	KS
29	9 Aug	0941	04	JB	T/T	450	450	130/125	142/146	P	–	–	KS
30	9 Aug	0948	04	JB2	T/T	450	450	121/127	151/146	P	–	–	KS
31	10 Aug	0730	04	JB	T/T	450	450	118/127	147/150	P	–	–	KS
32	11 Aug	1345	04	JB	T/T	450	450	122/109	128/127	P	–	–	KS
33	11 Aug	1410	06	JB2	T/T	450	450	128/112	128/130	P	–	–	KS
34	13 Aug	0815	04	JB2	T/T	450	450	118/133	165/160	P	–	–	KS
35	13 Aug	1350	04	JB2	T/T	450	450	138/121	153/152	P	–	–	KS

000023

NOTE: (1) MATERIAL DESCRIPTION REFERS TO EITHER SMOOTH/SMOOTH (S/S); SMOOTH/TEXTURED (S/T); OR TEXTURED/TEXTURED (T/T).

APPENDIX K

GEOMEMBRANE PRODUCTION SEAM LOGS

FUSION

-4555

GEOSYNTEC CONSULTANTS

FLUOR FERNALD

000026

PRODUCTION SEAM SUMMARY LOG (Fusion)

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO

PROJECT NO.: GQ1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction

YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap

CONTRACTOR: Istre

PRODUCTION SEAM				LOCATION					NONDESTRUCTIVE TEST						
DATE (day/mo)	TIME	MACHINE NO.	OPER ID	SEAM NO.	BEGIN	END	ACTUAL SEAM LENGTH (ft)	QA ID	LOCATION (ft)	AIR PRESSURE (20±3 psi for 5 min.)	V-BOX (____sec.)	OPERATOR ID	PASS/ FAIL	RETEST DATE	QA ID
3 July	1350	01	AC	P-1/P-2	419	0	419	KS	419-25 / 25-0	1130-30/1135-29 / 1145-30/1150-30	—	TM 06 July	P / —	—	KS
6 July	1512	01	AC	P-2/P-3	369	0	369	KS	369-0	1600-30/1605-30	—	TM 06 July	P / —	—	KS
6 July	1659	01	AC	P-3/P-4	330	0	330	KS	330-0	1746-30/1745-30	—	TM 06 July	P / —	—	KS
6 July	1742	01	AC	P-4/P-5	313	0	313	KS	313-0	1822-31/1827-30	—	TM 06 July	P / —	—	KS
7 July	0930	01	AC	P-5/P-6	285	0	285	KS	285-0	1031-30/1036-29	—	TM 08 July	P / —	—	KS
10 July	1642	01	AC	P-6/P-7	245	0	245	KS	245-0	1100-30/1105-29	—	TM 11 July	P / —	—	KS
10 July	1727	01	AC	P-7/P-8	225	0	225	KS	225-0	1305-30/1310-30	—	TM 11 July	P / —	—	KS
10 July	1827	01	AC	P-8/P-9	210	0	210	KS	210-0	1318-30/1323-30	—	TM 11 July	P / —	—	KS
11 July	1600	02	AC	P-10/P-11	0	55	55	KS	55-0	0800-30/0805-30	—	TM 16 July	P / —	—	KS
11 July	1647	02	AC	P-11/P-14	0	82	82	KS	82-0	1318-30/1323-30	—	TM 13 July	P / —	—	KS
11 July	1706	02	AC	P-12/P-16	58	20	38	KS	20-58	1255-30/1300-28	—	TM 13 July	P / —	—	KS
11 July	1715	02	AC	P-15/P-16	20	0	20	KS	20-0	1153-31/1158-31	—	TM 13 July	P / —	—	KS
11 July	1743	02	AC	P-12/P-13	91	~~76~~ 16	75	KS	16-91	0810-30/0815-30	—	TM 16 July	P / —	—	KS
						TOTAL (1)	2,666								

NOTE: (1) SEAM LENGTH: THIS PAGE 2,666 (ft) ACCUMULATED 2,666 (ft)

N/A = NOT APPLICABLE

- 4555

GEOSYNTEC CONSULTANTS

FLUOR FERNALD

000027

PRODUCTION SEAM SUMMARY LOG (Fusion)

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO

DESCRIPTION: Cell #1 Cap Construction

PROJECT NO.: 6Q1341 TASK NO.: 04.1

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap

YEAR: 2ØØ1

CONTRACTOR: Istre

PRODUCTION SEAM				LOCATION					NONDESTRUCTIVE TEST						
DATE (day/mo)	TIME	MACHINE NO.	OPER ID	SEAM NO.	BEGIN	END	ACTUAL SEAM LENGTH (ft)	QA ID	LOCATION (ft)	AIR PRESSURE (___± psi for 5 min.)	V-BOX (___sec.)	OPERATOR ID	PASS/ FAIL	RETEST DATE	QA ID
11 July	1751	Ø2	AC	P-13/P-15	16	Ø	16	KS	16-Ø	131Ø-3Ø/1315-28	—	TM 13 July	P	—	KS
11 July	18Ø5	Ø2	AC	P-14/P-17	Ø	1Ø2	1Ø2	KS	Ø-1Ø2	Ø925-3Ø/Ø93Ø-3Ø	—	TM 13 July	P	—	KS
12 July	1152	Ø2	AC	P-9/P-18	Ø	19Ø	19Ø	KS	Ø-19Ø	Ø845-3Ø/Ø85Ø-3Ø	—	TM 16 July	P	—	KS
12 July	1313	Ø2	AC	P-17/P-19	Ø	121	121	KS	121-Ø	1529-3Ø/1534-3Ø	—	TM 12 July	P	—	KS
12 July	1333	Ø2	AC	P-18/P-19	Ø	166	166	KS	166-Ø	14ØØ-3Ø/14Ø5-3Ø	—	TM 13 July	P	—	KS
12 July	1418	Ø2	AC	P-13/P-2Ø	124	Ø	124	KS	119-Ø	Ø821-3Ø/Ø826-29	—	TM 16 July	P	—	KS
12 July	144Ø	Ø2	AC	P-12/P-15	Ø	23	23	KS	Ø-23	1139-3Ø/1144-29	—	TM 13 July	P	—	KS
12 July	1625	Ø2	AC	P-2Ø/P-21	148	Ø	148	KS	148-Ø	Ø83Ø-3Ø/Ø835-3Ø	—	TM 16 July	P	—	KS
12 July	1642	Ø2	AC	P-21/P-22	169	Ø	169	KS	169-Ø	Ø9ØØ-3Ø/Ø9Ø5-3Ø	—	TM 16 July	P	—	KS
13 July	14Ø3	Ø2	AC	P-22/P-23	198 143	143 Ø	55 143	KS	143-198 143-Ø	Ø845-3Ø/Ø85Ø-29 Ø835-3Ø/Ø84Ø-28	—	TM 14 July	P	—	KS
14 July	Ø955	Ø2	AC	P-23/P-24	22Ø	Ø	22Ø	KS	22Ø-Ø	113Ø-3Ø/1135-3Ø	—	TM 14 July	P	—	KS
14 July	1345	Ø2	AC	P-24/P-25	247	Ø	247	KS	247-Ø	Ø93Ø-3Ø/Ø925-3Ø	—	TM 16 July	P	—	KS
14 July	1415	Ø2	AC	P-25/P-26	266	Ø	266	KS	Ø-266	171Ø-3Ø/1715-3Ø	—	TM 16 July	P	—	KS
				TOTAL (1)			1,99Ø								

NOTE: (1) SEAM LENGTH: THIS PAGE 1,99Ø (ft) ACCUMULATED 4,656 (ft)

N/A = NOT APPLICABLE

-4555

GEOSYNTEC CONSULTANTS

FLUOR FERNALD

000028

PRODUCTION SEAM SUMMARY LOG (Fusion)

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: 6Q1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap CONTRACTOR: Istre

PRODUCTION SEAM				LOCATION					NONDESTRUCTIVE TEST						
DATE (day/mo)	TIME	MACHINE NO.	OPER ID	SEAM NO.	BEGIN	END	ACTUAL SEAM LENGTH (ft)	QA ID	LOCATION (ft)	AIR PRESSURE (__±__psi for 5 min.)	V-BOX (____sec.)	OPERATOR ID	PASS/ FAIL	RETEST DATE	QA ID
17 July	1352	02	AH	P-26/P-27	286	0	286	KS	0-286	1400-30/1405-30	—	TM 18 July	P —	—	KS
17 July	1442	02	AH	P-27/P-28	302	0	302	KS	271-220 220-0	1020-30/1025-30 1008-30/1013-30	—	TM 18 July	P —	—	KS
24 July	1735	01	AC	P-30/P-31	354	251	103	KS	251-354	0830-30/0835-30	—	TM 25 July	P —	—	KS
24 July	1830	01	AC	P-29/P-31	255	0	255	KS	255-0	0745-30/0750-30	—	TM 25 July	P —	—	KS
25 July	1230	01	AC	P-31/P-32	354 175	175 0	179 175	KS	354-175 175-0	0840-30/0845-30 0852-30/0857-30	—	TM 30 July	P —	—	KS
25 July	1410	01	AC	P-32/P-33	353	0	353	KS	353-0	0825-30/0830-30	—	TM 30 July	P —	—	KS
27 July	1520	01	AC	P-34/P-35	0	341	341	KS	325-0	1415-30/1420-30	—	TM 30 July	P —	—	KS
27 July	1620	01	AC	P-35/P-36	0	309	309	KS	305-0	1435-30/1440-30	—	TM 30 July	P —	—	KS
27 July	1700	01	AC	P-34/P-37	0	290	290	KS	280-0	1445-30/1450-30	—	TM 30 July	P —	—	KS
27 July	1735	01	AC	P-37/P-38	0	270	270	KS	259-0	1240-30/1245-28	—	TM ~~30 July~~ 2 Aug KS	P —	—	KS
01 Aug	1555	01	JI	P-38/P-39	0	242	242	TBY	242-0	1250-30/1255-30	—	TM 2 Aug	P —	—	KS
01 Aug	1640	01	JI	P-39/P-40	0	214	214	TBY	0-214	1318-30/1323-30	—	TM 2 Aug	P —	—	KS
01 Aug	1706	01	JI	P-40/P-41	0	193	193	TBY	0-193	1330-30/1335-30	—	TM 2 Aug	P —	—	KS
						TOTAL (1)	3,512								

NOTE: (1) SEAM LENGTH: THIS PAGE 3,512 (ft) ACCUMULATED 8,168 (ft)

N/A = NOT APPLICABLE

4555

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FLUOR FERNALD

000029

PRODUCTION SEAM SUMMARY LOG (Fusion)

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: 6Q1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap CONTRACTOR: Istre

PRODUCTION SEAM				LOCATION					NONDESTRUCTIVE TEST						
DATE (day/mo)	TIME	MACHINE NO.	OPER ID	SEAM NO.	BEGIN	END	ACTUAL SEAM LENGTH (ft)	QA ID	LOCATION (ft)	AIR PRESSURE (___± psi for 5 min.)	V-BOX (___sec.)	OPERATOR ID	PASS/FAIL	RETEST DATE	QA ID
01 Aug	1730	01	JI	P-41/P42	0	169	169	TBY	0-169	1505-30/1510-30	—	TM 2 Aug	P/—	—	KS
01 Aug	1751	01	JI	P-42/P43	0	153	153	TBY	0-153	1515-30/1520-28	—	TM 2 Aug	P/—	—	KS
01 Aug	1823	01	JI	P-43/P44	0	116	116	TBY	0-116	1525-30/1530-30	—	TM 2 Aug	P/—	—	KS
01 Aug	1842	01	JI	P-44/P45	0	104	104	TBY	0-104	1537-30/1542-30	—	TM 2 Aug	P/—	—	KS
02 Aug	1545	01	JB	P-49/P50	0	90	90	TBY	0-88	1048-30/1053-30	—	TM 6 Aug	P/—	—	KS
02 Aug	1600	01	JB	P-48/P49	0	66	66	TBY	0-60	1055-30/1100-30	—	TM 6 Aug	P/—	—	KS
02 Aug	1610	01	JB	P-47/P48	0	23	23	TBY	0-23	1100-30/1105-30	—	TM 6 Aug	P/—	—	KS
02 Aug	1618	01	JB	P-46/P47	31	0	31	TBY	0-31	1535-30/1540-30	—	TM 6 Aug	P/—	—	KS
02 Aug	1630	01	JB	P-45/P46	58	0	58	TBY	0-58	1530-30/1535-30	—	TM 6 Aug	P/—	—	KS
7 Aug	1635	01	JB	P-50/P51	0	110	110	KS	110-0	0930-30/0935-30	—	TM 8 Aug	P/—	—	KS
7 Aug	1650	01	JB	P-52/P53	0	23	23	KS	0-23	1120-30/1125-30	—	TM 8 Aug	P/—	—	KS
7 Aug	1659	01	JB	P-51/P53	0	18	18	KS	18-0	1330-30/1335-29	—	TM 8 Aug	P/—	—	KS
7 Aug	1705	01	JB	P-51/P52	18	134	116	KS	134-18	1125-30/1130-30	—	TM 8 Aug	P/—	—	KS
						TOTAL (1)	1,077								

NOTE: (1) SEAM LENGTH: THIS PAGE 1,077 (ft) ACCUMULATED 9,245 (ft)

N/A = NOT APPLICABLE

4555

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FLUOR FERNALD

000030

PRODUCTION SEAM SUMMARY LOG (Fusion)

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO

DESCRIPTION: Cell #1 Cap Construction

PROJECT NO.: 6Q1341 TASK NO.: 04.1

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap

YEAR: 2001

CONTRACTOR: Istre

PRODUCTION SEAM				LOCATION					NONDESTRUCTIVE TEST						
DATE (day/mo)	TIME	MACHINE NO.	OPER ID	SEAM NO.	BEGIN	END	ACTUAL SEAM LENGTH (ft)	QA ID	LOCATION (ft)	AIR PRESSURE (±___psi for 5 min.)	V-BOX (___sec.)	OPERATOR ID	PASS/FAIL	RETEST DATE	QA ID
8 Aug	0840	01	JI	P-53/P-54	0	18	18	KS	18-0	1057-30/1102-30	—	TM 8 Aug	P —	—	KS
8 Aug	0845	01	JI	P-54/P-54	18	157	139	KS	157-18	1037-30/1042-28	—	TM 8 Aug	P —	—	KS
8 Aug	0905	01	JI	P-54/P-55	185	0	185	KS	175-0	0745-30/0750-30	—	TM 9 Aug	P —	—	KS
8 Aug	1015	01	JI	P-55/P-56	203	0	203	KS	200-0	0755-30/0800-30	—	TM 9 Aug	P —	—	KS
8 Aug	1100	01	JI	P-56/P-57	221	0	221	KS	221-0	0807-30/0812-30	—	TM 9 Aug	P —	—	KS
8 Aug	1335	01	JI	P-57/P-58	236	0	236	KS	236-0	0823-30/0828-28	—	TM 9 Aug	P —	—	KS
8 Aug	1510	01	JI	P-58/P-59	239	16 ~~0~~ KS	223 ~~239~~ KS	KS	239-16	0830-30/0835-30	—	TM 9 Aug	P —	—	KS
8 Aug	1820	01	JI	P-59/P-60	233	16	217	KS	233-16	0832-30/0837-30	—	TM 9 Aug	P —	—	KS
8 Aug	1910	01	JI	P-60/P-61	230	0	230	KS	230-0	0800-30/0805-30	—	TM 11 Aug	P —	—	KS
11 Aug	1103	01	JI	P-65/P-66	265	235	30	KS	265-235	1140-30/1145-30	—	TM 11 Aug	P —	—	KS
11 Aug	1110	01	JI	P-66/P-67	289	230	59	KS	289-230	1145-30/1150-30	—	TM 11 Aug	P —	—	KS
11 Aug	1125	01	JI	P-67/P-33	35	170	140	KS	35-175	0759-30/0804-30	—	JB 13 Aug	P —	—	KS
11 Aug	1140	01	JI	P-33/P-64	0	35	35	KS	35-0	0750-30/0755-30	—	JB 13 Aug	P —	—	KS
				TOTAL (1)			1,936								

NOTE: (1) SEAM LENGTH: THIS PAGE 1,936 (ft) ACCUMULATED 11,186 (ft)

N/A = NOT APPLICABLE

4555

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FLUOR FERNALD

000031

PRODUCTION SEAM SUMMARY LOG (Fusion)

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO

PROJECT NO.: GQ1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction

YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap

CONTRACTOR: Istre

PRODUCTION SEAM				LOCATION					NONDESTRUCTIVE TEST						
DATE (day/mo)	TIME	MACHINE NO.	OPER ID	SEAM NO.	BEGIN	END	ACTUAL SEAM LENGTH (ft)	QA ID	LOCATION (ft)	AIR PRESSURE (__±__psi for 5 min.)	V-BOX (____sec.)	OPERATOR ID	PASS/ FAIL	RETEST DATE	QA ID
11 Aug	1200	01	JI	P-67/P-68	313	233	80	KS	313-233	1155-30/1200-30	—	TM 11 Aug	P	—	KS
						TOTAL (1)	80								

NOTE: (1) SEAM LENGTH: THIS PAGE 80 (ft) ACCUMULATED 11,256 (ft)

N/A = NOT APPLICABLE

EXTRUSION

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FLUOR FERNALD

PRODUCTION SEAM SUMMARY LOG (Extrusion)

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO

DESCRIPTION: Cell #1 Cap Construction

PROJECT NO.: 6Q1341 TASK NO.: 04.1

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap

YEAR: 2001

CONTRACTOR: Istre

PRODUCTION SEAM				LOCATION					NONDESTRUCTIVE TEST						
DATE (day/mo)	TIME	MACHINE NO.	OPER ID	SEAM NO.	BEGIN	END	ACTUAL SEAM LENGTH (ft)	QA ID	LOCATION (ft)	AIR PRESSURE (___ psi for 5 min.)	V-BOX (___ sec.)	OPERATOR ID	PASS/ FAIL	RETEST DATE	QA ID
11 July	1510	04	JB	P-6/R-12	194	177	17	KS	194-177	—	11 July	TM	P / —	—	KS
11 July	1530	04	JB	P-7/R-12	177	194	17	KS	177-194	—	11 July	TM	P / —	—	KS
11 July	1715	04	JB	P-6/R-15	115	105	10	KS	115-105	—	11 July	TM	P / —	—	KS
11 July	1723	04	JB	P-7/R-15	105	115	10	KS	105-115	—	11 July	TM	P / —	—	KS
11 July	1738	04	JB	P-6/R-16	80	65	15	KS	65-80	—	11 July	TM	P / —	—	KS
11 July	1748	04	JB	P-7/R-16	65	80	15	KS	80-65	—	11 July	TM	P / —	—	KS
13 July	1500	04	JB	P-16/P-19	0	25	25	KS	0-25	—	16 July	TM	P / —	—	KS
13 July	1524	04	JB	P-14/P-12	61	55	6	KS	55-61	—	16 July	TM	P / —	—	KS
13 July	1528	04	JB	P-11/P-12	55	53	2	KS	53-55	—	16 July	TM	P / —	—	KS
13 July	1529	04	JB	P-11/P-16	53	25	28	KS	25-53	—	16 July	TM	P / —	—	KS
13 July	1555	04	JB	P-13/P-17	107	95	12	KS	107-95	—	14 July	TM	P / —	—	KS
13 July	1410	04	JB	P-12/P-17	95	86	9	KS	95-86	—	14 July	TM	P / —	—	KS
13 July	1420	04	JB	P-12/P-14	86	61	25	KS	86-61	—	14 July	TM	P / —	—	KS
						TOTAL (1)	~~219~~ KS 191								

NOTE: (1) SEAM LENGTH: THIS PAGE ~~219~~ KS 191 (ft) ACCUMULATED ~~219~~ KS 191 (ft)

N/A = NOT APPLICABLE

000033

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--4555

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FLUOR FERNALD

PRODUCTION SEAM SUMMARY LOG (Extrusion)

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO

PROJECT NO.: 6Q1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction

YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap

CONTRACTOR: Istre

PRODUCTION SEAM				LOCATION					NONDESTRUCTIVE TEST						
DATE (day/mo)	TIME	MACHINE NO.	OPER ID	SEAM NO.	BEGIN	END	ACTUAL SEAM LENGTH (ft)	QA ID	LOCATION (ft)	AIR PRESSURE (__±__psi for 5 min.)	V-BOX (____sec.)	OPERATOR ID	PASS/FAIL	RETEST DATE	QA ID
16 July	1100	04	JB	P-18/P-21	178	173	5	KS	173-178	—	16 July	TM	P / —	—	KS
16 July	1110	04	JB	P-18/P-20	173	146	27	KS	145+173	—	16 July	TM	P / —	—	KS
16 July	1123	04	JB	P-19/P-20	146	137	9	KS	137-145	—	16 July	TM	P / —	—	KS
16 July	1135	04	JB	P-13/P-19	137	115	22	KS	115-137	—	16 July	TM	P / —	—	KS
16 July	~~1400~~ 1150 KS	04	JB	P-17/P-13	115	107	8	KS	115-107	—	16 July	TM	P / —	—	KS
16 July	~~1421~~ 1400 KS	04	JB	P-8/P-22	248	~~208~~ 248	~~KS 29~~ 40	KS	214-243	—	16 July	TM	P / —	—	KS
16 July	~~1330~~ 1421 KS	04	JB	P-9/P-21	208	178	~~KS 29~~ 30	KS	178-202	—	16 July	TM	P / —	—	KS
16 July	~~1628~~ 1330 KS	04	JB	P-7/P-23	282	~~248~~ 278	~~KS 20~~ 36	KS	272-252	—	16 July	TM	P / —	—	KS
16 July	~~1640~~ 1628 KS	04	JB	P-6/P-24	318	~~284~~ 285	~~KS 34~~ 34	KS	316-285	—	16 July	TM	P / —	—	KS
~~23 July~~ 16 July	~~1430~~ 1640 KS	04	JB	P-5/P-25	~~357~~ 348	~~328~~ 321	~~KS 29~~ 39	KS	321-348	—	17 July	TM	P / —	—	KS
23 July	~~1415~~ 1430 KS	04	JB	P-19/R-65	143	117	26	KS	143-117	—	27 July	TM	P / —	—	KS
23 July	~~1452~~ 1445 KS	04	JB	P-18/R-65	117	143	26	KS	117-143	—	27 July	TM	P / —	—	KS
23 July	~~1500~~ 1452 KS	04	JB	P-19/R65	117	95	22	KS	117-95	—	27 July	TM	P / —	—	KS
				TOTAL (1)			~~276~~ KS 324								

NOTE: (1) SEAM LENGTH: THIS PAGE ~~276~~ KS 324 (ft) ACCUMULATED ~~495~~ ~~462~~ KS 515 KS (ft)

N/A = NOT APPLICABLE

000024

4555

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FLUOR FERNALD

PRODUCTION SEAM SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO

PROJECT NO.: 6Q1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction

YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap

CONTRACTOR: Istre

PRODUCTION SEAM				LOCATION					NONDESTRUCTIVE TEST						
DATE (day/mo)	TIME	MACHINE NO.	OPER ID	SEAM NO.	BEGIN	END	ACTUAL SEAM LENGTH (ft)	QA ID	LOCATION (ft)	AIR PRESSURE (__±__psi for 5 min.)	V-BOX (____sec.)	OPERATOR ID	PASS/ FAIL	RETEST DATE	QA ID
23July	1500	04	JB	P-18/R-65	95	117	22	KS	95-117	—	27July	TM	P —	—	KS
23July	1800	04	JB	P-4/R-73	357	391	34	KS	357-391	—	27July	TM	P —	—	KS
23July	1815	04	JB	P-31/R-73	404	391	13	KS	404-391	—	27July	TM	P —	—	KS
23July	1830	04	JI	P-27/R-73	404	391	13	KS	404-391	—	27July	TM	P —	—	KS
23July	1848	04	JI	P-3/R-73	404	432	28	KS	404-432	—	27July	TM	P —	—	KS
23July	1910	04	JB	P-2/R-73	432	450	18	KS	432-450	—	27July	TM	P —	—	KS
24July	0845	04	JB2	P-26/R-73	357	391	34	KS	357-391	—	27July	TM	P —	—	KS
24July	0910	04	JB2	P-27/R-73	404	432	28	KS	404-432	—	27July	TM	P —	—	KS
24July	0945	04	JB2	P-28/R-73	432	450	18	KS	432-450	—	27July	TM	P —	—	KS
24July	1515	04	JB2	P-1/P-30	354	335	19	KS	335-354	—	27July	TM	P —	—	KS
25July	0845	04	JB2	P-2/P-30	335	323	16	KS	335-323	—	27July	TM	P —	—	KS
KS ~~25July~~	~~0853~~	~~04~~	~~JB2~~	~~P-28/R-73~~	~~450~~	~~432~~	~~18~~	~~KS~~	~~450-432~~		~~27July~~	~~TM~~	~~P~~		~~KS~~
25July	0935	04	JB2	P-28/P-30	323	255	64	KS	323-255	—	27July	TM	P —	—	KS
						TOTAL (1)	~~325~~ KS 307								

NOTE: (1) SEAM LENGTH: THIS PAGE KS ~~325~~ 307 (ft) ACCUMULATED KS ~~793~~ 822 (ft)

N/A = NOT APPLICABLE

000035

4555

©GEOSYNTEC CONSULTANTS FILE NO. 3-07-SSL REVIEWED BY:

GEOSYNTEC CONSULTANTS

FLUOR FERNALD

PRODUCTION SEAM SUMMARY LOG (Extrusion)

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO

PROJECT NO.: GQ1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction

YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap

CONTRACTOR: Istre

PRODUCTION SEAM				LOCATION					NONDESTRUCTIVE TEST						
DATE (day/mo)	TIME	MACHINE NO.	OPER ID	SEAM NO.	BEGIN	END	ACTUAL SEAM LENGTH (ft)	QA ID	LOCATION (ft)	AIR PRESSURE (_±_psi for 5 min.)	V-BOX (____sec.)	OPERATOR ID	PASS/FAIL	RETEST DATE	QA ID
25 July	0959	04	JB2	P-29/P-30	0	23	23	KS	0-23	—	27 July	TM	P / —	—	KS
25 July	1440	04	JB2	P-28/P-29	255	200	55	KS	255-200	—	30 July	TM	P / —	—	KS
25 July	1500	04	JB2	P-28/P-29	200	0	200	KS	200-0	—	30 July	TM	P / —	—	KS
26 July	0859	04	JB2	P-18/R-65	95	70	25	KS	95-70	—	27 July	TM	P / —	—	KS
26 July	0909	04	JB2	P-18/R-65	70	95	25	KS	70-95	—	27 July	TM	P / —	—	KS
26 July	0939	04	JB2	P-18/R-65	70	45	25	KS	70-45	—	27 July	TM	P / —	—	KS
26 July	0950	04	JB2	P-19/R-65	45	70	25	KS	45-70	—	27 July	TM	P / —	—	KS
26 July	0935	04	JB2	P-18/R-65	45	22	23	KS	45-22	—	27 July	TM	P / —	—	KS
27 July	0944	04	JB2	P-19/R-65	22	45	23	KS	22-45	—	27 July	TM	P / —	—	KS
27 July	0951	04	JB2	P-18/R-65	0	22	22	KS	22-0	—	27 July	TM	P / —	—	KS
27 July	1001	04	JB2	P-19/R-65	0	22	22	KS	0-22	—	27 July	TM	P / —	—	KS
30 July	1000	06	JB2	P-27/R-117	271	302	31	KS	271-302	—	31 July	TM	P / —	—	KS
30 July	1019	06	JB2	P-28/R-117	302	271	31	KS	302-271	—	31 July	TM	P / —	—	KS
				TOTAL (1)			530								

NOTE: (1) SEAM LENGTH: THIS PAGE 530 (ft) ACCUMULATED KS 1,322 1,352 (ft)

N/A = NOT APPLICABLE

000036

4555

GEOSYNTEC CONSULTANTS

FLUOR FERNALD

PRODUCTION SEAM SUMMARY LOG (Extrusion)

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO

DESCRIPTION: Cell #1 Cap Construction

PROJECT NO.: 6Q1341 TASK NO.: 04.1

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap

YEAR: 2001

CONTRACTOR: Istre

PRODUCTION SEAM				LOCATION					NONDESTRUCTIVE TEST						
DATE (day/mo)	TIME	MACHINE NO.	OPER ID	SEAM NO.	BEGIN	END	ACTUAL SEAM LENGTH (ft)	QA ID	LOCATION (ft)	AIR PRESSURE (± psi for 5 min.)	V-BOX (sec.)	OPERATOR ID	PASS/FAIL	RETEST DATE	QA ID
30 July	1100	06	JBZ	P-27/R-118	255	246	9	KS	255-246	—	31 July	TM	P | —	—	KS
30 July	1113	06	JBZ	P-28/R-118	246	255	9	KS	246-255	—	31 July	TM	P | —	—	KS
30 July	1505	04	JB	P-32/P-34	0	31	31	KS	0-31	—	31 July	TM	P | —	—	KS
30 July	1615	04	JB	P-33/P-34	31	39	8	KS	31-39	—	31 July	TM	P | —	—	KS
30 July	1620	04	JB	P-33/P-35	39	43	4	KS	39-43	—	31 July	TM	P | —	—	KS
6 Aug	1552	04	JB	P-44/P-50	353	372	19	KS	353-372	—	7 Aug	TM	P | —	—	KS
6 Aug	1615	04	JB	P-45/P-50	372	384	12	KS	372-384	—	7 Aug	TM	P | —	—	KS
6 Aug	1625	04	JB	P-45/P-49	384	408	24	KS	384-408	—	7 Aug	TM	P | —	—	KS
6 Aug	1631	04	JB	P-46/P-49	408	415	7	KS	408-415	—	7 Aug	TM	P | —	—	KS
6 Aug	1645	04	JB	P-46/P-48	442	415	27	KS	415-442	—	7 Aug	TM	P | —	—	KS
9 Aug	1100	04	JB	P-44/P-51	340	353	13	KS	340-353	—	10 Aug	AC	P | —	—	KS
9 Aug	1040	04	JB	P-47/P-52	302	318	16	KS	302-318	—	10 Aug	AC	P | —	—	KS
9 Aug	1032	04	JB	P-47/P-52	285	302	17	KS	285-302	—	10 Aug	AC	P | —	—	KS
				TOTAL (1)			196								

NOTE: (1) SEAM LENGTH: THIS PAGE 196 (ft) ACCUMULATED ~~1,518~~ 1,548 (ft)

N/A = NOT APPLICABLE

GEOSYNTEC CONSULTANTS

FLUOR FERNALD

PRODUCTION SEAM SUMMARY LOG (Extrusion)

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO

DESCRIPTION: Cell #1 Cap Construction

PROJECT NO.: 6Q1341 TASK NO.: 04.1

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap

YEAR: 2001

CONTRACTOR: Istre

PRODUCTION SEAM				LOCATION					NONDESTRUCTIVE TEST						
DATE (day/mo)	TIME	MACHINE NO.	OPER ID	SEAM NO.	BEGIN	END	ACTUAL SEAM LENGTH (ft)	QA ID	LOCATION (ft)	AIR PRESSURE (__±__psi for 5 min.)	V-BOX (____sec.)	OPERATOR ID	PASS/ FAIL	RETEST DATE	QA ID
9 Aug	1021	04	JB	P-42/P-54	268	285	17	KS	268-285	—	10 Aug	AC	P	—	KS
9 Aug	1013	04	JB	P-41/P-54	252	268	16	KS	252-268	—	10 Aug	AC	P	—	KS
9 Aug	1003	04	JB2	P-41/P-55	233	252	19	KS	233-252	—	10 Aug	AC	P	—	KS
9 Aug	0951	04	JB2	P-40/P-55	220	233	13	KS	220-233	—	10 Aug	AC	P	—	KS
10 Aug	0820	04	JB	P-52/R-204	0	23	23	KS	0-23	—	10 Aug	AC	P	—	KS
10 Aug	0829	04	JB	P-53/R-204	23	0	23	KS	23-0	—	10 Aug	AC	P	—	KS
10 Aug	1001	04	JB	P-39/P-57	165	188	23	KS	165-188	—	10 Aug	AC	P	—	KS
10 Aug	1010	04	JB	P-39/P-56	188	198	10	KS	188-198	—	10 Aug	AC	P	—	KS
10 Aug	1018	04	JB	P-40/P-56	198	220	22	KS	198-220	—	10 Aug	AC	P	—	KS
11 Aug	1420	04	JB	P-38/P-65	158	129	29	KS	158-129	—	13 Aug	JK	P	—	KS
11 Aug	1430	04	JB	P-37/P-65	129	125	4	KS	129-125	—	13 Aug	JK	P	—	KS
11 Aug	1435	04	JB	P-37/P-66	125	96	29	KS	125-96	—	13 Aug	JK	P	—	KS
11 Aug	1443	04	JB	P-36/P-66	96	93	3	KS	96-93	—	13 Aug	JK	P	—	KS
				TOTAL (1)			231								

NOTE: (1) SEAM LENGTH: THIS PAGE 231 (ft) ACCUMULATED ~~1,553~~ 1,744 KS (ft)

N/A = NOT APPLICABLE

1,779 KS

000038

455

GEOSYNTEC CONSULTANTS

FLUOR FERNALD

PRODUCTION SEAM SUMMARY LOG (Extrusion)

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO

DESCRIPTION: Cell #1 Cap Construction

PROJECT NO.: 6Q1341 TASK NO.: 04.1

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap

YEAR: 2001

CONTRACTOR: Istre

PRODUCTION SEAM				LOCATION					NONDESTRUCTIVE TEST						
DATE (day/mo)	TIME	MACHINE NO.	OPER ID	SEAM NO.	BEGIN	END	ACTUAL SEAM LENGTH (ft)	QA ID	LOCATION (ft)	AIR PRESSURE (___ psi for 5 min.)	V-BOX (___ sec.)	OPERATOR ID	PASS/FAIL	RETEST DATE	QA ID
11 Aug	1447	04	JB	P-34/P-67	93	70	23	KS	93-70	—	13 Aug	JK	P	—	KS
11 Aug	1505	04	JB	P-35/P-68	66	62	4	KS	66-62	—	13 Aug	JK	P	—	KS
11 Aug	1510	04	JB	P-33/P-35	62	43	19	KS	62-43	—	13 Aug	JK	P	—	KS
11 Aug	1530	04	JB	P-33/P-68	318	~~262~~ 232	~~56~~ 86	KS	318-262	—	13 Aug	JK	P	—	KS
11 Aug	1510	06	JB2	P-61/P-62	170	35	135	KS	170-35	—	13 Aug	JK	P	—	KS
11 Aug	1555	06	JB2	P-61/P-41	35	22	13	KS	35-22	—	13 Aug	JK	P	—	KS
11 Aug	1635	04	JB	P-61/P-68	0	16	16	KS	16-0	—	13 Aug	JK	P	—	KS
11 Aug	1642	04	JB	P-60/P-67	0	23	23	KS	23-0	—	13 Aug	JK	P	—	KS
11 Aug	1651	04	JB	P-59/P-66	0	23	23	KS	23-0	—	13 Aug	JK	P	—	KS
11 Aug	1702	04	JB	P-58/P-65	0	23	23	KS	23-0	—	13 Aug	JK	P	—	KS
11 Aug	1733	04	JB	P-33/P-41	232	170	62	KS	232-170	—	13 Aug	JK	P	—	KS
13 Aug	0850	04	JB2	P-63/R-252	0	23	23	KS	23-0	—	13 Aug	JK	P	—	KS
13 Aug	0900	04	JB2	P-59/R-252	0	23	23	KS	23-0	—	13 Aug	AC	P	—	KS
				TOTAL (1)			~~448~~ KS ~~453~~ 448				13 Aug	AC	P	—	KS

NOTE: (1) SEAM LENGTH: THIS PAGE ~~448~~ KS ~~453~~ KS 448

N/A = NOT APPLICABLE

(ft) ACCUMULATED ~~1,996~~ KS (ft)

~~2,227~~ ~~2,199~~ KS

2,257

0000039

4555

GEOSYNTEC CONSULTANTS

FLUOR FERNALD

PRODUCTION SEAM SUMMARY LOG (Extrusion)

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO

DESCRIPTION: Cell #1 Cap Construction

PROJECT NO.: 661341 TASK NO.: 04.1

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap

YEAR: 2001

CONTRACTOR: Istre

PRODUCTION SEAM				LOCATION					NONDESTRUCTIVE TEST						
DATE (day/mo)	TIME	MACHINE NO.	OPER ID	SEAM NO.	BEGIN	END	ACTUAL SEAM LENGTH (ft)	QA ID	LOCATION (ft)	AIR PRESSURE (___ psi for 5 min.)	V-BOX (___ sec.)	OPERATOR ID	PASS/FAIL	RETEST DATE	QA ID
13 Aug	0840	04	JB2	P-58/P-63	16	0	16	KS	0-16	—	13 Aug	AC	P	—	KS
13 Aug	0910	04	JB2	P-60/P-63	17	0	17	KS	17-0	—	13 Aug	AC	P	—	KS
13 Aug	0913	04	JB2	P-61/R-253	0	21	21	KS	21-0	—	13 Aug	AC	P	—	KS
13 Aug	0926	04	JB2	P-62/R-253	0	21	21	KS	21-0	—	13 Aug	AC	P	—	KS
						TOTAL (1)	75								

NOTE: (1) SEAM LENGTH: THIS PAGE 75

N/A = NOT APPLICABLE

(ft) ACCUMULATED ~~2,071~~ KS (ft)

~~2,302~~ KS ~~2,267~~ ~~2,272~~ KS

2,332

000040

4555

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APPENDIX L

GEOMEMBRANE DESTRUCTIVE SEAM TEST LOGS AND LABORATORY TEST RESULTS

GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

DESTRUCTIVE TEST LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: GQ1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction YEAR:

CONTRACTOR: Istre TEST REQUIREMENTS:

PRIMARY: ☐ SECONDARY: ☐ RE-TEST: ☐ OTHER: ☒ Cap

DISTRIBUTION: LABORATORY: ☒ ARCHIVE: ☒ INSTALLER: ☒ OTHER:

SAMPLE DATA						FIELD DATA						LABORATORY DATA						
D.S. NO.	(1) TRACK	LOCATION SEAM	LOCATION DIST (ft)	MACH NO.	OPER ID	AVG PEEL (PPI/PSI) INSIDE	AVG PEEL (PPI/PSI) OUTSIDE	AVG SHEAR (PPI/PSI)	PASS/FAIL	DATE SAMPLED/SHIPPED (day/mo)	QA ID	DATE OF RESULTS (day/mo)	AVG PEEL (PPI/PSI) INSIDE	AVG PEEL (PPI/PSI) OUTSIDE	AVG SHEAR (PPI/PSI)	PASS/FAIL	RE-TEST	QA ID
DS-1	F	P-1/P-2	194	Ø1	AC	114/115	105/Ø62	115	P –	6July/	KS	9July	125	128	143	P –	–	KS
D/S-2	F	P-2/P-3	115	Ø1	AC	134/128	143/122	157	P –	7July	CA	9July	134	131	151	P –	–	KS
D/S-3	F	P-4/P-5	258	Ø1	AC	124/123	123/120	149	P –	7July	CA	9July	129	131	147	P –	–	KS
DS-4	F	P-6/P-7	255	Ø1	AC	129/128	120/122	133	P –	11July/12July	KS	13July	127	135	151	P –	–	KS
DS-5	F	P-8/P-9	81	Ø1	AC	135/123	135/129	128	P –	12July	KS	13July	138	135	150	P –	–	KS
DS-6	F	P-18/P-19	110	Ø2	AC	[illegible]	[illegible]	119	F –	16July	KS	FAILED IN FIELD				– –	6A&6B	KS
DS-7	F	P-11/P-14	25	Ø2	AC	109/116	111/111	118	P –	16July	KS	17July	137	131	154	P –	–	KS
DS-8	F	P-21/P-22	75	Ø2	AC	120/117	118/119	119	P –	14July/16July	KS	17July	136	134	158	P –	–	KS
DS-9	F	P-23/P-24	125	Ø2	AC	122/115	123/109	123	P –	14July/16July	KS	17July	127	132	149	P –	–	KS
DS-10	F	P-25/P-26	55	Ø2	AC	132/116	133/131	134	P –	17July/17July	KS	18July	131	137	154	P –	–	KS
DS-6B	F	P-17/P19	112	Ø2	AC	135/127	116/130	145	P –	17July/17July	KS	18July	136	131	149	P –	–	KS

NOTES: (1) TRACK TYPES: E = EXTRUSION F = FUSION

000042

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GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

DESTRUCTIVE TEST LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO

PROJECT NO.: ~~GQ0409~~ GQ1341 KS TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction

YEAR: 2001

CONTRACTOR: Istre

TEST REQUIREMENTS:

PRIMARY: ☐ SECONDARY: ☐ RE-TEST: ☐ OTHER: ☒ Cap

DISTRIBUTION: LABORATORY: ☒ ARCHIVE: ☒ INSTALLER: ☒ OTHER:

SAMPLE DATA							FIELD DATA						LABORATORY DATA						
D.S. NO.	TRACK (1) SINGLE	TRACK (1) DOUBLE	LOCATION SEAM	LOCATION DISTANCE (ft)	MACH NO.	OPER ID	AVG PEEL (PPI/PSI) INSIDE	AVG PEEL (PPI/PSI) OUTSIDE	AVG SHEAR (PPI/PSI)	PASS/ FAIL	DATE SAMPLED/ SHIPPED (day/mo)	QA ID	DATE OF RESULTS (day/mo)	AVG PEEL (PPI/PSI) INSIDE	AVG PEEL (PPI/PSI) OUTSIDE	AVG SHEAR (PPI/PSI)	PASS/ FAIL	RE-TEST	QA ID
DS-6A		F	P-13/ P-20	114	Ø2	AC	119/123	132/123	148	P –	17July/17July	KS	18 July	133	134	152	P –	–	KS
DS-11	E		P-5/ P-25	332	Ø4	JB	142	138	14Ø	P –	17July/17July	KS	18 July	137	–	160	P –	–	KS
DS-12		F	P-27/ P-28	2ØØ	Ø1	AH	115/102	109/123	126	P –	3Ø July	KS	31 July	134	134	155	P –	–	TBD
DS-13		F	P-31/ P-32	225	Ø1	AC	109/11Ø	106/117	124	P –	3Ø July	TBD	31 July	126	139	151	P –	–	TBD
DS-14	E		P-28/ P-29	225	Ø4	JB2	112	95	118	P –	3Ø July	TBD	31 July	117	–	151	P –	–	TBD
DS-15	E		R-65/ P-19	1Ø5	Ø4	JB2	115	1Ø6	126	P –	3Ø July	TBD	31 July	137	–	157	P –	–	TBD
DS-16		F	P-34/ P-35	25Ø	Ø1	AC	113/117	120/116	129	P –	3Ø July	KS	31 July	128	136	151	P –	–	TBD
DS-17		F	P-35/ P-36	125	Ø1	AC	118/127	118/126	126	P –	3Ø July	KS	31 July	135	13Ø	151	P –	–	TBD
DS-18		F	P-36/ P-37	175	Ø1	AC	126/121	115/124	143	P –	3Ø July	KS	31 July	129	13Ø	147	P –	–	TBD
DS-19	–	F	P-38/ P-39	75	Ø1	JI	11Ø/113	11Ø/12Ø	129	P –	Ø6 AUG	TBD	7 Aug	137	141	159	P –	–	KS
DS-20	–	F	P-40/ P-41	15Ø	Ø1	JI	117/125	114/121	132	P –	Ø6 AUG	TBD	7 Aug	137	139	151	P –	–	KS
DS-21		F	P-43/ P-44	5Ø	Ø1	JI	132/127	121/118	136	P –	Ø6 AUG	TBD	7 Aug	131	137	152	P –	–	KS

NOTES: (1) TRACK TYPES: E = EXTRUSION F = FUSION

000043

4555

GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

DESTRUCTIVE TEST LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: 6Q1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction YEAR: 2001

CONTRACTOR: Istre TEST REQUIREMENTS:

PRIMARY: ☐ SECONDARY: ☐ RE-TEST: ☐ OTHER: ☒ Cap

DISTRIBUTION: LABORATORY: ☒ ARCHIVE: ☒ INSTALLER: ☒ OTHER:

SAMPLE DATA						FIELD DATA						LABORATORY DATA						
D.S. NO.	(1) TRACK	LOCATION SEAM	LOCATION DIST (ft)	MACH NO.	OPER ID	AVG PEEL (PPI/PSI) INSIDE	AVG PEEL (PPI/PSI) OUTSIDE	AVG SHEAR (PPI/PSI)	PASS/FAIL	DATE SAMPLED/SHIPPED (day/mo)	QA ID	DATE OF RESULTS (day/mo)	AVG PEEL (PPI/PSI) INSIDE	AVG PEEL (PPI/PSI) OUTSIDE	AVG SHEAR (PPI/PSI)	PASS/FAIL	RE-TEST	QA ID
DS-22	F	P-49/P-50	50	01	JB	124/128	123/124	139	P –	7 Aug	KS	8 Aug	137	140	157	P –	–	KS
DS-23	F	P-54/P-55	125	01	JI	117/113	113/114	126	P –	9 Aug	KS	10 Aug	132	134	152	P –	–	KS
DS-24	F	P-56/P-57	175	01	JI	106/110	104/113	133	P –	9 Aug	KS	10 Aug	137	135	153	P –	–	KS
DS-25	F	P-59/P-60	200	01	JI	116/111	113/114	133	P –	9 Aug	KS	10 Aug	133	138	151	P –	–	KS
DS-26	F	P-60/P-61	100	01	JI	122/109	114/120	123	P –	13 Aug	KS	14 Aug	138	131	150	P –	–	KS
DS-27	E	P-33/P-61	225	04	JB	109	117	114	P –	13 Aug	KS	14 Aug	126	–	146	P –	–	KS
DS-28	F	P-33/P-62	150	01	JI	109/103	110/110	124	P –	13 Aug	KS	14 Aug	128	139	150	P –	–	KS
DS-29	E	P-38/P-65	150	04	JB	111	102	129	P –	13 Aug	KS	14 Aug	124	–	161	P –	–	KS

NOTES: (1) TRACK TYPES: E = EXTRUSION F = FUSION

000044

4555

		PEEL						SHEAR		
	Specimen	Weld A			Weld B					
Sample	Number	lb / in.	% Peel	Failure Type	lb / in.	% Peel	Failure Type	lb / in.	% Peel	Failure Type
DS 1	1	123		FTB/SE1	125		FTB/SE1	143		FTB/SE1
P1/2	2	128		FTB/SE1	131		FTB/SE1	143		FTB/SE1
	3	123		FTB/SE1	129		FTB/SE1	142		FTB/SE1
	4	125		FTB/SE1	122		FTB/SE1	144		FTB/SE1
	5	124		FTB/SE1	131		FTB/SE1	145		FTB/SE1
	AVG	125			128			143		
DS 2	1	131		FTB/SE1	131		FTB/SE1	149		FTB/SE1
P2/3	2	133		FTB/SE1	130		FTB/SE1	149		FTB/SE1
	3	137		FTB/SE1	131		FTB/SE1	150		FTB/SE1
	4	136		FTB/SE1	132		FTB/SE1	153		FTB/SE1
	5	131		FTB/SE1	130		FTB/SE1	153		FTB/SE1
	AVG	134			131			151		
DS 3	1	127		FTB/SE1	130		FTB/SE1	146		FTB/SE1
P4/5	2	130		FTB/SE1	126		FTB/SE1	145		FTB/SE1
	3	128		FTB/SE1	132		FTB/SE1	145		FTB/SE1
	4	132		FTB/SE1	129		FTB/SE1	148		FTB/SE1
	5	127		FTB/SE1	136		FTB/SE1	149		FTB/SE1
	AVG	129			131			147		

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If there are any questions, please contact us.

Respectfully,

Neelam Asher

Neelam Asher
Laboratory Manager

07/13/01

ASTM D4437

		PEEL						SHEAR		
	Specimen	Weld A			Weld B					
Sample	Number	lb / in.	% Peel	Failure Type	lb / in.	% Peel	Failure Type	lb / in.	% Peel	Failure Type
DS 4	1	130		FTB/SE1	135		FTB/SE1	150		FTB/SE1
P6/7	2	126		FTB/SE1	136		FTB/SE1	150		FTB/SE1
	3	127		FTB/SE1	135		FTB/SE1	150		FTB/SE1
	4	126		FTB/SE1	132		FTB/SE1	153		FTB/SE1
	5	128		FTB/SE1	135		FTB/SE1	154		FTB/SE1
	AVG	127			135			151		
DS 5	1	137		FTB/SE1	133		FTB/SE1	150		FTB/SE1
P8/9	2	140		FTB/SE1	135		FTB/SE1	148		FTB/SE1
	3	142		FTB/SE1	136		FTB/SE1	151		FTB/SE1
	4	138		FTB/SE1	135		FTB/SE1	150		FTB/SE1
	5	134		FTB/SE1	134		FTB/SE1	152		FTB/SE1
	AVG	138			135			150		

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Respectfully,

Neelam Asher

Neelam Asher
Laboratory Manager

07/18001 ASTM D4437

		PEEL						SHEAR		
Sample	Specimen Number	Weld lb / in.	A % Peel	Failure Type	Weld lb / in.	B % Peel	Failure Type	lb / in.	% Peel	Failure Type
DS 6A	1	133		FTB/SE1	133		FTB/SE1	151		FTB/SE1
P13/P20	2	131		FTB/SE1	134		FTB/SE1	151		FTB/SE1
	3	136		FTB/SE1	134		FTB/SE1	152		FTB/SE1
	4	134		FTB/SE1	134		FTB/SE1	152		FTB/SE1
	5	131		FTB/SE1	133		FTB/SE1	152		FTB/SE1
	AVG	133			134			152		
DS 6B	1	135		FTB/SE1	129		FTB/SE1	150		FTB/SE1
P17/P19	2	135		FTB/SE1	129		FTB/SE1	149		FTB/SE1
	3	134		FTB/SE1	131		FTB/SE1	150		FTB/SE1
	4	137		FTB/SE1	136		FTB/SE1	149		FTB/SE1
	5	137		FTB/SE1	129		FTB/SE1	149		FTB/SE1
	AVG	136			131			149		
DS 10	1	139		FTB/SE1	134		FTB/SE1	153		FTB/SE1
P25/P26	2	137		FTB/SE1	139		FTB/SE1	152		FTB/SE1
	3	136		FTB/SE1	137		FTB/SE1	153		FTB/SE1
	4	139		FTB/SE1	138		FTB/SE1	155		FTB/SE1
	5	103	100%	NON-FTB/AD	138		FTB/SE1	156		FTB/SE1
	AVG	131			137			154		
DS 11	1	134		FTB/SE3				159		FTB/SE1
P5/P25	2	138		FTB/SE3				160		FTB/SE1
	3	137		FTB/SE3				160		FTB/SE1
	4	135		FTB/SE3				162		FTB/SE1
	5	140		FTB/SE3	NO			158		FTB/SE1
	AVG	137			TEST			160		

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Neelam Asher

Neelam Asher
Laboratory Manager

07/17/01 ASTM D4437

		PEEL						SHEAR		
Sample	Specimen Number	Weld lb / in.	A % Peel	Failure Type	Weld lb / in.	B % Peel	Failure Type	lb / in.	% Peel	Failure Type
DS 7	1	137		FTB/SE1	128		FTB/SE1	153		FTB/SE1
P11/14	2	141		FTB/SE1	130		FTB/SE1	152		FTB/SE1
	3	134		FTB/SE1	131		FTB/SE1	154		FTB/SE1
	4	135		FTB/SE1	133		FTB/SE1	155		FTB/SE1
	5	136		FTB/SE1	133		FTB/SE1	157		FTB/SE1
	AVG	137			131			154		
DS 8	1	137		FTB/SE1	133		FTB/SE1	156		FTB/SE1
P21/22	2	134		FTB/SE1	133		FTB/SE1	153		FTB/SE1
	3	132		FTB/SE1	136		FTB/SE1	159		FTB/SE1
	4	138		FTB/SE1	135		FTB/SE1	159		FTB/SE1
	5	140		FTB/SE1	135		FTB/SE1	161		FTB/SE1
	AVG	136			134			158		
DS 9	1	137		FTB/SE1	134		FTB/SE1	147		FTB/SE1
P23/24	2	101	50%	FTB/AD-BRK	130		FTB/SE1	148		FTB/SE1
	3	122		FTB/SE1	132		FTB/SE1	150		FTB/SE1
	4	139		FTB/SE1	135		FTB/SE1	150		FTB/SE1
	5	135		FTB/SE1	129		FTB/SE1	149		FTB/SE1
	AVG	127			132			149		

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Respectfully,

Neelam Asher

Neelam Asher
Laboratory Manager

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07/31/01 ASTM D4437

		PEEL						SHEAR		
Sample	Specimen Number	Weld lb / in.	A % Peel	Failure Type	Weld lb / in.	B % Peel	Failure Type	lb / in.	% Peel	Failure Type
DS 12	1	132		FTB/SE1	130		FTB/SE1	152		FTB/SE1
P27/P28	2	130		FTB/SE1	134		FTB/SE1	155		FTB/SE1
	3	135		FTB/SE1	136		FTB/SE1	154		FTB/SE1
	4	136		FTB/SE1	134		FTB/SE1	156		FTB/SE1
	5	135		FTB/SE1	137		FTB/SE1	157		FTB/SE1
	AVG	134			134			155		
DS 13	1	124		FTB/SE1	138		FTB/SE1	152		FTB/SE1
P31/P32	2	126		FTB/SE1	140		FTB/SE1	148		FTB/SE1
	3	122		FTB/SE1	141		FTB/SE1	150		FTB/SE1
	4	124		FTB/SE1	140		FTB/SE1	152		FTB/SE1
	5	136		FTB/SE1	138		FTB/SE1	151		FTB/SE1
	AVG	126			139			151		
DS 14	1	115		FTB/SE3				150		FTB/SE1
P28/P29	2	110		FTB/SE3				153		FTB/SE1
	3	116		FTB/SE3				151		FTB/SE1
	4	129		FTB/SE3				151		FTB/SE1
	5	117		FTB/SE3	NO			149		FTB/SE1
	AVG	117			TEST			151		
DS 15	1	143		FTB/SE3				157		FTB/SE1
P19/P65	2	141		FTB/SE3				155		FTB/SE1
	3	148		FTB/SE3				157		FTB/SE1
	4	124		FTB/SE3				158		FTB/SE1
	5	130		FTB/SE3	NO			156		FTB/SE1
	AVG	137			TEST			157		
DS 16	1	123		FTB/SE1	138		FTB/SE1	152		FTB/SE1
P35/P34	2	129		FTB/SE1	139		FTB/SE1	151		FTB/SE1
	3	127		FTB/SE1	137		FTB/SE1	150		FTB/SE1
	4	130		FTB/SE1	128		FTB/SE1	150		FTB/SE1
	5	132		FTB/SE1	136		FTB/SE1	151		FTB/SE1
	AVG	128			136			151		

ASTM D4437

		PEEL						SHEAR		
	Specimen	Weld	A		Weld	B				
Sample	Number	lb / in.	% Peel	Failure Type	lb / in.	% Peel	Failure Type	lb / in.	% Peel	Failure Type
DS 17	1	132		FTB/SE1	135		FTB/SE1	150		FTB/SE1
P35/P36	2	139		FTB/SE1	129		FTB/SE1	150		FTB/SE1
	3	126		FTB/SE1	127		FTB/SE1	151		FTB/SE1
	4	144		FTB/SE1	129		FTB/SE1	151		FTB/SE1
	5	133		FTB/SE1	131		FTB/SE1	153		FTB/SE1
	AVG	135			130			151		
DS 18	1	124		FTB/SE1	129		FTB/SE1	147		FTB/SE1
P36/P37	2	124		FTB/SE1	130		FTB/SE1	146		FTB/SE1
	3	128		FTB/SE1	133		FTB/SE1	149		FTB/SE1
	4	133		FTB/SE1	132		FTB/SE1	148		FTB/SE1
	5	136		FTB/SE1	128		FTB/SE1	147		FTB/SE1
	AVG	129			130			147		

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Respectfully,

Neelam Asher

Neelam Asher
Laboratory Manager

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08/07/01 ASTM D4437

		PEEL						SHEAR		
Sample	Specimen Number	Weld lb / in.	A % Peel	Failure Type	Weld lb / in.	B % Peel	Failure Type	lb / in.	% Peel	Failure Type
DS 19	1	138		FTB/SE1	139		FTB/SE1	158		FTB/SE1
P38/P39	2	137		FTB/SE1	140		FTB/SE1	158		FTB/SE1
	3	135		FTB/SE1	145		FTB/SE1	159		FTB/SE1
	4	141		FTB/SE1	141		FTB/SE1	159		FTB/SE1
	5	136		FTB/SE1	140		FTB/SE1	161		FTB/SE1
	AVG	137			141			159		
DS 20	1	137		FTB/SE1	139		FTB/SE1	151		FTB/SE1
P40/P41	2	139		FTB/SE1	140		FTB/SE1	150		FTB/SE1
	3	140		FTB/SE1	132		FTB/SE1	151		FTB/SE1
	4	133		FTB/SE1	142		FTB/SE1	152		FTB/SE1
	5	134		FTB/SE1	141		FTB/SE1	152		FTB/SE1
	AVG	137			139			151		
DS 21	1	129		FTB/SE1	139		FTB/SE1	151		FTB/SE1
P43/P44	2	131		FTB/SE1	140		FTB/SE1	150		FTB/SE1
	3	131		FTB/SE1	132		FTB/SE1	152		FTB/SE1
	4	129		FTB/SE1	140		FTB/SE1	153		FTB/SE1
	5	133		FTB/SE1	136		FTB/SE1	153		FTB/SE1
	AVG	131			137			152		

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Neelam Asher

Neelam Asher
Laboratory Manager

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08/08/01 ASTM D4437

		PEEL						SHEAR		
	Specimen	Weld	A		Weld	B				
Sample	Number	lb / in.	% Peel	Failure Type	lb / in.	% Peel	Failure Type	lb / in.	% Peel	Failure Type
DS 22	1	133		FTB/SE1	133		FTB/SE1	157		FTB/SE1
P49/P50	2	134		FTB/SE1	138		FTB/SE1	156		FTB/SE1
	3	131		FTB/SE1	141		FTB/SE1	157		FTB/SE1
	4	144		FTB/SE1	144		FTB/SE1	157		FTB/SE1
	5	141		FTB/SE1	143		FTB/SE1	158		FTB/SE1
	AVG	137			140			157		

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08/10/01 ASTM D4437

		PEEL						SHEAR		
Sample	Specimen Number	Weld lb / in.	A % Peel	Failure Type	Weld lb / in.	B % Peel	Failure Type	lb / in.	% Peel	Failure Type
DS 23	1	129		FTB/SE1	119		FTB/SE1	151		FTB/SE1
P54/P56	2	133		FTB/SE1	139		FTB/SE1	152		FTB/SE1
	3	129		FTB/SE1	140		FTB/SE1	154		FTB/SE1
	4	138		FTB/SE1	139		FTB/SE1	150		FTB/SE1
	5	130		FTB/SE1	132		FTB/SE1	154		FTB/SE1
	AVG	132			134			152		
DS 24	1	140		FTB/SE1	130		FTB/SE1	151		FTB/SE1
P56/P57	2	141		FTB/SE1	132		FTB/SE1	151		FTB/SE1
	3	137		FTB/SE1	141		FTB/SE1	153		FTB/SE1
	4	133		FTB/SE1	136		FTB/SE1	154		FTB/SE1
	5	135		FTB/SE1	135		FTB/SE1	154		FTB/SE1
	AVG	137			135			153		
DS 25	1	131		FTB/SE1	138		FTB/SE1	150		FTB/SE1
P59/P60	2	135		FTB/SE1	140		FTB/SE1	151		FTB/SE1
	3	132		FTB/SE1	132		FTB/SE1	153		FTB/SE1
	4	135		FTB/SE1	140		FTB/SE1	151		FTB/SE1
	5	134		FTB/SE1	141		FTB/SE1	152		FTB/SE1
	AVG	133			138			151		

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Laboratory Manager

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		PEEL						SHEAR		
	Specimen	Weld	A		Weld	B				
Sample	Number	lb / in.	% Peel	Failure Type	lb / in.	% Peel	Failure Type	lb / in.	% Peel	Failure Type
DS 26	1	137		FTB/SE1	130		FTB/SE1	148		FTB/SE1
P60/P61	2	138		FTB/SE1	129		FTB/SE1	150		FTB/SE1
	3	134		FTB/SE1	130		FTB/SE1	151		FTB/SE1
	4	143		FTB/SE1	125		FTB/SE1	151		FTB/SE1
	5	138		FTB/SE1	139		FTB/SE1	149		FTB/SE1
	AVG	138			131			150		
DS 27	1	132		FTB/SE3				153		FTB/SE1
P33/P61	2	136		FTB/SE3				133		FTB/SE1
	3	116		FTB/SE3				150		FTB/SE1
	4	127		FTB/SE3				142		FTB/SE1
	5	121		FTB/SE3	NO			154		FTB/SE1
	AVG	126			TEST			146		
DS 28	1	126		FTB/SE1	135		FTB/SE1	150		FTB/SE1
P33/P62	2	133		FTB/SE1	138		FTB/SE1	148		FTB/SE1
	3	134		FTB/SE1	140		FTB/SE1	150		FTB/SE1
	4	121		FTB/SE1	140		FTB/SE1	152		FTB/SE1
	5	127		FTB/SE1	141		FTB/SE1	149		FTB/SE1
	AVG	128			139			150		
DS29	1	122		FTB/SE3				163		FTB/SE1
P38/P65	2	141		FTB/SE3				159		FTB/SE1
	3	109		FTB/SE3				161		FTB/SE1
	4	137		FTB/SE3				160		FTB/SE1
	5	111		FTB/SE3	NO			161		FTB/SE1
	AVG	124			TEST			161		

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Respectfully,

Neelam Asher

Neelam Asher
Laboratory Manager

APPENDIX M

GEOMEMBRANE REPAIR SUMMARY LOGS

GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

REPAIR SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: GQ134 TASK NO.: 04.1

DESCRIPTION: CELL #1 CAP CONSTRUCTION YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ■ CAP CONTRACTOR: ISTRE Co.

REPAIR NO. AND CODE (1)	DATE (day/mo)	LOCATION			REPAIR TYPE (2)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING (Vacuum box)				
		PANEL OR SEAM NO.	DIST. (ft)	OFFSET (ft)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO.	OPER ID		DATE (day/mo)	OPER ID	PASS/FAIL	ACTION	QA ID
R-1 (P)	10 July	P-1	200	MIDDLE OF PANEL	E	—	—	1	03	JB	TBC	10 July	JI	P / —	—	KS
R-2 (DS-1)	10 July	P-1/P-2	194	—	E	6	2	—	03	JB	TBC	10 July	JI	P / —	—	KS
R-3 (G)	10 July	P-1	200	8' N OF SEDGE	E	0.5	—	—	03	JB	TBC	10 July	JI	P / —	—	KS
R-4 (P)	10 July	P-1/P-2/R-2	196	—	E	3	2	—	03	JB	TBC	10 July	TM	P / —	—	TBC
R-5 (DS-2)	10 July	P-2/P-3	115	—	E	6	2	—	03	JB	KS	10 July	TM	P / —	—	TBC
R-6 (P)	10 July	P-2/P-2	25'	—	E	2	1	—	03	JB	KS	10 July	TM	P / —	—	TBC
R-7 (G)	10 July	P-2	56	5' S of P-2/P-3	E	0.5	—	—	03	JB	KS	10 July	TM	P / —	—	TBC
R-8 (DS-3)	10 July	P-4/P-5	258	—	E	6	2	—	03	JB	KS	10 July	TM	P / —	—	TBC
R-9 (DS-4)	10 July	P-6/P-7	225	—	E	6	2	—	03	JB	KS	11 July	TM	P / —	—	KS
R-10 (P)	11 July	P-6/P-7	212	—	E	3	6	—	03	JB	KS	11 July	TM	P / —	—	KS
R-11 (P)	11 July	P-6/P-7	202	—	E	3	1.5	—	04	JB	KS	11 July	TM	P / —	—	KS
R-12 (C)	11 July	P-6/P-7	177-194	—	E	17	2	—	04	JB	KS	11 July	TM	P / —	—	KS
R-13 (P)	11 July	P-6/P-7	133	—	E	6	2	—	04	JB	KS	11 July	TM	P / —	—	KS
R-14 (P)	11 July	P-6/R-13	135	5' S of P-6/P-7	E	6	2	—	04	JB	KS	11 July	TM	P / —	—	KS
R-15 (C)	11 July	P-6/P-7	105-115	—	E	10	2	—	04	JB	KS	11 July	TM	P / —	—	KS

NOTES: (1) REPAIR NO.: REPAIRS CAN BE NUMBERED SEQUENTIALLY, IF NECESSARY.
(1) REPAIR CODES: P = PATCH, C = CAP, S = ANCHOR TRENCH EXTENSION (SKIRT), DS = DESTRUCTIVE SAMPLE, G = GRIND & WELD, T = TOPPING ALONG FUSION SEAM, R = RECONSTRUCTION
(2) REPAIR TYPES: E = EXTRUSION, F = FUSION

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GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

REPAIR SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: 6Q1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap CONTRACTOR: Istre

REPAIR NO. AND CODE (1)	DATE (day/mo)	LOCATION			REPAIR TYPE (2)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING (Vacuum box)				
		PANEL OR SEAM NO.	DIST. (ft)	OFFSET (ft)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO.	OPER ID		DATE (day/mo)	OPER ID	PASS/ FAIL	ACTION	QA ID
R-16(C)	11 July	P-6/P-7	65-80	—	E	15	2	—	Ø4	JB	KS	11 July	TM	P	—	KS
R-17(P)	11 July	P-6	68	3'S of P-6/P-7	E	—	—	1	Ø4	JB	KS	11 July	TM	P	—	KS
R-18(P)	11 July	P-6/R-16	68	6'S of P-6/P-7	E	6	2	—	Ø4	JB	KS	11 July	TM	P	—	KS
R-19 (P)	13 July	P-16/P-10/P-11	25	—	E	—	—	2.0 ~~1.5~~ KS	Ø4	JB	KS	16 July	TM	P	—	KS
R-20(P)	13 July	P-11/P-16/P-12	53	—	E	—	—	1.5 ~~3~~ KS	Ø4	JB	KS	16 July	TM	P	—	KS
R-21(P)	13 July	P-11/P-12/P-14	55	—	E	—	—	3	Ø4	JB	KS	16 July	TM	P	—	KS
R-22(P)	13 July	P-13/P-17/P-19	~~80~~ 117	—	E	7	6	—	Ø4	JB	KS	16 July	TM	P	—	KS
R-23(P)	13 July	P-12/P-13/P-17	~~20~~ 95 KS	—	E	3	1	—	Ø4	JB	KS	14 July	TM	P	—	KS
R-24(P)	13 July	P-12/P-14/P-17	86	—	E	2	1	—	Ø4	JB	KS	14 July	TM	P	—	KS
R-25(P)	13 July	P-14	81	7'S of P-12/P-14 SEAM TO R-25	E	3	3	—	Ø4	JB	KS	16 July	TM	P	—	KS
R-26(G)	13 July	P-14	61		E	7	—	—	Ø4	JB	KS	16 July	TM	P	—	KS
R-27(P)	16 July	P-12/P-15/P-16	20	—	E	4	2	—	Ø4	JB	KS	16 July	TM	P	—	KS
R-28(P)	16 July	P-12/P-13/P-15	~~20~~ 40 KS	—	E	5	2	—	Ø4	JB	KS	16 July	TM	P	—	KS
R-29(P)	16 July	P-16/P-11	53	—	E	—	—	2	Ø4	JB	KS	16 July	TM	P	—	KS
R-30 (15) (DS-7)	16 July	P-11/P-14	25	—	E	6	2	—	Ø4	JB	KS	16 July	TM	P	—	KS

NOTES: (1) REPAIR NO.: REPAIRS CAN BE NUMBERED SEQUENTIALLY, IF NECESSARY.
(1) REPAIR CODES: P = PATCH, C = CAP, S= ANCHOR TRENCH EXTENSION (SKIRT), DS = DESTRUCTIVE SAMPLE, G = GRIND & WELD, T = TOPPING ALONG FUSION SEAM, R = RECONSTRUCTION
(2) REPAIR TYPES: E = EXTRUSION, F = FUSION

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GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

REPAIR SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: 6Q1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap CONTRACTOR: Istre

REPAIR NO. AND CODE (1)	DATE (day/mo)	LOCATION			REPAIR TYPE (2)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING Vacuum box				
		PANEL OR SEAM NO.	DIST. (ft)	OFFSET (ft)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO.	OPER ID		DATE (day/mo)	OPER ID	PASS/ FAIL	ACTION	QA ID
R-31(P)	16 July	P-12/P-13	85	—	E	—	—	2	Ø4	JB	KS	16 July	TM	P —	—	KS
R-32(P)	16 July	P-9/P-18/P-21	166	—	E	—	—	2	Ø4	JB	KS	16 July	TM	P —	—	KS
R-33(P)	16 July	P-18/P-20/P-21	173	—	E	—	—	2	Ø4	JB	KS	16 July	TM	P —	—	KS
R-34(P)	16 July	P-18/P-19/P-20	140	—	E	—	—	2	Ø4	JB	KS	16 July	TM	P —	—	KS
R-35(P)	16 July	P-13/P-19/P-20	137	—	E	—	—	2.5	Ø4	JB	KS	16 July	TM	P —	—	KS
R-36(DS-6)	16 July	P-18/P-19	110	—	E	6	2	—	Ø4	JB	KS	16 July	TM	P —	—	KS
R-37(P)	16 July	P-8/P-9	190	—	E	10	2	—	Ø4	JB	KS	16 July	TM	P —	—	KS
R-38(6)	16 July	P-12	81	2' W of P-12/P-13	E	6"	2"	—	Ø4	JB	KS	16 July	TM	P —	—	KS
R-39(P)	16 July	P-9/P-21/P-22	208	—	E	10	4	—	Ø4	JB	KS	16 July	TM	P —	—	KS
R-40(P)	16 July	P-22/R-39	172	5' N of P-8/P-22	E	13	2	—	Ø4	JB	KS	16 July	TM	P —	—	KS
R-41(P)	16 July	~~P-7/P-8/P-22/P-23~~ P-8/P-9/P-22 KS	~~248~~ 214 KS	—	E	~~8~~ KS	KS ~~7~~	2	Ø4	JB	KS	16 July	TM	P —	—	KS
R-42(P)	16 July	P-7/P-8/P-22/P-23	248	—	E	8	7	—	Ø4	JB	KS	16 July	TM	P —	—	KS
R-43(P)	16 July	P-6/P-7/P-23/P-24	279	—	E	10	12	—	Ø4	JB	KS	16 July	TM	P —	—	KS
R-44(P)	16 July	P-23/P-24/R-43	208	—	E	16	2	—	Ø4	JB	KS	16 July	TM	P —	—	KS
(15) R-45(P)	16 July	P-6/P-24/P-25	318	—	E	4	4	—	Ø4	JB	KS	17 July	TM	P —	—	KS

NOTES: (1) REPAIR NO.: REPAIRS CAN BE NUMBERED SEQUENTIALLY, IF NECESSARY.
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(2) REPAIR TYPES: E = EXTRUSION, F = FUSION

GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

REPAIR SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: 6Q1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap CONTRACTOR: Istre

REPAIR NO. AND CODE (1)	DATE (day/mo)	LOCATION			REPAIR TYPE (2)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING				
		PANEL OR SEAM NO.	DIST. (ft)	OFFSET (ft)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO.	OPER ID		DATE (day/mo)	OPER ID	PASS/ FAIL	ACTION	QA ID
R-46(P)	16 July	P-5/P-6/P-25	326	—	E	—	—	1	Ø4	JB	KS	17 July	TM	P —	—	KS
R-47(P)	16 July	P-4/P-5/P-25/P-26	355	—	E	9	6	—	Ø4	JB	KS	17 July	TM	P —	—	KS
R-48(P)	16 July	P-22/P-23	143	—	E	5	2	—	Ø4	JB	KS	17 July	TM	P —	—	KS
R-49(DS-9)	16 July	P-23/P-24	125	—	E	5	2	—	Ø4	JB	KS	17 July	TM	P —	—	KS
R-50(DS-8)	16 July	P-21/P-22	75	—	E	8	2	—	Ø4	JB	KS	17 July	TM	P —	—	KS
R-51(P)	16 July	P-21/P-22	13	—	E	3	2	—	Ø4	JB	KS	17 July	TM	P —	—	KS
R-52(DS-5)	17 July	P-8/P-9	81	—	E	6	3	—	Ø4	JB	KS	17 July	TM	P —	—	KS
R-53(P)	17 July	P-22	8	11' W of P-22/P-23	E	—	—	1	Ø4	JB	KS	17 July	TM	P —	—	KS
R-54(P)	17 July	P-23	2	11' W of P-23/P-24	E	2	1	—	Ø4	JB	KS	17 July	TM	P —	—	KS
R-55(P)	17 July	P-24	3	12' W of P-24/P-25	E	—	—	2	Ø4	JB	KS	17 July	TM	P —	—	KS
R-56(P)	17 July	P-25	1	12' W of P-25/P-26	E	—	—	2	Ø4	JB	KS	17 July	TM	P —	—	KS
R-57(DS-6B)	17 July	P-17/P-19/R-22	112	—	E	9	3	—	Ø4	JB	KS	17 July	TM	P —	—	KS
R-58(DS-6A)	17 July	P-13/P-20/R-35	114	—	E	8	2	—	Ø4	JB	KS	17 July	TM	P —	—	KS
R-59(P)	17 July	P-21	154	6' N of P-9/P-21	E	—	—	1	Ø4	JB	KS	17 July	TM	P —	—	KS
R-60 (15)(G)	17 July	P-2	15	75' of P-2/P-3	E	—	—	3"	Ø4	JB	KS	17 July	TM	P —	—	KS

NOTES: (1) REPAIR NO.: REPAIRS CAN BE NUMBERED SEQUENTIALLY, IF NECESSARY.
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(2) REPAIR TYPES: E = EXTRUSION, F = FUSION

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GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

REPAIR SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: GQ1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap CONTRACTOR: Istre

REPAIR NO. AND CODE (1)	DATE (day/mo)	LOCATION			REPAIR TYPE (2)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING Vacuum Test				
		PANEL OR SEAM NO.	DIST. (ft)	OFFSET (ft)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO.	OPER ID		DATE (day/mo)	OPER ID	PASS/ FAIL	ACTION	QA ID
R-61 (P)	17 July	P-1	0	10' S of P-1/P-2	E	5	3	–	04	JB	KS	17 July	TM	P –	–	KS
R-62 (P)	17 July	P-3	270	5' N of P-2/P-3	E	–	–	1	04	JB	KS	17 July	TM	P –	–	KS
R-63 (DS-11)	17 July	P-5/P-25	332	–	E	5	2	–	04	JB	KS	17 July	TM	P –	–	KS
R-64 (DS-10)	17 July	P-25/P-26	55	–	E	5	2	–	04	JB	KS	17 July	TM	P –	–	KS
R-65 (C)	23 July	P-18/~~R-65~~ KS/P-19	0-143	–	E	143	3	–	04	JB	KS	27 July	TM	P –	–	KS
R-66 (P)	23 July	P-3/P-4	291	–	E	4	2	–	04	JB	KS	24 July	AC	P –	–	KS
R-67 (G)	23 July	P-4	291	seam to R-66	E	20	–	–	04	JB	KS	24 July	AC	P –	–	KS
R-68 (P)	23 July	P-4/R-47/R-67/R-	272	–	E	25	3	–	04	JB	KS	24 July	AC	P –	–	KS
R-69 (P)	23 July	P-3/P-4	329	–	E	~~4~~ 8	1	–	04	JB	KS	27 July	TM	P –	–	KS
R-70 (P)	23 July	P-3/P-4/R-69	316	–	E	5	2	–	04	JB	KS	27 July	TM	P –	–	KS
R-71 (P)	23 July	P-4/R-69/R-68	272	12' S of P-4/P-5	E	23	2	–	04	JB	KS	24 July	AC	P –	–	KS
R-72 (P)	23 July	P-26/P-4/R-68/R-	263	–	E	13	2	–	04	JB	KS	24 July	AC	P –	–	KS
R-73 (C)	23 July	P-4/P-26/P-3/P-27/ P-2/P-28	~~263~~ 357 455	–	E	95	3	–	04	JI	KS	27 July	TM	P –	–	KS
R-74 (P)	23 July	P-27	394	3' S of R-73/P-27	E	–	–	1	04	JB	KS	27 July	TM	P –	–	KS
R-75 (P)	23 July	R-73/P-3	411	–	E	–	–	2	04	JI	KS	31 July	TM	P –	–	KS

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(2) REPAIR TYPES: E = EXTRUSION, F = FUSION

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GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

REPAIR SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: GQ1341 TASK NO.: 04.1

DESCRIPTION: CELL #1 CAP CONSTRUCTION YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ CAP CONTRACTOR: ISTRE CO.

REPAIR NO. AND CODE (1)	DATE (day/mo)	LOCATION			REPAIR TYPE (2)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING				QA ID
		PANEL OR SEAM NO.	DIST. (ft)	OFFSET (ft)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO.	OPER ID		DATE (day/mo)	OPER ID	PASS/FAIL	ACTION	
R-76(G)	23 July	P-27	394	Seam to R-74	E	2	—	—	04	JB	KS	27 July	TM	P —	—	KS
R-77(P)	24 July	P-1/R-78	350	3' W of P-30/P-1	E	7	3	—	04	JB2	KS	27 July	TM	P —	—	KS
R-78(P)	24 July	P-1/P-30/R-77	345	—	E	7	4	—	04	JB2	KS	27 July	TM	P —	—	KS
R-79(P)	25 July	P-1/P-2/P-30	335	—	E	—	—	2	04	JB2	KS	27 July	TM	P —	—	KS
R-80(G)	25 July	R-73	392	next to R-73/P-3	E	0.5	—	—	04	JB2	KS	27 July	TM	P —	—	KS
R-81(G)	25 July	R-73	392	1.5' S of R-73/P-27	E	0.5	—	—	04	JB2	KS	27 July	TM	P —	—	KS
R-82(P)	25 July	R-73	405	center of R-73	E	—	—	1	04	JB2	KS	27 July	TM	P —	—	KS
R-83(P)	25 July	P-28	273	4' W of P-28/P-30	E	—	—	1.5	04	JB2	KS	27 July	TM	P —	—	KS
R-84(P)	25 July	P-24	225	4' W of P-24/P-25	E	—	—	2.5	04	JB2	KS	27 July	TM	P —	—	KS
R-85(G)	25 July	P-2	365 371	5' S of R-73/P-2	E	6	—	—	04	JB2	KS	27 July	TM	P —	—	KS
R-86(G)	25 July	P-2	362	2' S of R-73/P-2	E	0.5	—	—	04	JB2	KS	27 July	TM	P —	—	KS
R-87(P)	25 July	P-26	194	mid. of panel	E	5	3	—	04	JB2	KS	30 July	TM	P —	—	KS
R-88(P)	25 July	P-26	200	7' W of P-26/P-27	E	—	—	1	04	JB2	KS	30 July	TM	P —	—	KS
R-89(P)	25 July	P-27/P-28	219	—	E	3	2	—	04	JB2	KS	31 July	TM	P —	—	KS
R-90(P) (15)	25 July	P-27/P-24	225	—	E	—	—	1	04	JB2	KS	31 July	TM	P —	—	KS

NOTES: (1) REPAIR NO.: REPAIRS CAN BE NUMBERED SEQUENTIALLY, IF NECESSARY.
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(2) REPAIR TYPES: E = EXTRUSION, F = FUSION

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GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

REPAIR SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: GQ1341 TASK NO.: 04.1

DESCRIPTION: CELL #1 CAP CONSTRUCTION YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ CAP CONTRACTOR: ISTRE Co.

REPAIR NO. AND CODE (1)	DATE (day/mo)	LOCATION			REPAIR TYPE (2)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING (vacuum box)				QA ID
		PANEL OR SEAM NO.	DIST. (ft)	OFFSET (ft)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO.	OPER ID		DATE (day/mo)	OPER ID	PASS/FAIL	ACTION	
R-91(P)	26 July	P-6	Ø	mid of panel	E	—	—	1	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-92(G)	27 July	P-24	15	3' W of P-24/P-25	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-93(G)	27 July	P-21	12	3' W of P-21/P-22	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-94(P)	27 July	P-16	2	mid of panel	E	—	—	1	Ø4	JB2	KS	3 Aug	AC	P —	—	KS
R-95(G)	27 July	P-1Ø	47	4' N of P-10/P-11	E	.5	—	—	Ø4	JB2	KS	~~27 July~~ 3 Aug	AC	P —	—	KS
R-96(G)	27 July	P-13	83	mid of panel	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-97(G)	27 July	P-13	9Ø	6' W of P-13/P-20	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-98(G)	27 July	P-13	93	4' W of P-13/P-20	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-99(G)	27 July	P-9	51	4' S of P-9/P-18	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-1ØØ(G)	27 July	P-9	53	mid of panel	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-1Ø1(G)	27 July	P-9	45	mid of panel	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-1Ø2(P)	27 July	P-23/P-24	4Ø	—	E	—	—	1	Ø4	JB2	KS	27 July	TM	P —	—	KS
KS ~~R-1Ø3(P)~~	~~27 July~~	~~P-23/P-24~~														
R-103(G)	27 July	P-23	178	mid of panel	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-104(P)	27 July	P-23	198	1' E of R-42	E	—	—	1.5	Ø4	JB2	KS	27 July	TM	P —	—	KS

NOTES: (1) REPAIR NO.: REPAIRS CAN BE NUMBERED SEQUENTIALLY, IF NECESSARY.
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(2) REPAIR TYPES: E = EXTRUSION, F = FUSION

GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

REPAIR SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: GQ1341 TASK NO.: 04.1

DESCRIPTION: CELL #1 CAP CONSTRUCTION YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ CAP CONTRACTOR: ISTRE Co.

REPAIR NO. AND CODE (1)	DATE (day/mo)	LOCATION			REPAIR TYPE (2)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING				
		PANEL OR SEAM NO.	DIST. (ft)	OFFSET (ft)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO.	OPER ID		DATE (day/mo)	OPER ID	PASS/ FAIL	ACTION	QA ID
R-105(6)	27 July	P-23	194	4' E of P-22/P-23	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-106(6)	27 July	P-23	198	4' E of R-104	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-107(6)	27 July	P-23	195	mid of panel	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-108(6)	27 July	P-23	198	1' N of P-23/P-24	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-109(6)	27 July	P-23	21Ø	3' W of R-44	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-11Ø(6)	27 July	P-24	215	mid of panel	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-111(6)	27 July	P-24	213	5' W of P24/P-25	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-112(P)	27 July	P-23	172	6' W of P-23/P-24	E	—	—	1	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-113(6)	27 July	P-22	175	1' W of P-22/P-23	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-114(6)	27 July	P-22	14Ø	3' W of P22/P-23	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-115(6)	27 July	P-25	13Ø	mid of panel	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-116(P)	27 July	P-24/P-25	10	—	E	6	2	—	Ø4	JB2	KS	27 July	TM	P —	—	KS
R-117(C)	27 July	P-27/ ~~P-28~~ P-29 ~~R-117~~ KS	271-302	—	E	31	3	—	Ø4	JB2	KS	31 July	TM	P —	—	KS
R-118(C)	27 July	P-27/P-28	246-255	—	E	9	2	—	Ø4	JB2	KS	31 July	TM	P —	—	KS
(15) R-119(6)	27 July	~~R-119~~ KS P-3	342	3' N of P-2/P-3	E	.5	—	—	Ø4	JB2	KS	27 July	TM	P —	—	KS

NOTES: (1) REPAIR NO.: REPAIRS CAN BE NUMBERED SEQUENTIALLY, IF NECESSARY.
(1) REPAIR CODES: P = PATCH, C = CAP, S= ANCHOR TRENCH EXTENSION (SKIRT), DS = DESTRUCTIVE SAMPLE, G = GRIND & WELD, T = TOPPING ALONG FUSION SEAM, R = RECONSTRUCTION
(2) REPAIR TYPES: E = EXTRUSION, F = FUSION

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GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

REPAIR SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: GQ1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap CONTRACTOR: Istre

REPAIR NO. AND CODE (1)	DATE (day/mo)	LOCATION			REPAIR TYPE (2)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING				
		PANEL OR SEAM NO.	DIST. (ft)	OFFSET (ft)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO.	OPER ID		DATE (day/mo)	OPER ID	PASS/ FAIL	ACTION	QA ID
R-120(P)	27 July	P-27/P-28	238	—	E	—	—	1	04	JBZ	KS	31 July	TM	P —	—	KS
R-121(P)	27 July	P-28/P-29/P-30	255	—	E	—	—	1.5	04	JBZ	KS	31 July	TM	P —	—	KS
R-122(P)	27 July	P-29/P-30/P-31	250	—	E	4	3	—	04	JBZ	KS	31 July	TM	P —	—	KS
R-123(P)	27 July	P-26	252	4' E of P-25/P-26	E	—	—	1	04	JBZ	KS	27 July	TM	P —	—	KS
R-124(6)	27 July	P-7	217	31 from R-42	E	.5	—	—	04	JBZ	KS	16 July	TM	P —	—	KS
R-125(P)	30 July	P-28	6	mid of panel	E	—	—	2	04	JB	KS	31 July	TM	P —	—	KS
R-126(S)	30 July	P-28	0-5	—	E	24	4	—	04	JB	KS	31 July	TM	P —	—	KS
R-127(P)	30 July	P-27/P-28/R-126	5	—	E	3	1.5	—	04	JB	KS	31 July	TM	P —	—	KS
R-128(P)	30 July	P-28/P-29	37	—	E	—	—	2	04	JB	KS	31 July	TM	P —	—	KS
R-129(P)	30 July	P-31	1	10' N of P-31/P-32	E	—	—	1	04	JB	KS	31 July	TM	P —	—	KS
R-130(P)	30 July	P-28/R-117	281	—	E	—	—	1.5	06	JBZ	KS	31 July	TM	P —	—	KS
R-131(P)	30 July	P-28/R-117	295	—	E	4	1	—	06	JBZ	KS	31 July	TM	P —	—	KS
R-132(P)	30 July	P-28/P-30	311	—	E	—	—	1	06	JBZ	KS	31 July	TM	P —	—	KS
R-133(P)	30 July	P-29	126	8' N of P-29/P-31	E	—	—	2	04	JB	KS	30 July	JK	P —	—	KS
R-134 (15)(P)	30 July	P-29	130	8' E of P-28/P-29	E	—	—	1.5	04	JB	KS	30 July	JK	P —	—	KS

NOTES: (1) REPAIR NO.: REPAIRS CAN BE NUMBERED SEQUENTIALLY, IF NECESSARY.
(1) REPAIR CODES: P = PATCH, C = CAP, S= ANCHOR TRENCH EXTENSION (SKIRT), DS = DESTRUCTIVE SAMPLE, G = GRIND & WELD, T = TOPPING ALONG FUSION SEAM, R = RECONSTRUCTION
(2) REPAIR TYPES: E = EXTRUSION, F = FUSION

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GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

REPAIR SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: GQ134 TASK NO.: 04.1

DESCRIPTION: CELL #1 CAP CONSTRUCTION YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ CAP CONTRACTOR: ISTRE Co.

REPAIR NO. AND CODE (1)	DATE (day/mo)	LOCATION			REPAIR TYPE (2)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING				
		PANEL OR SEAM NO.	DIST. (ft)	OFFSET (ft)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO.	OPER ID		DATE (day/mo)	OPER ID	PASS/ FAIL	ACTION	QA ID
R-135(P)	30 July	P-29	143	1' W of P-29/P-31	E	—	—	2	04	JB	KS	30 July	JK	P	—	KS
R-136(P)	30 July	P-28/P-29	164	—	E	—	—	1	04	JB	KS	30 July	JK	P	—	KS
R-137(P)	30 July	P-28/P-29	167	—	E	—	—	1	04	JB	KS	30 July	JK	P	—	KS
R-138(P)	30 July	P-28/P-29	182	—	E	—	—	1	04	JB	KS	30 July	JK	P	—	KS
R-139(P)	30 July	P-28/P-29	192	—	E	—	—	1	04	JB	KS	30 July	JK	P	—	KS
R-140(DS-14)	30 July	P-28/P-29	225	—	E	5	2	—	06	JB2	KS	31 July	TM	P	—	KS
R-141(P)	30 July	P-31/P-32	173	—	E	3	1	—	04	JB	KS	31 July	TM	P	—	KS
R-142(DS-13)	30 July	P-31/P-32	225	—	E	4	2	—	06	JB2	KS	30 July	TM	P	—	KS
R-143(G)	30 July	P-27	242	3' W of P-27/P-28	E	.5	—	—	06	JB2	KS	31 July	TM	P	—	KS
R-144(DS-15)	30 July	P-19/R-65	105	—	E	5	2	—	04	JB	KS	3 Aug	AC	P	—	KS
R-145(DS-12)	30 July	P-27/P-28	200	—	E	5	2	—	06	JB2	KS	31 July	TM	P	—	KS
R-146(P)	30 July	P-25	248	7' W of P-25/P-26	E	—	—	2	04	JB	KS	31 July	TM	P	—	KS
R-147(P)	30 July	P-32/P-33/P-34	31 ~~25~~	—	E	—	—	1.5	04	JB	KS	31 July	TM	P	—	KS
R-148(P)	30 July	P-33/P-34/P-35	37	—	E	—	—	1.5	04	JB	KS	31 July	TM	P	—	KS
R-149(G) (15)	30 July	P-35	315	mid of panel	E	.5	—	—	04	JB	KS	31 July	TM	P	—	KS

NOTES: (1) REPAIR NO.: REPAIRS CAN BE NUMBERED SEQUENTIALLY, IF NECESSARY.
(1) REPAIR CODES: P = PATCH, C = CAP, S = ANCHOR TRENCH EXTENSION (SKIRT), DS = DESTRUCTIVE SAMPLE, G = GRIND & WELD, T = TOPPING ALONG FUSION SEAM, R = RECONSTRUCTION
(2) REPAIR TYPES: E = EXTRUSION, F = FUSION

GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

REPAIR SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: GQ134 TASK NO.: 04.1

DESCRIPTION: CELL #1 CAP CONSTRUCTION YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ CAP CONTRACTOR: ISTME Co.

REPAIR NO. AND CODE (1)	DATE (day/mo)	LOCATION			REPAIR TYPE (2)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING				
		PANEL OR SEAM NO.	DIST. (ft)	OFFSET (ft)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO.	OPER ID		DATE (day/mo)	OPER ID	PASS/ FAIL	ACTION	QA ID
R-150 (DS-18)	30 July	P-36/P-37	175	—	E	6	2	—	04	JB	KS	31 July	TM	P	—	KS
R-151 (DS-17)	30 July	P-35/P-36	125	—	E	6	2	—	06	JB2	KS	31 July	TM	P	—	KS
R-152 (DS-16)	30 July	P-34/P-35	250	—	E	5	2	—	04	JB	KS	31 July	TM	P	—	KS
R-153 (G)	01 AUG	P-2	322	5' S OF P-2/P-3	E	0.5	—	—	04	JB2	TB2	3 Aug	TM	P	—	KS
R-154 (G)	01 AUG	P-3	351	1' N OF P-2/P-3	E	1.0	—	—	04	JB2	TB2	3 Aug	TM	P	—	KS
R-155 (G)	01 AUG	P-2	351	3' S OF P-2/P-3	E	0.5	—	—	04	JB2	TB2	3 Aug	TM	P	—	KS
R-156 (G)	01 AUG	P-2	355	10' S OF P-2/P-3	E	0.5	—	—	04	JB2	TB2	3 Aug	TM	P	—	KS
R-157 (G)	01 AUG	P-2	350	MIDDLE OF PANEL	E	0.5	—	—	04	JB2	TB2	3 Aug	TM	P	—	KS
R-158 (G)	01 AUG	P-2	367	5' N OF P-1/P-2	E	1.0	—	—	04	JB2	TB2	3 Aug	TM	P	—	KS
R-159 (G)	01 AUG	R-73	414	MIDDLE	E	0.5	—	—	04	JB2	TB2	3 Aug	TM	P	—	KS
R-160 (P)	01 AUG	P-3/R-73	410	—	E	1	1	—	04	JB2	TB2	3 Aug	TM	P	—	KS
R-161 (G)	01 AUG	P-35	280	MIDDLE	E	0.5	—	—	04	JB2	TB2	3 Aug	TM	P	—	KS
R-162 (P)	01 AUG	P-34	330	MIDDLE	E	—	—	1	04	JB2	TB2	3 Aug	TM	P	—	KS
R-163 (P)	02 AUG	P-34/P-35	0	—	E	2	1	—	04	JB2	TB2	6 Aug	TM	P	—	KS
R-164 (P)	02 AUG	P-35	6	MIDDLE	E	—	—	1	04	JB2	TB2	6 Aug	TM	P	—	KS

NOTES: (1) REPAIR NO.: REPAIRS CAN BE NUMBERED SEQUENTIALLY, IF NECESSARY.
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(2) REPAIR TYPES: E = EXTRUSION, F = FUSION

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GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

REPAIR SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: GQ134 TASK NO.: 04.1

DESCRIPTION: CELL #1 CAP CONSTRUCTION YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ CAP CONTRACTOR: ISTLE CO.

REPAIR NO. AND CODE (1)	DATE (day/mo)	LOCATION			REPAIR TYPE (2)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING				
		PANEL OR SEAM NO.	DIST. (ft)	OFFSET (ft)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO.	OPER ID		DATE (day/mo)	OPER ID	PASS/ FAIL	ACTION	QA ID
R-165(P)	02 AUG	P-35/P-36	0	—	E	2	2	—	04	JB2	TBU	6 Aug	TM	P —	—	KS
R-166(P)	02 AUG	P-36	5	MIDDLE OF PANEL	E	—	—	1	04	JB2	TBU	6 Aug	TM	P —	—	KS
R-167(P)	02 AUG	P-36	5	MIDDLE	E	—	—	2	04	JB2	TBU	6 Aug	TM	P —	—	KS
R-168(P)	02 AUG	P-36	5	MIDDLE	E	—	—	1	04	JB2	TBU	6 Aug	TM	P —	—	KS
R-169(P)	02 AUG	P-36/P-37	0	—	E	2	2	—	04	JB2	TBU	6 Aug	TM	P —	—	KS
R-170(G)	02 AUG	P-38	15	MIDDLE	E	0.5	—	—	04	JB2	TBU	6 Aug	TM	P —	—	KS
R-171(G)	02 AUG	P-38	60	5' S. OF P-38/P-39	E	0.5	—	—	04	JB2	TBU	6 Aug	TM	P —	—	KS
R-172(G)	02 AUG	P-38	72	MIDDLE	E	2.0	—	—	04	JB2	TBU	6 Aug	TM	P —	—	KS
R-173 (DS-19)	02 AUG	P-38/P-39	75	—	E	6	2	—	04	JB2	TBU	6 Aug	TM	P —	—	KS
R-174 (DS-20)	02 AUG	P-40/P-41	150	—	E	6	2	—	04	JB2	TBU	6 Aug	TM	P —	—	KS
R-175 (DS-21)	06 AUG	P-43/P-44	50	—	E	6	2	—	04	JB KS	TBU	7 Aug	TM	P —	—	KS
R-176(P)	30 July	P-35	119	5' S OF P-35/P-36	E	—	—	1	04	JB KS	KS	6 Aug	TM	P —	—	KS
R-177(P)	~~1500~~ 6 Aug KS	P-42/P-43	8-8	—	F	8	2	—	04	JB	KS	7 Aug	TM	P —	—	KS
R-178(P)	~~1600~~ 6 Aug KS	P-44/P-45/P-50	372	—	F	—	—	2	04	JB	KS	7 Aug	TM	P —	—	KS
R-179(P)	~~1610~~ 6 Aug KS	P-45/P-49/P-50	384	—	E	—	—	2	04	JB	KS	7 Aug	TM	P —	—	KS

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(2) REPAIR TYPES: E = EXTRUSION, F = FUSION

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GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

REPAIR SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: 6Q1341 TASK NO.: 04.1

DESCRIPTION: Phase Cell #1 Cap Construction YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap CONTRACTOR: Istre

REPAIR NO. AND CODE (1)	DATE (day/mo)	LOCATION			REPAIR TYPE (2)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING				
		PANEL OR SEAM NO.	DIST. (ft)	OFFSET (ft)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO.	OPER ID		DATE (day/mo)	OPER ID	PASS/ FAIL	ACTION	QA ID
R-180(P)	6 Aug	P-46/P-48/P-49	415	—	E	—	—	2	04	JB	KS	7 Aug	TM	P —	—	KS
R-181 (P)	7 Aug	P-48	23	6' N of P-46/P-48 seam to R-181	E	—	—	2	04	JBZ	KS	7 Aug	TM	P —	—	KS
R-182(G)	7 Aug	P-48	23		E	6	—	—	04	JBZ	KS	7 Aug	TM	P —	—	KS
R-183(P)	7 Aug	P-46/P-47/P-48	23	4' E of 8' N of R-45/P-46 P-46/P-47 P-47/P-48 seam to R-184	E	—	—	4	04	JBZ	KS	7 Aug	TM	P —	—	KS
R-184(P)	7 Aug	P-49	65		E	—	—	2	04	JBZ	KS	7 Aug	TM	P —	—	KS
R-185(G)	7 Aug	P-49	65		E	12	—	—	04	JBZ	KS	7 Aug	TM	P —	—	KS
R-186(P)	7 Aug	P-45/P-46/P-49	65	—	E	—	—	3	04	JBZ	KS	7 Aug	TM	P —	—	KS
R-187(DS-22)	7 Aug	P-49/P-50	50	—	E	5	2	—	04	JBZ	KS	7 Aug	TM	P —	—	KS
R-188(G)	7 Aug	P-34	10	2' S of P-34/P-35	E	.5	—	—	04	JBZ	KS	7 Aug	TM	P —	—	KS
R-189(G)	7 Aug	P-38	106	Middle	E	.5	—	—	04	JBZ	KS	7 Aug	TM	P —	—	KS
R-190(G)	7 Aug	P-38	108	2' S of P-38/P-39	E	.5	—	—	04	JBZ	KS	7 Aug	TM	P —	—	KS
R-191 (G)	7 Aug	P-38	170	6' S of P-38/P-39	E	.5	—	—	04	JBZ	KS	7 Aug	TM	P —	—	KS
R-192(G)	7 Aug	P-36	277	8' S of P-36/P-37	E	.5	—	—	04	JBZ	KS	7 Aug	TM	P —	—	KS
R-193 (P)	7 Aug	P-32	310	Middle	E	—	—	1	04	JBZ	KS	7 Aug	TM	P —	—	KS
R-194 (G)	7 Aug	P-31	80	7' east of P-31/P-31	E	.5	—	—	04	JBZ	KS	7 Aug	TM	P —	—	KS

NOTES: (1) REPAIR NO.: REPAIRS CAN BE NUMBERED SEQUENTIALLY, IF NECESSARY.
(1) REPAIR CODES: P = PATCH, C = CAP, S = ANCHOR TRENCH EXTENSION (SKIRT), DS = DESTRUCTIVE SAMPLE, G = GRIND & WELD, T = TOPPING ALONG FUSION SEAM, R = RECONSTRUCTION
(2) REPAIR TYPES: E = EXTRUSION, F = FUSION

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GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

REPAIR SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: 601341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap CONTRACTOR: Istre

REPAIR NO. AND CODE (1)	DATE (day/mo)	LOCATION			REPAIR TYPE (2)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING				
		PANEL OR SEAM NO.	DIST. (ft)	OFFSET (ft)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO.	OPER ID		DATE (day/mo)	OPER ID	PASS/ FAIL	ACTION	QA ID
R-195(G)	7 Aug	P-48	3	2' west of P-47/P-48	E	.5	—	—	04	JB2	KS	7 Aug	TM	P	—	KS
R-196(P)	9 Aug	P-40/P-55/P-56	220	—	E	—	—	3	04	JB2	KS	10 Aug	TM	P	—	KS
R-197(P)	9 Aug	P-40/P-41/P-55	233	—	E	—	—	3	04	JB2	KS	10 Aug	AC	P	—	KS
R-198(P)	9 Aug	P-41/P-54/P-55	252	—	E	—	—	3	04	JB2	KS	10 Aug	AC	P	—	KS
R-199(P)	9 Aug	P-41/P-42/P-54	268	—	E	—	—	3	04	JB	KS	10 Aug	AC	P	—	KS
R-200(P)	9 Aug	P-42/P-52/P-54	285	—	E	7	4	—	04	JB	KS	10 Aug	AC	P	—	KS
R-201(P)	9 Aug	P-42/P-43/P-52	302	—	E	—	—	3	04	JB	KS	10 Aug	AC	P	—	KS
R-202(P)	9 Aug	P-43/P-44/P-51/P-52	318-344	—	E	21	10	—	04	JB	KS	10 Aug	AC	P	—	KS
R-203(P)	9 Aug	P-44/P-50/P-51	353	—	E	—	—	4	04	JB	KS	10 Aug	AC	P	—	KS
R-204(C)	10 Aug	P-52/P-53	18	—	E	23	2	—	04	JB	KS	11 Aug	TM	P	—	KS
R-205(DS-23)	10 Aug	P-54/P-55	125	—	E	4	2	—	04	JB	KS	11 Aug	TM	P	—	KS
R-206(P)	10 Aug	P-56	3	middle	E	—	—	3	04	JB	KS	11 Aug	TM	P	—	KS
R-207(P)	10 Aug	P-56	5	5' east of P-56/P-57	E	—	—	1.5	04	JB	KS	11 Aug	TM	P	—	KS
R-208(P)	10 Aug	P-57	3	middle	E	—	—	1.5	04	JB	KS	11 Aug	TM	P	—	KS
R-209(G)	10 Aug	P-55	148	3' E of P-55/P-56	E	.5	—	—	04	JB	KS	11 Aug	TM	P	—	KS

NOTES: (1) REPAIR NO.: REPAIRS CAN BE NUMBERED SEQUENTIALLY, IF NECESSARY.
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(2) REPAIR TYPES: E = EXTRUSION, F = FUSION

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GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

REPAIR SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: GQ1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap CONTRACTOR: Istre

REPAIR NO. AND CODE (1)	DATE (day/mo)	LOCATION			REPAIR TYPE (2)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING				
		PANEL OR SEAM NO.	DIST. (ft)	OFFSET (ft)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO.	OPER ID		DATE (day/mo)	OPER ID	PASS/ FAIL	ACTION	QA ID
R-210(G)	10 Aug	P-55	149	Middle	E	.5	—	—	04	JB	KS	11 Aug	TM	P	—	KS
R-211(DS-24)	10 Aug	P-56/P-57	175	—	E	5	2	—	04	JB	KS	11 Aug	TM	P	—	KS
R-212(G)	10 Aug	P-57	223	middle	E	.5	—	—	04	JB	KS	11 Aug	TM	P	—	KS
R-213(P)	10 Aug	P-39/P-56/P-57	221	—	E	3	2	—	04	JB	KS	10 Aug	AC	P	—	KS
R-214(P)	10 Aug	P-39/P-40/P-56	209	—	E	—	—	2	04	JB	KS	10 Aug	AC	P	—	KS
R-215(G)	10 Aug	P-56	201	Seam to R-216	E	4	—	—	04	JB	KS	10 Aug	AC	P	—	KS
R-216(P)	10 Aug	P-56	201	4' NW of P-40/P-56	E	—	—	1.5	04	JB	KS	10 Aug	AC	P	—	KS
R-217(P)	10 Aug	P-59/P-60	200	—	E	5	2	—	04	JB	KS	13 Aug	JK	P	—	KS
R-218(P)	10 Aug	P-57/P-58	95	—	E	—	—	2	04	JB	KS	11 Aug	TM	P	—	KS
R-219(P)	10 Aug	P-59	46	middle	E	—	—	1	04	JB	KS	13 Aug	AC	P	—	KS
R-220(P)	10 Aug	P-59	40	5' W of P-58/P-59	E	—	—	1	04	JB	KS	13 Aug	AC	P	—	KS
R-221(G)	10 Aug	P-59	23	7' W of P-58/P-59	E	.5	—	—	04	JB	KS	13 Aug	AC	P	—	KS
R-222(P)	10 Aug	P-59	23	middle	E	—	—	1	04	JB	KS	13 Aug	AC	P	—	KS
R-223(G)	10 Aug	P-59	23	6' E of P-59/P-60	E	.5	—	—	04	JB	KS	13 Aug	AC	P	—	KS
R-224(P)	10 Aug	P-59	31	4' E of P-59/P-60	E	—	—	1	04	JB	KS	13 Aug	AC	P	—	KS

NOTES: (1) REPAIR NO.: REPAIRS CAN BE NUMBERED SEQUENTIALLY, IF NECESSARY.
(1) REPAIR CODES: P = PATCH, C = CAP, S = ANCHOR TRENCH EXTENSION (SKIRT), DS = DESTRUCTIVE SAMPLE, G = GRIND & WELD, T = TOPPING ALONG FUSION SEAM, R = RECONSTRUCTION
(2) REPAIR TYPES: E = EXTRUSION, F = FUSION

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GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

REPAIR SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: GQ1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap CONTRACTOR: Istre

REPAIR NO. AND CODE (1)	DATE (day/mo)	LOCATION			REPAIR TYPE (2)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING				
		PANEL OR SEAM NO.	DIST. (ft)	OFFSET (ft)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO.	OPER ID		DATE (day/mo)	OPER ID	PASS/ FAIL	ACTION	QA ID
R-225(P)	10 Aug	P-58	110	6' E of P-58/P-59	E	—	—	1	04	JB	KS	11 Aug	TM	P	—	KS
R-226(G)	10 Aug	P-58	113	7' E of P-58/P-59	E	.5	—	—	04	JB	KS	11 Aug	TM	P	—	KS
R-227(P)	10 Aug	P-59	130	middle	E	—	—	1	04	JB	KS	11 Aug	TM	P	—	KS
R-228(G)	10 Aug	P-59	55	1' E of P-59/P-60	E	.5	—	—	04	JB	KS	13 Aug	AC	P	—	KS
R-229(G)	10 Aug	P-60	54	2' W of P-59/P-60	E	.5	—	—	04	JB	KS	13 Aug	AC	P	—	KS
R-230(G)	10 Aug	P-61	42	2' W of P-60/P-61	E	.5	—	—	04	JB	KS	13 Aug	AC	P	—	KS
R-231(P)	11 Aug	P-38/P-39/P-57/P-58/P-65	158	—	E	12	12	—	04	JB	KS	13 Aug	JK	P	—	KS
R-232(P)	11 Aug	P-37/P-38/P-65	129	—	E	—	—	2	04	JB	KS	13 Aug	JK	P	—	KS
R-233(P)	11 Aug	P-37/P-65/P-66	125	—	E	—	—	2	04	JB	KS	13 Aug	JK	P	—	KS
R-234(P)	11 Aug	P-36/P-37/P-66	96	—	E	—	—	1.5	04	JB	KS	13 Aug	JK	P	—	KS
R-235(P)	11 Aug	P-36/P-66/P-67	93	—	E	—	—	1.5	04	JB	KS	13 Aug	JK	P	—	KS
R-236(P)	11 Aug	P-35/P-36/P-67/P-68	70	—	E	16	9	0	04	JB	KS	13 Aug	JK	P	—	KS
R-237(P)	11 Aug	P-33/P-61	202	—	E	—	—	2	04	JB	KS	13 Aug	JK	P	—	KS
R-238(P)	13 Aug	P-33/P-61/P-62	170	—	E	4	2	—	04	JB2	KS	13 Aug	JK	P	—	KS
R-239(P)	11 Aug	P-61/P-62	125	—	E	—	—	1.5	04	JB	KS	13 Aug	AC	P	—	KS

NOTES: (1) REPAIR NO.: REPAIRS CAN BE NUMBERED SEQUENTIALLY, IF NECESSARY.
(1) REPAIR CODES: P = PATCH, C = CAP, S= ANCHOR TRENCH EXTENSION (SKIRT), DS = DESTRUCTIVE SAMPLE, G = GRIND & WELD, T = TOPPING ALONG FUSION SEAM, R = RECONSTRUCTION
(2) REPAIR TYPES: E = EXTRUSION, F = FUSION

GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

REPAIR SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: 6Q1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ CONTRACTOR: Istre

REPAIR NO. AND CODE (1)	DATE (day/mo)	LOCATION			REPAIR TYPE (2)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING				
		PANEL OR SEAM NO.	DIST. (ft)	OFFSET (ft)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO.	OPER ID		DATE (day/mo)	OPER ID	PASS/ FAIL	ACTION	QA ID
R-240(DS-26)	11 Aug	P-60/P-61	100	—	E	5	2	—	06	JBZ	KS	13 Aug	JK	P	—	KS
R-241(P)	11 Aug	P-61/P-62	85	—	E	—	—	1	06	JBZ	KS	13 Aug	AC	P	—	KS
R-242(G)	11 Aug	P-62	83	3' W of P-61/P-62	E	.5	—	—	06	JBZ	KS	13 Aug	AC	P	—	KS
R-243(P)	11 Aug	P-60/P-61/P-67/P-68	233	—	E	—	—	2	04	JB	KS	13 Aug	JK	P	—	KS
R-244(P)	11 Aug	P-59/P-60/P-66/P-67	232	—	E	4	3	—	04	JB	KS	13 Aug	JK	P	—	KS
R-245(P)	11 Aug	P-58/P-59/P-65/P-66	235	—	E	—	—	2	04	JB	KS	13 Aug	JK	P	—	KS
R-246(DS-27)	11 Aug	P-33/P-61	225	—	E	5	2	—	04	JB	KS	13 Aug	JK	P	—	KS
R-247(P)	11 Aug	P-61/P-64/R-248	22	—	E	22	3	—	06	JBZ	KS	13 Aug	AC	P	—	KS
R-248(P)	11 Aug	P-61/P-64/R-247	22	—	E	—	—	2	06	JBZ	KS	13 Aug	AC	P	—	KS
R-249(P)	11 Aug	P-67	280	7' W of P-66/P-67	E	5	3	—	04	JB	KS	13 Aug	JK	P	—	KS
R-250(P)	11 Aug	P-61/P-62	112	—	E	—	—	1	06	JBZ	KS	13 Aug	AC	P	—	KS
R-251(P)	13 Aug	P-58/P-59	19	—	E	—	—	1	04	JBZ	KS	13 Aug	AC	P	—	KS
R-252(C)	13 Aug	P-59/P-63	16	—	E	23	3	—	04	JBZ	KS	13 Aug	AC	P	—	KS
R-253(C)	13 Aug	P-62/P-64	35	—	E	21	2	—	04	JBZ	KS	13 Aug	AC	P	—	KS
R-254(P)	13 Aug	P-61	1	Middle	E	—	—	2	04	JBZ	KS	13 Aug	AC	P	—	KS

NOTES: (1) REPAIR NO.: REPAIRS CAN BE NUMBERED SEQUENTIALLY, IF NECESSARY.
(1) REPAIR CODES: P = PATCH, C = CAP, S= ANCHOR TRENCH EXTENSION (SKIRT), DS = DESTRUCTIVE SAMPLE, G = GRIND & WELD, T = TOPPING ALONG FUSION SEAM, R = RECONSTRUCTION
(2) REPAIR TYPES: E = EXTRUSION, F = FUSION

GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

REPAIR SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: GQ 1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap CONTRACTOR: Istre

REPAIR NO. AND CODE (1)	DATE (day/mo)	LOCATION			REPAIR TYPE (2)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING				
		PANEL OR SEAM NO.	DIST. (ft)	OFFSET (ft)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO.	OPER ID		DATE (day/mo)	OPER ID	PASS/ FAIL	ACTION	QA ID
R-255(P)	13 Aug	P-61/P-62	60	—	E	—	—	2	04	JBZ	KS	13 Aug	AC	P —	—	KS
R-256(P)	13 Aug	P-61/P-62	97	—	E	—	—	1.5	04	JBZ	KS	13 Aug	AC	P —	—	KS
R-257(DS-28)	13 Aug	P-33/P-62	150	—	E	5	2	~~2~~ KS	04	JBZ	KS	13 Aug	JK	P —	—	KS
R-258(P)	13 Aug	P-33/P-61	192	—	E	—	—	1.5	04	JBZ	KS	13 Aug	JK	P —	—	KS
R-259(P)	13 Aug	P-61	179	6' E of P-33/P-61	E	—	—	1	04	JBZ	KS	13 Aug	JK	P —	—	KS
* R-260(P)	13 Aug	P-33/P-61	214	—	E	—	—	1	04	JBZ	KS	13 Aug	JK	P —	—	KS
R-261(G)	9 Aug	P-2	326	9' N of P-1/P-2	F	1	—	—	04	JB	KS	9 Aug	JB	P —	—	KS
R-262(P)	13 Aug	P-33/P-61/P-68	232	—	E	—	—	1.5	04	JBZ	KS	13 Aug	JK	P —	—	KS
R-263(G)	13 Aug	P-68	232	4' E of P-33/P-68	E	.5	—	—	04	JBZ	KS	13 Aug	JK	P —	—	KS
R-264(G)	13 Aug	P-68	242	1' E of P-33/P-68	E	.5	—	—	04	JBZ	KS	13 Aug	JK	P —	—	KS
R-265(P)	13 Aug	P-33/P-68	252	—	E	—	—	1.5	04	JBZ	KS	13 Aug	JK	P —	—	KS
R-266(G)	13 Aug	P-68	259	1' E of P-33/P-68	E	.5	—	—	04	JBZ	KS	13 Aug	JK	P —	—	KS
R-267(P)	13 Aug	P-33/P-68	265	—	E	—	—	2	04	JBZ	KS	13 Aug	JK	P —	—	KS
R-268(G)	13 Aug	P-68	265	1' E of R-267	E	.5	—	—	04	JBZ	KS	13 Aug	JK	P —	—	KS
R-269(G) (15)	13 Aug	P-68	265	6' E of R-267	E	.5	—	—	04	JBZ	KS	13 Aug	JK	P —	—	KS

NOTES: (1) REPAIR NO.: REPAIRS CAN BE NUMBERED SEQUENTIALLY, IF NECESSARY.
(1) REPAIR CODES: P = PATCH, C = CAP, S= ANCHOR TRENCH EXTENSION (SKIRT), DS = DESTRUCTIVE SAMPLE, G = GRIND & WELD, T = TOPPING ALONG FUSION SEAM, R = RECONSTRUCTION
(2) REPAIR TYPES: E = EXTRUSION, F = FUSION

GEOSYNTEC CONSULTANTS FILE NO. 3-09-RSL REVIEWED BY: CA SHEET NO. 18 OF 19

* P-61 [illegible]

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GEOSYNTEC CONSULTANTS

FLUOR DANIEL FERNALD

REPAIR SUMMARY LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO.: GQ1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction YEAR: 2001

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ Cap CONTRACTOR: Istre

REPAIR NO. AND CODE (1)	DATE (day/mo)	LOCATION			REPAIR TYPE (2)	SIZE			WELDER ID		QA ID	NON-DESTRUCTIVE TESTING				
		PANEL OR SEAM NO.	DIST. (ft)	OFFSET (ft)		LENGTH (ft)	WIDTH (ft)	DIA (ft)	MACH NO.	OPER ID		DATE (day/mo)	OPER ID	PASS/ FAIL	ACTION	QA ID
R-270(P)	13 Aug	P-33/P-68	314	—	E	—	—	15	04	JBZ	KS	13 Aug	JK	P	—	KS
R-271(P)	13 Aug	P-35/P-68	57	—	E	—	—	2	04	JBZ	KS	13 Aug	JK	P	—	KS
R-272(P)	13 Aug	P-33/P35/P-68	318	—	E	3	2	—	04	JBZ	KS	13 Aug	JK	P	—	KS
R-273(P)	13 Aug	P-33/P-35	45	—	E	5	2	—	04	JBZ	KS	13 Aug	JK	P	—	KS
R-274(P)	13 Aug	P-33/P-61	215	—	E	—	—	1	04	JBZ	KS	13 Aug	JK	P	—	KS
R-275(P)	13 Aug	P-67	251	5' W of P-66/P-67	E	—	—	1	04	JBZ	KS	13 Aug	JK	P	—	KS
R-276(P)	13 Aug	P-59/P-66	235	3' W of R-245	E	—	—	1	04	JBZ	KS	13 Aug	JK	P	—	KS
R-277(G)	13 Aug	P-65	237	middle	E	.5	—	—	04	JBZ	KS	13 Aug	JK	P	—	KS
R-278(DS-29)	13 Aug	P-38/P-65	150	—	E	4	2	—	04	JBZ	KS	13 Aug	JK	P	—	KS
R-279(P)	13 Aug	P-31/P-32	354	—	E	—	—	2	04	JBZ	KS	13 Aug	JK	P	—	KS
R-280(P)	13 Aug	P-30/P-31	354	—	E	—	—	2	04	JBZ	KS	13 Aug	JK	P	—	KS
R-281(G)	13 Aug	P-65	243	0.5' E of P-65/P-66	E	.5	—	—	04	JBZ	KS	13 Aug	JK	P	—	KS
R-282(G)	13 Aug	R-202	329	2' NW of P-48/R-202	E	.5	—	—	04	JBZ	KS	14 Aug	JK	P	—	KS
R-284(P)	13 Aug	P-60	137	middle	E	—	—	1	04	JBZ	KS	14 Aug	JK	P	—	KS
R-285(P)	13 Aug	P-58	135	1' E of P-58/P-59	E	—	—	1	04	JBZ	KS	14 Aug	JK	P	—	KS

(15)

NOTES: (1) REPAIR NO.: REPAIRS CAN BE NUMBERED SEQUENTIALLY, IF NECESSARY.
(1) REPAIR CODES: P = PATCH, C = CAP, S= ANCHOR TRENCH EXTENSION (SKIRT), DS = DESTRUCTIVE SAMPLE, G = GRIND & WELD, T = TOPPING ALONG FUSION SEAM, R = RECONSTRUCTION
(2) REPAIR TYPES: E = EXTRUSION, F = FUSION

GEOSYNTEC CONSULTANTS FILE NO. 3-09-RSL REVIEWED BY: SHEET NO. 19 OF 19

R-283 accident thru shroud - no repair 283 [illegible]

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APPENDIX N

GEOMEMBRANE SEAM AND REPAIR LOCATION LOGS

GEOSYNTEC CONSULTANTS

FLUOR FERNALD

SEAM AND PANEL REPAIR LOCATION LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO: GQ1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction DATE: ____ day ____ month ____ year

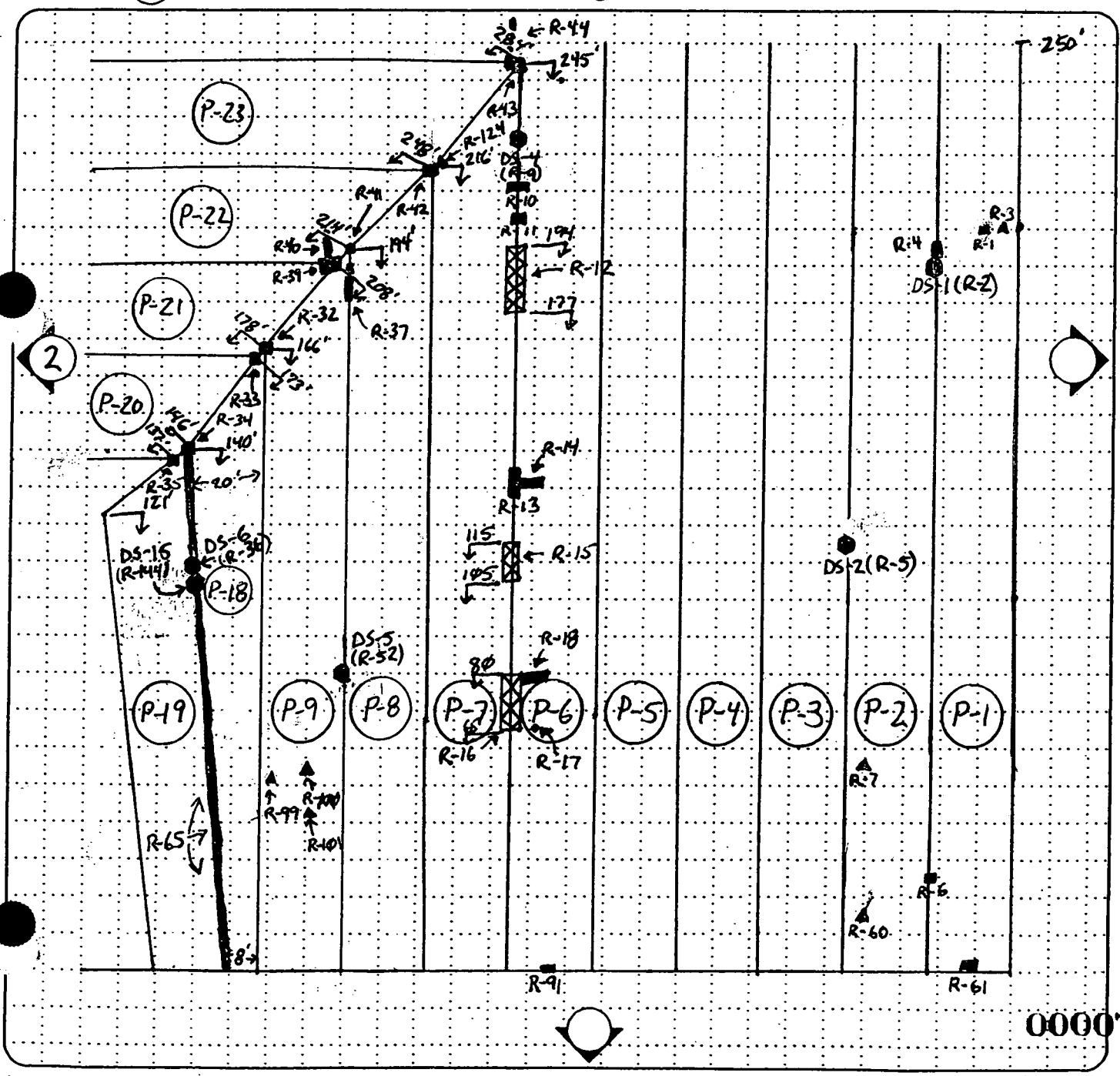
CONTRACTOR: Istre

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ PRODUCT TYPE: 60-mil Textured HDPE Geomembrane

NORTH

NOTE:
SEE OTHER SIDE FOR SYMBOLS

QA ID: KS



000078

GEOSYNTEC CONSULTANTS

FLUOR FERNALD

SEAM AND PANEL REPAIR LOCATION LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO: 6Q1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction DATE: _____ day _____ month _____ year

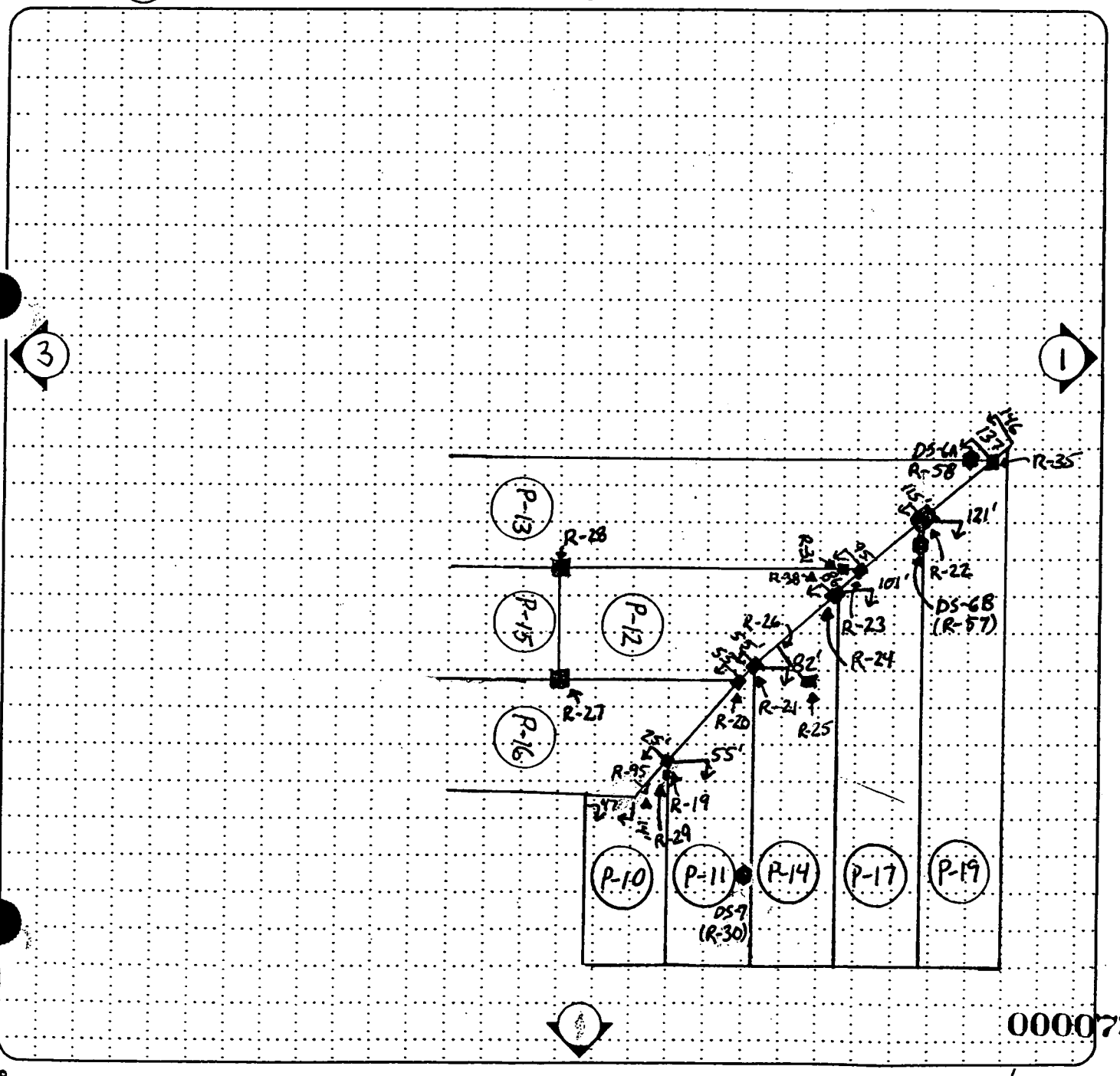
CONTRACTOR: Istre

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ PRODUCT TYPE: 60-Mil Textured HDPE Geomembrane

NORTH

NOTE:
SEE OTHER SIDE FOR SYMBOLS

QA ID: KS



000079

GEOSYNTEC CONSULTANTS

FLUOR FERNALD

SEAM AND PANEL REPAIR LOCATION LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO: 6Q1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction DATE: _____ day _____ month _____ year

CONTRACTOR: Istre

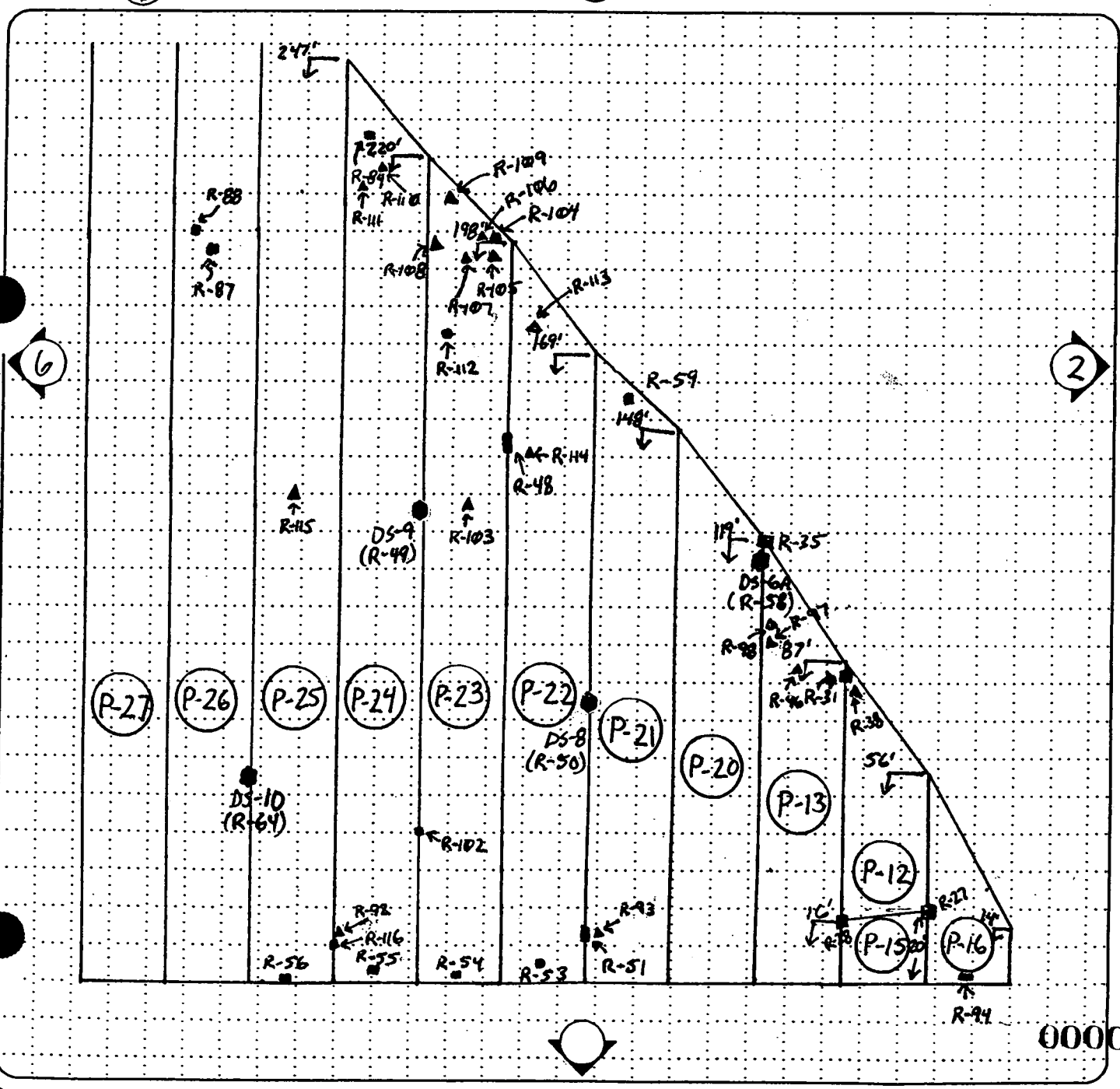
PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ PRODUCT TYPE: 60-mil Textured HDPE Geomembrane

NORTH

NOTE:
SEE OTHER SIDE FOR SYMBOLS

5|1

QA ID: KS



000080

GEOSYNTEC CONSULTANTS

FLUOR FERNALD

SEAM AND PANEL REPAIR LOCATION LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO: _____ TASK NO.: 04

DESCRIPTION: Cell #1 Cap Construction DATE: _____ day _____ month _____ year

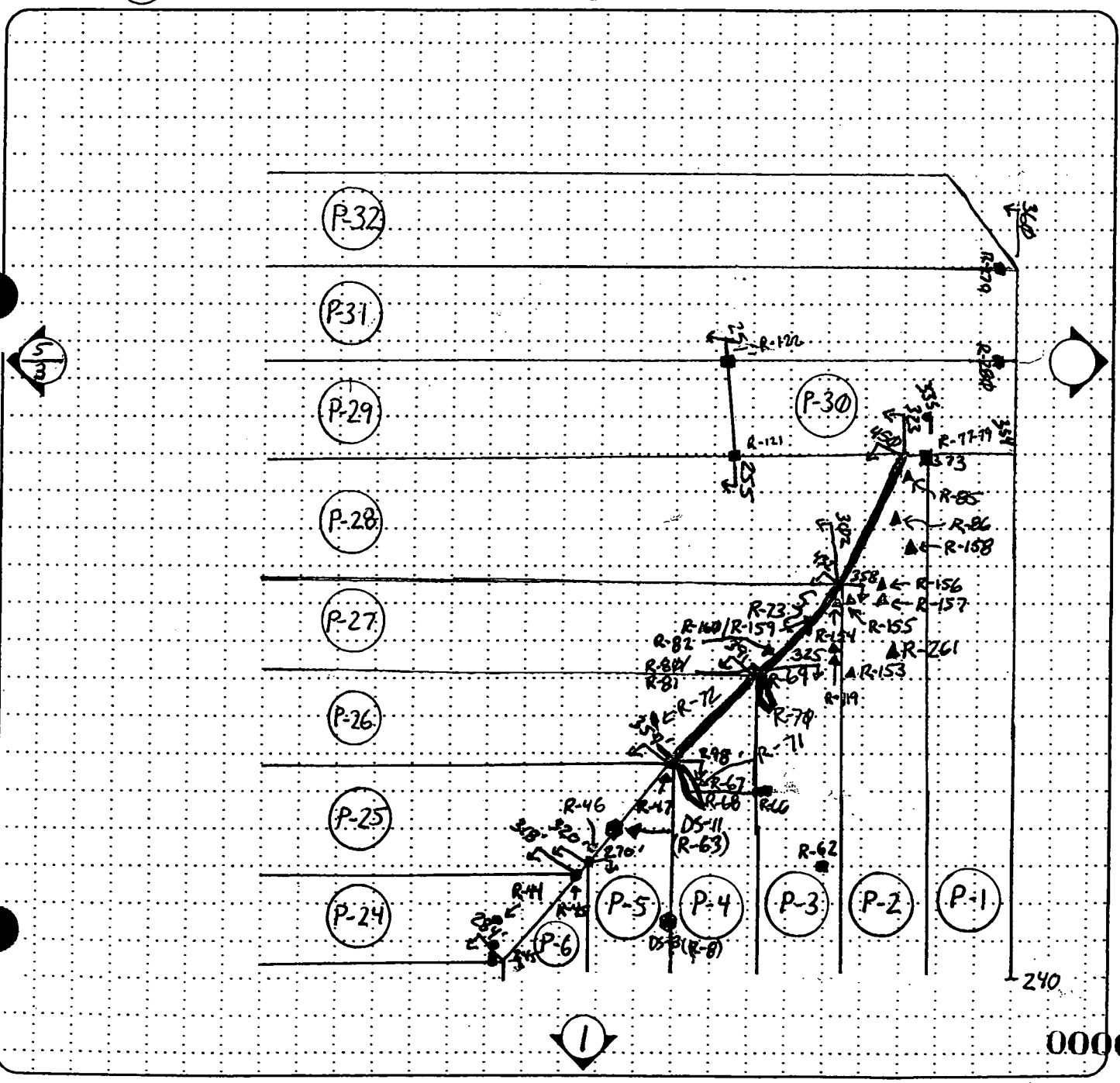
CONTRACTOR: Istre

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ PRODUCT TYPE: 60-mil Textured HDPE Geomembrane

NORTH

NOTE:
SEE OTHER SIDE FOR SYMBOLS

QA ID: KS



000081

GEOSYNTEC CONSULTANTS

FLUOR FERNALD

SEAM AND PANEL REPAIR LOCATION LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO: GQ1341 TASK NO.: 04, 1

DESCRIPTION: Cell #1 Cap Construction DATE: _____ day _____ month _____ year

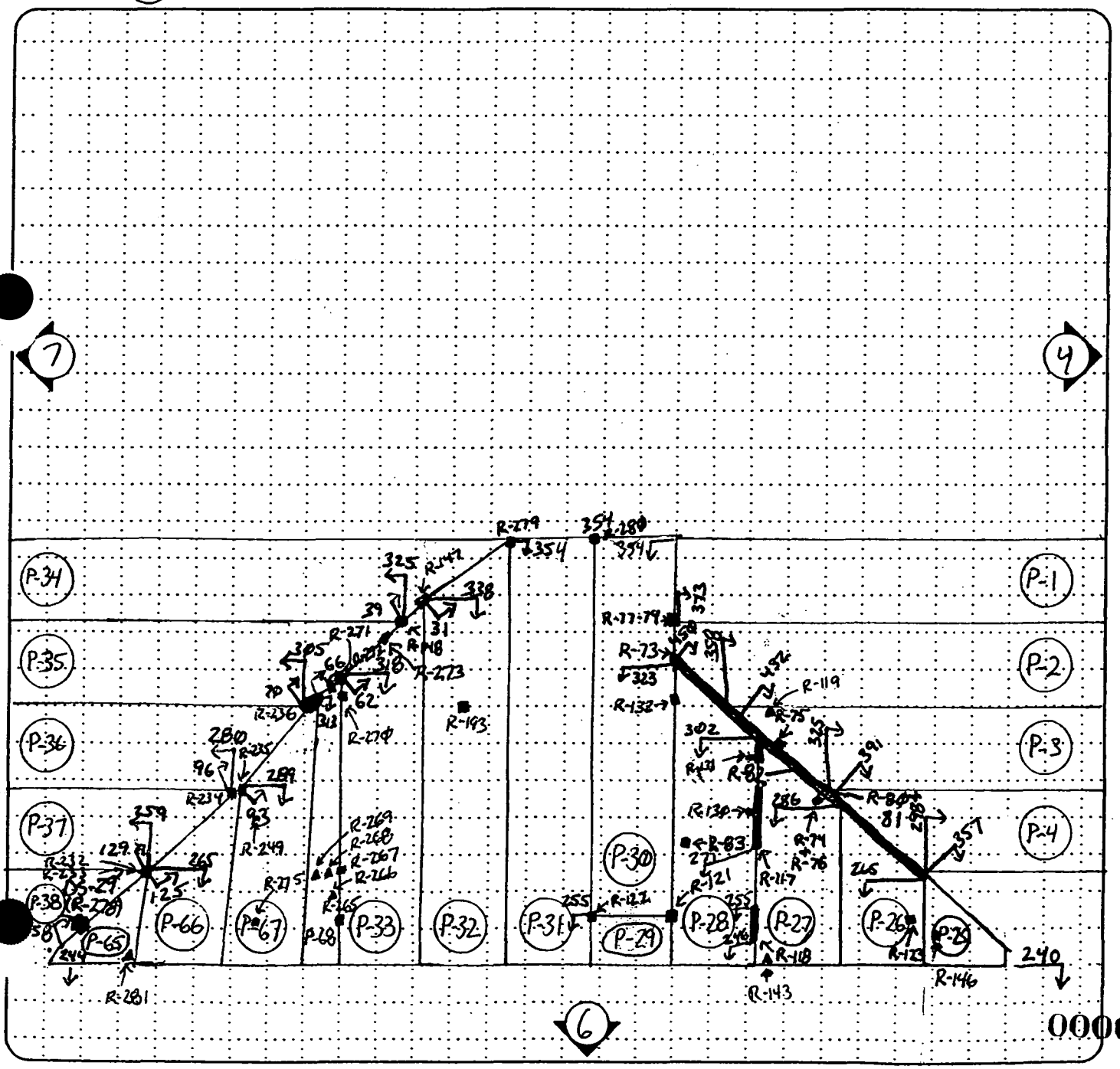
CONTRACTOR: Istre

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ PRODUCT TYPE: 60-mil Textured HDPE Geomembrane

NORTH

NOTE:
SEE OTHER SIDE FOR SYMBOLS

QA ID: KS



GEOSYNTEC CONSULTANTS

FLUOR FERNALD

SEAM AND PANEL REPAIR LOCATION LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO: GQ1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction DATE: _____ day _____ month _____ year

CONTRACTOR: Estre

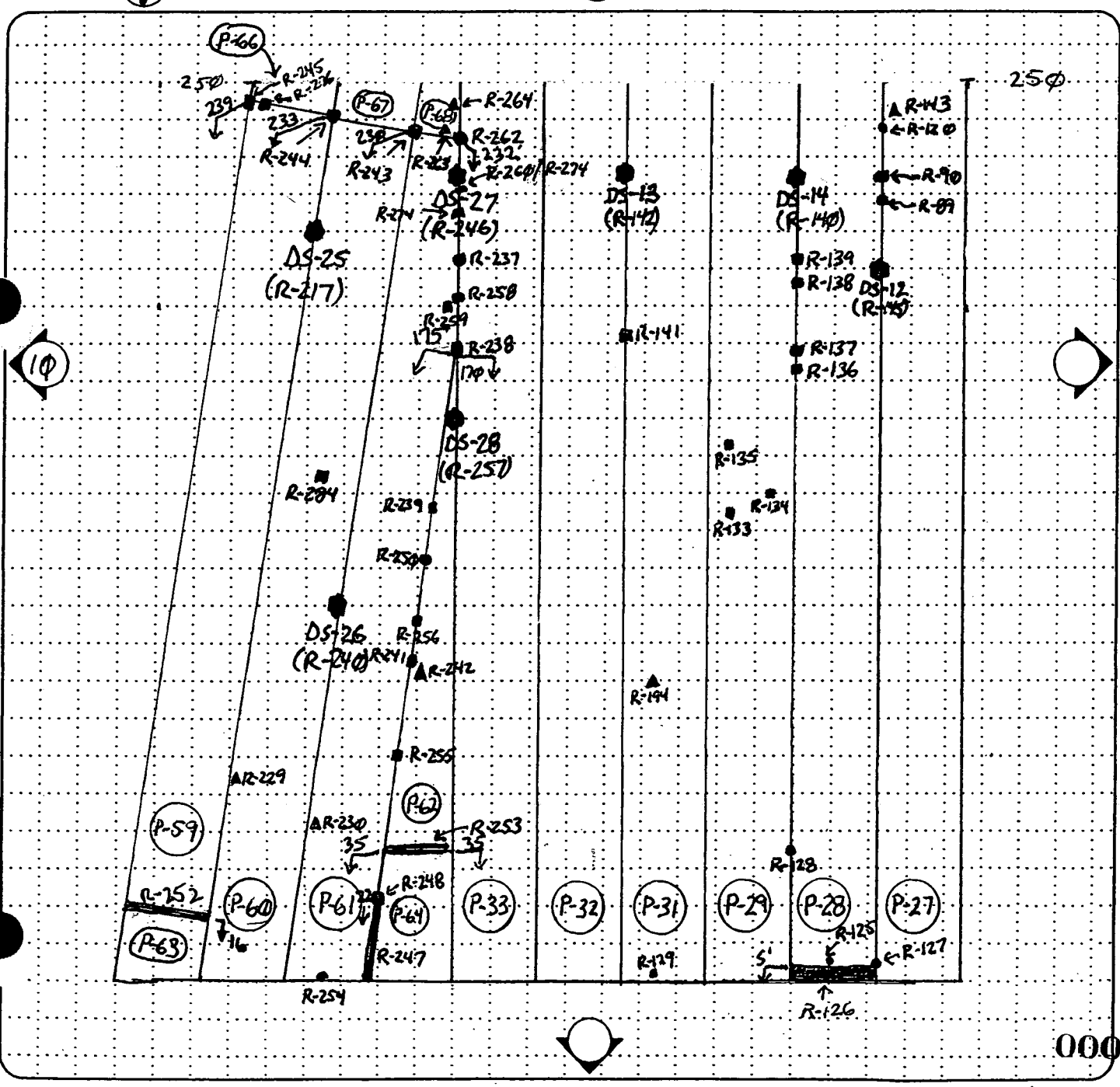
PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ PRODUCT TYPE: 60-mil textured HDPE Geomembrane

NORTH

NOTE:
SEE OTHER SIDE FOR SYMBOLS

4/5

QA ID: KS



000083

GEOSYNTEC CONSULTANTS

FLUOR FERNALD

SEAM AND PANEL REPAIR LOCATION LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO: 601341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction DATE: ____ day ____ month ____ year

CONTRACTOR: Istre

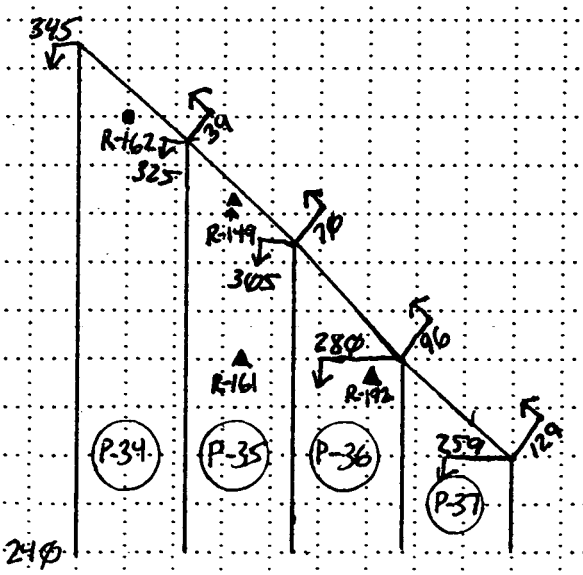
PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ PRODUCT TYPE: 60-mil textured HDPE Geomembrane

NORTH

NOTE:
SEE OTHER SIDE FOR SYMBOLS

5

QA ID: KS



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7 of 11

GEOSYNTEC CONSULTANTS

FLUOR FERNALD

SEAM AND PANEL REPAIR LOCATION LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO: GQ1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction DATE: ____ day ____ month ____ year

CONTRACTOR: Istre

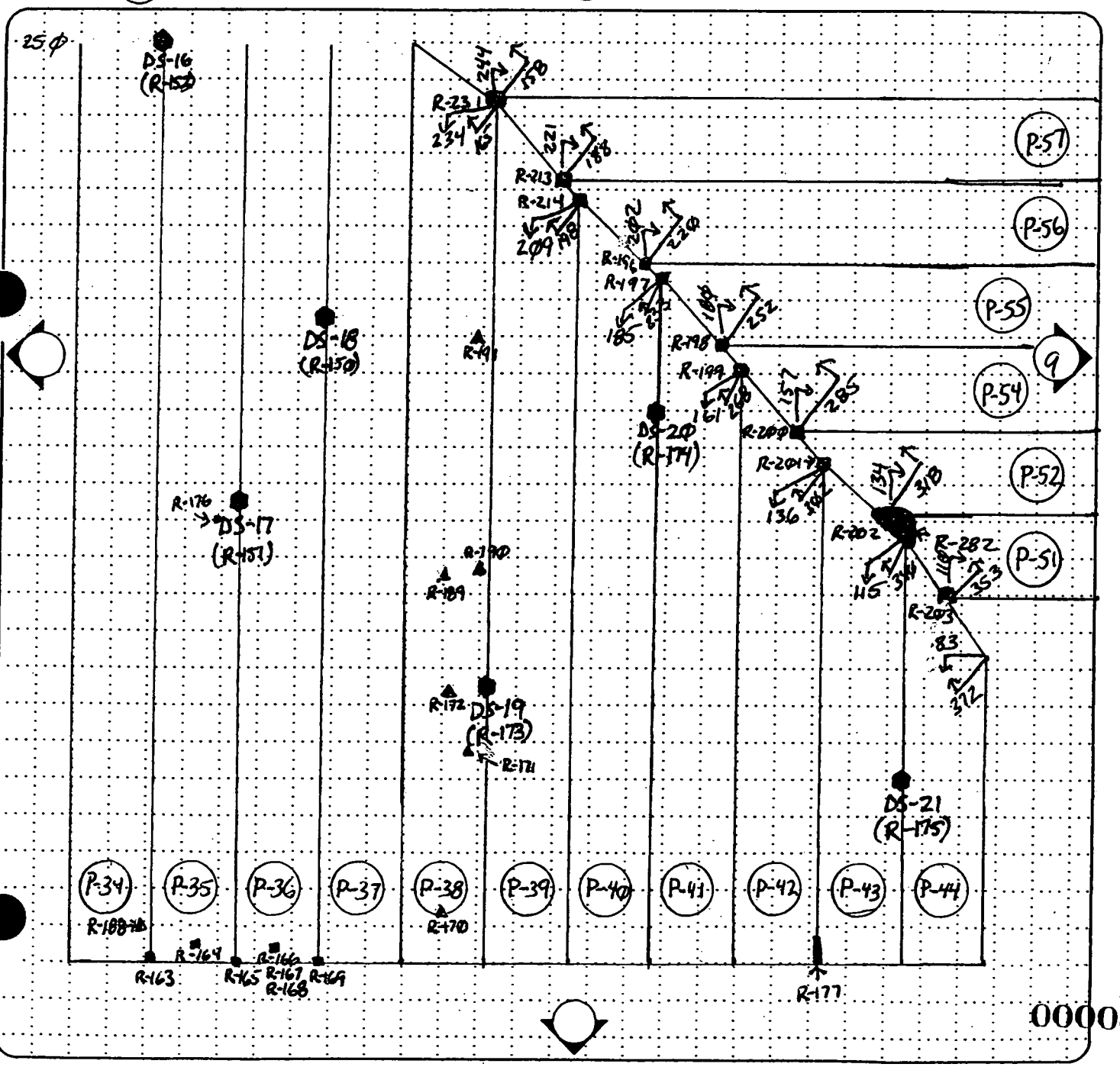
PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ PRODUCT TYPE: 60-mil textured HDPE Geomembrane

NORTH

NOTE:
SEE OTHER SIDE FOR SYMBOLS

7

QA ID: KS



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8 of 10

4555

GEOSYNTEC CONSULTANTS

FLUOR FERNALD

SEAM AND PANEL REPAIR LOCATION LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO: GQ1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction DATE: ____ day ____ month ____ year

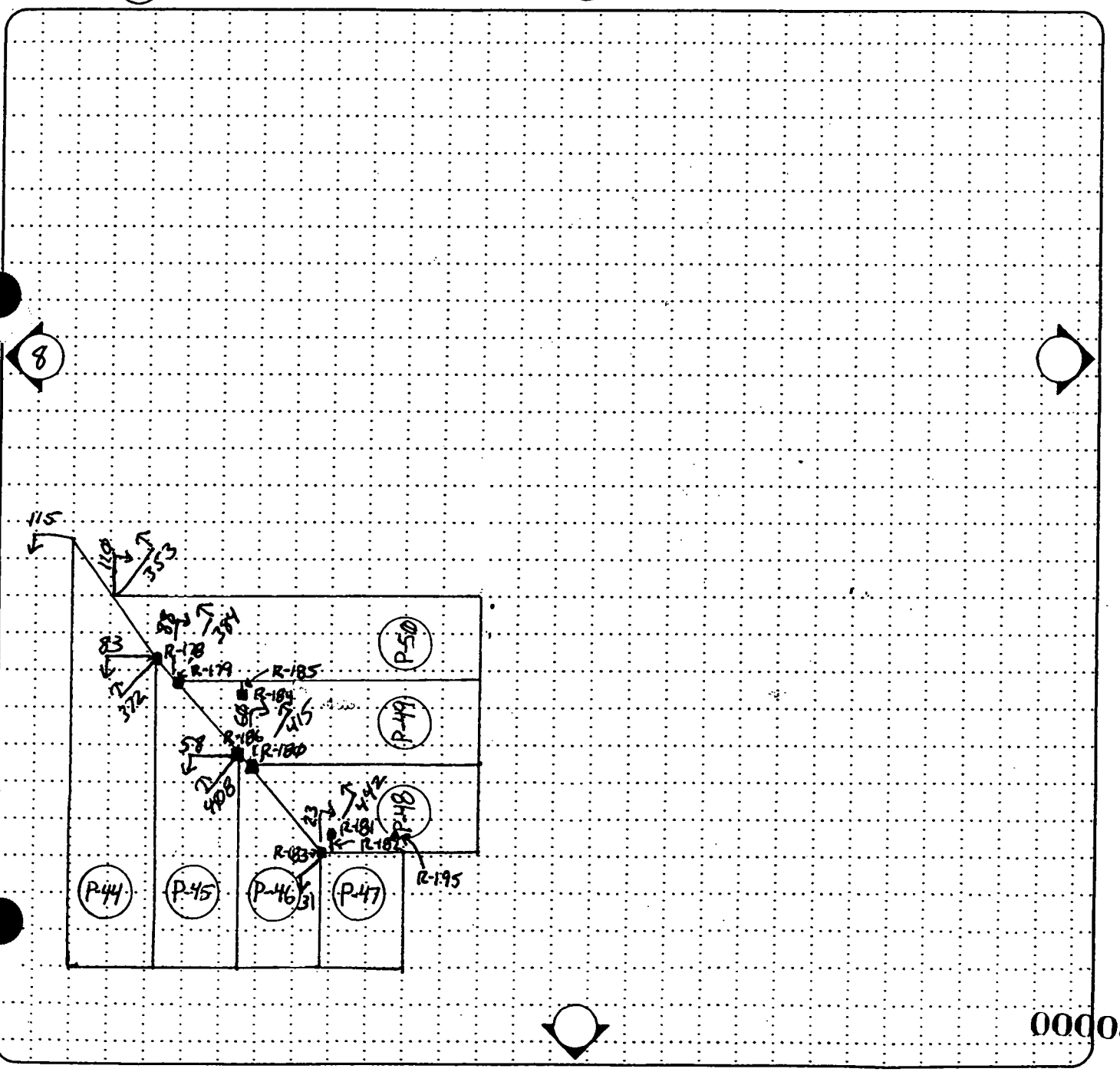
CONTRACTOR: Istre

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ PRODUCT TYPE: 60-mil textured HDPE Geomembrane

NORTH

NOTE:
SEE OTHER SIDE FOR SYMBOLS

QA ID: KS



000086

GEOSYNTEC CONSULTANTS

FLUOR FERNALD

SEAM AND PANEL REPAIR LOCATION LOG

PROJECT: ON-SITE DISPOSAL FACILITY (OSDF)

LOCATION: FERNALD, OHIO PROJECT NO: 6Q1341 TASK NO.: 04.1

DESCRIPTION: Cell #1 Cap Construction DATE: _____ day _____ month _____ year

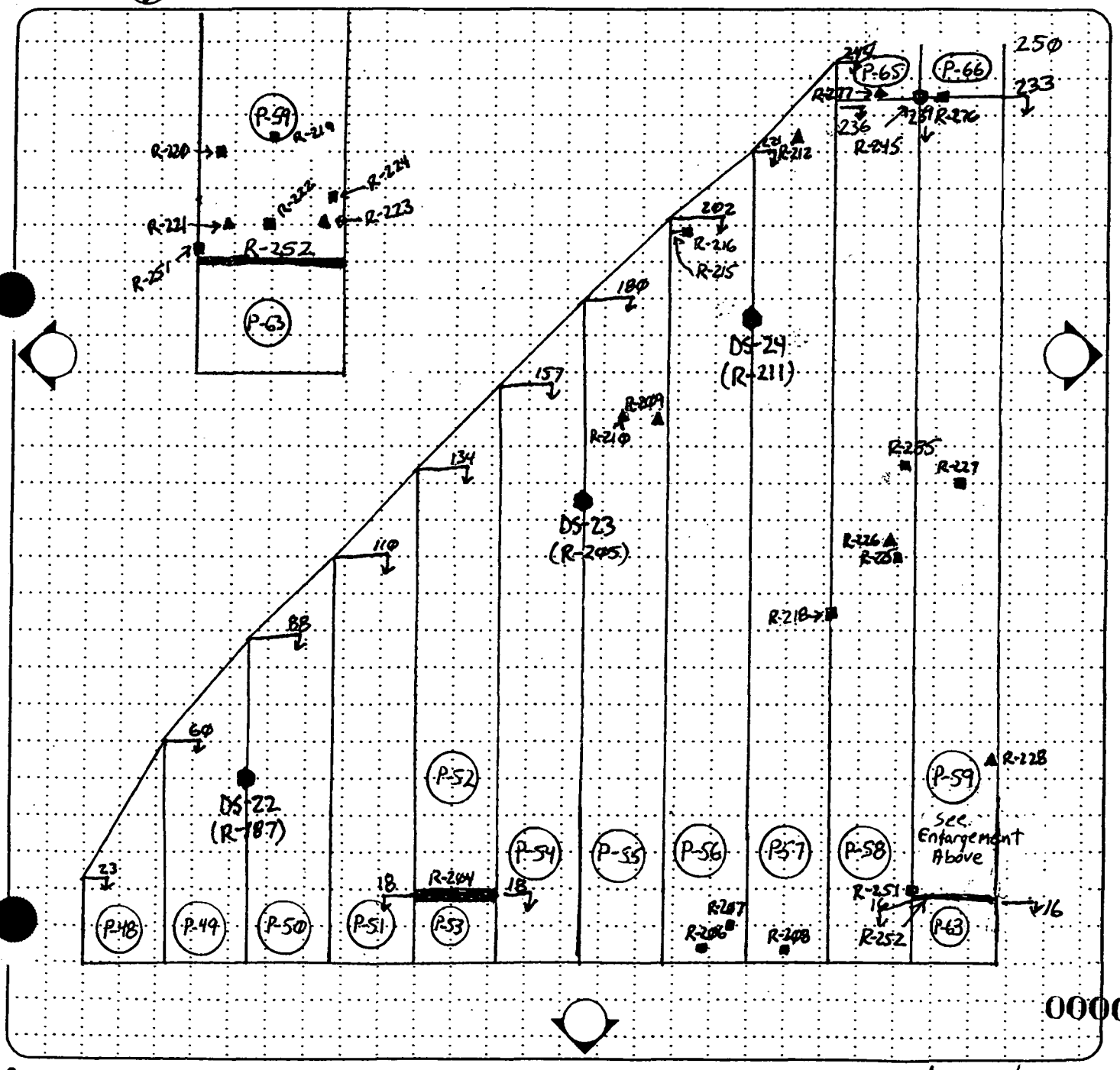
CONTRACTOR: Istre

PRIMARY: ☐ SECONDARY: ☐ OTHER: ☒ PRODUCT TYPE: 60-mil textured HDPE Geomembrane

NORTH

NOTE:
SEE OTHER SIDE FOR SYMBOLS

QA ID: KS



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APPENDIX O

ELECTRICAL LEAK DETECTION TEST REPORT

4555

ON-SITE DISPOSAL FACILITY (OSDF) (PHASE III) CELL 1 FINAL COVER CONSTRUCTION PROJECT

***

GEOMEMBRANE LINER INSTALLATION
Leak Detection Testing Report

2770 1.04 F
REVISION 1

***

FLUOR FERNALD, INC.
Fernald, Ohio

FF Subcontract No. FSC-642
Submittal No. 20103-642-2770-014

***

ECDC CONTROLLED
COPY NO. C- 011

Submitted By:

IT Corporation
2790 Mosside Boulevard
Monroeville, PA 15146-2790

IT Project No. 820045

***

October 10, 2001

000089

[X] A - Conforms to the Subcontract Requirements
[ ] B - Minor Comment - Incorporate and Resubmit
[ ] C - Revise and Resubmit
Sig: [illegible] Date: 10/29/01
S Hrubovcinsky

LEAK LOCATION SERVICES, INC.

16124 UNIVERSITY OAK • SAN ANTONIO, TEXAS 78249 • (210) 408-1241 / FAX (210) 408-1242

September 13, 2001

Mr. David Lockerd
IT Group, Inc.
7400 Willey Road
Fernald, Ohio 45030

Fax: (513) 648-5080

Subject: Final Report for "Leak Location Survey of the OSDF Phase III Cell 1 Landfill Cap Located at a DOE Facility Near Fernald, Ohio";
LLSI Project 079

Dear Mr. Lockerd:

On June 25, 2001 through August 14, 2001 Leak Location Services, Inc. conducted an electrical leak location survey of the OSDF Phase III Cell 1 landfill cap located at a DOE facility near Fernald, Ohio. The landfill cap is approximately 8 acres and is lined with a single 60-mil textured HDPE geomembrane. This report describes the results of the leak location survey conducted on the bare liner prior to placement of the geotextile and soil aggregate.

I. SURVEY RESULTS

Twelve leaks were located in the liner cap of the OSDF Phase III cell 1 landfill cap. Table 1 gives brief description of the leaks and figure 1 shows the approximate locations. All located leaks were repaired and re-tested.

Table 1. Description and Location of Leaks in Landfill Cap

Leak	Location and Description
1	In panel 3 on west slope. 270 feet from bottom edge of liner. Puncture in liner
2	In panel 21 on north slope. 10.5 feet from bottom edge of liner. Puncture in liner.
3	In panel 10 in northwest corner. 20 feet from bottom edge of liner. Razor cut.

results@leaklocationservices.com llsi.home.texas.net

4	In panel 16 on north slope. At bottom edge of liner. 0.25 inch puncture.
5	In panel ~~12~~ 13 DL 10/10/01 on north slope. 80 feet from bottom edge of liner. 0.5 in. slit in liner.
6	In panel 23 on north slope. 125 feet from bottom edge of liner. Metal staple in liner.
7	In panel 27 on north slope. 295 feet from bottom edge of liner. Extrusion weld.
8	In panel 31 on north slope. 79 feet from bottom edge of liner. 0.125 in. hole in liner.
9	In panel 34 on east slope. 15 feet from bottom edge of liner. Pin-hole in liner.
10	In panel 36 on east slope. 276 feet from bottom edge of liner. Two-0.125 in. holes.
11	In panel 51 on northeast slope. 125 feet from bottom edge of liner. 1 in. tear in liner.
12	In panel 65 on north slope. 240 feet from bottom edge of liner. 1 in. long cut.

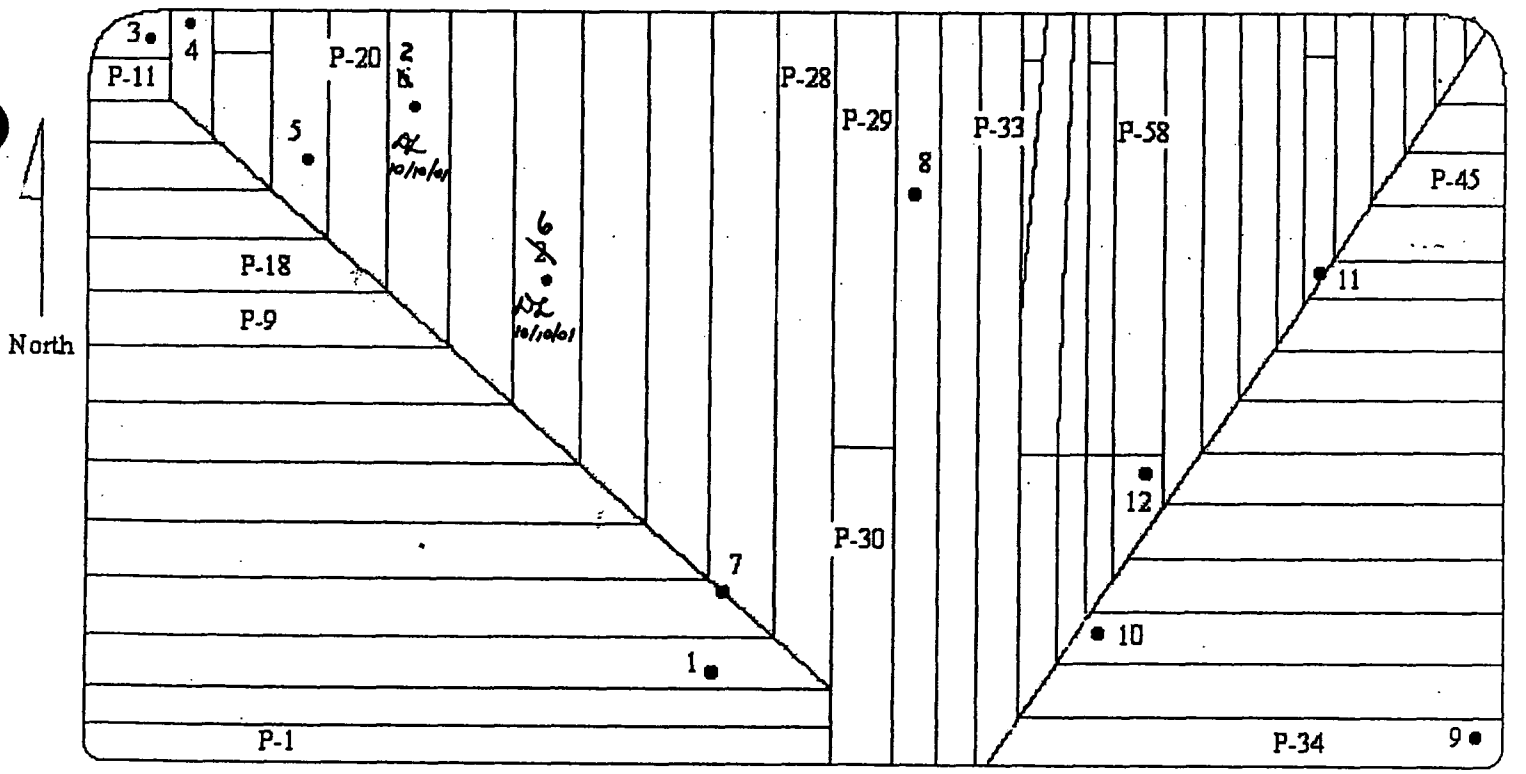

Figure 1. Plan View of Landfill Cap Showing Approximate Location of Leaks
(● indicates located leak and P# indicates liner panel)

II. PRINCIPLE OF THE ELECTRICAL LEAK LOCATION METHOD

The principle for the electrical leak location method for geomembrane liners is to impress a high DC voltage across the liner and measure the resulting potential gradients on or in the conducting material on the liner. Characteristic leak anomalies in the potential measurements caused by electrical current flowing through the leaks indicate the locations of the leaks.

III. LEAK LOCATION PROCEDURES

The water conductivity test for bare liners was used to test the OSDF Phase III Cell 1 landfill cap. This method detects electrical current flowing through holes in the geomembrane liner using a small amount of water that is put in contact with the top side of the liner. A squeegee type broom was used to systematically spread the water over the liner. A low voltage electrical supply is connected to earth ground and to the leak detector unit attached to the squeegee broom. When a hole in the liner is encountered, electrical current will flow through water in the leak contacting earth ground. The current is monitored using an electronic detector that converts the increase in the current to an audible tone indication. The survey area was systematically scanned with the sensors. When a leak was detected, it was located and marked for repair.

If there are any questions regarding the leak location survey or this report, please contact us at (210) 408-1241. We appreciate the opportunity to have been of service once again to the IT Group on this project.

Very truly yours,

Daren Laine
President

APPENDIX P

AS-BUILT AND GEOMEMBRANE RECORD DRAWINGS

SUBGRADE

SUPPLIER DOCUMENT SUBMITTAL

FDF PROJECT NO.: 20103	CONTRACT NO: FSC-642	SUBMITTAL NO.: 20103-642-02100-006	REV.: 14	DATE: 11/14/01	Page 1 OF 1

FROM: IT CORPORATION
Mail Stop MS39
P.O. BOX 547
ROSS, OH 45061
SIGNATURE: Dave Kendall for Dave Lockard

TO: FDF ENGINEERING/CONSTRUCTION DOCUMENT CONTROL (ECDC)
MS52-7
RECEIVED BY: Jelma Kowes DATE: 11/14/01

QTY	DOCUMENT NUMBER	REV	DOCUMENT FAMILY: PRO	H&S	MED	TRG	CON	ENG	QAC	OPER	TITLE/DESCRIPTION	SUBMITTAL TYPE: DRFT	CFC	INF	ASSOCIATED SPECIFICATION	SUBMITTAL ACTION: A	B	C
3	642-C.4.33.7	1						X			SURVEY NOTES & DWGS		X		02100-1.04	X		
											SUBGRADE AS-BUILT							

REVIEW DISTRIBUTION

NAME	MS	NAME	MS	NAME	MS
ECDC	52-7	TOM CARR	60		
GEOSYNTEC	38	KEVIN HARBIN	64		
GREGG JOHNSON	64	MARY ELETON	64		
FRANK FLACK	64				
SAM WOLINSKY (APPROVER)	64				
LEE MCDANIELS	64				
FRED WILSON	60				

NO COMMENTS: _____ COMMENTS: (PLEASE USE SPACE BELOW FOR COMMENTS OR INDICATE IF ATTACHMENTS)

RECEIVED BY: [signature] DATE: 11/19/01
(SIGN/DATE AND RETURN A COPY TO ECDC, MS 52-7)

SUBMITTAL TYPE: (BY SUPPLIER)
CFC - CERTIFIED FOR CONSTRUCTION
INF - INFORMATION/RECORD
DRFT - DRAFT/PRELIMINARY

SUBMITTAL ACTION CODE: (BY FDF)
A - Conforms to the Subcontract Requirements
B - Minor Comments - Incorporate and Resubmit
C - Revise and Resubmit (SEE COMMENTS)

FS-F-4955
Rev. 3: 05/14/1999

ORIGINAL

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David E. Estes Engineering, Inc.

CIVIL & ENVIRONMENTAL ENGINEERING
HYDROGEOLOGY & LAND SURVEYING

June 26, 2001

SUBJECT: CERTIFICATION POINTS FOR SUBGRADE AS BUILTS CELL NO. 1, FERNALD SITE.

I hereby certify that the elevations listed on the next 10 pages are the as-built elevations of the top of compacted clay layer and Subgrade for the point numbers listed, along with the date the elevations were recorded.

Lynn Edward Hirsch

LYNN EDWARD HIRSCH NO. S-5738
THOMAS J. MACK NO. S-7964
REGISTERED OHIO PROFESSIONAL SURVEYORS

Note: Points with "*" to the left of the point number were reworked after the initial survey and the later elevation listed shows the final as-built condition.

Note: Points with "S/G" to the left of the point number represent the Top of As-Built Subgrade.

STATE OF OHIO
LYNN E. HIRSCH S-5738
REGISTERED SURVEYOR

ECDC CONTROLLED COPY NO. C 011

[X] A - Conforms to the Subcontract Requirements
[ ] B - Minor Comments, Incorporate and Resubmit
[ ] C - Major Comments, Resubmit
Sig: Date: 11/19/01

000096

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DATE 6/26/01
CREW Greg & Cameron

COMPACTED CLAY AS-BUILT 000097

*= OUT OF TOLERANCE

PT#	NORTH	EAST	AS-BUITL CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
43	483093.26	1350835.11	620.11	622.15	622.13	+0.02	2.04	7-6-01
44	483116.63	1350840.02	620.37	622.51	622.50	+0.01	2.14	7-10-01
45	483136.32	1350853.50	620.93	623.02	622.88	+0.14	2.09	7-10-01
46	483149.35	1350873.49	621.27	623.34	623.25	+0.09	2.07	7-10-01
47	483153.73	1350896.96	621.57	623.66	623.63	+0.03	2.09	7/2/01
48	483147.14	1351441.21	627.07	629.18	629.05	+0.13	2.11	7-30-01
49	483142.18	1351464.58	627.13	629.21	629.07	+0.14	2.07	7-30-01
50	483128.65	1351484.26	627.12	629.17	629.10	+0.07	2.05	7-30-01
51	483108.62	1351497.24	627.20	629.29	629.13	+0.16	2.09	7-29-01
52	483085.12	1351501.56	627.16	629.24	629.17	+0.07	2.08	7-29-01
53	482979.65	1351333.90	654.00	656.21	656.03	+0.18	2.21	7-12-01
54	482966.48	1351042.10	653.92	655.95	655.91	+0.04	2.03	7-6-01
55	482923.15	1351275.37	659.36	661.48	661.40	+0.08	2.12	7-12-01
56	482915.20	1351099.31	659.26	661.29	661.33	-0.04	2.03	7-6-01
109	483063.70	1350834.74	619.95	622.05	621.90	+0.15	2.10	6/29/01
110	483063.09	1350884.35	628.10	630.29	630.18	+0.11	2.19	6/29/01
111	483013.71	1350834.13	619.50	621.66	621.51	+0.15	2.16	6/29/01
112	482963.71	1350833.52	619.16	621.29	621.12	+0.17	2.13	6/28/01
113	482913.72	1350832.91	618.79	620.93	620.73	+0.20	2.14	6/28/01
114	482863.72	1350832.30	618.40	620.51	620.34	+0.17	2.11	6/28/01
116	483012.06	1350967.67	641.74	643.88	643.79	+0.09	2.14	6/28/01
118	482911.14	1351041.42	653.58	655.61	655.54	F-0.07	2.03	6/27/01
119	482861.14	1351040.81	653.17	655.21	655.17	F-0.04	2.04	6/27/01
121	483063.40	1350859.74	623.94	626.23	626.07	+0.16	2.29	6/29/01
123	483013.09	1350884.13	627.91	630.04	629.85	+0.19	2.13	6/29/01
125	483012.47	1350934.13	636.29	638.38	638.19	+0.19	2.09	6/29/01
128	482963.09	1350883.52	627.42	629.63	629.47	+0.16	2.21	6/28/01
130	482962.48	1350933.52	635.73	638.00	637.81	+0.19	2.27	6/28/01
132	482961.86	1350983.51	644.16	646.29	646.15	+0.14	2.13	6/29/01
136	482913.10	1350882.91	627.14	629.28	629.08	+0.20	2.14	6/28/01
138	482912.48	1350932.91	635.40	637.60	637.43	+0.17	2.20	6/28/01
140	482911.86	1350982.90	643.70	645.88	645.78	+0.10	2.18	6/28/01
144	482863.10	1350882.30	626.86	628.89	628.69	+0.20	2.03	6/28/01
146	482862.48	1350932.30	634.94	637.11	637.04	+0.07	2.17	6/28/01
148	482861.87	1350982.29	643.39	645.42	645.40	F-0.02	2.03	6/27/01
162	483036.98	1350926.99	635.08	637.25	637.14	+0.11	2.17	6/29/01
168	483102.86	1350890.65	627.70	629.79	629.67	+0.12	2.09	7-6-01
170	483069.40	1350927.80	633.79	635.94	636.09	-0.15	2.15	7/2/01
180	483152.88	1350967.14	622.36	624.45	624.33	+0.12	2.09	7-10-01
181	483152.27	1351017.14	622.89	624.99	624.84	+0.15	2.10	7-10-01
182	483151.66	1351067.14	623.32	625.40	625.33	+0.07	2.08	7-13-01
183	483151.06	1351117.13	623.88	625.95	625.82	+0.13	2.07	7-13-01

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STATE OF OHIO
LYNN E. HIRSCH
S-5738
REGISTERED SURVEYOR

DATE 6/26/01
CREW Greg & Cameron
*= OUT OF TOLERANCE

COMPACTED CLAY AS-BUILT 000098

PT#	NORTH	EAST	AS-BUITL CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
184	483150.45	1351167.13	624.30	626.40	626.33	+0.07	2.10	7-17-01
185	483149.85	1351217.13	624.80	626.84	626.82	+0.02	2.04	7-17-01
186	483149.24	1351267.12	625.35	627.38	627.31	+0.07	2.03	7-25-01
187	483148.64	1351317.12	625.82	627.89	627.81	+0.08	2.07	7-30-01
188	483148.03	1351367.11	626.17	628.21	628.31	-0.10	2.04	7-30-01
190	483001.08	1351015.27	647.79	649.94	649.98	-0.04	2.15	7/2/01
191	482967.50	1351064.86	654.08	656.11	655.96	+0.15	2.03	7-6-01
192	482969.76	1351114.89	653.94	656.01	655.98	+0.03	2.07	7/11/01
193	482972.02	1351164.92	653.89	656.05	656.00	+0.05	2.16	7-17-01
194	482974.28	1351214.96	654.05	656.11	656.03	+0.08	2.06	7-12-01
195	482976.53	1351264.99	654.04	656.10	656.05	+0.05	2.06	7-12-01
196	482978.79	1351315.02	654.14	656.19	656.07	+0.12	2.05	7-12-01
199	483098.04	1351366.50	634.66	636.76	636.63	+0.13	2.10	7-30-01
201	483048.04	1351365.88	643.00	645.12	644.95	+0.17	2.12	7-30-01
203	483097.52	1351409.41	634.99	637.02	637.06	-0.04	2.03	7-30-01
205	483047.90	1351377.62	643.13	645.23	645.07	+0.16	2.10	7-29-01
207	483098.64	1351316.50	634.05	636.14	636.13	+0.01	2.09	7-29-01
209	483048.65	1351315.88	642.37	644.60	644.45	+0.15	2.23	7-29-01
211	482998.65	1351315.26	650.81	652.86	652.77	+0.09	2.05	7-30-01
213	483099.25	1351266.50	633.64	635.74	635.63	+0.11	2.10	7-25-01
215	483049.25	1351265.89	641.97	644.02	643.95	+0.07	2.05	7-25-01
217	482999.25	1351265.27	650.32	652.38	652.27	+0.11	2.06	7-25-01
219	483099.85	1351216.51	633.08	635.23	635.14	+0.09	2.15	7-17-01
221	483049.86	1351215.89	641.52	643.60	643.45	+0.15	2.08	7-17-01
223	482999.86	1351215.27	649.63	651.82	651.77	+0.05	2.19	7-17-01
225	483100.46	1351166.51	632.71	634.78	634.64	+0.14	2.07	7-17-01
227	483050.46	1351165.89	640.84	643.00	642.95	+0.05	2.16	7-17-01
229	483000.47	1351165.28	649.34	651.44	651.27	+0.17	2.10	7-17-01
231	483101.06	1351116.51	632.18	634.24	634.14	+0.10	2.06	7-13-01
233	483051.07	1351115.90	640.45	642.64	642.46	+0.18	2.19	7-13-01
235	483001.07	1351115.28	648.82	650.91	650.77	+0.14	2.09	7-13-01
237	483101.67	1351066.52	631.72	633.82	633.64	+0.18	2.10	7-13-01
239	483051.67	1351065.90	639.68	641.86	641.96	-0.10	2.18	7-13-01
241	483001.68	1351065.28	648.38	650.45	650.28	+0.17	2.07	7-6-01
244	483102.27	1351016.52	631.17	633.30	633.14	+0.16	2.13	7-10-01
246	483052.28	1351015.90	639.5 ~~389.51~~	641.65	641.46	+0.19	2.14	7-6-01
249	483102.88	1350966.53	630.71	632.77	632.65	+0.12	2.06	7-6-01
252	483103.25	1350936.08	630.41	632.44	632.35	+0.09	2.03	7/2/01
254	483052.77	1350975.21	639.06	641.09	641.05	+0.04	2.03	7/2/01
258	483093.45	1351448.74	633.53	635.56	635.47	+0.09	2.03	7-29-01
260	483058.26	1351413.22	639.68	641.82	641.85	-0.03	2.14	7-29-01
263	483055.46	1351501.19	626.87	629.03	628.90	+0.13	2.15	7-29-01

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STATE OF OHIO
LYNN E. HIRSCH
S-5738
REGISTERED
SURVEYOR

DATE 6/26/01

COMPACTED CLAY AS-BUILT **000099**

CREW Greg & Cameron

*= OUT OF TOLERANCE

PT#	NORTH	EAST	AS-BUITL CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
264	483005.47	1351500.58	626.51	628.65	628.53	+0.12	2.14	7-29-01
265	482955.47	1351499.97	625.90	628.22	628.14	+0.08	2.32	7-27-01
266	482905.47	1351499.36	625.58	627.75	627.74	+0.01	2.17	7-25-01
267	482855.48	1351498.75	625.25	627.43	627.34	+0.09	2.18	7-25-01
269	483056.02	1351455.30	634.44	636.60	636.59	+0.01	2.16	7-29-01
270	483006.96	1351377.31	647.02	649.13	649.11	+0.02	2.11	7-29-01
273	483029.39	1351412.98	641.44	643.53	643.46	+0.07	2.09	7-29-01
277	483006.07	1351450.59	634.94	637.07	636.96	+0.11	2.13	7-29-01
279	483006.68	1351400.59	643.28	645.36	645.28	+0.08	2.08	7-29-01
280	483055.77	1351476.19	630.97	633.11	633.11	0.00	2.04	7-29-01
281	482907.49	1351333.01	653.54	655.57	655.57	0.00	2.03	7-12-01
282	482857.49	1351332.40	653.07	655.18	655.18	0.00	2.11	7-12-01
285	482956.08	1351449.98	634.29	636.49	636.49	0.00	2.20	7-27-01
287	482956.68	1351399.98	642.89	645.00	644.88	+0.12	2.11	7-24-01
289	482957.29	1351349.98	651.14	653.17	653.16	+0.01	2.03	7-27-01
291	482906.08	1351449.37	634.04	636.12	636.10	+0.02	2.08	7-25-01
293	482906.68	1351399.37	642.44	644.50	644.47	+0.03	2.06	7-25-01
295	482907.29	1351349.37	650.71	652.99	652.82	+0.17	2.28	7-25-01
297	482856.08	1351448.76	633.64	635.80	635.71	+0.09	2.16	7-24-01
299	482856.69	1351398.76	641.96	644.22	644.08	+0.14	2.26	7-24-01
301	482857.29	1351348.76	650.40	652.61	652.45	+0.16	2.21	7-24-01
479	482843.71	1350832.06	618.25	618.10	618.25	- 0.15	——	6/26/01
480	482841.16	1351040.57	653.09	653.09	653.09	- 0.00	——	6/26/01
483	482838.30	1351274.33	658.74	658.69	658.74	-0.05	Mark Cut Line 2½ ——	7-12-01
484	482837.60	1351332.16	652.87	652.71	652.87	-0.16	Mark Cut Line 2½ ——	7-12-01
485	482835.56	1351498.51	625.12	625.12	625.12	0.00	——	7-27-01
1835	482922.65	1351264.33	659.55	661.57	661.41	+0.16	2.02	7/11/01
1836	482920.39	1351214.29	659.41	661.57	661.38	+0.19	2.16	7/11/01
1837	482918.13	1351164.26	659.53	661.54	661.36	+0.18	2.01	7/11/01
1838	482915.87	1351114.23	659.37	661.40	661.35	+0.05	2.03	7/11/01
1839	482949.59	1351264.65	656.77	658.81	658.72	+0.09	2.04	7/11/01
1840	482947.33	1351214.62	656.79	658.89	658.70	+0.19	2.10	7/11/01
1841	482945.08	1351164.59	656.80	658.81	658.67	+0.14	2.01	7/11/01
1842	482942.82	1351114.56	656.74	658.81	658.65	+0.16	2.07	7/11/01
1843	482908.19	1351275.18	659.41	661.48	661.28	+0.20	2.07	7-12-01
1844	482858.19	1351274.57	658.92	660.94	660.83	+0.11	2.02	7-12-01
1846	482907.84	1351304.10	656.48	658.53	658.41	+0.12	2.05	7-12-01
1849	482951.39	1351304.63	656.92	658.94	658.74	+0.20	2.02	7/11/01
1851	482940.84	1351070.70	656.73	658.74	658.64	+0.10	2.01	6/27/01
1853	482860.43	1351098.64	658.90	660.93	660.83	+0.10	2.03	6/27/01
1859	482859.88	1351142.62	661.18	663.19	663.08	+0.11	2.01	6/27/01
1860	482878.87	1351142.85	661.06	663.35	663.26	+0.09	2.29	6/27/01

P. 2 of 10

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DATE 6/26/01
CREW Greg E Cameron

COMPACTED CLAY AS-BUILT **000100**

*= OUT OF TOLERANCE

PT#	NORTH	EAST	AS-BUITL CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
1864	482882.84	1351230.88	661.29	663.35	663.30	+0.05	2.06	6/27/01
1866	482858.72	1351230.59	661.25	663.28	663.08	+0.20	2.03	6/27/01
1867	482879.81	1351163.78	661.37	663.37	663.27	+0.10	2.00	6/27/01
1868	482882.07	1351213.82	661.39	663.49	663.29	+0.20	2.10	6/27/01
2023	482874.56	1351508.86	623.76	625.91	625.91	0.00	2.15	7-25-01
2087	482855.25	1351516.19	621.90 ~~622.01~~	624.49	624.49	0.00	2.59	7-25-01
2088	482905.27	1351516.48	621.64 ~~623.37~~	624.98	624.93	+0.05	3.34	7-25-01
2089	482955.27	1351516.29	622.86 ~~623.62~~	625.50	625.44	+0.06	2.64	7-27-01
2090	483005.25	1351518.87	623.14 ~~624.15~~	625.51	625.50	+0.01	2.37	7-29-01
2091	483055.27	1351517.41	623.84 ~~624.86~~	626.32	626.23	+0.09	2.48	7-29-01
2092	483096.04	1351518.92	623.13 ~~624.38~~	626.41	626.60	-0.19	3.28	7-29-01
2094	483166.14	1351317.40	622.61 ~~623.81~~	624.87	624.91	-0.04	2.26	7-30-01
2095	483167.78	1351267.40	621.50 ~~623.32~~	624.13	624.17	-0.04	2.63	7-30-01
2096	483167.42	1351217.41	620.99 ~~622.43~~	623.96	623.87	+0.09	2.97	7-17-01
2097	483168.09	1351167.49	620.90 ~~622.04~~	623.46	623.43	+0.03	2.56	7-17-01
2098	483168.51	1351117.34	620.41 ~~621.49~~	623.06	622.91	+0.15	2.65	7-13-01
2099	483168.31	1351067.44	620.08 ~~621.02~~	622.62	622.54	+0.08	2.59	7-13-01
2100	483170.03	1351017.53	619.21 ~~620.53~~	621.94	621.89	+0.05	2.73	7-10-01
2101	483171.25	1350965.81	618.98 ~~620.45~~	621.32	621.20	+0.12	2.34	7-10-01
2102	483170.29	1350884.19	617.57 ~~618.04~~	620.22	619.58	+0.64	2.65	7-10-01
2103	483163.54	1350860.51	616.70 ~~618.87~~	620.19	619.10	+1.09	3.49	7-10-01
2104	483149.66	1350838.71	616.28 ~~618.12~~	619.01	618.95	+0.09	2.73	7-6-01
2105	483128.50	1350824.03	616.20 ~~617.76~~	618.87	618.70	+0.17	2.67	7-6-01
2106	483104.00	1350817.57	616.42 ~~617.77~~	619.04	619.11	-0.07	2.62	7-6-01
* 2107	483063.96	1350814.48	616.41 ~~617.79~~	618.71 / 618.69	618.65	+0.06 / +0.02	2.26	6/29/01 / 7/3/01
* 2108	483013.97	1350813.38	615.79 ~~617.42~~	618.16 / 618.21	681.06	+0.10 / +0.15	2.42	6/29/01 / 7/3/01
* 2110	482913.96	1350812.99	615.01 ~~616.77~~	617.27 / 617.62	617.42	-0.15 / +0.20	2.61	6/28/01 / 7/3/01
* 2111	482863.97	1350811.92	614.56 ~~616.07~~	617.08 / 617.07	616.93	+0.13 / +0.14	2.51	6/28/01 / 7/3/01
2113	483165.93	1351402.78	623.34 624.43	625.57	625.59	-0.02	2.23	7-30-01
2114	483164.14	1351452.10	623.31 ~~624.87~~	625.53	625.40	+0.13	2.22	8-3-01
2115	483158.70	1351477.86	623.12 ~~625.47~~	625.38	625.19	+0.19	2.26	8-3-01
2116	483143.01	1351498.76	623.17 ~~624.96~~	625.20	625.20	0.00	2.03	7-30-01
2117	483120.96	1351512.86	623.13 ~~624.99~~	625.45	625.25	+0.25	2.32	7-29-01
3000	482966.77	1351041.80	653.92	655.95	655.91	+0.04	2.03	7/2/01
3001	482979.97	1351334.20	654.00	656.06	656.03	+0.03	2.06	7-12-01
3002	482915.32	1351099.16	659.26	661.29	661.33	-0.04	2.03	6/27/01
3003	482923.29	1351275.52	659.36	661.54	661.40	+0.14	2.18	7/11/01
3004	482853.16	1351040.43	N/A	655.24	655.06	+0.18		6/27/01
3005	482852.45	1351098.40	N/A	660.67	660.85	-0.18		6/27/01
3006	482851.26	1351196.03	N/A	664.84	664.78	+0.06		6/27/01
3007	482851.51	1351175.65	N/A	664.76	664.72	+0.04		6/27/01
3008	482850.30	1351274.63	N/A	660.67	660.85	-0.18		
3109	482943.97	1350813.24	615.39	617.79	617.73	+0.06	2.40	7/3/01

STATE OF OHIO
LYNN E. HIRSCH
S-5738
REGISTERED SURVEYOR

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COMPACTED CLAY AS-BUILT **000101**

DATE 6/26/01
CREW Greg & Canova
*= OUT OF TOLERANCE

	PT#	NORTH	EAST	AS-BUITL CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
	3009	482849.59	1351332.61	N/A	655.02	655.06	-0.04		7-12-01
*	3011	482856.26	1350787.12	N/A	612.88 - 612.92	612.83	+0.05 - +0.09		6/27/01 7/31/01
	3012	482847.01	1351543.74	N/A	619.94	619.83	+0.11		7-25-01
	3014	483100.01	1350790.10	N/A	614.67	614.66	+0.01		7-6-01
	3015	483138.17	1350798.20	N/A	615.02	615.02	0.00		7-6-01
	3016	483170.34	1350820.27	N/A	615.54	615.37	+0.17		7-10-01
	3017	483191.62	1350852.87	N/A	615.69	651.73	-0.04		7-6-01
	3018	483198.78	1350891.32	N/A	615.97	616.09	-0.12		7-10-01
	3019	483191.97	1351447.95	N/A	621.47	621.65	-0.18		7-30-01
	3020	483183.98	1351486.12	N/A	621.63	621.66	-0.03		7-30-01
	3021	483161.82	1351518.30	N/A	621.65	621.67	-0.02		7-29-01
	3022	483129.12	1351539.58	N/A	621.80	621.68	+0.12		7-29-01
	3023	483090.76	1351546.72	N/A	621.61	621.69	-0.08		7-29-01
S/G	3024	482846.94	1351548.73	N/A	619.10	619.00	+0.10		7-25-01
	3025	482847.26	1351523.24	N/A	623.18	623.25	-0.07		7-25-01
	3026	482847.32	1351517.74	621.95	624.01	624.17	-0.16	2.06	7-25-01
	3027	482847.56	1351498.65	N/A	627.23	627.35	-0.12		7-25-01
	3028	482848.17	1351448.66	N/A	635.71	635.68	+0.03		7-25-01
	3029	482848.78	1351398.66	N/A	643.91	644.01	-0.10		7-25-01
	3030	482849.39	1351348.67	N/A	652.45	652.34	+0.11		7-25-01
	3031	482834.94	1351548.59	Not Needed	Not Needed	617.00	Toe of Clay @ Contour	South slp SE Corr	7-30-01
	3032	482835.01	1351543.59	Not Needed	Not Needed	617.83	" " "	"	7-30-01
	3033	482835.26	1351523.09	N/A	621.45	621.25	+0.20		7-27-01
	3034	482835.32	1351517.59	N/A	622.24	622.17	+0.07		7-27-01
	3035	482836.17	1351448.51	N/A	633.82	633.68	+0.14		7-13-01
	3036	482836.78	1351398.52	N/A	642.21	642.01	+0.20		7-13-01
	3037	482837.39	1351348.52	N/A	650.44	650.34	+0.10		7-13-01
	3038	482854.93	1351543.83	N/A	619.90	619.89	+0.01		7-25-01
S/G	3039	482854.87	1351548.83	N/A	619.11	619.06	+0.05		7-25-01
	3040	482855.18	1351523.33	N/A	623.28	623.30	-0.02		7-25-01
	3041	482855.24	1351517.83	622.08	624.42	624.22	+0.20	2.34	7-24-01
	3042	482904.93	1351544.44	N/A	620.38	620.27	+0.11		7-25-01
S/G	3043	482904.87	1351549.44	N/A	619.41	619.44	-0.03		7-25-01
	3044	482905.18	1351523.94	N/A	623.67	623.68	-0.01		7-25-01
	3045	482905.24	1351518.45	621.97	624.63	624.60	+0.03	2.66	7-25-01
	3046	482954.92	1351545.05	N/A	620.62	620.65	-0.03		7-27-01
S/G	3048	482954.86	1351550.05	N/A	619.77	619.82	-0.05		7-27-01
	3049	482955.17	1351524.56	N/A	624.00	624.06	-0.06		7-27-01
	3050	482955.24	1351519.06	622.85	625.00	624.98	+0.02	2.15	7-27-01
	3051	483004.92	1351545.67	N/A	620.92	621.03	-0.11		7-29-01
S/G	3053	483004.86	1351550.67	N/A	620.15	620.20	-0.05		7-29-01
	3054	483005.17	1351525.17	N/A	624.45	624.45	0.00		7-29-01

4555

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DATE 6/26/01
CREW Greg & Cameron

COMPACTED CLAY AS-BUILT **000102**

*= OUT OF TOLERANCE

	PT#	NORTH	EAST	AS-BUITL CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
	3055	483005.24	1351519.67	623.19	625.41	625.37	+0.04	2.22	7-29-01
	3056	483054.92	1351546.28	N/A	621.37	621.41	-0.04		7-29-01
S/G	3058	483054.86	1351551.28	N/A	620.60	620.58	+0.02		7-29-01
	3059	483055.17	1351525.78	N/A	624.92	624.83	+0.09		7-29-01
	3060	483055.23	1351520.28	623.28	625.85	625.75	+0.10	2.57	7-29-01
S/G	3061	483093.07	1351551.15	N/A	621.07	621.24	-0.17		7-29-01
	3062	483081.28	1351528.54	N/A	624.71	624.63	+0.08		7-29-01
	3063	483078.74	1351523.66	623.32	625.42	625.42	0.00	2.10	7-29-01
S/G	3064	483132.05	1351543.62	N/A	621.04	621.00	+0.04		7-29-01
	3065	483117.07	1351522.99	N/A	624.61	624.45	+0.16		7-29-01
	3066	483113.84	1351518.54	623.01	625.30	625.19	+0.11	2.29	7-29-01
S/G	3067	483165.33	1351521.85	N/A	621.00	621.01	-0.01		7-29-01
	3068	483147.41	1351503.71	N/A	624.33	624.39	-0.09		7-30-01
	3069	483143.54	1351499.80	623.01	625.06	625.12	-0.06	2.05	8-3-01
S/G	3070	483187.89	1351489.10	N/A	620.81	620.98	-0.17		7-30-01
	3071	483167.45	1351473.87	621.95	624.62	624.43	+0.19	2.67	8-3-01
	3072	483163.04	1351470.58	622.91	625.23	625.17	+0.06	2.32	8-3-01
S/G	3073	483196.37	1351450.31	N/A	620.96	620.94	+0.02		7-30-01
	3074	483173.90	1351438.25	622.44	624.58	624.58	0.00	2.14	7-30-01
	3075	483169.05	1351435.65	622.93	625.26	625.37	-0.11	2.33	7-30-01
	3076	483192.95	1351367.67	N/A	620.66	620.85	-0.19		7-30-01
S/G	3077	483197.95	1351367.73	N/A	619.82	620.02	-0.20		7-30-01
	3078	483172.45	1351367.42	621.92	624.09	624.25	-0.16	2.17	7-30-01
	3079	483166.95	1351367.35	622.71	624.96	625.16	-0.20	2.25	7-30-01
	3080	483192.45	1351407.95	N/A	621.20	621.25	-0.05		7-30-01
	3081	483147.54	1351407.39	N/A	628.57	628.71	-0.14		7-30-01
S/G	3082	483197.45	1351408.01	N/A	620.37	620.42	-0.05		7-30-01
	3083	483171.96	1351407.69	622.43	624.55	624.66	-0.11	2.12	7-30-01
	3084	483166.46	1351407.63	623.23	625.52	625.57	-0.05	2.29	7-30-01
	3085	483193.56	1351317.67	N/A	620.19	620.35	-0.16		7-30-01
S/G	3086	483198.56	1351317.73	N/A	619.32	619.52	-0.20		7-30-01
	3087	483173.06	1351317.42	621.69	623.74	623.75	-0.01	2.05	7-30-01
	3088	483167.56	1351317.35	622.49	624.66	624.66	0.00	2.17	7-30-01
	3089	483194.17	1351267.68	N/A	619.97	619.85	+0.12		7-25-01
S/G	3090	483199.17	1351267.74	N/A	619.14	619.02	+0.12		7-25-01
	3091	483173.67	1351267.42	621.13	623.26	623.25	+0.01	2.13	7-25-01
	3092	483168.17	1351267.36	621.50	624.29	624.16	+0.13	2.79	7-25-01
	3093	483194.78	1351217.68	N/A	619.46	619.35	+0.11		7-17-01
S/G	3094	483199.78	1351217.74	N/A	618.72	618.52	+0.20		7-17-01
	3095	483174.28	1351217.43	619.56	622.87	622.76	+0.11	3.31	7-17-01
	3096	483168.78	1351217.36	620.59	623.78	623.67	+0.11	3.19	7-17-01
	3097	483195.39	1351167.68	N/A	618.97	618.85	+0.12		7-17-01

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STATE OF OHIO
LYNN E. HIRSCH
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SURVEYOR

DATE 6/26/01

COMPACTED CLAY AS-BUILT **000103**

CREW Greg & Cameron

*= OUT OF TOLERANCE

	PT#	NORTH	EAST	AS-BUITL CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
S/G	3098	483200.39	1351167.75	N/A	618.15	618.02	+0.13		7-17-01
	3099	483174.90	1351167.43	619.82	622.39	622.26	+0.13	2.57	7-17-01
	3100	483169.40	1351167.36	620.66	623.22	623.18	+0.04	2.56	7-17-01
	3101	483196.01	1351117.69	N/A	618.44	618.35	+0.09		7-13-01
S/G	3102	483201.01	1351117.75	N/A	617.51	617.52	-0.01		7-13-01
	3103	483175.51	1351117.43	619.61	621.86	621.76	+0.10	2.25	7-13-01
	3104	483170.01	1351117.37	620.22	622.81	622.67	+0.14	2.59	7-13-01
	3105	483196.62	1351067.69	N/A	617.72	617.85	-0.13		7-13-01
S/G	3106	483201.62	1351067.75	N/A	616.89	617.02	-0.13		7-13-01
	3107	483176.12	1351067.44	618.71	621.34	621.26	+0.08	2.63	7-13-01
	3108	483170.62	1351067.37	619.58	622.21	622.18	+0.03	2.63	7-13-01
	3109	483197.23	1351017.70	N/A	617.33	617.35	-0.02		7-10-01
S/G	3110	483202.23	1351017.76	N/A	616.60	616.52	+0.08		7-10-01
	3111	483176.73	1351017.44	618.32	620.78	620.76	+0.02	2.46	7-10-01
	3112	483171.23	1351017.37	619.07	621.74	621.68	+0.06	2.67	7-10-01
	3113	483197.84	1350967.70	N/A	616.87	616.85	+0.02		7-10-01
S/G	3114	483202.84	1350967.76	N/A	616.14	616.02	+0.12		7-10-01
	3115	483177.34	1350967.45	617.92	620.42	620.26	+0.16	2.50	7-10-01
	3116	483171.84	1350967.38	618.97	621.31	621.17	+0.14	2.34	7-10-01
	3117	483198.21	1350937.25	N/A	616.53	616.55	-0.02		7-10-01
	3118	483153.24	1350936.70	N/A	624.10	624.03	+0.07		7-10-01
S/G	3119	483203.21	1350937.32	N/A	615.64	615.72	-0.08		7-10-01
	3120	483177.71	1350937.00	617.14	620.10	619.96	+0.14	2.96	7-10-01
	3121	483172.21	1350936.93	618.03	620.88	620.87	+0.01	2.85	7-10-01
S/G	3122	483202.97	1350888.59	N/A	615.21	615.37	-0.16		7-10-01
	3123	483181.58	1350902.47	N/A	619.06	619.04	+0.02		7-10-01
	3124	483176.96	1350905.46	617.75	619.92	619.83	+0.09	2.17	7-10-01
S/G	3125	483195.44	1350849.65	N/A	614.85	615.05	-0.20		7-6-01
	3126	483175.92	1350866.05	N/A	618.63	618.53	+0.10		7-6-01
	3127	483171.71	1350869.59	616.88	619.23	619.28	-0.05	2.35	7-6-01
S/G	3128	483173.72	1350816.58	N/A	614.56	614.69	-0.13		7-6-01
	3129	483156.46	1350835.36	N/A	618.01	618.13	-0.12		7-6-01
	3130	483152.74	1350839.41	616.41	618.72	618.87	-0.15	2.31	7-6-01
S/G	3131	483141.04	1350794.11	N/A	614.51	614.33	+0.18		7-6-01
	3132	483126.37	1350814.96	N/A	617.82	617.83	-0.01		7-6-01
	3133	483123.20	1350819.46	616.16	618.78	618.59	+0.19	2.62	7-6-01
S/G	3134	483102.34	1350785.68	N/A	614.12	613.94	+0.18		7-6-01
*	3135	483090.41	1350808.21	615.26	617.82 / 617.67	617.63	+0.19 / +0.04	2.41	6-29-01 / 7-6-01
*	3136	483087.84	1350813.07	616.21	618.60 / 618.39	618.43	+0.17 / -0.04	2.18	6-29-01 / 7-6-01
*	3137	483064.26	1350789.66	N/A	614.54 / 614.42	614.39	+0.15 / +0.03		6/29/01 / 7/3/01
S/G *	3138	483064.32	1350784.66	N/A	613.71 / 613.56	613.56	+0.15 / +0.00		6/29/01 / 7/3/01
*	3139	483064.01	1350810.16	615.57	617.95 / 618.00	617.80	+0.15 / +0.20	2.43	6/29/01 / 7/3/01

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STATE OF OHIO
LYNN E. HIRSCH
S-5738
REGISTERED SURVEYOR

David E. Estes Engineering, Inc.

CIVIL ENGINEERING - LAND SURVEYING
ENVIRONMENTAL CONSULTATION
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Tele: (859) 342-6100 Fax: (859) 342-8725 Email: DE3@estesengineering.com
www.estesengineering.com

DATE 6/26/01
CREW Greg & Cameron

COMPACTED CLAY AS-BUILT **000104**

*= OUT OF TOLERANCE

	PT#	NORTH	EAST	AS-BUITL CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
*	3140	483063.94	1350815.66	616.54	618.83 618.87	618.72	+0.11 +0.15	2.33	6/29/01 7/3/01
*	3141	483014.27	1350789.05	N/A	614.19 614.16	614.01	+0.18 +0.15		6/29/01 7/3/01
S/G *	3142	483014.33	1350784.05	N/A	613.26 613.32	613.18	+0.08 +0.14		6/29/01 7/3/01
*	3143	483014.01	1350809.55	615.23	617.59 617.54	617.42	+0.17 +0.12	2.31	6/29/01 7/3/01
*	3144	483013.94	1350815.05	615.99	618.46 618.44	618.33	+0.11 +0.15	2.45	6/29/01 7/3/01
*	3145	482964.27	1350788.44	N/A	613.81 613.76	613.63	+0.18 +0.13		6/28/01 7/3/01
S/G *	3146	482964.33	1350783.44	N/A	612.91 612.86	612.80	+0.11 +0.06		6/28/01 7/3/01
*	3147	482964.02	1350808.93	614.79	617.13 617.24	617.04	+0.09 +0.20	2.45	6/28/01 7/3/01
*	3148	482963.95	1350814.43	615.75	618.13 618.05	617.95	+0.18 +0.10	2.30	6/28/01 7/3/01
*	3149	482914.27	1350787.82	N/A	613.13 613.32	613.25	-0.12 +0.07		6/28/01 7/3/01
S/G *	3150	482914.34	1350782.82	N/A	612.56 612.46	612.42	+0.14 +0.04		6/28/01 7/3/01
*	3151	482914.02	1350808.32	614.34	616.59 616.83	616.65	-0.06 +0.18	2.49	6/28/01 7/3/01
*	3152	482913.95	1350813.82	615.22	617.43 617.72	617.56	-0.13 +0.16	2.50	6/28/01 7/3/01
*	3153	482864.28	1350787.21	N/A	612.91 612.81	612.87	+0.04 -0.06		6/28/01 7/3/01
S/G *	3154	482864.34	1350782.21	N/A	612.19 611.94	612.04	+0.15 -0.10		6/28/01 7/3/01
*	3155	482864.02	1350807.71	613.96	616.45 616.43	616.27	+0.18 +0.16	2.47	6/28/01 7/3/01
*	3156	482863.96	1350813.21	614.81	617.39 617.34	617.18	+0.13 +0.13	2.53	6/28/01 7/3/01
	3157	482850.83	1351230.49	N/A	663.12	663.06	+0.06		6/27/01
	3158	482838.83	1351230.34	N/A	661.09	661.06	+0.03		6/27/01
	3159	482839.25	1351195.88	N/A	662.79	662.78	+0.01		6/27/01
	3160	482839.50	1351175.50	N/A	662.53	662.72	-0.19		6/27/01
	3161	482851.91	1351142.52	N/A	662.91	663.06	-0.15		6/27/01
	3162	482839.91	1351142.37	N/A	661.23	661.06	+0.17		6/27/01
	3163	482853.87	1350982.19	N/A	645.15	645.35	-0.20		6/27/01
	3164	482841.87	1350982.05	N/A	643.22	643.35	-0.13		6/27/01
	3165	482854.48	1350932.20	N/A	637.10	637.01	+0.09		6/27/01
	3166	482842.48	1350932.05	N/A	634.89	635.01	-0.12		6/27/01
	3167	482855.09	1350882.20	N/A	628.70	628.67	+0.03		6/27/01
	3168	482843.09	1350882.05	N/A	626.48	626.67	-0.19		6/27/01
	3169	482855.70	1350832.20	N/A	620.43	620.33	+0.10		6/27/01
*	3170	482855.94	1350813.11	614.91	617.05 617.07	617.15	-0.10 -0.08	2.16	6/27/01 7/3/01
	3171	482843.94	1350812.96	N/A	615.06	615.15	-0.09		6/28/01
*	3172	482856.00	1350807.61	N/A	616.23 616.30	616.23	0.00 +0.07		6/27/01 7/3/01
	3173	482844.01	1350807.46	Not Needed	Not Needed	614.23	Top of Slp Contour Layer S.W. Cor		7-30-01
	3174	482844.26	1350786.97	Not Needed	Not Needed	610.83	" " "	" " "	7-30-01
S/G *	3175	482856.32	1350782.12	N/A	612.16 612.13	612.00	+0.16 +0.13		6/27/01 7/3/01
	3176	482844.32	1350781.97	Not Needed	Not Needed	610.00	Top of Slp Contour Layer S.W. Cor		7-30-01

4555

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STATE OF OHIO
LYNN E. HIRSCH
S-5738
REGISTERED
SURVEYOR

DATE 6/26/01
CREW Greg & Cameron

COMPACTED CLAY AS-BUILT 000105

*= OUT OF TOLERANCE

	PT#	NORTH	EAST	AS-BUILT CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
	3177	482727.93	1351573.91	N/A		613.70			
S/G	3178	483090.37	1351578.34	"	616.47	616.42	+0.05		8/15/01
	3179	482727.32	1351624.00	"		610.69			
S/G	3180	483089.76	1351628.43	"	613.61	613.41	+0.20		10/2/01
S/G	3181	483101.39	1351578.48	"	616.48	616.42	+0.06		8-15-01
S/G	3182	483120.87	1351628.81	"	613.12	613.41	-0.29		9-28-01
S/G	3183	483147.42	1351569.91	"	616.50	616.41	+0.09		8-15-01
S/G	3184	483178.40	1351618.08	"	613.38	613.40	-0.02		9-28-01
S/G	3185	483186.67	1351544.37	"	616.30	616.40	-0.10		8-15-01
S/G	3186	483227.45	1351586.16	"	613.31	613.40	+0.09		9-28-01
S/G	3187	483213.15	1351505.76	"	616.48	616.40	+0.08		8-6-01
S/G	3188	483260.56	1351537.91	"	613.40	613.39	+0.01		9-28-01
S/G	3189	483222.85	1351459.95	"	616.39	616.39	0.00		8-15-01
S/G	3190	483272.69	1351480.66	"	613.43	613.39	+0.04		9-28-01
S/G	3191	483222.99	1351448.33	"	616.45	616.39	+0.06		8-15-01
S/G	3192	483273.08	1351448.94	"	613.43	613.38	+0.05		9-27-01
S/G	3193	483229.79	1350891.70	"	610.98	610.82	+0.16		8-16-01
S/G	3194	483279.88	1350892.31	"	607.63	607.82	-0.19		9-27-01
S/G	3195	483230.15	1350862.76	"	610.34	610.27	+0.07		8-16-01
S/G	3196	483280.48	1350843.28	"	607.06	607.14	-0.08		9-27-01
S/G	3197	483221.57	1350816.73	"	609.58	609.38	+0.20		8-16-01
S/G	3198	483269.76	1350785.74	"	606.42	606.32	+0.10		9-27-01
S/G	3199	483196.04	1350777.49	"	608.56	608.48	+0.08		8-3-01
S/G	3200	483237.84	1350736.69	"	605.60	605.50	+0.10		9-6-01
S/G	3201	483157.43	1350751.00	"	607.54	607.58	-0.04		8-3-01
S/G	3202	483189.58	1350703.58	"	604.72	604.69	+0.03		9-27-01
S/G	3203	483132.32	1350691.46	"	603.97	603.87	+0.10		9-27-01
S/G	3204	483111.62	1350741.30	"	606.56	606.69	-0.13		8-2-01
S/G	3205	483101.22	1350691.08	"	603.32	603.44	-0.12		8-2-01
S/G	3206	483100.61	1350741.16	"	606.52	606.51	+0.01		8-2-01
	3207	482738.75	1350686.65	"		600.78			
	3208	482738.14	1350736.73	"		603.79			
S/G	3209	482857.47	1350688.10	"	601.59	601.66	-0.07		8-1-01
S/G	3210	482856.86	1350738.18	"	604.85	604.67	+0.16		8-1-01
S/G	3211	482864.89	1350738.28	"	604.73	604.73	0.00		8-1-01
S/G	3212	482865.51	1350688.20	"	601.52	601.72	-0.20		8-1-01
S/G	3213	482914.88	1350738.89	"	605.06	605.11	-0.05		8-1-01
S/G	3214	482915.50	1350688.81	"	601.94	602.09	-0.15		8-1-01
S/G	3215	482964.88	1350739.50	"	605.56	605.48	+0.08		8-1-01
S/G	3216	482965.50	1350689.42	"	602.45	602.45	0.00		8-1-01
S/G	3217	483014.88	1350740.11	"	605.86	605.86	0.00		8-2-01
S/G	3218	483015.49	1350690.03	N/A	602.65	602.82	-0.17		8-2-01

4555

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STATE OF OHIO
LYNN E. HIRSCH
S-5738
REGISTERED SURVEYOR

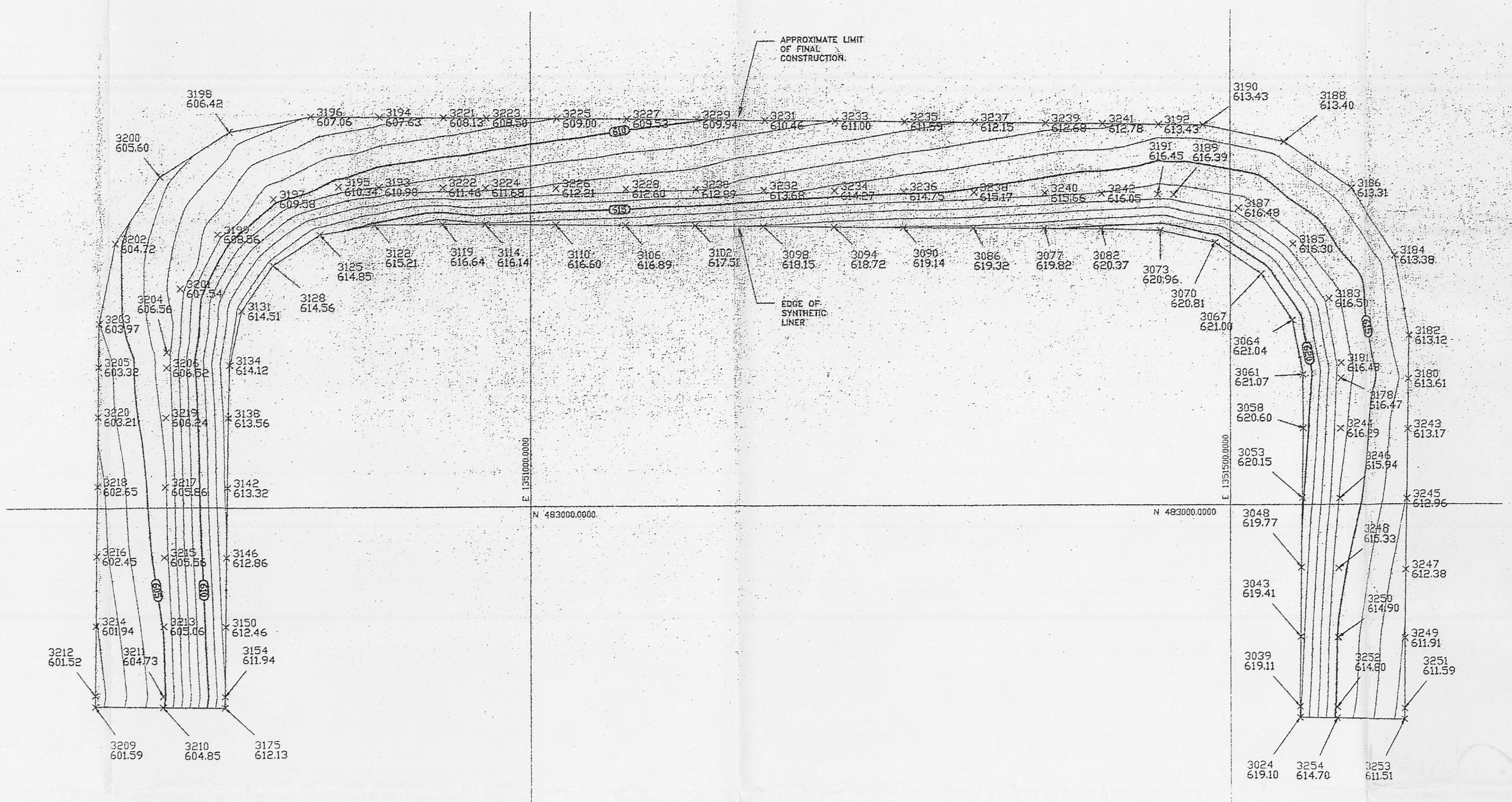
DATE 6/26/01
CREW Greg & Cameron

COMPACTED CLAY AS-BUILT

000106

* = OUT OF TOLERANCE

	PT#	NORTH	EAST	AS-BUILT CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
S/G	3219	483064.87	1350740.72	N/A	606.24	606.23	+0.01		8-2-01
S/G	3220	483065.49	1350690.64	"	603.21	603.19	+0.02		8-2-01
S/G	3221	483279.32	1350938.26	"	608.13	608.28	-0.15		9-27-01
S/G	3222	483229.23	1350937.64	"	611.46	611.28	+0.18		8-6-01
S/G	3223	483278.95	1350968.71	"	608.50	608.58	-0.08		9-27-01
S/G	3224	483228.86	1350968.09	"	611.68	611.58	+0.10		8-6-01
S/G	3225	483278.34	1351018.70	"	609.00	609.08	-0.08		9-27-01
S/G	3226	483228.25	1351018.08	"	612.21	612.08	+0.13		8-6-01
S/G	3227	483277.73	1351068.70	"	609.53	609.58	-0.05		9-27-01
S/G	3228	483227.64	1351068.08	"	612.60	612.58	+0.02		7-13-01
S/G	3229	483277.11	1351118.70	"	609.94	610.08	-0.14		9-27-01
S/G	3230	483227.02	1351118.08	"	612.89	613.08	-0.19		8-6-01
S/G	3231	483276.50	1351168.69	"	610.46	610.58	-0.12		9-27-01
S/G	3232	483226.41	1351168.07	"	613.68	613.58	+0.10		8-15-01
S/G	3233	483275.89	1351218.69	"	611.00	611.08	-0.08		9-27-01
S/G	3234	483225.80	1351218.07	"	614.27	614.08	+0.19		8-15-01
S/G	3235	483275.28	1351268.68	"	611.59	611.58	+0.01		9-28-01
S/G	3236	483225.19	1351268.07	"	614.75	614.58	+0.17		8-15-01
S/G	3237	483274.67	1351318.68	"	612.15	612.08	+0.07		9-28-01
S/G	3238	483224.58	1351318.06	"	615.17	615.08	+0.09		8-15-01
S/G	3239	483274.06	1351368.68	"	612.68	612.58	+0.10		9-28-01
S/G	3240	483223.97	1351368.06	"	615.66	615.58	+0.08		8-15-01
S/G	3241	483273.57	1351408.96	"	612.78	612.98	-0.20		9-28-01
S/G	3242	483223.48	1351408.34	"	616.05	615.98	+0.07		8-6-01
S/G	3243	483053.93	1351627.99	"	613.17	613.14	+0.03		10-2-01
S/G	3244	483054.54	1351577.90	"	616.29	616.15	+0.14		8-15-01
S/G	3245	483003.93	1351627.38	"	612.96	612.76	+0.20		10-2-01
S/G	3246	483004.54	1351577.29	"	615.94	615.77	+0.17		8-15-01
S/G	3247	482953.94	1351626.77	"	612.38	612.39	-0.01		10-2-01
S/G	3248	482954.55	1351576.68	"	615.33	615.40	-0.07		8-16-01
S/G	3249	482903.93	1351626.16	"	611.91	612.01	-0.10		10-2-01
S/G	3250	482904.55	1351576.07	"	614.90	615.02	-0.12		8-16-01
S/G	3251	482853.93	1351625.55	"	611.59	611.64	-0.05		10-2-01
S/G	3252	482854.55	1351575.46	"	614.80	614.65	+0.15		8-16-01
S/G	3253	482846.01	1351625.45	"	611.51	611.58	-0.07		10-2-01
S/G	3254	482846.62	1351575.36	N/A	614.70	614.59	+0.11		8-16-01



LEGEND:

× 2100 619.21 = ELEVATION AND POINT NUMBER OF CERTIFIED POINT

——— = INDEX CONTOUR AS-BUILT

——— = INTERMEDIATE CONTOUR AS-BUILT

CONTOUR INTERVAL = 2'

50 25 0 100 50 150

SCALE: 1"=50'

000107

- 4555

XR - Conforms to the Subcontract Requirements
TB - Minor Comment - Incorporate and Resubmit

SH Weinsky 11/9/01

STATE OF OHIO LYNN E. HIRSCH S-5738 REGISTERED PROFESSIONAL SURVEYOR
11/30/01

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Designed By:
Drawn By: G.E.C.
Checked By: L.E.H.
Approved By: L.E.H.

REVISIONS:

THE IT GROUP
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
OSDF CELL 1

AS-BUILT TOP OF SUBGRADE DRAWING

Scale: 1" = 50'
Date: 10-4-2001
Sheet No. 1 OF 2
Project No. 201-159

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Y:\201\159\dwg\Subgrade

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POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
3024	482846.95	1351548.74	619.10	SUBGRADE
3039	482854.87	1351548.84	619.11	SUBGRADE
3043	482904.87	1351549.45	619.41	SUBGRADE
3046	482954.87	1351550.06	619.77	SUBGRADE
3053	483004.87	1351550.67	620.15	SUBGRADE
3058	483054.86	1351551.28	620.60	SUBGRADE
3061	483093.07	1351551.15	621.07	SUBGRADE
3064	483132.06	1351543.63	621.04	SUBGRADE
3067	483165.33	1351521.86	621.00	SUBGRADE
3070	483187.90	1351489.11	620.81	SUBGRADE
3073	483196.38	1351450.31	620.96	SUBGRADE
3077	483197.95	1351367.74	619.82	SUBGRADE
3082	483197.46	1351408.01	620.37	SUBGRADE
3086	483198.56	1351317.74	619.32	SUBGRADE
3090	483199.18	1351267.74	619.14	SUBGRADE
3094	483199.79	1351217.75	618.72	SUBGRADE
3098	483200.40	1351167.75	618.15	SUBGRADE
3102	483201.01	1351117.75	617.51	SUBGRADE
3106	483201.62	1351067.76	616.89	SUBGRADE
3110	483202.23	1351017.76	616.60	SUBGRADE
3114	483202.85	1350967.77	616.14	SUBGRADE
3119	483203.22	1350937.32	616.64	SUBGRADE
3122	483202.97	1350888.60	615.21	SUBGRADE
3125	483195.45	1350849.65	614.85	SUBGRADE
3128	483173.72	1350816.59	614.56	SUBGRADE
3131	483141.05	1350794.11	614.51	SUBGRADE
3134	483102.35	1350785.68	614.12	SUBGRADE
3138	483064.33	1350784.66	613.56	SUBGRADE
3142	483014.33	1350784.05	613.32	SUBGRADE
3146	482964.34	1350783.44	612.86	SUBGRADE
3150	482914.34	1350782.83	612.46	SUBGRADE
3154	482864.34	1350782.22	611.94	SUBGRADE
3175	482856.32	1350782.12	612.13	SUBGRADE
3178	483089.37	1351578.34	616.47	SUBGRADE#1139
3180	483089.76	1351628.43	613.61	SUBGRADE#1140
3181	483101.39	1351578.48	616.48	SUBGRADE#1137
3182	483120.87	1351628.81	613.12	SUBGRADE#1138
3183	483147.42	1351569.91	616.50	SUBGRADE#1134
3184	483178.40	1351618.08	613.38	SUBGRADE#1135
3185	483186.67	1351544.37	616.30	SUBGRADE#1131
3186	483227.45	1351586.16	613.31	SUBGRADE#1132
3187	483213.15	1351505.76	616.48	SUBGRADE#1128
3188	483260.56	1351537.91	613.40	SUBGRADE#1129
3189	483222.85	1351459.95	616.39	SUBGRADE#1125
3190	483272.69	1351480.66	613.43	SUBGRADE#1126
3191	483222.99	1351448.33	616.45	SUBGRADE#1123
3192	483273.08	1351448.94	613.43	SUBGRADE#1124
3193	483229.79	1350891.70	610.98	SUBGRADE#1120
3194	483279.88	1350892.31	607.63	SUBGRADE#1121
3195	483230.15	1350862.76	610.34	SUBGRADE#1118
3196	483280.48	1350843.28	607.06	SUBGRADE#1119
3197	483221.57	1350816.73	609.58	SUBGRADE#1115
3198	483269.76	1350785.74	606.42	SUBGRADE#1116
3199	483196.04	1350777.49	608.56	SUBGRADE#1112
3200	483237.84	1350736.69	605.60	SUBGRADE#1113
3201	483157.43	1350751.00	607.54	SUBGRADE#1109
3202	483189.58	1350703.58	604.72	SUBGRADE#1110
3203	483132.32	1350691.46	603.97	SUBGRADE#1107
3204	483111.62	1350741.30	606.56	SUBGRADE#1106

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
3205	483101.22	1350691.08	603.32	SUBGRADE#1103
3206	483100.61	1350741.16	606.52	SUBGRADE#1104
3209	482857.47	1350688.10	601.59	SUBGRADE
3210	482856.86	1350738.18	604.85	SUBGRADE
3211	482864.89	1350738.28	604.73	SUBGRADE
3212	482865.51	1350688.20	601.52	SUBGRADE
3213	482914.88	1350738.89	605.06	SUBGRADE
3214	482915.50	1350688.81	601.94	SUBGRADE
3215	482964.88	1350739.50	605.56	SUBGRADE
3216	482965.50	1350689.42	602.45	SUBGRADE
3220	483065.49	1350690.64	603.21	SUBGRADE
3221	483279.32	1350938.26	608.13	SUBGRADE
3222	483229.23	1350937.64	611.46	SUBGRADE
3223	483278.95	1350988.71	608.50	SUBGRADE
3224	483228.86	1350988.09	611.68	SUBGRADE
3225	483278.34	1351018.70	609.00	SUBGRADE
3226	483228.25	1351018.08	612.21	SUBGRADE
3227	483277.73	1351068.70	609.53	SUBGRADE
3228	483227.64	1351068.08	612.60	SUBGRADE
3229	483277.11	1351118.70	609.94	SUBGRADE
3230	483227.02	1351118.08	612.89	SUBGRADE
3231	483276.50	1351168.69	610.46	SUBGRADE
3232	483226.41	1351168.07	613.68	SUBGRADE
3233	483275.89	1351218.69	611.00	SUBGRADE
3234	483225.80	1351218.07	614.27	SUBGRADE
3235	483275.28	1351268.68	611.59	SUBGRADE
3236	483225.19	1351268.07	614.75	SUBGRADE
3237	483274.67	1351318.68	612.15	SUBGRADE
3238	483224.58	1351318.06	615.17	SUBGRADE
3239	483274.06	1351368.68	612.68	SUBGRADE
3240	483223.97	1351368.06	615.66	SUBGRADE
3241	483273.57	1351408.96	612.78	SUBGRADE

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
3242	483223.48	1351408.34	616.05	SUBGRADE
3243	483053.93	1351627.99	613.17	SUBGRADE
3244	483054.54	1351577.90	616.29	SUBGRADE
3245	483003.93	1351627.38	612.96	SUBGRADE
3246	483004.54	1351577.29	615.94	SUBGRADE
3247	482953.94	1351626.77	612.38	SUBGRADE
3248	482954.55	1351576.68	615.33	SUBGRADE
3249	482903.93	1351626.16	611.91	SUBGRADE
3250	482904.55	1351576.07	614.90	SUBGRADE
3251	482853.93	1351625.55	611.59	SUBGRADE
3252	482854.55	1351575.46	614.80	SUBGRADE
3253	482846.01	1351625.45	611.51	SUBGRADE
3254	482846.62	1351575.36	614.70	SUBGRADE

NOTE:
NORTHING AND EASTING COORDINATES LISTED ON THESE DRAWINGS MAY BE +/- 0.01' DIFFERENT THAN THOSE LISTED FOR THE SAME POINT ON THE TABLE DUE TO TO ROUNDING OF SURVEY DATA.

A - Contains to the successors requirements
B - Minor Comment - Incorporate and Resubmit
C - Design and Resubmit
Date: 11/19/01

4555

THE IT GROUP
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
OSDF CELL 1

REVISIONS:

Designed By:
Drawn By: G.E.C.
Checked By: L.E.H.
Approved By: L.E.H.

David E. Estes Engineering, Inc.
CIVIL & ENVIRONMENTAL ENGINEERING
HYDROGEOLOGY & LAND SURVEYING
7878 INDUSTRIAL PARK DR. MIAMISBURG, OHIO 45342
Tele: (937) 342-0700 Fax: (937) 342-0703 email: des@estesengineering.com
www.estesengineering.com

STATE OF OHIO
LYNN HIRSCH
S-5738
REGISTERED
PROFESSIONAL SURVEYOR

10-31-01

AS-BUILT TOP OF SUBGRADE DRAWING

Scale: AS SHOWN
Date: 10-4-01
Sheet No. 2 OF 2
Project No. 201-159

Y:\201\159\DWG\Subgrade

CONTOURING LAYER

SUPPLIER DOCUMENT SUBMITTAL

DF PROJECT NO.: 20103

CONTRACT NO: FSC-542

SUBMITTAL NO.: 20103-642-02100-006 | REV.: 7 | DATE: 5/24/01 | Page 1 OF 1

ROM: IT CORPORATION
Mail Stop MS39
P.O. BOX 547
ROSS, OH 45061

TO: FDF ENGINEERING/CONSTRUCTION DOCUMENT CONTROL (ECDC)
MS52-7

IGNATURE: David Lockard

RECEIVED BY: Denise Wentz DATE: 5/29/01

QTY	DOCUMENT NUMBER	REV	DOCUMENT FAMILY: PRO	H&S	MED	TRG	CON	ENG	QAC	OPER	TITLE/DESCRIPTION	SUBMITTAL TYPE: DRFT	CFC	INF	ASSOCIATED SPECIFICATION	SUBMITTAL ACTION: A	B	C
8	642-C.4.33 ~~7~~ 6/29/01	1 ~~0~~						X			SURVEYOR'S NOTES & DRAWINGS		X		02100-005	X		
											CONTOURING LAYER AS-BUILT							

REVIEW DISTRIBUTION

NAME	MS	NAME	MS	NAME	MS
ECDC	52-7				
GEOSYNTEC	38				
GREGG JOHNSON	64				
FRANK FLACK	60				
SAM WOLINSKY – Approver	64				

O COMMENTS: COMMENTS: (PLEASE USE SPACE BELOW FOR COMMENTS OR INDICATE IF ATTACHMENTS)

SEE NCR 20103-004 for ACCEPTANCE OF SURVEY POINTS (144, 191, 1835, 1837, 1849, 1853, 1859, & 1866).

REVIEWED: A. C. Smith for
BY: Sam Wolinsky DATE: 6/19/01

(SIGN/DATE AND RETURN A COPY TO ECDC, MS 52-7)

SUBMITTAL TYPE: (BY SUPPLIER)
CFC - CERTIFIED FOR CONSTRUCTION
INF - INFORMATION/RECORD
DRFT - DRAFT/PRELIMINARY

SUBMITTAL ACTION CODE: (BY FDF)
A - Conforms to the Subcontract Requirements
B - Minor Comments - Incorporate and Resubmit
C - Revise and Resubmit (SEE COMMENTS)

4555

0001110

FS-F-4955
Rev. 3: 05/14/1999

SAW RECEIVED 5/30/01

ORIGINAL

ON-SITE DISPOSAL FACILITY (OSDF) (PHASE III) CELL 1 FINAL COVER CONSTRUCTION PROJECT

***

SURVEY NOTES AND DRAWINGS CONTOURING LAYER AS-BUILT

2100 1.04
REVISION 7

***

FLUOR FERNALD, INC.
Fernald, Ohio

FF Subcontract No. FSC-642
Submittal No. 20103-642-2100-006

***

Submitted By:

IT Corporation
2790 Mosside Boulevard
Monroeville, PA 15146-2790

IT Project No. 820045

***

May 24, 2001

CONTOURING LAYER AS-BUILT

4555

Location		North	East	Select As-Built Elevation	Countour Layer elev.	Contour Design Elev	Difference in Elevation	Contour Layer Thickness
43	PT 5000	483093.260	1350835.110	619.05	620.11	620.10	0.01	1.06
44	PT 5001	483116.630	1350840.020	619.33	620.37	620.47	-0.10	1.04
45	PT5002	483136.320	1350853.500	619.92	620.93	620.85	0.08	1.01
46	PT 5003	483149.350	1350873.490	620.20	621.27	621.22	0.05	1.07
47	PT 5004	483153.730	1350896.960	620.38	621.57	621.60	-0.03	1.19
48	PT 5005	483147.140	1351441.210	625.73	627.07	627.02	0.05	1.34
49	PT 5006	483142.180	1351464.580	625.81	627.13	627.04	0.09	1.32
50	PT 5007	483128.650	1351484.260	626.09	627.12	627.07	0.05	1.03
51	PT 5008	483108.620	1351497.240	625.96	627.20	627.10	0.10	1.24
52	PT 5009	483085.120	1351501.560	626.02	627.16	627.14	0.02	1.14
53	PT 5010	482979.650	1351333.900	652.93	654.00	654.05	-0.05	1.07
54	PT 5011	482966.480	1351042.100	652.86	653.92	653.92	0.00	1.06
55	PT 5012	482923.150	1351275.370	658.31	659.36	659.40	-0.04	1.05
56	pro	482915.200	1351099.310	658.25	659.26	659.33	-0.07	1.01
57	pro	482842.540	1351186.400	662.19	663.25	663.19	0.06	1.06
109		483063.710	1350834.749	618.93	619.95	619.87	0.08	1.02
110		483063.097	1350884.357	626.86	628.10	628.15	-0.05	1.24
111		483013.714	1350834.139	618.34	619.50	619.48	0.02	1.16
112		482963.717	1350833.528	618.05	619.16	619.09	0.07	1.11
113		482913.721	1350832.918	617.58	618.79	618.70	0.09	1.21
114		482863.725	1350832.308	617.28	618.40	618.31	0.09	1.12
116		483012.063	1350967.678	640.71	641.74	641.76	-0.02	1.03
118	pro	482911.144	1351041.422	652.56	653.58	653.51	0.07	1.02
119	pro	482861.148	1351040.810	652.15	653.17	653.14	0.03	1.02
121		483063.401	1350859.747	622.86	623.94	624.04	-0.10	1.08
123		483013.096	1350884.135	626.73	627.91	627.82	0.09	1.18
125		483012.478	1350934.131	635.28	636.29	636.16	0.13	1.01
128		482963.099	1350883.525	626.39	627.42	627.44	-0.02	1.03
130		482962.482	1350933.521	634.69	635.73	635.78	-0.05	1.04
132	pro	482961.864	1350983.517	643.09	644.16	644.12	0.04	1.07
136		482913.103	1350882.914	626.03	627.14	627.05	0.09	1.11
138		482912.485	1350932.910	634.33	635.40	635.40	0.00	1.07
140	pro	482911.867	1350982.907	642.60	643.70	643.75	-0.05	1.10
144		482863.107	1350882.304	625.85	626.86	626.66	0.20	1.01
146		482862.489	1350932.300	633.80	634.96	635.01	-0.05	1.16
148	pro	482861.871	1350982.296	642.36	643.39	643.37	0.02	1.03
162		483036.981	1350926.994	634.01	635.08	635.11	-0.03	1.07
168		483102.861	1350890.655	626.46	627.70	627.64	0.06	1.24
170		483069.402	1350927.810	632.56	633.79	634.06	-0.27	1.23
180		483152.880	1350967.148	621.34	622.36	622.30	0.06	1.02
181		483152.275	1351017.145	621.71	622.89	622.81	0.08	1.18
182		483151.669	1351067.141	622.26	623.32	623.30	0.02	1.06
183		483151.064	1351117.137	622.56	623.88	623.79	0.09	1.32
184		483150.459	1351167.134	623.22	624.30	624.30	0.00	1.08
185		483149.853	1351217.130	623.77	624.80	624.79	0.01	1.03
186		483149.248	1351267.127	624.23	625.35	625.28	0.07	1.12
187		483148.643	1351317.123	624.62	625.82	625.78	0.04	1.20

INFORMATION ONLY

[X] A - Conforms to the Subcontract Requirements

[ ] B - Minor Comment - Incorporate and Resubmit

[ ] C - Revise and Resubmit

Sig: A. C. Smith for Sam Wolinsky Date: 6/19/01

000112

CONTOURING LAYER AS-BUILT

Location		North	East	Select As-Built Elevation	Countour Layer elev.	Contour Design Elev	Difference in Elevation	Contour Layer Thickness
188		483148.037	1351367.119	625.14	626.17	626.28	-0.11	1.03
190		483001.086	1351015.276	646.77	647.79	647.95	-0.16	1.02
191	pro	482967.507	1351064.865	653.05	654.08	653.93	0.15	1.03
192		482969.766	1351114.897	652.91	653.94	653.95	-0.01	1.03
193		482972.024	1351164.929	652.85	653.89	653.97	-0.08	1.04
194		482974.282	1351214.960	652.81	654.05	654.00	0.05	1.24
195		482976.540	1351264.992	652.96	654.04	654.02	0.02	1.08
196		482978.798	1351315.024	653.11	654.14	654.04	0.10	1.03
199		483098.041	1351366.501	633.44	634.66	634.60	0.06	1.22
201		483048.045	1351365.883	641.96	643.00	642.92	0.08	1.04
203		483097.521	1351409.420	633.84	634.99	635.03	-0.04	1.15
205		483047.903	1351377.629	642.09	643.13	643.04	0.10	1.04
207		483098.646	1351316.505	632.91	634.05	634.10	-0.05	1.14
209		483048.650	1351315.887	641.35	642.37	642.42	-0.05	1.02
211		482998.654	1351315.269	649.80	650.81	650.74	0.07	1.01
213		483099.252	1351266.509	632.59	633.64	633.60	0.04	1.05
215		483049.256	1351265.891	640.93	641.97	641.92	0.05	1.04
217		482999.259	1351265.273	649.27	650.32	650.24	0.08	1.05
219		483099.857	1351216.512	632.03	633.08	633.11	-0.02	1.05
221		483049.861	1351215.894	640.41	641.52	641.42	0.10	1.11
223		482999.865	1351215.277	648.56	649.63	649.74	-0.11	1.07
225		483100.462	1351166.516	631.59	632.71	632.61	0.10	1.12
227		483050.466	1351165.898	639.83	640.84	640.92	-0.08	1.01
229		483000.470	1351165.280	648.27	649.34	649.24	0.10	1.07
231		483101.068	1351116.520	631.09	632.18	632.11	0.07	1.09
233		483051.072	1351115.902	639.28	640.45	640.43	0.02	1.17
235		483001.075	1351115.284	647.73	648.82	648.74	0.08	1.09
237		483101.673	1351066.523	630.70	631.72	631.61	0.11	1.02
239		483051.677	1351065.905	638.66	639.68	639.93	-0.25	1.02
241	pro	483001.681	1351065.288	647.37	648.38	648.25	0.13	1.01
244		483102.279	1351016.527	630.15	631.17	631.11	0.06	1.02
246		483052.282	1351015.909	638.50	639.51	639.43	0.08	1.01
249		483102.884	1350966.531	629.69	630.71	630.62	0.10	1.02
252		483103.253	1350936.086	629.37	630.41	630.32	0.09	1.04
254		483052.775	1350975.211	637.97	639.06	639.02	0.04	1.09
258		483093.456	1351448.744	632.22	633.53	633.44	0.09	1.31
260		483058.261	1351413.229	638.56	639.68	639.82	-0.14	1.12
263		483055.468	1351501.198	625.81	626.87	626.87	0.00	1.06
264		483005.472	1351500.588	625.44	626.51	626.50	0.01	1.07
265		482955.475	1351499.977	624.84	625.90	626.11	-0.21	1.06
266		482905.479	1351499.367	624.37	625.58	625.71	-0.13	1.21
267		482855.483	1351498.757	624.08	625.25	625.31	-0.06	1.17
269		483056.023	1351455.307	633.43	634.44	634.56	-0.12	1.01
270		483006.964	1351377.320	645.88	647.02	647.08	-0.06	1.14
273		483029.400	1351412.985	640.42	641.44	641.43	0.01	1.02
277		483006.077	1351450.591	633.92	634.94	634.93	0.01	1.02
279		483006.682	1351400.595	642.24	643.28	643.25	0.03	1.04

CONTOURING LAYER AS-BUILT

Location		North	East	Select As-Built Elevation	Countour Layer elev.	Contour Design Elev	Difference in Elevation	Contour Layer Thickness
280		483055.770	1351476.200	629.91	630.97	631.08	-0.11	1.06
281		482907.493	1351333.018	652.53	653.54	653.54	0.00	1.01
282		482857.497	1351332.407	651.92	653.07	653.15	-0.08	1.15
285		482956.081	1351449.981	633.16	634.29	634.46	-0.17	1.13
287		482956.686	1351399.985	641.84	642.89	642.85	0.04	1.05
289		482957.291	1351349.988	650.12	651.14	651.13	0.01	1.02
291		482906.084	1351449.371	632.78	634.04	634.07	-0.03	1.26
293		482906.690	1351399.374	641.23	642.44	642.44	0.01	1.21
295		482907.295	1351349.378	649.48	650.71	650.79	-0.08	1.23
297		482856.088	1351448.760	632.41	633.64	633.68	-0.04	1.23
299		482856.693	1351398.764	640.80	641.96	642.05	-0.08	1.16
301		482857.299	1351348.768	649.33	650.40	650.42	-0.01	1.07
472	pt5015	482824.210	1350831.830	617.13	618.16	618.09	0.07	1.03
473	pt5016	482821.660	1351040.330	651.62	652.68	652.84	-0.16	1.06
474	pt5017	482820.950	1351098.160	657.69	658.71	658.62	0.09	1.02
475	pt5018	482819.880	1351186.130	661.79	662.97	663.02	-0.05	1.18
476	pt5019	482818.800	1351274.090	657.73	658.74	658.62	0.12	1.01
477	pt5020	482818.100	1351331.920	651.57	652.95	652.95	0.00	1.38
478	pt5021	482816.060	1351498.270	624.04	625.10	625.10	0.00	1.06
479	pt5022	482843.710	1350832.060	617.24	618.25	618.15	0.10	1.01
480	pt5023	482841.160	1351040.570	652.06	653.09	652.99	0.10	1.03
481	pt5024	482840.450	1351098.400	657.40	658.66	658.63	0.03	1.26
482	pt5025	482839.380	1351186.370	662.15	663.19	663.13	0.06	1.04
483	pt5026	482838.300	1351274.330	657.58	658.74	658.64	0.10	1.16
484	pt5027	482837.600	1351332.160	651.83	652.87	653.00	-0.13	1.04
485	pt5028	482835.560	1351498.510	623.88	625.12	625.15	-0.03	1.24
1835	10/1+20/1	482922.651	1351264.326	658.54	659.55	659.40	0.15	1.01
1836	10/1+20/1	482920.392	1351214.294	658.25	659.41	659.37	0.04	1.16
1837	10/1+20/1	482918.133	1351164.263	658.52	659.53	659.35	0.18	1.01
1838	10/1+20/1	482915.874	1351114.231	658.36	659.37	659.34	0.03	1.01
1839	ON 10/1	482949.597	1351264.659	655.62	656.77	656.71	0.06	1.15
1840	ON 10/1	482947.339	1351214.627	655.78	656.79	656.69	0.11	1.01
1841	ON 10/1	482945.081	1351164.596	655.79	656.80	656.66	0.14	1.01
1842	ON 10/1	482942.823	1351114.564	655.64	656.74	656.64	0.10	1.10
1843		482908.193	1351275.187	658.40	659.41	659.27	0.14	1.01
1844	pro	482858.197	1351274.577	657.85	658.92	658.82	0.10	1.07
1846	0N 10/1	482907.843	1351304.100	655.25	656.48	656.40	0.08	1.23
1849	MID PT.	482951.398	1351304.633	655.91	656.92	656.73	0.19	1.01
1851	MID PT.pr	482940.843	1351070.702	655.62	656.73	656.63	0.10	1.11
1853	pro	482860.433	1351098.644	658.08	658.90	658.82	0.08	0.82
1859	pro	482859.890	1351142.621	660.29	661.18	661.08	0.10	0.89
1860	pro	482878.873	1351142.851	660.04	661.06	661.26	-0.20	1.02
1864	pro	482882.844	1351230.884	660.09	661.29	661.30	0.00	1.20
1866	pro	482858.730	1351230.590	660.24	661.25	661.08	0.17	1.01
1867	pro	482879.817	1351163.789	660.28	661.37	661.27	0.10	1.09
1868	pro	482882.074	1351213.821	660.22	661.39	661.29	0.10	1.17
2078		482816.671	1351448.278	N/A	633.45	633.44	0.01	N/A

CONTOURING LAYER AS-BUILT

Location		North	East	Select As-Built Elevation	Countour Layer elev.	Contour Design Elev	Difference in Elevation	Contour Layer Thickness
2079		482817.283	1351398.283	N/A	641.59	641.77	-0.18	N/A
2080		482817.894	1351348.287	N/A	650.21	650.11	0.10	N/A
2081		482823.599	1350881.822	N/A	626.31	626.42	-0.11	N/A
2082		482822.987	1350931.818	N/A	634.46	634.75	-0.29	N/A
2083		482822.376	1350981.813	N/A	642.89	643.09	-0.20	N/A

Location		North	East	Select As-Built Elevation	Countour elev.	Total Thickness
2022		482820.273	1351508.051	620.77	623.26	2.49
2023		482874.562	1351508.866	621.18	623.76	2.58
2024		482919.719	1351511.044	621.29	623.59	2.30
2025		482970.126	1351511.070	621.42	624.28	2.86
2026		483004.001	1351511.606	621.50	624.75	3.25
2027		483024.630	1351512.398	621.87	624.75	2.88
2028		483059.974	1351513.374	621.96	624.97	3.01
2029		483101.713	1351512.508	622.12	624.93	2.81
2030	1,	483127.668	1351500.661	622.02	625.72	3.70
2031	1,	483144.012	1351486.992	622.11	625.81	3.70
2054		482831.149	1350820.959	613.23	616.75	3.52
2055		482879.732	1350820.663	613.28	616.77	3.49
2056		482925.305	1350821.351	613.59	617.41	3.82
2057		482972.861	1350822.297	613.73	617.74	4.01
2058		483017.316	1350822.068	614.03	618.02	3.99
2059		483058.873	1350823.936	615.11	618.36	3.25
2060		483097.857	1350824.800	615.69	618.34	2.65
2061		483121.232	1350829.025	615.86	618.24	2.38
2062		483143.015	1350841.146	616.40	617.84	1.44
2063		483157.125	1350860.313	616.55	618.42	1.87
2064		483165.992	1350889.339	617.33	618.71	1.38
2065		483168.521	1350920.407	617.83	618.96	1.13
2066		483165.865	1350967.426	618.30	619.76	1.46
2067		483165.799	1351016.957	618.58	620.18	1.60
2068		483163.696	1351067.130	619.06	621.04	1.98
2069		483162.934	1351117.246	619.83	621.88	2.05
2070		483160.745	1351167.397	620.29	622.68	2.39
2071		483160.060	1351217.326	620.48	623.26	2.78
2072		483160.853	1351267.327	621.09	623.37	2.28
2073		483158.172	1351317.651	621.70	624.20	2.50
2074		483157.017	1351367.546	621.92	624.46	2.54
2075		483155.559	1351408.596	622.36	624.60	2.24
2076		483158.146	1351440.914	622.23	624.21	1.98
2077		483154.691	1351462.336	622.20	624.66	2.46
2086		482815.866	1351514.095	N/A	622.32	N/A
2087		482855.253	1351516.193	N/A	622.61	N/A
2088		482905.271	1351516.487	N/A	623.37	N/A
2089		482955.279	1351516.290	N/A	623.62	N/A
2090		483005.251	1351518.878	N/A	624.15	N/A
2091		483055.272	1351517.413	N/A	624.86	N/A
2092		483096.041	1351518.920	N/A	624.38	N/A
2093		483165.316	1351367.335	N/A	623.87	N/A
2094		483166.149	1351317.400	N/A	623.61	N/A
2095		483167.783	1351267.404	N/A	623.32	N/A
2096		483167.427	1351217.415	N/A	622.43	N/A
2097		483168.980	1351167.492	N/A	622.04	N/A
2098		483168.512	1351117.343	N/A	621.49	N/A
2099		483168.315	1351067.447	N/A	621.02	N/A

CONTOURING LAYER AS-BUILT

Location		North	East	Select As-Built Elevation	Countour elev.	Total Thickness
2100		483170.037	1351017.532	N/A	620.53	N/A
2101		483171.255	1350965.811	N/A	619.45	N/A
2102		483170.298	1350884.195	N/A	618.84	N/A
2103		483163.541	1350860.519	N/A	618.37	N/A
2104		483149.662	1350838.713	N/A	618.12	N/A
2105		483128.505	1350824.038	N/A	617.76	N/A
2106		483104.002	1350817.572	N/A	617.77	N/A
2107		483063.960	1350814.483	N/A	617.79	N/A
2108		483013.971	1350813.386	N/A	617.42	N/A
2109		482963.968	1350813.242	N/A	616.99	N/A
2110		482913.967	1350812.992	N/A	616.77	N/A
2111		482863.977	1350811.921	N/A	616.07	N/A
2112		482824.479	1350809.812	N/A	615.12	N/A
2113		483165.938	1351402.782	N/A	624.43	N/A
2114		483164.141	1351452.102	N/A	624.87	N/A
2115		483158.705	1351477.867	N/A	625.47	N/A
2116		483143.019	1351498.760	N/A	624.96	N/A
2117		483120.960	1351512.868	N/A	624.99	N/A

(513) 385-5922 E-MAIL: BLPayneandAssociates@worldnet.att.net FAX: (513) 385-8103

B. L. Payne & Associates, Inc.
Civil Engineers & Surveyors
11479 Colerain Avenue
Cincinnati, Ohio 45252-1419

- 4555

May 22, 2001

SUBJECT: CERTIFICATION POINTS CONTOURING LAYER CELL 1, FERNALD SITE

I hereby certify that the elevations listed on the following pages are the as built elevations of the contouring layer for the point numbers listed.

BUFORD L. PAYNE
PROFESSIONAL SURVEYOR NO.5385 OHIO

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BUFORD L. PAYNE
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Point#	North	East	Elevation	Description	
1:	481406.875233	1351498.840646	617.950	STS	
2:	482199.940000	1351779.160000	615.730	OSDF 2	
4:	483394.917708	1351770.390874	609.720	OSDF 4A	
5:	483131.857489	1351520.798726	626.250	ex TS BLP T5	
6:	483161.778300	1350832.119691	620.390	STP T6	
7:	482412.979509	1350798.261029	617.950	ex TS BLP T	
8:	481965.789054	1350993.449443	617.950	STP	
9:	480850.102877	1351732.070231	617.950	PUNCHONMW2426 T9	
43:	483093.260000	1350835.110000	620.100	PT 5000	620.11
44:	483116.630000	1350840.020000	620.470	PT 5001	620.37
45:	483136.320000	1350853.500000	620.850	PT 5002	620.93
46:	483149.350000	1350873.490000	621.220	PT 5003	621.27
47:	483153.730000	1350896.960000	621.600	PT 5004	621.57
48:	483147.140000	1351441.210000	627.020	PT 5005	627.07
49:	483142.180000	1351464.580000	627.040	PT 5006	627.13
50:	483128.650000	1351484.260000	627.070	PT 5007	627.12
51:	483108.620000	1351497.240000	627.100	PT 5008	627.20
52:	483085.120000	1351501.560000	627.130	PT 5009	627.16
53:	482979.650000	1351333.900000	654.050	PT 5010	654.00
54:	482966.480000	1351042.100000	653.920	PT 5011	653.92
55:	482923.150000	1351275.370000	659.400	PT 5012	659.36
56:	482915.200000	1351099.310000	659.330	PRO	659.26
57:	482842.540000	1351186.400000	663.190	PRO	663.25
109:	483063.710000	1350834.749000	619.870	-	619.95
110:	483063.097000	1350884.357000	628.146	-	628.10
111:	483013.714000	1350834.139000	619.480	-	619.50
112:	482963.717000	1350833.528000	619.090	-	619.16
113:	482913.721000	1350832.918000	618.700	-	618.79
114:	482863.725000	1350832.308000	618.308	-	618.40
116:	483012.063000	1350967.678000	641.760	-	641.74
8:	482911.144000	1351041.422000	653.509	PRO	653.58
119:	482861.148000	1351040.810000	653.138	PRO	653.17
121:	483063.401000	1350859.747000	624.040	-	623.97
123:	483013.096000	1350884.135000	627.823	-	627.91
125:	483012.478000	1350934.131000	636.164	-	636.29
128:	482963.099000	1350883.525000	627.437	-	627.42
130:	482962.482000	1350933.521000	635.780	-	635.73
132:	482961.864000	1350983.517000	644.121	PRO	644.16
136:	482913.103000	1350882.914000	627.048	-	627.14
138:	482912.485000	1350932.910000	635.396	-	635.40
140:	482911.867000	1350982.907000	643.746	PRO	643.70
144:	482863.107000	1350882.304000	626.662	-	[illegible]
146:	482862.489000	1350932.300000	635.012	-	634.73
148:	482861.871000	1350982.296000	643.366	PRO	643.39
162:	483036.981000	1350926.994000	635.112	-	635.08
168:	483102.861000	1350890.655000	627.639	-	627.70
170:	483069.402000	1350927.810000	634.056	-	633.79
180:	483152.880000	1350967.148000	622.299	-	622.36
181:	483152.275000	1351017.145000	622.810	-	622.89
182:	483151.669000	1351067.141000	623.297	-	623.32
183:	483151.064000	1351117.137000	623.794	-	623.88
184:	483150.459000	1351167.134000	624.300	-	624.30
185:	483149.853000	1351217.130000	624.789	-	624.80
186:	483149.248000	1351267.127000	625.280	-	625.35
187:	483148.643000	1351317.123000	625.780	-	625.82
188:	483148.037000	1351367.119000	626.279	-	626.17
190:	483001.086000	1351015.276000	647.946	-	647.79
191:	482967.507000	1351064.865000	653.929	PRO	654.08
192:	482969.766000	1351114.897000	653.949	-	653.94

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193:	482972.024000	1351164.929000	653.971	-	653.89
194:	482974.282000	1351214.960000	653.996	-	654.05
195:	482976.540000	1351264.992000	654.020	-	654.04
196:	482978.798000	1351315.024000	654.042	-	654.14
199:	483098.041000	1351366.501000	634.600	-	634.66
201:	483048.045000	1351365.883000	642.918	-	643.00
203:	483097.521000	1351409.420000	635.028	-	634.99
205:	483047.903000	1351377.629000	643.035	-	643.13
207:	483098.646000	1351316.505000	634.102	-	634.05
209:	483048.650000	1351315.887000	642.420	-	642.37
211:	482998.654000	1351315.269000	650.738	-	650.81
213:	483099.252000	1351266.509000	633.604	-	633.64
215:	483049.256000	1351265.891000	641.921	-	641.97
217:	482999.259000	1351265.273000	650.240	-	650.32
219:	483099.857000	1351216.512000	633.105	-	633.08
221:	483049.861000	1351215.894000	641.423	-	641.52
223:	482999.865000	1351215.277000	649.741	-	649.63
225:	483100.462000	1351166.516000	632.607	-	632.71
227:	483050.466000	1351165.898000	640.924	-	640.84
229:	483000.470000	1351165.280000	649.240	-	649.34
231:	483101.068000	1351116.520000	632.109	-	632.19
233:	483051.072000	1351115.902000	640.426	-	640.45
235:	483001.075000	1351115.284000	648.741	-	648.82
237:	483101.673000	1351066.523000	631.611	-	631.72
239:	483051.677000	1351065.905000	639.928	-	639.68
241:	483001.681000	1351065.288000	648.245	PRO	648.38
244:	483102.279000	1351016.527000	631.113	-	631.17
246:	483052.282000	1351015.909000	639.430	-	639.51
249:	483102.884000	1350966.531000	630.615	-	630.71
252:	483103.253000	1350936.086000	630.312	-	630.41
254:	483052.775000	1350975.211000	639.024	-	639.06
258:	483093.456000	1351448.744000	633.443	-	633.53
260:	483058.261000	1351413.229000	639.816	-	639.68
263:	483055.468000	1351501.198000	626.870	-	626.87
264:	483005.472000	1351500.588000	626.500	-	626.51
265:	482955.475000	1351499.997000	626.100	-	625.90
266:	482905.479000	1351499.367000	625.700	-	625.58
267:	482855.483000	1351498.757000	625.300	-	625.25
269:	483056.023000	1351455.307000	634.557	-	634.44
270:	483006.964000	1351377.320000	647.078	-	647.02
273:	483029.400000	1351412.985000	641.352	-	641.44
277:	483006.077000	1351450.591000	634.844	-	634.94
279:	483006.682000	1351400.595000	643.195	-	643.28
280:	483055.770000	1351476.200000	631.067	-	630.97
281:	482907.493000	1351333.018000	653.511	-	653.54
282:	482857.497000	1351332.407000	653.138	-	653.07
285:	482956.081000	1351449.981000	634.454	-	634.29
287:	482956.686000	1351399.985000	642.806	-	642.89
289:	482957.291000	1351349.988000	651.152	-	651.14
291:	482906.084000	1351449.371000	634.058	-	634.04
293:	482906.690000	1351399.374000	642.425	-	642.44
295:	482907.295000	1351349.378000	650.779	-	650.71
297:	482856.088000	1351448.760000	633.667	-	633.64
299:	482856.693000	1351398.764000	642.035	-	641.96
301:	482857.299000	1351348.768000	650.405	-	650.40
472:	482824.210000	1350831.830000	618.090	PT 5015	618.16
473:	482821.660000	1351040.330000	652.840	PT 5016	652.68
474:	482820.950000	1351098.160000	658.620	PT 5017	658.71
475:	482819.880000	1351186.130000	663.020	PT 5018	662.97
476:	482818.800000	1351274.090000	658.620	PT 5019	658.74

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477:	482818.100000	1351331.920000	652.840	PT 5020	652.95
478:	482816.060000	1351498.270000	625.110	PT 5021	625.10
479:	482843.710000	1350832.060000	618.150	PT 5022	618.25
480:	482841.160000	1351040.570000	652.990	PT 5023	653.09
481:	482840.450000	1351098.400000	658.630	PT 5024	658.66
82:	482839.380000	1351186.370000	663.130	PT 5025	663.19
483:	482838.300000	1351274.330000	658.640	PT 5026	658.74
484:	482837.600000	1351332.160000	652.990	PT 5027	652.87
485:	482835.560000	1351498.510000	625.140	PT 5028	625.12
35:	482922.651000	1351264.326000	659.395	10/1+20/1	659.55
1836:	482920.392000	1351214.294000	659.372	10/1+20/1	659.41
1837:	482918.133000	1351164.263000	659.352	10/1+20/1	659.53
1838:	482915.874000	1351114.231000	659.335	10/1+20/1	659.31
1839:	482949.597000	1351264.659000	656.707	ON 10/1	656.77
1840:	482947.339000	1351214.627000	656.685	ON 10/1	656.79
1841:	482945.081000	1351164.596000	656.660	ON 10/1	656.80
1842:	482942.823000	1351114.564000	656.642	ON 10/1	656.74
1843:	482908.193000	1351275.187000	659.266	-	659.41
1844:	482858.197000	1351274.577000	658.818	PRO	658.92
1846:	482907.843000	1351304.100000	656.400	ON 10/1	656.48
1849:	482951.398000	1351304.633000	656.725	MID PT.	656.92
1851:	482940.843000	1351070.702000	656.625	MID PT.pro	656.73
1853:	482860.433000	1351098.644000	658.817	PRO	658.90
1859:	482859.890000	1351142.621000	661.082	PRO	661.18
1860:	482878.873000	1351142.851000	661.260	PRO	661.06
1864:	482882.844000	1351230.884000	661.295	PRO	661.29
1866:	482858.730000	1351230.590000	661.079	PRO	661.25
1867:	482879.817000	1351163.789000	661.267	PRO	661.37
1868:	482882.074000	1351213.821000	661.287	PRO	661.39
78:	482816.671357	1351448.278290	633.440	fermco	633.45
79:	482817.282755	1351398.283166	641.770	fermco	641.59
80:	482817.894163	1351348.287223	650.110	fermco	650.21
2081:	482823.598640	1350881.821959	626.420	fermco	
2082:	482822.987230	1350931.818040	634.750	fermco	
83:	482822.375830	1350981.813330	643.090	fermco	
86:	482815.866478	1351514.094626	622.320	TOE	
2087:	482855.253440	1351516.193410	622.610	TOE	
2088:	482905.270510	1351516.486631	623.370	TOE	
2089:	482955.278603	1351516.289503	623.620	TOE	
2090:	483005.250662	1351518.877941	624.150	TOE	
2091:	483055.271896	1351517.413114	624.860	TOE	
2092:	483096.040626	1351518.919933	624.380	TOE	
2093:	483165.316390	1351367.334820	623.870	TOE	
2094:	483166.149140	1351317.400020	623.610	TOE	
2095:	483167.782880	1351267.404090	623.320	TOE	
2096:	483167.426690	1351217.414530	622.430	TOE	
2097:	483168.097980	1351167.491740	622.040	TOE	
2098:	483168.511550	1351117.342520	621.490	TOE	
2099:	483168.315380	1351067.446720	621.020	TOE	
2100:	483170.036680	1351017.531680	620.530	TOE	
2101:	483171.255190	1350965.810800	619.450	TOE	
2102:	483170.297830	1350884.195430	618.840	TOE	
2103:	483163.540530	1350860.519460	618.370	TOE	
2104:	483149.661890	1350838.713450	618.120	TOE	
05:	483128.504711	1350824.038371	617.760	TOE	
06:	483104.001756	1350817.572250	617.770	TOE	
07:	483063.960430	1350814.482537	617.790	TOE	
2108:	483013.970526	1350813.386106	617.420	TOE	
2109:	482963.967746	1350813.242310	616.990	TOE	
2110:	482913.967308	1350812.991730	616.770	TOE	

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2111:	482863.977007	1350811.920705	616.070	TOE
2112:	482824.479267	1350809.811551	615.120	TOE
2113:	483165.937795	1351402.782212	624.430	TOE
114:	483164.140773	1351452.102310	624.870	TOE
15:	483158.704816	1351477.866550	625.470	TOE
.6:	483143.018976	1351498.760129	624.960	TOE
2117:	483120.959858	1351512.868382	624.990	TOE

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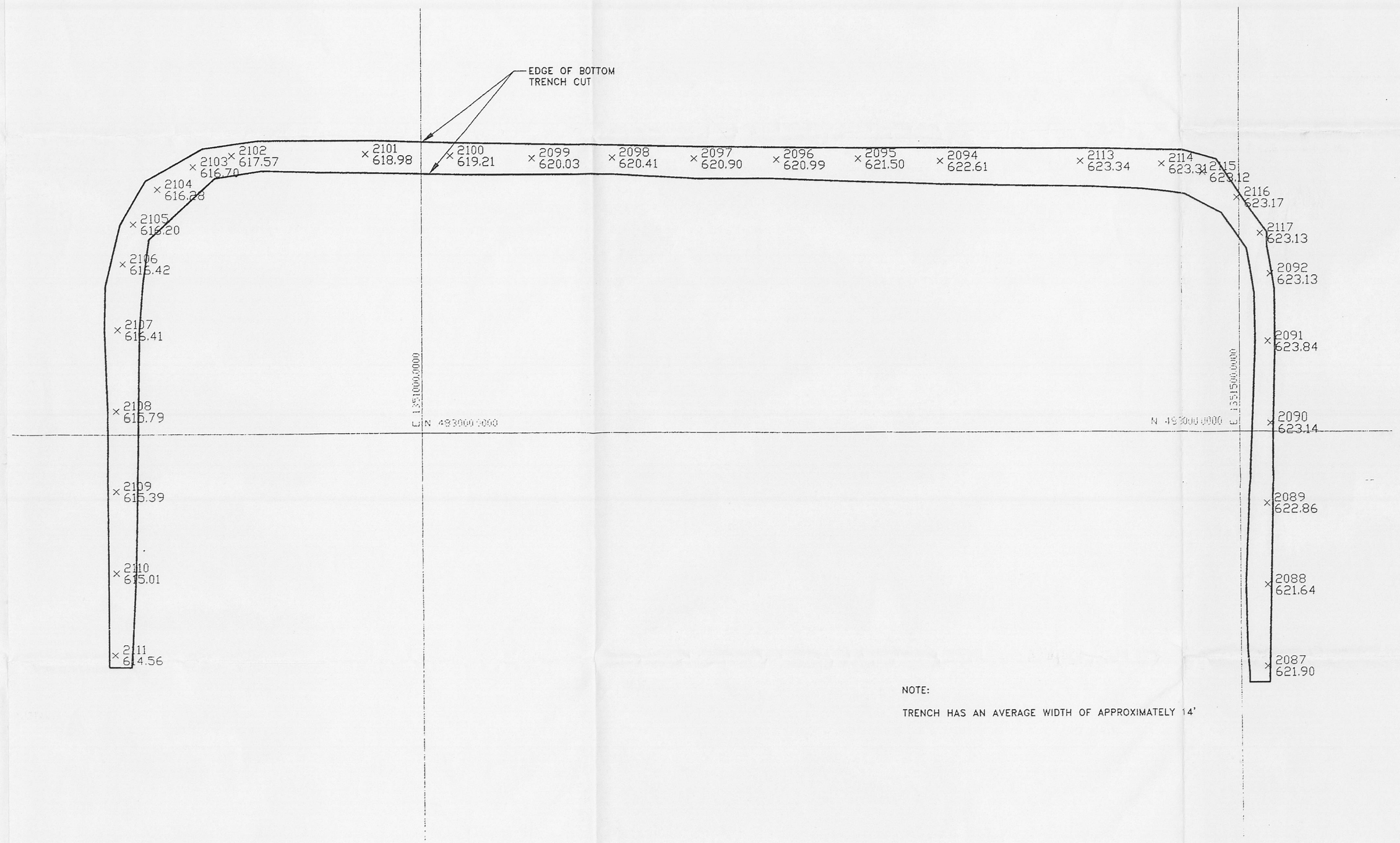
			Hirsch Elevation		Current Elevations
2021:	482809.775000	1351505.977000	620.310	1.	Not included in cell 1 area
2022:	482820.273000	1351508.051000	620.770	1.	623.26
2023:	482874.562000	1351508.866000	621.180	1.	623.76
24:	482919.719000	1351511.044000	621.290	1.	623.59
2025:	482970.126000	1351511.070000	621.420	1.	624.28
2026:	483004.001000	1351511.606000	621.500	1.	624.75
2027:	483024.630000	1351512.398000	621.870	1.	624.75
28:	483059.974000	1351513.374000	621.960	1.	624.97
2029:	483101.713000	1351512.508000	622.120	1.	624.93
2030:	483127.668000	1351500.661000	622.020	1.	625.72
2031:	483144.012000	1351486.992000	622.110	1.	625.81
2054:	482831.149000	1350820.959000	613.230	3.	616.75
2055:	482879.732000	1350820.663000	613.280	3.	616.77
2056:	482925.305000	1350821.351000	613.590	3.	617.41
2057:	482972.861000	1350822.297000	613.730	3.	617.74
2058:	483017.316000	1350822.068000	614.030	3.	618.02
2059:	483058.873000	1350823.936000	615.110	3.	618.36
2060:	483097.857000	1350824.800000	615.690	3.	618.34
2061:	483121.232000	1350829.025000	615.860	3.	618.24
2062:	483143.015000	1350841.146000	616.400	3.	617.84
2063:	483157.125000	1350860.313000	616.550	3.	618.42
2064:	483165.992000	1350889.339000	617.330	3.	618.71
2065:	483168.521000	1350920.407000	617.830	3.	618.96
2066:	483165.865000	1350967.426000	618.300	3.	619.76
2067:	483165.799000	1351016.957000	618.580	3.	620.18
2068:	483163.696000	1351067.130000	619.060	3.	621.04
2069:	483162.934000	1351117.246000	619.830	3.	621.88
70:	483160.745000	1351167.397000	620.290	3.	622.68
71:	483160.060000	1351217.326000	620.480	3.	623.26
2072:	483160.853000	1351267.327000	621.090	3.	623.37
2073:	483158.172000	1351317.651000	621.700	3.	624.20
2074:	483157.017000	1351367.546000	621.920	3.	624.46
75:	483155.559000	1351408.596000	622.360	3.	624.60
2076:	483158.146000	1351440.914000	622.230	3.	624.21
2077:	483154.691000	1351462.336000	622.220	3.	624.66

STATE OF OHIO
BUFORD L. PAYNE
5385
PROFESSIONAL SURVEYOR

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT OF RECERTIFICATION CONTOUR LAYER)
2087	482855.25	1351516.19	621.90
2088	482905.27	1351516.49	621.64
2089	482955.28	1351516.29	623.62
2090	483005.25	1351518.88	623.14
2091	483055.27	1351517.41	624.84
2092	483096.04	1351518.92	623.13
2094	483166.15	1351317.40	622.61
2095	483167.78	1351267.40	621.50
2096	483167.43	1351217.42	620.99
2097	483168.10	1351167.49	620.90
2098	483168.51	1351117.34	620.41
2099	483168.32	1351067.45	620.03
2100	483170.04	1351017.53	619.21
2101	483171.26	1350965.81	618.98
2102	483170.30	1350884.20	617.57
2103	483163.54	1350860.52	616.70
2104	483149.66	1350838.71	616.28
2105	483128.51	1350824.04	616.20
2106	483104.00	1350817.57	616.42
2107	483063.96	1350814.48	616.41
2108	483013.97	1350813.39	615.79
2109	482963.97	1350813.24	615.39
2110	482913.97	1350812.99	615.01
2111	482863.98	1350811.92	614.56
2113	483165.94	1351402.78	624.43
2114	483164.14	1351452.10	624.87
2115	483158.71	1351477.87	625.47
2116	483143.02	1351498.76	623.17
2117	483120.96	1351512.87	623.13



NOTE:

TRENCH HAS AN AVERAGE WIDTH OF APPROXIMATELY 14'

4555

LEGEND:

× 2100 619.21 = ELEVATION AND POINT NUMBER OF CERTIFIED POINT

= INDEX CONTOUR AS-BUILT

= INTERMEDIATE CONTOUR AS-BUILT

⊗ = POINT NUMBER AND ELEVATION NOT USED

① = POINT NUMBER AND ELEVATION NOT USED TOPOGRAPHICAL SURVEY POINT FOR CONTOURS

CONTOUR INTERVAL = 1'

40 20 0 40 80 120

GRAPHIC SCALE 1" = 40'

LYNN E. HIRSCH KY. LICENSED PROFESSIONAL LAND SURVEYOR No. 5738 9/24/01

David E. Estes Engineering, Inc.
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HYDROGEOLOGY LAND SURVEYING
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www.estesengineering.com

Designed By:
Drawn By: F.A.M.
Checked By: L.E.H.
Approved By: L.E.H.

REVISIONS:

THE IT GROUP
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
OSDF CELL 1

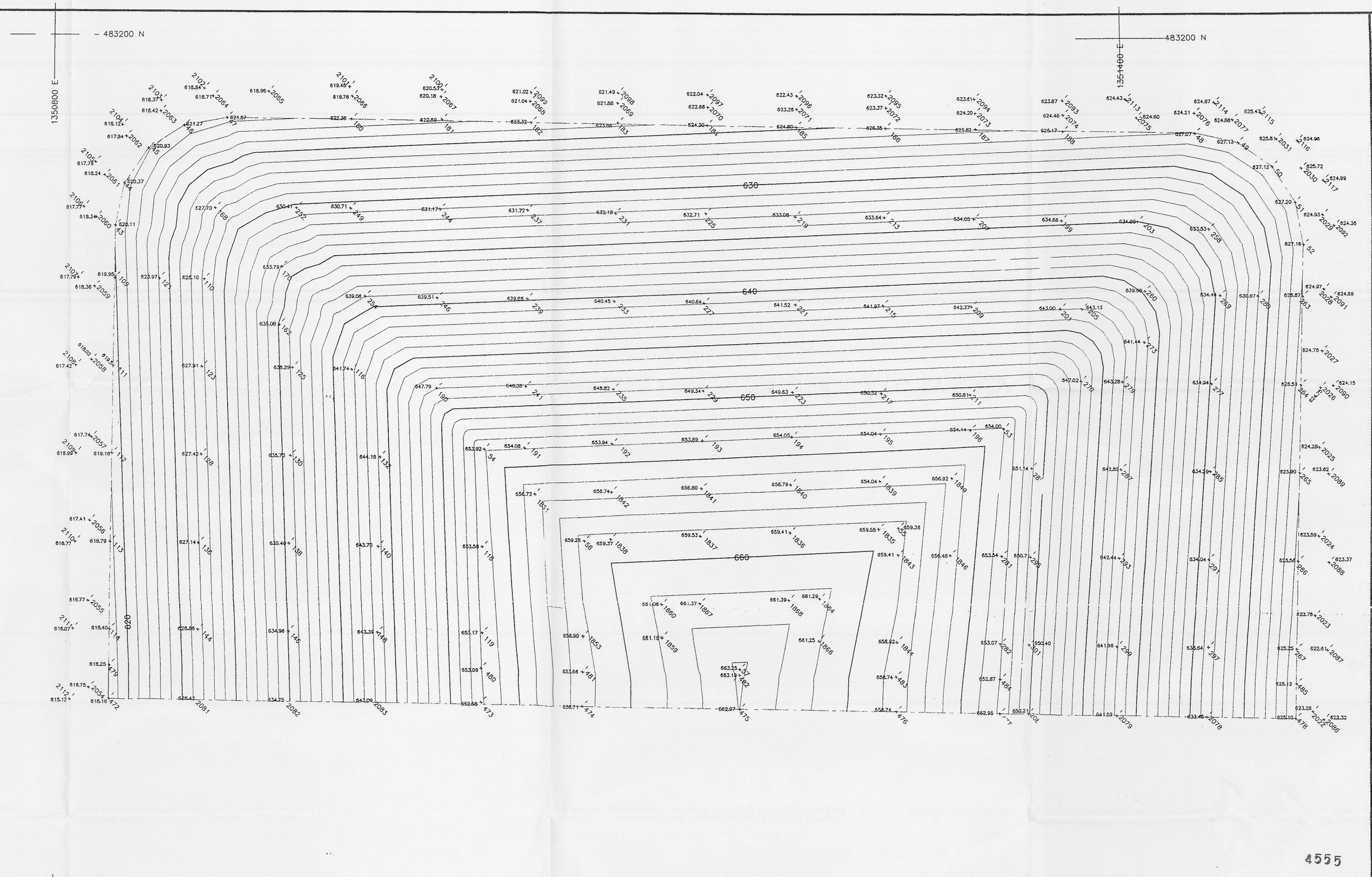
AS-BUILT DRAWING OF RE-CERTIFICATION CONTOUR LAYER

Scale: 1" = 40'

Date: 8-3-2001

Sheet No. 1 OF 1

Project No.



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Survey Certification

I hereby certify that a survey has been made under my direction and verify all dimensions shown.

Buford Payne PS No. 5385

Revisions	
FDF	5/22/01

Asbuilt Survey Cell 1
ON-SITE DISPOSAL FACILITY – PHASE III
CONSTRUCTION CONTRACT NO. FSC-642
Hamilton County and Butler County, Ohio

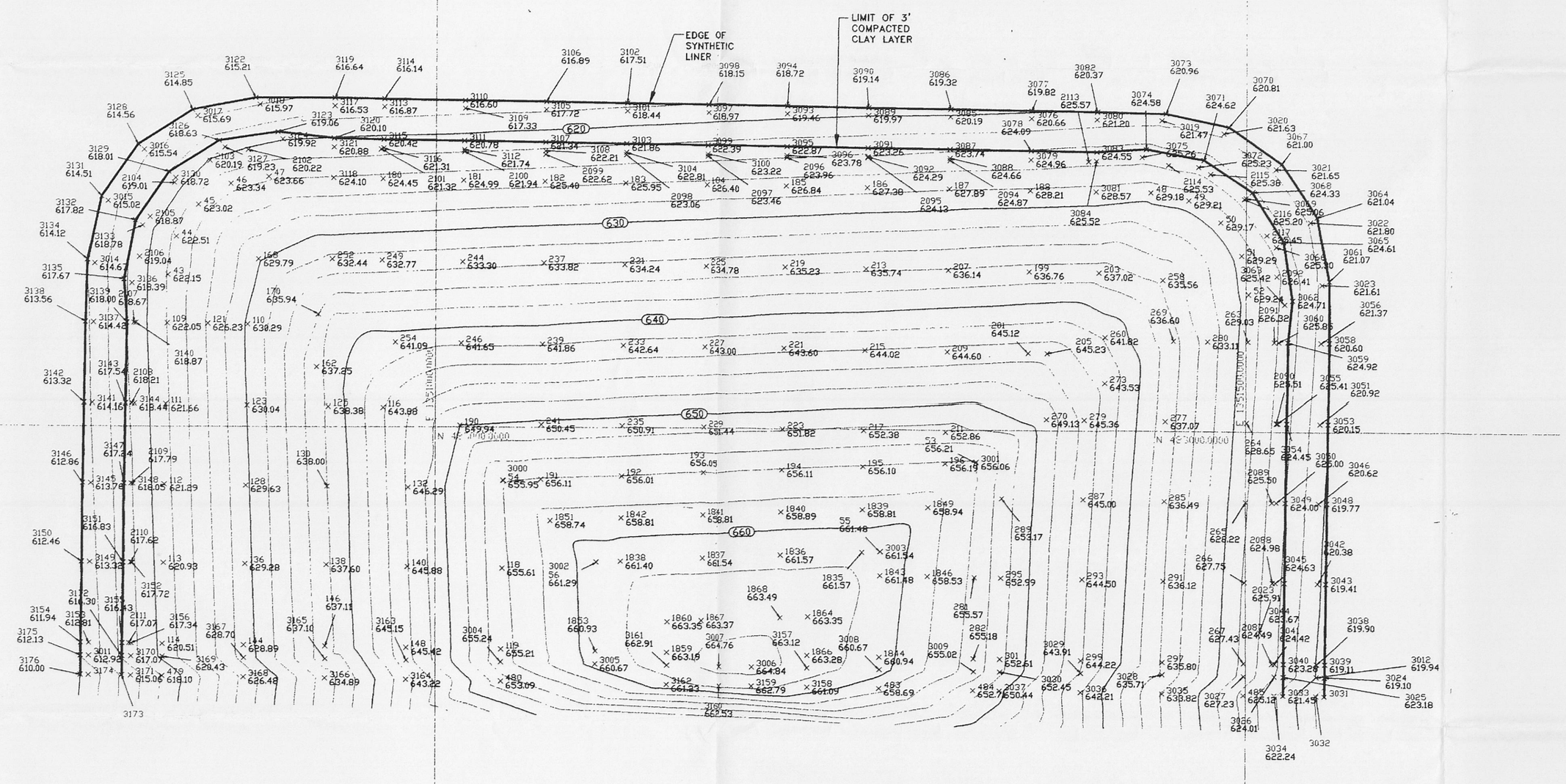
Note: This seal applies only to this document. I disclaim any responsibility for all other documents or instruments relating to or intended to be used for any part or parts of this project or any other project.

STATE OF OHIO
BUFORD L. PAYNE
5385
PROFESSIONAL SURVEYOR

Drawn: BCP
Checked: BLP
Date: 5/14/2001
Scale: 1" = 30'
Job No. a3113

B. L. Payne & Associates, Inc.
Civil Engineers & Surveyors
11479 Colerain Avenue
Cincinnati, Ohio 45252
Phone: (513) 385-8922 Fax: (513)385-8103
blpayne@att.net

1 / 1



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LEGEND:

× 2100 619.21 = ELEVATION AND POINT NUMBER OF CERTIFIED POINT

——— = INDEX CONTOUR AS-BUILT

- - - - = INTERMEDIATE CONTOUR AS-BUILT

(N) = POINT NUMBER AND ELEVATION NOT USED

(T) = POINT NUMBER AND ELEVATION NOT USED TOPOGRAPHICAL SURVEY POINT FOR CONTOURS

CONTOUR INTERVAL = 2'

50 25 0 100 50 150

SCALE: 1"=50'

000146

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LYNN HIRSCH S-5738 Registered Professional SURVEYOR STATE OF KENTUCKY
9/27/01

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www.estesengineering.com

Designed By:	
Drawn By:	F.A.M.
Checked By:	L.E.H.
Approved By:	L.E.H.

REVISIONS:

THE IT GROUP
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
OSDF CELL 1

AS-BUILT TOP OF CLAY LAYER TO EDGE OF SYNTHETIC LINER DRAWING

Scale:	1" = 50'
Date:	8-6-2001
Sheet No.	1 OF 3
Project No.	201-159

COMPACTED CLAY CAP

SUPPLIER DOCUMENT SUBMITTAL

FDF PROJECT NO.: 20103	CONTRACT NO: FSC-642	SUBMITTAL NO.: 20103-642-2100-006	REV.: 10	DATE: 9/28/01	Page 1 OF 1

FROM: IT CORPORATION
Mail Stop MS39
P.O. BOX 547
ROSS, OH 45061
SIGNATURE: Dave Kimball for Dave Lockard

TO: FDF ENGINEERING/CONSTRUCTION DOCUMENT CONTROL (ECDC)
MS52-7

RECEIVED BY: [signature] DATE: 10/02/01

QTY	DOCUMENT NUMBER	REV	DOCUMENT FAMILY: PRO	H&S	MED	TRG	CON	ENG	QAC	OPER	TITLE/DESCRIPTION	SUBMITTAL TYPE: DRFT	CFC	INF	ASSOCIATED SPECIFICATION	SUBMITTAL ACTION: A	B	C
8	642-C.4.35.5.1	3						X			CONTOURING LAYER RECERTIFICATION		X		02100-1.05	X		
8	642-C.4.35.5.2	3						X			CLAY CAP SURVEY		X		02100-1.05	X		
8	642-C.4.35.5.3	3						X			9B- DRAWINGS GEOMEMBRANE LINER SURVEY		X		02100-1.05	X		

REVIEW DISTRIBUTION

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ECDC	52-7	TOM CARR	60		
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GREGG JOHNSON	64	Macy Eleton	64		
FRANK FLACK	64				
SAM WOLINSKY (APPROVER)	64				
LEE MCDANIELS 60	~~64~~				
FRED WILSON	60				

NO COMMENTS: _____ COMMENTS: (PLEASE USE SPACE BELOW FOR COMMENTS OR INDICATE IF ATTACHMENTS)

ORIGINAL

RECEIVED BY: [signature] DATE: 10/5/01
(SIGN/DATE AND RETURN A COPY TO ECDC, MS 52-7)
SH WOLINSKY

SUBMITTAL TYPE: (BY SUPPLIER)
CFC - CERTIFIED FOR CONSTRUCTION
INF - INFORMATION/RECORD
DRFT - DRAFT/PRELIMINARY

SUBMITTAL ACTION CODE: (BY FDF)
A - Conforms to the Subcontract Requirements
B - Minor Comments - Incorporate and Resubmit
C - Revise and Resubmit (SEE COMMENTS)

4955

FS-F-4955
Rev. 3: 05/14/1999

SHW RECEIVED 10/3/01

4555

ON-SITE DISPOSAL FACILITY (OSDF) (PHASE III) CELL 1 FINAL COVER CONSTRUCTION PROJECT

***

SURVEY NOTES AND DRAWINGS

RECERTIFICATION CONTOURING LAYER AS-BUILT

2100 1.04
REVISION 10

***

FLUOR FERNALD, INC.
Fernald, Ohio

FF Subcontract No. FSC-642
Submittal No. 20103-642-2100-006

***

Submitted By:

IT Corporation
2790 Mosside Boulevard
Monroeville, PA 15146-2790

IT Project No. 820045

***

September 28, 2001

000128

ECDC CONTROLLED
COPY NO. C011

[X] A - Conforms to the Subcontract Requirements
[ ] B - Minor Comment - Incorporate and Resubmit
[ ] C - Revise and Resubmit
Sig: Date: 10/5/01
SH Wolinsky

David E. Estes Engineering, Inc.

CIVIL & ENVIRONMENTAL ENGINEERING
HYDROGEOLOGY & LAND SURVEYING

July 5, 2001

SUBJECT: CERTIFICATION POINTS FOR RECERTIFICATION TOP OF CONTOUR LAYER CELL NO. 1, FERNALD SITE.

I hereby certify that the elevations listed on the next 3 pages are the as-built elevations of the top of compacted clay layer and contour layer for the point numbers listed, along with the date the elevations were recorded.

Lynn Edward Hirsch

LYNN EDWARD HIRSCH NO. S-5738
THOMAS J. MACK NO. S-7964
REGISTERED OHIO PROFESSIONAL SURVEYORS

Note: The reason for this Recertification is that the existing contouring layer needed to be Reworked and recertified.

Note: Top Clay elevations taken to demonstrate thickness.

STATE OF OHIO
LYNN E. HIRSCH S-5738
REGISTERED SURVEYOR

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4555

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STATE OF OHIO
LYNN E. HIRSCH
S-5738
REGISTERED SURVEYOR

RECERTIFICATION OF ~~COMPACTED CLAY~~ CONTOURING LAYER

DL 9/27/01

PT#	NORTH	EAST	EXISTING CONTOUR ELEVATION	AS-BUILT CONTOUR ELEVATION	EXISTING COMPACTED CLAY ELEV.	COMPACTED CLAY THICKNESS	DATE
2087	482855.25	1351516.19		621.90	624.49	2.59	7-25-01
2088	482905.27	1351516.49		621.64	624.98	3.34	7-25-01
2089	482955.28	1351516.29		622.86	625.50	2.64	7-27-01
2090	483005.25	1351518.88		623.14	625.51	2.37	7-29-01
2091	483055.27	1351517.41		623.84	626.32	2.48	7-29-01
2092	483096.04	1351518.92		623.13	626.41	3.28	7-29-01
2094	483166.15	1351317.40	Cannot Determine	622.61	624.87	2.26	7-30-01
2095	483167.78	1351267.40	"	621.50	624.13	2.63	7-30-01
2096	483167.43	1351217.42	"	620.99	623.96	2.97	7-17-01
2097	483168.10	1351167.49	"	620.90	623.46	2.56	7-17-01
2098	483168.51	1351117.34	"	620.41	623.06	2.65	7-13-01
2099	483168.32	1351067.45	"	620.03	622.62	2.59	7-13-01
2100	483170.04	1351017.53	"	619.21	621.94	2.73	7-10-01
2101	483171.26	1350965.81	"	618.98	621.32	2.34	7-10-01
2102	483170.30	1350884.20	Cannot Determine	617.57	620.22	2.65	7-10-01
2103	483163.54	1350860.52	"	616.70	620.19	3.49	7-10-01
2104	483149.66	1350838.71	"	616.28	619.01	2.73	7-6-01
2105	483128.51	1350824.04	"	616.20	618.87	2.67	7-10-01
2107	483063.96	1350814.48	Cannot Determine	616.41	618.67	2.26	7-3-01
2108	483013.97	1350813.39	Cannot Determine	615.79	618.21	2.42	7-3-01
2109	482963.97	1350813.24	Cannot Determine	615.39	617.79	2.40	7-3-01
2110	482913.97	1350812.99	Cannot Determine	615.01	617.62	2.61	7-3-01
2111	482863.98	1350811.92	Cannot Determine	614.56	617.07	2.51	7-3-01
2113	483165.94	1351402.78	"	623.34	625.57	2.23	7-30-01
2114	483164.14	1351452.10	"	623.31	625.53	2.22	8-3-01
2115	483158.71	1351477.87	"	623.12	625.38	2.26	8-3-01
2116	483143.02	1351498.76	"	623.17	625.20	2.03	7-30-01
2117	483120.96	1351512.87	"	623.13	625.45	2.32	7-29-01
3025	482847.26	1351523.24	Not Needed		623.18	—	7-25-01
3026	482847.33	1351517.74	Cannot Determine	621.95	624.01	2.06	7-25-01
3040	482855.18	1351523.34	Not Needed		623.28	—	7-25-01
3041	482855.25	1351517.84	Cannot Determine	622.08	624.42	2.34	7-24-01
3044	482905.18	1351523.95	Not Needed		623.67	—	7-25-01
3045	482905.25	1351518.45	Cannot Determine	621.97	624.63	2.66	7-25-01
3049	482955.18	1351524.56	Not Needed		624.00	—	7-27-01
3050	482955.24	1351519.06	Cannot Determine	622.85	625.00	2.15	7-27-01
3054	483005.17	1351525.17	Not Needed		624.45	—	7-29-01
3055	483005.24	1351519.67	Cannot Determine	623.19	625.41	2.22	7-29-01
3059	483055.17	1351525.78	Not Needed		624.41		7-16-01
3060	483055.24	1351520.28	Cannot Determine	623.28	625.85	2.57	7-29-01
3062	483081.28	1351528.54	Not Needed		624.71	—	7-29-01

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4555

David E. Estes Engineering, Inc.

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www.estesengineering.com

STATE OF OHIO
LYNN E. HIRSCH
S-5738
REGISTERED SURVEYOR

RECERTIFICATION OF ~~COMPACTED CLAY~~ CONTOURING LAYER

DL 9/27/01

PT#	NORTH	EAST	EXISTING CONTOUR ELEVATION	AS-BUILT CONTOUR ELEVATION	EXISTING COMPACTED CLAY ELEV.	COMPACTED CLAY THICKNESS	DATE
3063	483078.74	1351523.66	Cannot Determine	623.32	625.42	2.10	7-29-01
3065	483117.07	1351522.99	Not Needed		624.61	—	7-29-01
3066	483113.84	1351518.54	Cannot Determine	623.01	625.30	2.29	7-29-01
3068	483147.41	1351503.72	Not Needed		624.33	—	7-30-01
3069	483143.55	1351499.80	Cannot Determine	623.01	625.06	2.05	8-3-01
3071	483167.45	1351473.87	"	621.95	624.62	2.67	8-3-01
3072	483163.04	1351470.59	"	622.91	625.23	2.32	8-3-01
3074	483173.91	1351438.26	Cannot Determine	622.44	624.58	2.14	7-30-01
3075	483169.06	1351435.66	"	622.93	625.26	2.33	7-30-01
3078	483172.45	1351367.42	"	621.92	624.09	2.17	7-30-01
3079	483166.95	1351367.35	"	622.71	624.96	2.25	7-30-01
3083	483171.96	1351407.70	"	622.43	624.55	2.12	7-30-01
3084	483166.46	1351407.63	"	623.23	625.52	2.29	7-30-01
3087	483173.07	1351317.42	"	621.69	623.74	2.05	7-30-01
3088	483167.57	1351317.36	"	622.49	624.66	2.17	7-30-01
3091	483173.68	1351267.43	"	621.13	623.26	2.13	7-25-01
3092	483168.18	1351267.36	"	621.50	624.29	2.79	7-25-01
3095	483174.29	1351217.43	"	619.56	622.87	3.31	7-17-01
3096	483168.79	1351217.36	"	620.59	623.78	3.19	7-17-01
3099	483174.90	1351167.44	"	619.82	622.39	2.57	7-17-01
3100	483169.40	1351167.37	"	620.66	623.22	2.56	7-17-01
3103	483175.51	1351117.44	"	619.61	621.86	2.25	7-13-01
3104	483170.01	1351117.37	"	620.22	622.81	2.59	7-13-01
3107	483176.12	1351067.44	"	618.71	621.34	2.63	7-13-01
3108	483170.62	1351067.38	"	619.58	622.21	2.63	7-13-01
3111	483176.74	1351017.45	"	618.32	620.78	2.46	7-10-01
3112	483171.24	1351017.38	"	619.07	621.74	2.67	7-10-01
3115	483177.35	1350967.45	"	617.92	620.42	2.50	7-10-01
3116	483171.85	1350967.38	"	618.97	621.31	2.34	7-10-01
3120	483177.72	1350937.01	"	617.14	620.10	2.96	7-10-01
3121	483172.22	1350936.94	"	618.03	620.88	2.85	7-10-01
3123	483181.58	1350902.48	Not Needed		619.06	—	7-10-01
3124	483176.97	1350905.47	Cannot Determine	617.75	619.92	2.17	7-10-01
3126	483175.92	1350866.06	Not Needed		618.63	—	7-6-01
3127	483171.71	1350869.60	Cannot Determine	616.88	619.23	2.35	7-6-01
3129	483156.47	1350835.36	Not Needed		618.01	—	7-6-01
3130	483152.75	1350839.41	Cannot Determine	616.41	618.72	2.31	7-6-01
3135	483090.42	1350808.22	"	615.26	617.67	2.41	7-6-01
3136	483087.85	1350813.08	"	616.21	618.39	2.18	7-6-01
3139	483064.01	1350810.16	"	615.57	618.00	2.43	7-3-01
3140	483063.95	1350815.66	"	616.54	618.87	2.33	7-3-01

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STATE OF OHIO
LYNN E. HIRSCH
S-5738
REGISTERED SURVEYOR

RECERTIFICATION OF ~~COMPACTED CLAY~~ CONTOURING LAYER 9/27/01

PT#	NORTH	EAST	EXISTING CONTOUR ELEVATION	AS-BUILT CONTOUR ELEVATION	EXISTING COMPACTED CLAY ELEV.	COMPACTED CLAY THICKNESS	DATE
3143	483014.02	1350809.55	Cannot Determine	615.23	617.54	2.31	7-2-01
3144	483013.95	1350815.05	616.82	615.99	618.44	2.45	7-2-01
3147	482964.02	1350808.94	Cannot Determine	614.79	617.24	2.45	7-2-01
3148	482963.95	1350814.44	616.25	615.75	618.05	2.30	7-2-01
3151	482914.02	1350808.33	Cannot Determine	614.34	616.83	2.49	7-2-01
3152	482913.96	1350813.83	615.85	615.22	617.72	2.50	7-2-01
3155	482864.03	1350807.72	Cannot Determine	613.96	616.43	2.47	7-2-01
3156	482863.96	1350813.22	615.64	614.81	617.34	2.53	7-2-01
3170	482855.94	1350813.12	615.65	614.91	617.07	2.16	7-2-01
3172	482856.01	1350807.62	Not Needed		616.30	—	7-3-01
2106	483104.00	1350817.57	Cannot Determine	616.42	619.04	2.62	7-6-01
3125	483195.44	1350849.65	Not Needed		614.85	—	7-6-01
3128	483173.72	1350816.58	"		614.56	—	7-6-01
3131	483141.04	1350794.11	"		614.51	—	7-6-01
3132	483126.37	1350814.96	Cannot Determine	615.82	617.82	2.00	7-6-01
3133	483123.20	1350819.46	"	616.16	618.78	2.62	7-6-01
3134	483102.34	1350785.68	Not Needed		614.12	—	7-6-01
3137	483064.26	1350789.66	"		614.42	—	7-3-01
3138	483064.32	1350784.66	"		613.56	—	7-3-01
3035	482836.17	1351448.51	"		633.82	—	7-13-01
3036	482836.78	1351398.52	"		642.21	—	7-13-01
3037	482837.39	1351348.52	"		650.44	—	7-13-01
3101	483196.01	1351117.69	"		618.44	—	7-13-01
3102	483201.01	1351117.75	"		617.51	—	7-13-01
3105	483196.62	1351067.69	"		617.72	—	7-13-01
3106	483201.62	1351067.75	"		616.89	—	7-13-01
3253			Not Needed			—	
3254			Not Needed		614.79	—	7-16-01
3243			"			—	
3244			"		616.72	—	7-16-01

000132

- 4555

ON-SITE DISPOSAL FACILITY (OSDF) (PHASE III) CELL 1 FINAL COVER CONSTRUCTION PROJECT

***

SURVEY NOTES AND DRAWINGS

CLAY CAP AS-BUILT

2100 1.04
REVISION 10

***

FLUOR FERNALD, INC.
Fernald, Ohio

FF Subcontract No. FSC-642
Submittal No. 20103-642-2100-006

***

Submitted By:

IT Corporation
2790 Mosside Boulevard
Monroeville, PA 15146-2790

IT Project No. 820045

***

000133

September 28, 2001

[X] A - Conforms to the Subcontract Requirements
[ ] B - Minor Comment - Incorporate and Resubmit
[ ] C - Revise and Resubmit
Sig: STJ WOZNIAKY Date: 10/5/01

David E. Estes Engineering, Inc.

CIVIL & ENVIRONMENTAL ENGINEERING
HYDROGEOLOGY & LAND SURVEYING

June 26, 2001

SUBJECT: CERTIFICATION POINTS FOR TOP OF COMPACTED CLAY LAYER CELL NO. 1, FERNALD SITE.

I hereby certify that the elevations listed on the next 10 pages are the as-built elevations of the top of compacted clay layer for the point numbers listed, along with the date the elevations were recorded.

Lynn Edward Hirsch

LYNN EDWARD HIRSCH NO. S-5738
THOMAS J. MACK NO. S-7964
REGISTERED OHIO PROFESSIONAL SURVEYORS

Note: Points with "*" to the left of the point number were reworked after the initial survey and the later elevation listed shows the final as-built condition.

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STATE OF OHIO
LYNN E. HIRSCH
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REGISTERED
SURVEYOR

DATE 6/26/01
CREW Greg & Cameron
*= OUT OF TOLERANCE

COMPACTED CLAY AS-BUILT 000135

PT#	NORTH	EAST	AS-BUITL CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
43	483093.26	1350835.11	620.11	622.15	622.13	+0.02	2.04	7-6-01
44	483116.63	1350840.02	620.37	622.51	622.50	+0.01	2.14	7-10-01
45	483136.32	1350853.50	620.93	623.02	622.88	+0.14	2.09	7-10-01
46	483149.35	1350873.49	621.27	623.34	623.25	+0.09	2.07	7-10-01
47	483153.73	1350896.96	621.57	623.66	623.63	+0.03	2.09	7/2/01
48	483147.14	1351441.21	627.07	629.18	629.05	+0.13	2.11	7-30-01
49	483142.18	1351464.58	627.13	629.21	629.07	+0.14	2.07	7-30-01
50	483128.65	1351484.26	627.12	629.17	629.10	+0.07	2.05	7-30-01
51	483108.62	1351497.24	627.20	629.29	629.13	+0.16	2.09	7-29-01
52	483085.12	1351501.56	627.16	629.24	629.17	+0.07	2.08	7-29-01
53	482979.65	1351333.90	654.00	656.21	656.03	+0.18	2.21	7-12-01
54	482966.48	1351042.10	653.92	655.95	655.91	+0.04	2.03	7-6-01
55	482923.15	1351275.37	659.36	661.48	661.40	+0.08	2.12	7-12-01
56	482915.20	1351099.31	659.26	661.29	661.33	-0.04	2.03	7-6-01
109	483063.70	1350834.74	619.95	622.05	621.90	+0.15	2.10	6/29/01
110	483063.09	1350884.35	628.10	630.29	630.18	+0.11	2.19	6/29/01
111	483013.71	1350834.13	619.50	621.66	621.51	+0.15	2.16	6/29/01
112	482963.71	1350833.52	619.16	621.29	621.12	+0.17	2.13	6/28/01
113	482913.72	1350832.91	618.79	620.93	620.73	+0.20	2.14	6/28/01
114	482863.72	1350832.30	618.40	620.51	620.34	+0.17	2.11	6/28/01
116	483012.06	1350967.67	641.74	643.88	643.79	+0.09	2.14	6/28/01
118	482911.14	1351041.42	653.58	655.61	655.54	F-0.07	2.03	6/27/01
119	482861.14	1351040.81	653.17	655.21	655.17	F-0.04	2.04	6/27/01
121	483063.40	1350859.74	623.94	626.23	626.07	+0.16	2.29	6/29/01
123	483013.09	1350884.13	627.91	630.04	629.85	+0.19	2.13	6/29/01
125	483012.47	1350934.13	636.29	638.38	638.19	+0.19	2.09	6/29/01
128	482963.09	1350883.52	627.42	629.63	629.47	+0.16	2.21	6/28/01
130	482962.48	1350933.52	635.73	638.00	637.81	+0.19	2.27	6/28/01
132	482961.86	1350983.51	644.16	646.29	646.15	+0.14	2.13	6/29/01
136	482913.10	1350882.91	627.14	629.28	629.08	+0.20	2.14	6/28/01
138	482912.48	1350932.91	635.40	637.60	637.43	+0.17	2.20	6/28/01
140	482911.86	1350982.90	643.70	645.88	645.78	+0.10	2.18	6/28/01
144	482863.10	1350882.30	626.86	628.89	628.69	+0.20	2.03	6/28/01
146	482862.48	1350932.30	634.94	637.11	637.04	+0.07	2.17	6/28/01
148	482861.87	1350982.29	643.39	645.42	645.40	F-0.02	2.03	6/27/01
162	483036.98	1350926.99	635.08	637.25	637.14	+0.11	2.17	6/29/01
168	483102.86	1350890.65	627.70	629.79	629.67	+0.12	2.09	7-6-01
170	483069.40	1350927.80	633.79	635.94	636.09	-0.15	2.15	7/2/01
180	483152.88	1350967.14	622.36	624.45	624.33	+0.12	2.09	7-10-01
181	483152.27	1351017.14	622.89	624.99	624.84	+0.15	2.10	7-10-01
182	483151.66	1351067.14	623.32	625.40	625.33	+0.07	2.08	7-13-01
183	483151.06	1351117.13	623.88	625.95	625.82	+0.13	2.07	7-13-01

Pg 1 of 10

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STATE OF OHIO
LYNN E. HIRSCH
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Tele: (859) 342-6100 Fax: (859) 342-8725 Email: DE3@estesengineering.com
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DATE 6/26/01
CREW Greg & Cameron
*= OUT OF TOLERANCE

COMPACTED CLAY AS-BUILT 000136

PT#	NORTH	EAST	AS-BUITL CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
184	483150.45	1351167.13	624.30	626.40	626.33	+0.07	2.10	7-17-01
185	483149.85	1351217.13	624.80	626.84	626.82	+0.02	2.04	7-17-01
186	483149.24	1351267.12	625.35	627.38	627.31	+0.07	2.03	7-25-01
187	483148.64	1351317.12	625.82	627.89	627.81	+0.08	2.07	7-30-01
188	483148.03	1351367.11	626.17	628.21	628.31	-0.10	2.04	7-30-01
190	483001.08	1351015.27	647.79	649.94	649.98	-0.04	2.15	7/2/01
191	482967.50	1351064.86	654.08	656.11	655.96	+0.15	2.03	7-6-01
192	482969.76	1351114.89	653.94	656.01	655.98	+0.03	2.07	7/11/01
193	482972.02	1351164.92	653.89	656.05	656.00	+0.05	2.16	7-17-01
194	482974.28	1351214.96	654.05	656.11	656.03	+0.08	2.06	7-12-01
195	482976.53	1351264.99	654.04	656.10	656.05	+0.05	2.06	7-12-01
196	482978.79	1351315.02	654.14	656.19	656.07	+0.12	2.05	7-12-01
199	483098.04	1351366.50	634.66	636.76	636.63	+0.13	2.10	7-30-01
201	483048.04	1351365.88	643.00	645.12	644.95	+0.17	2.12	7-30-01
203	483097.52	1351409.41	634.99	637.02	637.06	-0.04	2.03	7-30-01
205	483047.90	1351377.62	643.13	645.23	645.07	+0.16	2.10	7-29-01
207	483098.64	1351316.50	634.05	636.14	636.13	+0.01	2.09	7-29-01
209	483048.65	1351315.88	642.37	644.60	644.45	+0.15	2.23	7-29-01
211	482998.65	1351315.26	650.81	652.86	652.77	+0.09	2.05	7-30-01
213	483099.25	1351266.50	633.64	635.74	635.63	+0.11	2.10	7-25-01
215	483049.25	1351265.89	641.97	644.02	643.95	+0.07	2.05	7-25-01
217	482999.25	1351265.27	650.32	652.38	652.27	+0.11	2.06	7-25-01
219	483099.85	1351216.51	633.08	635.23	635.14	+0.09	2.15	7-17-01
221	483049.86	1351215.89	641.52	643.60	643.45	+0.15	2.08	7-17-01
223	482999.86	1351215.27	649.63	651.82	651.77	+0.05	2.19	7-17-01
225	483100.46	1351166.51	632.71	634.78	634.64	+0.14	2.07	7-17-01
227	483050.46	1351165.89	640.84	643.00	642.95	+0.05	2.16	7-17-01
229	483000.47	1351165.28	649.34	651.44	651.27	+0.17	2.10	7-17-01
231	483101.06	1351116.51	632.18	634.24	634.14	+0.10	2.06	7-13-01
233	483051.07	1351115.90	640.45	642.64	642.46	+0.18	2.19	7-13-01
235	483001.07	1351115.28	648.82	650.91	650.77	+0.14	2.09	7-13-01
237	483101.67	1351066.52	631.72	633.82	633.64	+0.18	2.10	7-13-01
239	483051.67	1351065.90	639.68	641.86	641.96	-0.10	2.18	7-13-01
241	483001.68	1351065.28	648.38	650.45	650.28	+0.17	2.07	7-6-01
244	483102.27	1351016.52	631.17	633.30	633.14	+0.16	2.13	7-10-01
246	483052.28	1351015.90	369.51	641.65	641.46	+0.19	2.14	7-6-01
249	483102.88	1350966.53	630.71	632.77	632.65	+0.12	2.06	7-6-01
252	483103.25	1350936.08	630.41	632.44	632.35	+0.09	2.03	7/2/01
254	483052.77	1350975.21	639.06	641.09	641.05	+0.04	2.03	7/2/01
258	483093.45	1351448.74	633.53	635.56	635.47	+0.09	2.03	7-29-01
260	483058.26	1351413.22	639.68	641.82	641.85	-0.03	2.14	7-29-01
263	483055.46	1351501.19	626.87	629.03	628.90	+0.13	2.15	7-29-01

Pg 2 of 10

STATE OF OHIO
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COMPACTED CLAY AS-BUILT 000137

DATE 6/26/01
CREW Greg & Cameron
*= OUT OF TOLERANCE

PT#	NORTH	EAST	AS-BUITL CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
264	483005.47	1351500.58	626.51	628.65	628.53	+0.12	2.14	7-29-01
265	482955.47	1351499.97	625.90	628.22	628.14	+0.08	2.32	7-27-01
266	482905.47	1351499.36	625.58	627.75	627.74	+0.01	2.17	7-25-01
267	482855.48	1351498.75	625.25	627.43	627.34	+0.09	2.18	7-25-01
269	483056.02	1351455.30	634.44	636.60	636.59	+0.01	2.16	7-29-01
270	483006.96	1351377.31	647.02	649.13	649.11	+0.02	2.11	7-29-01
273	483029.39	1351412.98	641.44	643.53	643.46	+0.07	2.09	7-29-01
277	483006.07	1351450.59	634.94	637.07	636.96	+0.11	2.13	7-29-01
279	483006.68	1351400.59	643.28	645.36	645.28	+0.08	2.08	7-29-01
280	483055.77	1351476.19	630.97	633.11	633.11	0.00	2.04	7-29-01
281	482907.49	1351333.01	653.54	655.57	655.57	0.00	2.03	7-12-01
282	482857.49	1351332.40	653.07	655.18	655.18	0.00	2.11	7-12-01
285	482956.08	1351449.98	634.29	636.49	636.49	0.00	2.20	7-27-01
287	482956.68	1351399.98	642.89	645.00	644.88	+0.12	2.11	7-24-01
289	482957.29	1351349.98	651.14	653.17	653.16	+0.01	2.03	7-27-01
291	482906.08	1351449.37	634.04	636.12	636.10	+0.02	2.08	7-25-01
293	482906.68	1351399.37	642.44	644.50	644.47	+0.03	2.06	7-25-01
295	482907.29	1351349.37	650.71	652.99	652.82	+0.17	2.28	7-25-01
297	482856.08	1351448.76	633.64	635.80	635.71	+0.09	2.16	7-24-01
299	482856.69	1351398.76	641.96	644.22	644.08	+0.14	2.26	7-24-01
301	482857.29	1351348.76	650.40	652.61	652.45	+0.16	2.21	7-24-01
479	482843.71	1350832.06	618.25	618.10	618.25	- 0.15	—	6/26/01
480	482841.16	1351040.57	653.09	653.09	653.09	- 0.00	—	6/26/01
483	482838.30	1351274.33	658.74	658.69	658.74	-0.05	—	7-12-01
484	482837.60	1351332.16	652.87	652.71	652.87	-0.16	—	7-12-01
485	482835.56	1351498.51	625.12	625.12	625.12	0.00	—	7-27-01
1835	482922.65	1351264.33	659.55	661.57	661.41	+0.16	2.02	7/11/01
1836	482920.39	1351214.29	659.41	661.57	661.38	+0.19	2.16	7/11/01
1837	482918.13	1351164.26	659.53	661.54	661.36	+0.18	2.01	7/11/01
1838	482915.87	1351114.23	659.37	661.40	661.35	+0.05	2.03	7/11/01
1839	482949.59	1351264.65	656.77	658.81	658.72	+0.09	2.04	7/11/01
1840	482947.33	1351214.62	656.79	658.89	658.70	+0.19	2.10	7/11/01
1841	482945.08	1351164.59	656.80	658.81	658.67	+0.14	2.01	7/11/01
1842	482942.82	1351114.56	656.74	658.81	658.65	+0.16	2.07	7/11/01
1843	482908.19	1351275.18	659.41	661.48	661.28	+0.20	2.07	7-12-01
1844	482858.19	1351274.57	658.92	660.94	660.83	+0.11	2.02	7-12-01
1846	482907.84	1351304.10	656.48	658.53	658.41	+0.12	2.05	7-12-01
1849	482951.39	1351304.63	656.92	658.94	658.74	+0.20	2.02	7/11/01
1851	482940.84	1351070.70	656.73	658.74	658.64	+0.10	2.01	6/27/01
1853	482860.43	1351098.64	658.90	660.93	660.83	+0.10	2.03	6/27/01
1859	482859.88	1351142.62	661.18	663.19	663.08	+0.11	2.01	6/27/01
1860	482878.87	1351142.85	661.06	663.35	663.26	+0.09	2.29	6/27/01

4555

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COMPACTED CLAY AS-BUILT 000138

DATE 6/26/01
CREW Greg & Cameron
*= OUT OF TOLERANCE

	PT#	NORTH	EAST	AS-BUITL CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
	1864	482882.84	1351230.88	661.29	663.35	663.30	+0.05	2.06	6/27/01
	1866	482858.72	1351230.59	661.25	663.28	663.08	+0.20	2.03	6/27/01
	1867	482879.81	1351163.78	661.37	663.37	663.27	+0.10	2.00	6/27/01
	1868	482882.07	1351213.82	661.39	663.49	663.29	+0.20	2.10	6/27/01
	2023	482874.56	1351508.86	623.76	625.91	625.91	0.00	2.15	7-25-01
	2087	482855.25	1351516.19	621.90 ~~622.01~~	624.49	624.49	0.00	2.59	7-25-01
	2088	482905.27	1351516.48	621.64 ~~623.37~~	624.98	624.93	+0.05	3.34	7-25-01
	2089	482955.27	1351516.29	622.86 ~~623.02~~	625.50	625.44	+0.06	2.64	7-27-01
	2090	483005.25	1351518.87	623.14 ~~624.15~~	625.51	625.50	+0.01	2.37	7-29-01
	2091	483055.27	1351517.41	623.84 ~~624.86~~	626.32	626.23	+0.09	2.48	7-29-01
	2092	483096.04	1351518.92	623.13 ~~624.38~~	626.41	626.60	-0.19	3.28	7-29-01
	2094	483166.14	1351317.40	622.61 ~~623.01~~	624.87	624.91	-0.04	2.26	7-30-01
	2095	483167.78	1351267.40	621.50 ~~623.32~~	624.13	624.17	-0.04	2.63	7-30-01
	2096	483167.42	1351217.41	620.87 ~~622.43~~	623.96	623.87	+0.09	2.97	7-17-01
	2097	483168.09	1351167.49	620.90 ~~622.04~~	623.46	623.43	+0.03	2.56	7-17-01
	2098	483168.51	1351117.34	620.41 ~~621.48~~	623.06	622.91	+0.15	2.65	7-13-01
	2099	483168.31	1351067.44	620.03 ~~621.02~~	622.62	622.54	+0.08	2.59	7-13-01
	2100	483170.03	1351017.53	619.21 ~~620.53~~	621.94	621.89	+0.05	2.73	7-10-01
	2101	483171.25	1350965.81	618.88 ~~619.45~~	621.32	621.20	+0.12	2.34	7-10-01
	2102	483170.29	1350884.19	617.57 ~~618.04~~	620.22	619.58	+0.64	2.65	7-10-01
	2103	483163.54	1350860.51	616.70 ~~618.37~~	620.19	619.10	+1.09	3.49	7-10-01
	2104	483149.66	1350838.71	616.28 ~~618.12~~	619.01	618.95	+0.09	2.73	7-6-01
	2105	483128.50	1350824.03	616.20 ~~617.76~~	618.87	618.70	+0.17	2.67	7-10-01
	2106	483104.00	1350817.57	616.42 ~~617.77~~	619.04	619.11	-0.07	2.62	7-6-01
*	2107	483063.96	1350814.48	616.41 ~~617.79~~	618.71 / 618.69	618.65	+0.06 / +0.02	2.26	6/29/01 / 7/3/01
*	2108	483013.97	1350813.38	615.79 ~~617.42~~	618.16 / 618.21	681.06	+0.10 / +0.13	2.42	6/27/01 / 7/3/01
*	2110	482913.96	1350812.99	615.01 ~~616.77~~	617.27 / 617.62	617.42	-0.13 / +0.20	2.61	6/28/01 / 7/3/01
*	2111	482863.97	1350811.92	614.56 ~~616.07~~	617.08 / 617.07	616.93	+0.15 / +0.14	2.51	6/28/01 / 7/3/01
	2113	483165.93	1351402.78	623.34 624.43	625.57	625.59	-0.02	2.23	7-30-01
	2114	483164.14	1351452.10	623.31 ~~624.07~~	625.53	625.40	+0.13	2.22	8-3-01
	2115	483158.70	1351477.86	623.12 ~~625.47~~	625.38	625.19	+0.19	2.26	8-3-01
	2116	483143.01	1351498.76	623.17 ~~624.96~~	625.20	625.20	0.00	2.03	7-30-01
	2117	483120.96	1351512.86	623.13 ~~624.99~~	625.45	625.25	+0.25	2.32	7-29-01
	3000	482966.77	1351041.80	653.92	655.95	655.91	+0.04	2.03	7/2/01
	3001	482979.97	1351334.20	654.00	656.06	656.03	+0.03	2.06	7-12-01
	3002	482915.32	1351099.16	659.26	661.29	661.33	-0.04	2.03	6/27/01
	3003	482923.29	1351275.52	659.36	661.54	661.40	+0.14	2.18	7/11/01
	3004	482853.16	1351040.43	N/A	655.24	655.06	+0.18		6/27/01
	3005	482852.45	1351098.40	N/A	660.67	660.85	-0.18		6/27/01
	3006	482851.26	1351196.03	N/A	664.84	664.78	+0.06		6/27/01
	3007	482851.51	1351175.65	N/A	664.76	664.72	+0.04		6/27/01
	3008	482850.30	1351274.63	N/A	660.67	660.85	-0.18		
	2109	482963.97	1350813.24	615.39	617.79	617.73	+0.06	2.40	7/3/01

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DATE 6/26/01
CREW Greg & Cameron

COMPACTED CLAY AS-BUILT 000139

*= OUT OF TOLERANCE

PT#	NORTH	EAST	AS-BUITL CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
3009	482849.59	1351332.61	N/A	655.02	655.06	-0.04		7-12-01
* 3011	482856.26	1350787.12	N/A	~~612.88~~ ~~612.92~~	612.83	~~+0.05~~ ~~+0.09~~		~~6/27/01~~ ~~7/31/01~~
3012	482847.01	1351543.74	N/A	619.94	619.83	+0.11		7-25-01
3014	483100.01	1350790.10	N/A	614.67	614.66	+0.01		7-6-01
3015	483138.17	1350798.20	N/A	615.02	615.02	0.00		7-6-01
3016	483170.34	1350820.27	N/A	615.54	615.37	+0.17		7-10-01
3017	483191.62	1350852.87	N/A	615.69	651.73	-0.04		7-6-01
3018	483198.78	1350891.32	N/A	615.97	616.09	-0.12		7-10-01
3019	483191.97	1351447.95	N/A	621.47	621.65	-0.18		7-30-01
3020	483183.98	1351486.12	N/A	621.63	621.66	-0.03		7-30-01
3021	483161.82	1351518.30	N/A	621.65	621.67	-0.02		7-29-01
3022	483129.12	1351539.58	N/A	621.80	621.68	+0.12		7-29-01
3023	483090.76	1351546.72	N/A	621.61	621.69	-0.08		7-29-01
3024	482846.94	1351548.73	N/A	619.10	619.00	+0.10		7-25-01
3025	482847.26	1351523.24	N/A	623.18	623.25	-0.07		7-25-01
3026	482847.32	1351517.74	621.95	624.01	624.17	-0.16	2.06	7-25-01
3027	482847.56	1351498.65	N/A	627.23	627.35	-0.12		7-25-01
3028	482848.17	1351448.66	N/A	635.71	635.68	+0.03		7-25-01
3029	482848.78	1351398.66	N/A	643.91	644.01	-0.10		7-25-01
3030	482849.39	1351348.67	N/A	652.45	652.34	+0.11		7-25-01
3031	482834.94	1351548.59	Not Needed	Not Needed	617.00	Toe of Clay @ Contour	South Slp SE Cor	7-30-01
3032	482835.01	1351543.59	Not Needed	Not Needed	617.83	" " " "	"	7-30-01
3033	482835.26	1351523.09	N/A	621.45	621.25	+0.20		7-27-01
3034	482835.32	1351517.59	N/A	622.24	622.17	+0.07		7-27-01
3035	482836.17	1351448.51	N/A	633.82	633.68	+0.14		7-13-01
3036	482836.78	1351398.52	N/A	642.21	642.01	+0.20		7-13-01
3037	482837.39	1351348.52	N/A	650.44	650.34	+0.10		7-13-01
3038	482854.93	1351543.83	N/A	619.90	619.89	+0.01		7-25-01
3039	482854.87	1351548.83	N/A	619.11	619.06	+0.05		7-25-01
3040	482855.18	1351523.33	N/A	623.28	623.30	-0.02		7-25-01
3041	482855.24	1351517.83	622.08	624.42	624.22	+0.20	2.34	7-24-01
3042	482904.93	1351544.44	N/A	620.38	620.27	+0.11		7-25-01
3043	482904.87	1351549.44	N/A	619.41	619.44	-0.03		7-25-01
3044	482905.18	1351523.94	N/A	623.67	623.68	-0.01		7-25-01
3045	482905.24	1351518.45	621.97	624.63	624.60	+0.03	2.66	7-25-01
3046	482954.92	1351545.05	N/A	620.62	620.65	-0.03		7-27-01
3048	482954.86	1351550.05	N/A	619.77	619.82	-0.05		7-27-01
3049	482955.17	1351524.56	N/A	624.00	624.06	-0.06		7-27-01
3050	482955.24	1351519.06	622.85	625.00	624.98	+0.02	2.15	7-27-01
3051	483004.92	1351545.67	N/A	620.92	621.03	-0.11		7-29-01
3053	483004.86	1351550.67	N/A	620.15	620.20	-0.05		7-29-01
3054	483005.17	1351525.17	N/A	624.45	624.45	0.00		7-29-01

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STATE OF OHIO
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SURVEYOR

DATE 6/26/01
CREW Greg & Cameron

COMPACTED CLAY AS-BUILT 000140

*= OUT OF TOLERANCE

PT#	NORTH	EAST	AS-BUITL CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
3055	483005.24	1351519.67	623.19	625.41	625.37	+0.04	2.22	7-29-01
3056	483054.92	1351546.28	N/A	621.37	621.41	-0.04		7-29-01
3058	483054.86	1351551.28	N/A	620.60	620.58	+0.02		7-29-01
3059	483055.17	1351525.78	N/A	624.92	624.83	+0.09		7-29-01
3060	483055.23	1351520.28	623.28	625.85	625.75	+0.10	2.57	7-29-01
3061	483093.07	1351551.15	N/A	621.07	621.24	-0.17		7-29-01
3062	483081.28	1351528.54	N/A	624.71	624.63	+0.08		7-29-01
3063	483078.74	1351523.66	623.32	625.42	625.42	0.00	2.10	7-29-01
3064	483132.05	1351543.62	N/A	621.04	621.00	+0.04		7-29-01
3065	483117.07	1351522.99	N/A	624.61	624.45	+0.16		7-29-01
3066	483113.84	1351518.54	623.01	625.30	625.19	+0.11	2.29	7-29-01
3067	483165.33	1351521.85	N/A	621.00	621.01	-0.01		7-29-01
3068	483147.41	1351503.71	N/A	624.33	624.39	-0.09		7-30-01
3069	483143.54	1351499.80	623.01	625.06	625.12	-0.06	2.05	8-3-01
3070	483187.89	1351489.10	N/A	620.81	620.98	-0.17		7-30-01
3071	483167.45	1351473.87	621.95	624.62	624.43	+0.19	2.67	8-3-01
3072	483163.04	1351470.58	622.91	625.23	625.17	+0.06	2.32	8-3-01
3073	483196.37	1351450.31	N/A	620.96	620.94	+0.02		7-30-01
3074	483173.90	1351438.25	622.44	624.58	624.58	0.00	2.14	7-30-01
3075	483169.05	1351435.65	622.93	625.26	625.37	-0.11	2.33	7-30-01
3076	483192.95	1351367.67	N/A	620.66	620.85	-0.19		7-30-01
3077	483197.95	1351367.73	N/A	619.82	620.02	-0.20		7-30-01
3078	483172.45	1351367.42	621.92	624.09	624.25	-0.16	2.17	7-30-01
3079	483166.95	1351367.35	622.71	624.96	625.16	-0.20	2.25	7-30-01
3080	483192.45	1351407.95	N/A	621.20	621.25	-0.05		7-30-01
3081	483147.54	1351407.39	N/A	628.57	628.71	-0.14		7-30-01
3082	483197.45	1351408.01	N/A	620.37	620.42	-0.05		7-30-01
3083	483171.96	1351407.69	622.43	624.55	624.66	-0.11	2.12	7-30-01
3084	483166.46	1351407.63	623.23	625.52	625.57	-0.05	2.29	7-30-01
3085	483193.56	1351317.67	N/A	620.19	620.35	-0.16		7-30-01
3086	483198.56	1351317.73	N/A	619.32	619.52	-0.20		7-30-01
3087	483173.06	1351317.42	621.69	623.74	623.75	-0.01	2.05	7-30-01
3088	483167.56	1351317.35	622.49	624.66	624.66	0.00	2.17	7-30-01
3089	483194.17	1351267.68	N/A	619.97	619.85	+0.12		7-25-01
3090	483199.17	1351267.74	N/A	619.14	619.02	+0.12		7-25-01
3091	483173.67	1351267.42	621.13	623.26	623.25	+0.01	2.13	7-25-01
3092	483168.17	1351267.36	621.50	624.29	624.16	+0.13	2.79	7-25-01
3093	483194.78	1351217.68	N/A	619.46	619.35	+0.11		7-17-01
3094	483199.78	1351217.74	N/A	618.72	618.52	+0.20		7-17-01
3095	483174.28	1351217.43	619.56	622.87	622.76	+0.11	3.31	7-17-01
3096	483168.78	1351217.36	620.59	623.78	623.67	+0.11	3.19	7-17-01
3097	483195.39	1351167.68	N/A	618.97	618.85	+0.12		7-17-01

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DATE 6/26/01
CREW Greg E Cameron
*= OUT OF TOLERANCE

COMPACTED CLAY AS-BUILT **000141**

PT#	NORTH	EAST	AS-BUITL CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
3098	483200.39	1351167.75	N/A	618.15	618.02	+0.13		7-17-01
3099	483174.90	1351167.43	619.82	622.39	622.26	+0.13	2.57	7-17-01
3100	483169.40	1351167.36	620.66	623.22	623.18	+0.04	2.56	7-17-01
3101	483196.01	1351117.69	N/A	618.44	618.35	+0.09		7-13-01
3102	483201.01	1351117.75	N/A	617.51	617.52	-0.01		7-13-01
3103	483175.51	1351117.43	619.61	621.86	621.76	+0.10	2.25	7-13-01
3104	483170.01	1351117.37	620.22	622.81	622.67	+0.14	2.59	7-13-01
3105	483196.62	1351067.69	N/A	617.72	617.85	-0.13		7-13-01
3106	483201.62	1351067.75	N/A	616.89	617.02	-0.13		7-13-01
3107	483176.12	1351067.44	618.71	621.34	621.26	+0.08	2.63	7-13-01
3108	483170.62	1351067.37	619.58	622.21	622.18	+0.03	2.63	7-13-01
3109	483197.23	1351017.70	N/A	617.33	617.35	-0.02		7-10-01
3110	483202.23	1351017.76	N/A	616.60	616.52	+0.08		7-10-01
3111	483176.73	1351017.44	618.32	620.78	620.76	+0.02	2.46	7-10-01
3112	483171.23	1351017.37	619.07	621.74	621.68	+0.06	2.67	7-10-01
3113	483197.84	1350967.70	N/A	616.87	616.85	+0.02		7-10-01
3114	483202.84	1350967.76	N/A	616.14	616.02	+0.12		7-10-01
3115	483177.34	1350967.45	617.92	620.42	620.26	+0.16	2.50	7-10-01
3116	483171.84	1350967.38	618.97	621.31	621.17	+0.14	2.34	7-10-01
3117	483198.21	1350937.25	N/A	616.53	616.55	-0.02		7-10-01
3118	483153.24	1350936.70	N/A	624.10	624.03	+0.07		7-10-01
3119	483203.21	1350937.32	N/A	616.64	615.72	-0.08		7-10-01
3120	483177.71	1350937.00	617.14	620.10	619.96	+0.14	2.96	7-10-01
3121	483172.21	1350936.93	618.03	620.88	620.87	+0.01	2.85	7-10-01
3122	483202.97	1350888.59	N/A	615.21	615.37	-0.16		7-10-01
3123	483181.58	1350902.47	N/A	619.06	619.04	+0.02		7-10-01
3124	483176.96	1350905.46	617.75	619.92	619.83	+0.09	2.17	7-10-01
3125	483195.44	1350849.65	N/A	614.85	615.05	-0.20		7-6-01
3126	483175.92	1350866.05	N/A	618.63	618.53	+0.10		7-6-01
3127	483171.71	1350869.59	616.88	619.23	619.28	-0.05	2.35	7-6-01
3128	483173.72	1350816.58	N/A	614.56	614.69	-0.13		7-6-01
3129	483156.46	1350835.36	N/A	618.01	618.13	-0.12		7-6-01
3130	483152.74	1350839.41	616.41	618.72	618.87	-0.15	2.31	7-6-01
3131	483141.04	1350794.11	N/A	614.51	614.33	+0.18		7-6-01
3132	483126.37	1350814.96	N/A	617.82	617.83	-0.01		7-6-01
3133	483123.20	1350819.46	616.16	618.78	618.59	+0.19	2.62	7-6-01
3134	483102.34	1350785.68	N/A	614.12	613.94	+0.18		7-6-01
* 3135	483090.41	1350808.21	615.26	~~614.82~~ / ~~614.67~~	617.83	~~+0.19~~ / ~~+0.04~~	2.41	~~6-29-01~~ / ~~7-6-01~~
* 3136	483087.84	1350813.07	616.21	~~618.60~~ / ~~618.39~~	618.43	~~+0.17~~ / ~~-0.04~~	2.18	~~6-29-01~~ / ~~7-6-01~~
* 3137	483064.26	1350789.66	N/A	~~614.54~~ / ~~614.42~~	614.39	~~+0.15~~ / ~~+0.03~~		~~6/29/01~~ / ~~7/3/01~~
* 3138	483064.32	1350784.66	N/A	~~613.71~~ / ~~613.56~~	613.56	~~+0.15~~ / ~~+0.00~~		~~6/29/01~~ / ~~7/3/01~~
* 3139	483064.01	1350810.16	615.57	~~617.95~~ / ~~618.00~~	617.80	~~+0.15~~ / ~~+0.20~~	2.43	~~6/29/01~~ / ~~7/3/01~~

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STATE OF OHIO
LYNN E. HIRSCH
S-5738
REGISTERED
SURVEYOR

COMPACTED CLAY AS-BUILT **000142**

DATE 6/26/01
CREW Greg & Cameron
*= OUT OF TOLERANCE

	PT#	NORTH	EAST	AS-BUITL CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
*	3140	483063.94	1350815.66	616.54	618.83 618.87	618.72	+0.11 +0.15	2.33	6/29/01 7/3/01
*	3141	483014.27	1350789.05	N/A	614.19 614.16	614.01	+0.18 +0.15		6/29/01 7/3/01
*	3142	483014.33	1350784.05	N/A	613.26 613.32	613.18	+0.08 +0.14		6/29/01 7/3/01
*	3143	483014.01	1350809.55	615.23	617.59 617.54	617.42	+0.17 +0.12	2.31	6/29/01 7/3/01
*	3144	483013.94	1350815.05	615.99	618.46 618.44	618.33	+0.11 +0.15	2.45	6/29/01 7/3/01
*	3145	482964.27	1350788.44	N/A	613.81 613.76	613.63	+0.18 +0.13		6/28/01 7/3/01
*	3146	482964.33	1350783.44	N/A	612.91 612.86	612.80	+0.11 +0.06		6/28/01 7/3/01
*	3147	482964.02	1350808.93	614.79	617.13 617.24	617.04	+0.09 +0.20	2.45	6/28/01 7/3/01
*	3148	482963.95	1350814.43	615.75	618.13 618.05	617.95	+0.18 +0.10	2.30	6/28/01 7/3/01
*	3149	482914.27	1350787.82	N/A	613.13 613.32	613.25	+0.12 +0.07		6/28/01 7/3/01
*	3150	482914.34	1350782.82	N/A	612.56 612.46	612.42	+0.14 +0.04		6/28/01 7/3/01
*	3151	482914.02	1350808.32	614.34	616.59 616.83	616.65	-0.06 +0.18	2.49	6/28/01 7/3/01
*	3152	482913.95	1350813.82	615.22	617.43 617.72	617.56	-0.13 +0.16	2.50	6/28/01 7/3/01
*	3153	482864.28	1350787.21	N/A	612.91 612.81	612.87	+0.04 -0.06		6/28/01 7/3/01
*	3154	482864.34	1350782.21	N/A	612.19 611.94	612.04	+0.15 -0.10		6/28/01 7/3/01
*	3155	482864.02	1350807.71	613.96	616.45 616.43	616.27	+0.18 +0.16	2.47	6/28/01 7/3/01
*	3156	482863.96	1350813.21	614.81	617.34 617.34	617.18	+0.13 +0.13	2.53	6/28/01 7/3/01
	3157	482850.83	1351230.49	N/A	663.12	663.06	+0.06		6/27/01
	3158	482838.83	1351230.34	N/A	661.09	661.06	+0.03		6/27/01
	3159	482839.25	1351195.88	N/A	662.79	662.78	+0.01		6/27/01
	3160	482839.50	1351175.50	N/A	662.53	662.72	-0.19		6/27/01
	3161	482851.91	1351142.52	N/A	662.91	663.06	-0.15		6/27/01
	3162	482839.91	1351142.37	N/A	661.23	661.06	+0.17		6/27/01
	3163	482853.87	1350982.19	N/A	645.15	645.35	-0.20		6/27/01
	3164	482841.87	1350982.05	N/A	643.22	643.35	-0.13		6/27/01
	3165	482854.48	1350932.20	N/A	637.10	637.01	+0.09		6/27/01
	3166	482842.48	1350932.05	N/A	634.89	635.01	-0.12		6/27/01
	3167	482855.09	1350882.20	N/A	628.70	628.67	+0.03		6/27/01
	3168	482843.09	1350882.05	N/A	626.48	626.67	-0.19		6/27/01
	3169	482855.70	1350832.20	N/A	620.43	620.33	+0.10		6/27/01
*	3170	482855.94	1350813.11	614.91	617.05 617.07	617.15	-0.10 -0.08	2.16	6/27/01 7/3/01
	3171	482843.94	1350812.96	N/A	615.06	615.15	-0.09		6/28/01
*	3172	482856.00	1350807.61	N/A	616.23 616.30	616.23	0.00 +0.07		6/27/01 7/3/01
	3173	482844.01	1350807.46	Not Needed	Not Needed	614.23	Top of Slp Contour Layer S.W. Corr		7-30-01
	3174	482844.26	1350786.97	Not Needed	Not Needed	610.83	" " " " " "		7-30-01
*	3175	482856.32	1350782.12	N/A	612.16 612.13	612.00	+0.16 +0.13		6/27/01 7/3/01
	3176	482844.32	1350781.97	Not Needed	Not Needed	610.00	Top of Slp Contour Layer S.W. Corr		7-30-01

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DATE 6/26/01
CREW Greg & Cameron

COMPACTED CLAY AS-BUILT 000143

*= OUT OF TOLERANCE

PT#	NORTH	EAST	AS-BUILT CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
3177	482727.93	1351573.91	N/A		613.70			
3178	483090.37	1351578.34	"	616.47	616.42	+ 0.05		8/15/01
3179	482727.32	1351624.00	"		610.69			
3180	483089.76	1351628.43	"		613.41			
3181	483101.39	1351578.48	"	616.48	616.42	+ 0.06		8-15-01
3182	483120.87	1351628.81	"		613.41			
3183	483147.42	1351569.91	"	616.50	616.41	+0.09		8-15-01
3184	483178.40	1351618.08	"		613.40			
3185	483186.67	1351544.37	"	616.30	616.40	-0.10		8-15-01
3186	483227.45	1351586.16	"		613.40			
3187	483213.15	1351505.76	"		616.40			
3188	483260.56	1351537.91	"		613.39			
3189	483222.85	1351459.95	"	616.39	616.39	0.00		8-15-01
3190	483272.69	1351480.66	"		613.39			
3191	483222.99	1351448.33	"	616.45	616.39	+0.06		8-15-01
3192	483273.08	1351448.94	"		613.38			
3193	483229.79	1350891.70	"	610.98	610.82	+ 0.16		8-16-01
3194	483279.88	1350892.31	"		607.82			
3195	483230.15	1350862.76	"	610.34	610.27	+ 0.07		8-16-01
3196	483280.48	1350843.28	"		607.14			
3197	483221.57	1350816.73	"	609.58	609.38	+0.20		8-16-01
3198	483269.76	1350785.74	"		606.32			
3199	483196.04	1350777.49	"	608.56	608.48	+0.08		8-3-01
3200	483237.84	1350736.69	"		605.50			
3201	483157.43	1350751.00	"	607.54	607.58	-0.04		8-3-01
3202	483189.58	1350703.58	"	604.85	604.69	+0.16		8-3-01
3203	483132.32	1350691.46	"	603.98	603.87	+0.11		8-3-01
3204	483111.62	1350741.30	"	606.56	606.69	-0.13		8-2-01
3205	483101.22	1350691.08	"	603.32	603.44	-0.12		8-2-01
3206	483100.61	1350741.16	"	606.52	606.51	+0.01		8-2-01
3207	482738.75	1350686.65	"		600.78			
3208	482738.14	1350736.73	"		603.79			
3209	482857.47	1350688.10	"	601.59	601.66	-0.07		8-1-01
3210	482856.86	1350738.18	"	604.85	604.67	+0.16		8-1-01
3211	482864.89	1350738.28	"	604.73	604.73	0.00		8-1-01
3212	482865.51	1350688.20	"	601.52	601.72	-0.20		8-1-01
3213	482914.88	1350738.89	"	605.06	605.11	-0.05		8-1-01
3214	482915.50	1350688.81	"	601.94	602.09	-0.15		8-1-01
3215	482964.88	1350739.50	"	605.56	605.48	+0.08		8-1-01
3216	482965.50	1350689.42	"	602.45	602.45	0.00		8-1-01
3217	483014.88	1350740.11	"	605.86	605.86	0.00		8-2-01
3218	483015.49	1350690.03	N/A	602.65	602.82	-0.17		8-2-01

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STATE OF OHIO
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DATE 6/26/01
CREW Greg & Cameron

COMPACTED CLAY AS-BUILT 000144

*= OUT OF TOLERANCE

PT#	NORTH	EAST	AS-BUILT CONTOUR ELEVATION	AS-BUILT COMPACTED CLAY ELEV.	PROPOSED COMPACTED CLAY ELEV.	DIFFERENCE IN ELEVATION	COMPACTED CLAY THICKNESS	DATE
3219	483064.87	1350740.72	N/A	606.24	606.23	+0.01		8-2-01
3220	483065.49	1350690.64	"	603.21	603.19	+0.02		8-2-01
3221	483279.32	1350938.26	"		608.28			
3222	483229.23	1350937.64	"	611.46	611.28	+0.18		8-6-01
3223	483278.95	1350968.71	"		608.58			
3224	483228.86	1350968.09	"	611.68	611.58	+0.10		8-6-01
3225	483278.34	1351018.70	"		609.08			
3226	483228.25	1351018.08	"	612.21	612.08	+0.13		8-6-01
3227	483277.73	1351068.70	"		609.58			
3228	483227.64	1351068.08	"	612.60	612.58	+0.02		7-13-01
3229	483277.11	1351118.70	"		610.08			
3230	483227.02	1351118.08	"	612.89	613.08	-0.19		8-6-01
3231	483276.50	1351168.69	"		610.58			
3232	483226.41	1351168.07	"	613.68	613.58	+0.10		8-15-01
3233	483275.89	1351218.69	"		611.08			
3234	483225.80	1351218.07	"	614.27	614.08	+0.19		8-15-01
3235	483275.28	1351268.68	"		611.58			
3236	483225.19	1351268.07	"	614.75	614.58	+0.17		8-15-01
3237	483274.67	1351318.68	"		612.08			
3238	483224.58	1351318.06	"	615.17	615.08	+0.09		8-15-01
3239	483274.06	1351368.68	"		612.58			
3240	483223.97	1351368.06	"	615.66	615.58	+0.08		8-15-01
3241	483273.57	1351408.96	"		612.98			
3242	483223.48	1351408.34	"	616.05	615.98	+0.07		8-6-01
3243	483053.93	1351627.99	"		613.14			
3244	483054.54	1351577.90	"	616.29	616.15	+0.14		8-15-01
3245	483003.93	1351627.38	"		612.76			
3246	483004.54	1351577.29	"	615.94	615.77	+0.17		8-15-01
3247	482953.94	1351626.77	"		612.39			
3248	482954.55	1351576.68	"	615.33	615.40	-0.07		8-16-01
3249	482903.93	1351626.16	"		612.01			
3250	482904.55	1351576.07	"	614.90	615.02	-0.12		8-16-01
3251	482853.93	1351625.55	"		611.64			
3252	482854.55	1351575.46	"	614.80	614.65	+0.15		8-16-01
3253	482846.01	1351625.45	"		611.58			
3254	482846.62	1351575.36	N/A	614.70	614.59	+0.11		8-16-01

4555

ON-SITE DISPOSAL FACILITY (OSDF) (PHASE III) CELL 1 FINAL COVER CONSTRUCTION PROJECT

***

SURVEY NOTES AND DRAWINGS

GEOMEMBRANE LINER AS-BUILT

2100 1.04
REVISION 10

***

FLUOR FERNALD, INC.
Fernald, Ohio

FF Subcontract No. FSC-642
Submittal No. 20103-642-2100-006

***

Submitted By:

IT Corporation
2790 Mosside Boulevard
Monroeville, PA 15146-2790

IT Project No. 820045

***

000145

September 28, 2001

[X] A - Conforms to the Subcontract Requirements
[ ] B - Minor Comment - Incorporate and Resubmit
[ ] C - Revise and Resubmit
Sig: SH Wolinsky Date: 10/5/01

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POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
43	483093.26	1350835.11	622.15	PT 5000
44	483116.63	1350840.02	622.51	PT 5001
45	483136.32	1350853.50	623.02	PT 5002
46	483149.35	1350873.49	623.34	PT 5003
47	483153.73	1350896.96	623.66	PT 5004
48	483147.14	1351441.21	629.18	PT 5005
49	483142.18	1351464.58	629.21	PT 5006
50	483128.65	1351484.26	629.17	PT 5007
51	483108.62	1351497.24	629.29	PT 5008
52	483085.12	1351501.56	629.24	PT 5009
53	482979.65	1351333.90	656.21	PT 5010
54	482966.48	1351042.10	655.95	PT 5011
55	482923.15	1351275.37	661.48	PT 5012
56	482915.20	1351099.31	661.29	PT 5013
109	483063.71	1350834.75	622.05	TOPCLAY
110	483063.10	1350884.36	630.29	TOPCLAY
111	483013.71	1350834.14	621.66	TOPCLAY
112	482963.72	1350833.53	621.29	TOPCLAY
113	482913.72	1350832.92	620.93	TOPCLAY
114	482863.72	1350832.31	620.51	TOPCLAY
116	483012.06	1350967.68	643.88	TOPCLAY
118	482911.14	1351041.42	655.61	TOPCLAY
119	482861.15	1351040.81	655.21	TOPCLAY
121	483063.40	1350859.75	626.23	TOPCLAY
123	483013.10	1350884.14	630.04	TOPCLAY
125	483012.48	1350934.13	638.38	TOPCLAY
128	482963.10	1350883.52	629.63	TOPCLAY
130	482962.48	1350933.52	638.00	TOPCLAY
132	482961.86	1350983.52	646.29	TOPCLAY
136	482913.10	1350882.91	629.28	TOPCLAY
138	482912.49	1350932.91	637.60	TOPCLAY
140	482911.87	1350982.91	645.88	TOPCLAY
144	482863.11	1350882.30	628.89	TOPCLAY
146	482862.49	1350932.30	637.11	TOPCLAY
148	482861.87	1350982.30	645.42	TOPCLAY
162	483036.98	1350926.99	637.25	TOPCLAY
168	483102.86	1350890.65	629.79	TOPCLAY
170	483069.40	1350927.81	635.94	TOPCLAY
180	483152.88	1350967.15	624.45	TOPCLAY
181	483152.27	1351017.14	624.99	TOPCLAY
182	483151.67	1351067.14	625.40	TOPCLAY
183	483151.06	1351117.14	625.95	TOPCLAY
184	483150.46	1351167.13	626.40	TOPCLAY
185	483149.85	1351217.13	626.84	TOPCLAY
186	483149.25	1351267.13	627.38	TOPCLAY
187	483148.64	1351317.12	627.89	TOPCLAY
188	483148.04	1351367.12	628.21	TOPCLAY
190	483001.09	1351015.28	649.94	TOPCLAY
191	482967.51	1351064.87	656.11	TOPCLAY
192	482969.77	1351114.90	656.01	TOPCLAY
193	482972.02	1351164.93	656.05	TOPCLAY
194	482974.28	1351214.96	656.11	TOPCLAY
195	482976.54	1351264.99	656.10	TOPCLAY
196	482978.80	1351315.02	656.19	TOPCLAY
199	483098.04	1351366.50	636.76	TOPCLAY
201	483048.04	1351365.88	645.12	TOPCLAY
203	483097.52	1351409.42	637.02	TOPCLAY
205	483047.90	1351377.63	645.23	TOPCLAY
207	483098.65	1351316.50	636.14	TOPCLAY
209	483048.65	1351315.89	644.60	TOPCLAY
211	482998.65	1351315.27	652.86	TOPCLAY
213	483099.25	1351266.51	635.74	TOPCLAY
215	483049.26	1351265.89	644.02	TOPCLAY
217	482999.26	1351265.27	652.38	TOPCLAY
219	483099.86	1351216.51	635.23	TOPCLAY
221	483049.86	1351215.89	643.60	TOPCLAY
223	482999.86	1351215.28	651.82	TOPCLAY

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
225	483100.46	1351166.52	634.78	TOPCLAY
227	483050.47	1351165.90	643.00	TOPCLAY
229	483000.47	1351165.28	651.44	TOPCLAY
231	483101.07	1351116.52	634.24	TOPCLAY
233	483051.07	1351115.90	642.64	TOPCLAY
235	483001.08	1351115.28	650.91	TOPCLAY
237	483101.67	1351066.52	633.82	TOPCLAY
239	483051.68	1351065.91	641.86	TOPCLAY
241	483001.68	1351065.29	650.45	TOPCLAY
244	483102.28	1351016.53	633.30	TOPCLAY
246	483052.28	1351015.91	641.65	TOPCLAY
249	483102.88	1350966.53	632.77	TOPCLAY
252	483103.25	1350936.09	632.44	TOPCLAY
254	483052.78	1350975.21	641.09	TOPCLAY
258	483093.46	1351448.74	635.56	TOPCLAY
260	483058.26	1351413.23	641.82	TOPCLAY
263	483055.47	1351501.20	629.03	TOPCLAY
264	483005.47	1351500.59	628.65	TOPCLAY
265	482955.48	1351499.98	628.22	TOPCLAY
266	482905.48	1351499.37	627.75	TOPCLAY
267	482855.48	1351498.76	627.43	TOPCLAY
269	483056.02	1351455.31	636.60	TOPCLAY
270	483006.96	1351377.32	649.13	TOPCLAY
273	483029.40	1351412.98	643.53	TOPCLAY
277	483006.08	1351450.59	637.07	TOPCLAY
279	483006.68	1351400.59	645.36	TOPCLAY
280	483055.77	1351476.20	633.11	TOPCLAY
281	482907.49	1351333.02	655.57	TOPCLAY
282	482857.50	1351332.41	655.18	TOPCLAY
285	482956.08	1351449.98	636.49	TOPCLAY
287	482956.69	1351399.98	645.00	TOPCLAY
289	482957.29	1351349.99	653.17	TOPCLAY
291	482906.08	1351449.37	636.12	TOPCLAY
293	482906.69	1351399.37	644.50	TOPCLAY
295	482907.30	1351349.38	652.99	TOPCLAY
297	482856.09	1351448.76	635.80	TOPCLAY
299	482856.69	1351398.76	644.22	TOPCLAY
301	482857.30	1351348.77	652.61	TOPCLAY
479	482843.71	1350832.06	618.10	pt5022
480	482841.16	1351040.57	653.09	pt5023
483	482838.30	1351274.33	658.69	pt5026
484	482837.60	1351332.16	652.71	pt5027
485	482835.56	1351498.51	625.12	pt5028
1835	482922.65	1351264.33	661.57	TOPCLAY
1836	482920.39	1351214.29	661.57	TOPCLAY
1837	482918.13	1351164.26	661.54	TOPCLAY
1838	482915.87	1351114.23	661.40	TOPCLAY
1839	482949.60	1351264.66	658.81	TOPCLAY
1840	482947.34	1351214.63	658.89	TOPCLAY
1841	482945.08	1351164.60	658.81	TOPCLAY
1842	482942.82	1351114.56	658.81	TOPCLAY
1843	482908.19	1351275.19	661.48	TOPCLAY
1844	482858.20	1351274.58	660.94	TOPCLAY
1846	482907.84	1351304.10	658.53	TOPCLAY
1849	482951.40	1351304.63	658.94	TOPCLAY
1851	482940.84	1351070.70	658.74	TOPCLAY
1853	482860.43	1351098.64	660.93	TOPCLAY
1859	482859.89	1351142.62	663.19	TOPCLAY
1860	482878.87	1351142.85	663.35	TOPCLAY
1864	482882.84	1351230.88	663.35	TOPCLAY
1866	482858.73	1351230.59	663.28	TOPCLAY
1867	482879.82	1351163.79	663.37	TOPCLAY
1868	482882.07	1351213.82	663.49	TOPCLAY
2023	482874.56	1351508.86	625.91	TOPCLAY
2087	482855.25	1351516.19	624.49	TOPCLAY
2088	482905.27	1351516.49	624.98	TOPCLAY
2089	482955.28	1351516.29	625.50	TOPCLAY

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
2090	483005.25	1351518.88	625.51	TOPCLAY
2091	483055.27	1351517.41	626.32	TOPCLAY
2092	483096.04	1351518.92	626.41	TOPCLAY
2094	483166.15	1351317.40	624.87	TOPCLAY
2095	483167.78	1351267.40	624.13	TOPCLAY
2096	483167.43	1351217.42	623.96	TOPCLAY
2097	483168.10	1351167.49	623.46	TOPCLAY
2098	483168.51	1351117.34	623.06	TOPCLAY
2099	483168.32	1351067.45	622.62	TOPCLAY
2100	483170.04	1351017.53	621.94	TOPCLAY
2101	483171.26	1350965.81	621.32	TOPCLAY
2102	483170.30	1350884.20	620.22	TOPCLAY
2103	483163.54	1350860.52	620.19	TOPCLAY
2104	483149.66	1350838.71	619.01	TOPCLAY
2105	483128.51	1350824.04	618.87	TOPCLAY
2106	483104.00	1350817.57	619.04	TOPCLAY
2107	483063.96	1350814.48	618.67	TOPCLAY
2108	483013.97	1350813.39	618.21	TOPCLAY
2109	482963.97	1350813.24	617.79	TOPCLAY
2110	482913.97	1350812.99	617.62	TOPCLAY
2111	482863.98	1350811.92	617.07	TOPCLAY
2113	483165.94	1351402.78	625.57	TOPCLAY
2114	483164.14	1351452.10	625.53	TOPCLAY
2115	483158.71	1351477.87	625.38	TOPCLAY
2116	483143.02	1351498.76	625.20	TOPCLAY
2117	483120.96	1351512.87	625.45	TOPCLAY
3000	482966.77	1351041.80	655.95	PT 10000
3001	482979.97	1351334.20	656.06	PT 10001
3002	482915.32	1351099.16	661.29	PT 10002
3003	482923.29	1351275.52	661.54	PT 10003
3004	482853.16	1351040.42	655.24	PT 10004
3005	482852.45	1351098.40	660.67	PT 10005
3006	482851.26	1351196.03	664.84	PT 10006
3007	482851.51	1351175.65	664.76	PT 10007
3008	482850.30	1351274.63	660.67	PT 10008
3009	482849.59	1351332.61	655.02	PT 10009
3011	482856.26	1350787.12	612.92	PT 10011
3012	482847.01	1351543.74	619.94	PT 10012
3014	483100.01	1350790.10	614.67	PT 10014
3015	483138.17	1350798.20	615.02	PT 10015
3016	483170.34	1350820.27	615.54	PT 10016
3017	483191.62	1350852.87	615.69	PT 10017
3018	483198.78	1350891.32	615.97	PT 10018
3019	483191.97	1351447.95	621.47	PT 10019
3020	483183.98	1351486.12	621.63	PT 10020
3021	483161.82	1351518.30	621.65	PT 10021
3022	483129.12	1351539.58	621.80	PT 10022
3023	483090.76	1351546.72	621.61	PT 10023
3024	482846.95	1351548.74	619.10	TOPCLAY SYN
3025	482847.26	1351523.24	623.18	TOPCLAY
3026	482847.33	1351517.74	624.01	TOPCLAY
3027	482847.56	1351498.66	627.23	TOPCLAY
3028	482848.17	1351448.66	635.71	TOPCLAY
3029	482848.78	1351398.67	643.91	TOPCLAY
3030	482849.39	1351348.67	652.45	TOPCLAY
3031	482834.95	1351548.59		TOPCLAY SYN
3032	482835.01	1351543.59		TOPCLAY
3033	482835.26	1351523.09	621.45	TOPCLAY
3034	482835.33	1351517.59	622.24	TOPCLAY
3035	482836.17	1351448.52	633.82	TOPCLAY
3036	482836.79	1351398.52	642.21	TOPCLAY
3037	482837.40	1351348.52	650.44	TOPCLAY
3038	482854.93	1351543.84	619.90	TOPCLAY
3039	482854.87	1351548.84	619.11	TOPCLAY SYN
3040	482855.18	1351523.34	623.28	TOPCLAY
3041	482855.25	1351517.84	624.42	TOPCLAY
3042	482904.93	1351544.45	620.38	TOPCLAY

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
3043	482904.87	1351549.45	619.41	TOPCLAY SYN
3044	482905.18	1351523.95	623.67	TOPCLAY
3045	482905.25	1351518.45	624.63	TOPCLAY
3046	482954.93	1351545.06	620.62	TOPCLAY
3048	482954.87	1351550.06	619.77	TOPCLAY SYN
3049	482955.18	1351524.56	624.00	TOPCLAY
3050	482955.24	1351519.06	625.00	TOPCLAY
3051	483004.93	1351545.67	620.92	TOPCLAY
3053	483004.87	1351550.67	620.15	TOPCLAY SYN
3054	483005.17	1351525.17	624.45	TOPCLAY

--4555

LEGEND:

TOPCLAY SYN INDICATES POINT IS AT TOP OF CLAY AT EDGE OF GEOSYNTHETIC LINER.

NOTE:
NORTHING AND EASTING COORDINATES LISTED ON THESE DRAWINGS MAY BE +/- 0.01' DIFFERENT THAN THOSE LISTED FOR THE SAME POINT ON THE TABLE DUE TO ROUNDING OF SURVEY DATA.

000147

REVISIONS:

Designed By:
Drawn By: F.A.M.
Checked By: L.E.H.
Approved By: L.E.H.

THE IT GROUP
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
OSDF CELL 1

AS-BUILT TOP OF CLAY LAYER TO EDGE OF SYNTHETIC LINER DRAWING

Scale: AS SHOWN
Date: 8-6-2001
Sheet No. 2 OF 3
Project No. 201-159

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STATE OF OHIO LYNN E. HIRSCH S-5738 REGISTERED SURVEYOR
9/27/01

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POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
3055	4830005.24	1351519.67	625.41	TOPCLAY
3056	4830054.92	1351546.28	621.37	TOPCLAY
3058	4830054.86	1351551.28	620.60	TOPCLAY SYN
3059	4830055.17	1351525.78	624.92	TOPCLAY
3060	4830055.24	1351520.28	625.85	TOPCLAY
3061	4830093.07	1351551.15	621.07	TOPCLAY SYN
3062	4830081.28	1351528.54	624.71	TOPCLAY
3063	4830078.74	1351523.66	625.42	TOPCLAY
3064	4831312.06	1351543.63	621.04	TOPCLAY SYN
3065	4831317.07	1351522.99	624.61	TOPCLAY
3066	4831313.84	1351518.54	625.30	TOPCLAY
3067	4831165.33	1351521.86	621.00	TOPCLAY SYN
3068	4831147.41	1351503.72	624.33	TOPCLAY
3069	4831143.55	1351499.80	625.06	TOPCLAY
3070	4831187.90	1351489.11	620.81	TOPCLAY SYN
3071	4831167.45	1351473.87	624.62	TOPCLAY
3072	4831163.04	1351470.59	625.23	TOPCLAY
3073	4831196.38	1351450.31	620.96	TOPCLAY SYN
3074	4831173.91	1351438.26	624.58	TOPCLAY
3075	4831169.06	1351435.66	625.26	TOPCLAY
3076	4831192.95	1351367.67	620.66	TOPCLAY
3077	4831197.95	1351367.74	619.82	TOPCLAY SYN
3078	4831172.45	1351367.42	624.09	TOPCLAY
3079	4831166.95	1351367.35	624.96	TOPCLAY
3080	4831192.46	1351407.95	621.20	TOPCLAY
3081	4831147.55	1351407.40	628.57	TOPCLAY
3082	4831197.46	1351408.01	620.37	TOPCLAY SYN
3083	4831171.96	1351407.70	624.55	TOPCLAY
3084	4831166.46	1351407.63	625.52	TOPCLAY
3085	4831193.56	1351317.68	620.19	TOPCLAY
3086	4831198.56	1351317.74	619.32	TOPCLAY SYN
3087	4831173.07	1351317.42	623.74	TOPCLAY
3088	4831167.57	1351317.36	624.66	TOPCLAY
3089	4831194.18	1351267.68	619.97	TOPCLAY
3090	4831199.18	1351267.74	619.14	TOPCLAY SYN
3091	4831173.68	1351267.43	623.26	TOPCLAY
3092	4831168.18	1351267.36	624.29	TOPCLAY
3093	4831194.79	1351217.69	619.46	TOPCLAY
3094	4831199.79	1351217.75	618.72	TOPCLAY SYN
3095	4831174.29	1351217.43	622.87	TOPCLAY
3096	4831168.79	1351217.36	623.78	TOPCLAY
3097	4831195.40	1351167.69	618.97	TOPCLAY
3098	4832200.40	1351167.75	618.15	TOPCLAY SYN
3099	4831174.90	1351167.44	622.39	TOPCLAY
3100	4831169.40	1351167.37	623.22	TOPCLAY
3101	4831196.01	1351117.69	618.44	TOPCLAY
3102	4832201.01	1351117.75	617.51	TOPCLAY SYN
3103	4831175.51	1351117.44	621.86	TOPCLAY
3104	4831170.01	1351117.37	622.81	TOPCLAY
3105	4831196.62	1351067.70	617.72	TOPCLAY
3106	4832201.62	1351067.76	616.89	TOPCLAY SYN
3107	4831176.12	1351067.44	621.34	TOPCLAY
3108	4831170.62	1351067.38	622.21	TOPCLAY
3109	4831197.23	1351017.70	617.33	TOPCLAY
3110	4832202.23	1351017.76	616.60	TOPCLAY SYN
3111	4831176.74	1351017.45	620.78	TOPCLAY
3112	4831171.24	1351017.38	621.74	TOPCLAY
3113	4831197.85	1350967.70	616.87	TOPCLAY
3114	4832202.85	1350967.77	616.14	TOPCLAY SYN
3115	4831177.35	1350967.45	620.42	TOPCLAY
3116	4831171.85	1350967.38	621.31	TOPCLAY
3117	4831198.22	1350937.26	616.53	TOPCLAY
3118	4831153.25	1350936.70	624.10	TOPCLAY
3119	4832203.22	1350937.32	616.64	TOPCLAY SYN
3120	4831177.72	1350937.01	620.10	TOPCLAY
3121	4831172.22	1350936.94	620.88	TOPCLAY
3122	4832202.97	1350888.60	615.21	TOPCLAY SYN

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
3123	4831181.58	1350902.48	619.06	TOPCLAY
3124	4831176.97	1350905.47	619.92	TOPCLAY
3125	4831195.45	1350849.65	614.85	TOPCLAY SYN
3126	4831175.92	1350866.06	618.63	TOPCLAY
3127	4831171.71	1350869.60	619.23	TOPCLAY
3128	4831173.72	1350816.59	614.56	TOPCLAY SYN
3129	4831156.47	1350835.36	618.01	TOPCLAY
3130	4831152.75	1350839.41	618.72	TOPCLAY
3131	4831141.05	1350794.11	614.51	TOPCLAY SYN
3132	4831126.37	1350814.97	617.82	TOPCLAY
3133	4831123.21	1350819.46	618.78	TOPCLAY
3134	4831102.35	1350785.68	614.12	TOPCLAY SYN
3135	4830090.42	1350808.22	617.67	TOPCLAY
3136	4830087.85	1350813.08	618.39	TOPCLAY
3137	4830064.27	1350789.66	614.42	TOPCLAY
3138	4830064.33	1350784.66	613.56	TOPCLAY SYN
3139	4830064.01	1350810.16	618.00	TOPCLAY
3140	4830063.95	1350815.66	618.87	TOPCLAY SYN
3141	4830014.27	1350789.05	614.16	TOPCLAY
3142	4830014.33	1350784.05	613.32	TOPCLAY SYN
3143	4830014.02	1350809.55	617.54	TOPCLAY
3144	4830013.95	1350815.05	618.44	TOPCLAY
3145	4829964.27	1350788.44	613.76	TOPCLAY
3146	4829964.34	1350783.44	612.86	TOPCLAY SYN
3147	4829964.02	1350808.94	617.24	TOPCLAY
3148	4829963.95	1350814.44	618.05	TOPCLAY
3149	4829914.28	1350787.83	613.32	TOPCLAY
3150	4829914.34	1350782.83	612.46	TOPCLAY SYN
3151	4829914.02	1350808.33	616.83	TOPCLAY
3152	4829913.96	1350813.83	617.72	TOPCLAY
3153	4828864.28	1350787.22	612.81	TOPCLAY
3154	4828864.34	1350782.22	611.94	TOPCLAY SYN
3155	4828864.03	1350807.72	616.43	TOPCLAY
3156	4828863.96	1350813.22	617.34	TOPCLAY
3157	4828850.84	1351230.49	663.12	TOPCLAY
3158	4828838.84	1351230.35	661.09	TOPCLAY
3159	4828839.26	1351196.88	662.79	TOPCLAY
3160	4828839.51	1351175.50	662.53	TOPCLAY
3161	4828851.91	1351142.52	662.91	TOPCLAY
3162	4828839.91	1351142.38	661.23	TOPCLAY
3163	4828853.87	1350982.20	645.15	TOPCLAY
3164	4828841.88	1350982.05	643.22	TOPCLAY
3165	4828854.48	1350932.20	637.10	TOPCLAY
3166	4828842.49	1350932.06	634.89	TOPCLAY
3167	4828855.10	1350882.21	628.70	TOPCLAY
3168	4828843.10	1350882.06	626.48	TOPCLAY
3169	4828855.71	1350832.21	620.43	TOPCLAY
3170	4828855.94	1350813.12	617.07	TOPCLAY
3171	4828843.94	1350812.97	615.06	TOPCLAY
3172	4828856.01	1350807.62	616.30	TOPCLAY
3173	4828844.01	1350807.47		TOPCLAY
3174	4828844.26	1350786.97		TOPCLAY
3175	4828856.32	1350782.12	612.13	TOPCLAY SYN
3176	4828844.32	1350781.97		TOPCLAY SYN

LEGEND:

TOPCLAY SYN INDICATES POINT IS AT TOP OF CLAY AT EDGE OF GEOSYNTHETIC LINER.

NOTE:

NORTHING AND EASTING COORDINATES LISTED ON THESE DRAWINGS MAY BE +/- 0.01' DIFFERENT THAN THOSE LISTED FOR THE SAME POINT ON THE TABLE DUE TO ROUNDING OF SURVEY DATA.

000148

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AS-BUILT TOP OF CLAY LAYER TO EDGE OF SYNTHETIC LINER DRAWING

Scale: AS SHOWN

Date: 8-6-2001

Sheet No. 3 OF 3

Project No. 201-159

THE IT GROUP

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

OSDF CELL 1

REVISIONS:

Designed By:

Drawn By: F.A.M.

Checked By: L.E.H.

Approved By: L.E.H.

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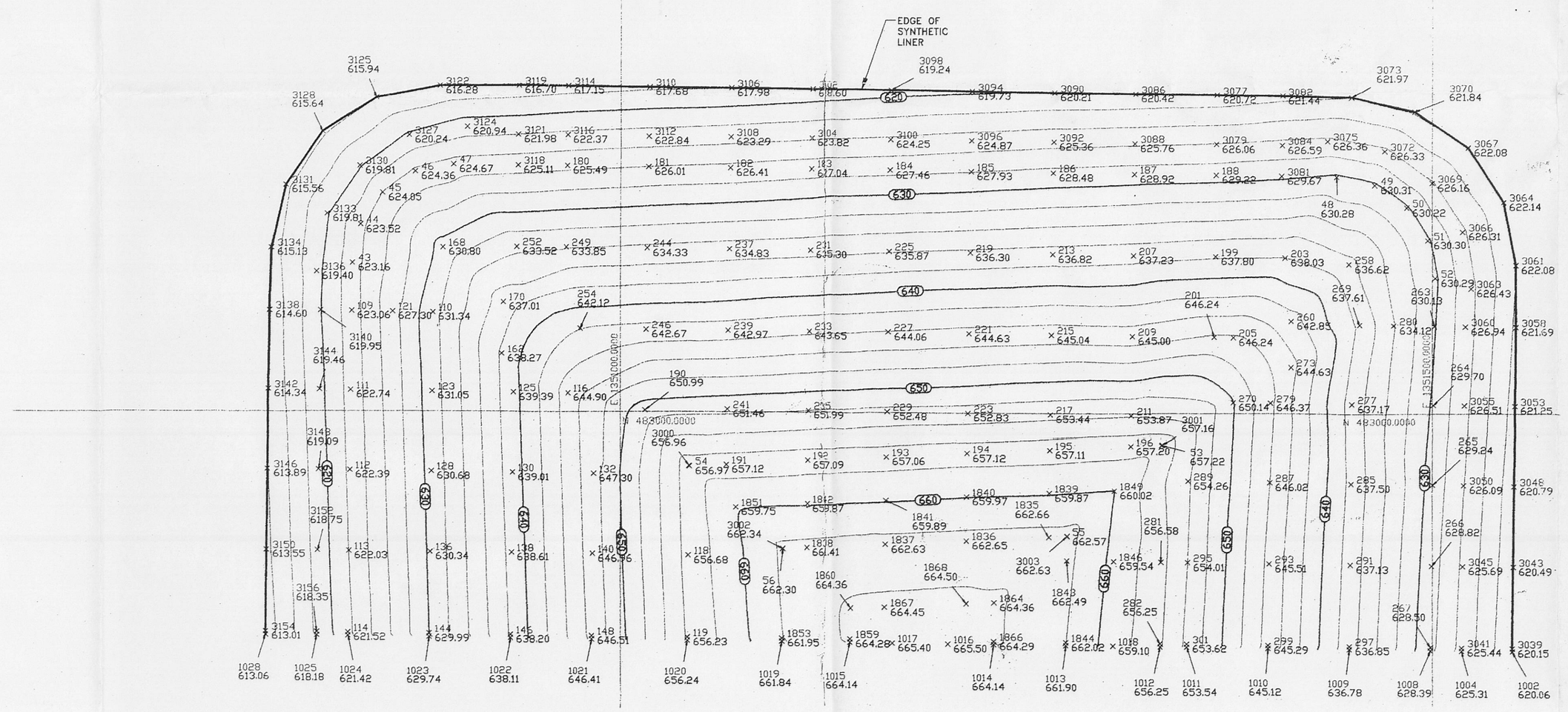
www.estesengineering.com

STATE OF OHIO
LYNN E. HIRSCH
S-5738
REGISTERED
SURVEYOR

9/27/01

Y:\2011\159\DWG\CLAY



--4555

LEGEND:

× 2100 619.21 = ELEVATION AND POINT NUMBER OF CERTIFIED POINT

——— = INDEX CONTOUR AS-BUILT

——— = INTERMEDIATE CONTOUR AS-BUILT

(N) = POINT NUMBER AND ELEVATION NOT USED

(T) = POINT NUMBER AND ELEVATION NOT USED TOPOGRAPHICAL SURVEY POINT FOR CONTOURS

CONTOUR INTERVAL = 2'

50 25 0 100 50 150

SCALE: 1"=50'

000162

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Y:\201\159\dwg\Drainage Layer

STATE OF OHIO LYNN E. HIRSCH S-5738 REGISTERED PROFESSIONAL SURVEYOR 02/11/16

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Designed By:	
Drawn By:	G.E.C./F.A.M.
Checked By:	L.E.H.
Approved By:	L.E.H.

REVISIONS:

THE IT GROUP
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
OSDF CELL 1

AS-BUILT TOP OF DRAINAGE LAYER TO EDGE OF SYNTHETIC LINER DRAWING

Scale:	1" = 50'
Date:	9-4-2001
Sheet No.	1 OF 3
Project No.	201-159

COVER DRAINAGE LAYER

9A 11/15/01

SUPPLIER DOCUMENT SUBMITTAL

FDF PROJECT NO.: 20103	CONTRACT NO: FSC-642	SUBMITTAL NO.: 20103-642-02100-006	REV.: ~~13~~ 14	DATE: 11/14/01	Page 1 OF 1

FROM: IT CORPORATION
Mail Stop MS39
P.O. BOX 547
ROSS, OH 45061
SIGNATURE: Dan Kendall for Dir Lockard

TO: FDF ENGINEERING/CONSTRUCTION DOCUMENT CONTROL (ECDC)
MS52-7
RECEIVED BY: Jennifer L. Abott DATE: 11/15/01

QTY	DOCUMENT NUMBER	REV	PRO	H&S	MED	TRG	CON	ENG	QAC	OPER	TITLE/DESCRIPTION	DRFT	CFC	INF	ASSOCIATED SPECIFICATION	A	B	C
			DOCUMENT FAMILY									SUBMITTAL TYPE				SUBMITTAL ACTION		
3	642-C.4.33.6	1						X			SURVEY NOTES & DWGS		X		02100-1.04	X		
											COVER DRAINAGE LAYER AS-BUILTS							

REVIEW DISTRIBUTION

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ECDC	52-7	TOM CARR	60		
GEOSYNTEC	38	KEVIN HARBIN	64		
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FRANK FLACK	64				
SAM WOLINSKY (APPROVER)	64				
LEE MCDANIELS	64				
FRED WILSON	60				

NO COMMENTS: COMMENTS: (PLEASE USE SPACE BELOW FOR COMMENTS OR INDICATE IF ATTACHMENTS)

ORIGINAL

000150

RECEIVED BY: DATE: 12/5/01
(SIGN/DATE AND RETURN A COPY TO ECDC, MS 52-7)

SUBMITTAL TYPE: (BY SUPPLIER)
CFC - CERTIFIED FOR CONSTRUCTION
INF - INFORMATION/RECORD
DRFT - DRAFT/PRELIMINARY

SUBMITTAL ACTION CODE: (BY FDF)
A - Conforms to the Subcontract Requirements
B - Minor Comments - Incorporate and Resubmit
C - Revise and Resubmit (SEE COMMENTS)

4555

David E. Estes Engineering, Inc.

4555

CIVIL & ENVIRONMENTAL ENGINEERING
HYDROGEOLOGY & LAND SURVEYING

July 11, 2001

SUBJECT: CERTIFICATION POINTS FOR COVER OF DRAINAGE LAYER AS-BUILTS.

I hereby certify that the elevations listed on the next 10 pages are the as-built elevations of the top of cover drainage layer for the point numbers listed, along with the date the elevations were recorded.

Lynn Edward Hirsch

LYNN EDWARD HIRSCH NO. S-5738
THOMAS J. MACK NO. S-7964
REGISTERED OHIO PROFESSIONAL SURVEYORS

STATE OF OHIO
LYNN E. HIRSCH S-5738
REGISTERED SURVEYOR

ECDC CONTROLLED
COPY NO. C-011

[X] A - Conforms to the Subcontract Requirements
[ ] B - Minor Comment - Incorporate and Resubmit
[ ] C - Major Comment - Revise and Resubmit
Sig: Date: 12/5/01
SH Wolinsky

000151

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- 4555

STATE OF OHIO — SURVEYOR

DATE 8-28-01
CREW

COVER DRAINAGE LAYER AS-BUILT

* = OUT OF TOLERANCE

PT#	NORTH	EAST	AS-BUILT TOP CLAY ELEVATION	AS-BUILT DRAINAGE ELEVATION	PROPOSED DRAINAGE ELEVATION	DIFF. IN ELEV.	COV. DRAIN THICK	DATE	DESCRIPTION
43	483093.26	1350835.11	622.15	623.16	623.14	+0.02	1.01	8-22-01	PT5000
44	483116.63	1350840.02	622.51	623.52	623.51	+0.01	1.01	8-20-01	PT5001
45	483136.32	1350853.50	623.02	624.05	623.89	+0.16	1.03	8-20-01	PT5002
46	483149.35	1350873.49	623.34	624.36	624.26	+0.10	1.02	8-20-01	PT5003
47	483153.73	1350896.96	623.66	624.67	624.63	+0.04	1.01	8-21-01	PT5004
48	483147.14	1351441.21	629.18	630.28	630.06	+0.22	1.10	8-29-01	PT5005
*49	483142.18	1351464.58	629.21	630.31	630.08	+0.23	1.10	8-30-01	PT5006
50	483128.65	1351484.26	629.17	630.22	630.11	+0.11	1.05	8-29-01	PT5007
51	483108.62	1351497.24	629.29	630.30	630.14	+0.16	1.01	8-29-01	PT5008
*52	483085.12	1351501.56	629.24	630.29	630.18	+0.11	1.05	8-30-01	PT5009
*53	482979.65	1351333.90	656.21	657.16	657.04	+0.12	* ~~1.05~~	8-27-01	PT5010
54	482966.48	1351042.10	655.95	656.97	656.92	+0.05	1.02	8-21-01	PT5011
55	482923.15	1351275.37	661.48	662.57	662.40	+0.17	1.09	8-23-01	PT5012
56	482915.20	1351099.31	661.29	662.30	662.33	+0.03	1.01	8-23-01	PT5013
109	483063.71	1350834.75	622.05	623.06	622.91	+0.15	1.01	8-22-01	TOPDRAIN
110	483063.10	1350884.36	630.29	631.34	631.19	+0.15	1.05	8-22-01	TOPDRAIN
111	483013.71	1350834.14	621.66	622.74	622.52	+0.22	1.08	8-22-01	TOPDRAIN
112	482963.72	1350833.53	621.29	622.39	622.13	+0.26	1.10	8-8-01	TOPDRAIN
113	482913.72	1350832.92	620.93	622.03	621.74	+0.29	1.10	8-8-01	TOPDRAIN
114	482863.72	1350832.31	620.51	621.52	621.35	+0.17	1.01	8-23-01	TOPDRAIN
116	483012.06	1350967.68	643.88	644.90	644.80	+0.10	1.02	8-10-01	TOPDRAIN
118	482911.14	1351041.42	655.61	656.68	656.55	+0.13	1.07	8-8-01	TOPDRAIN
119	482861.15	1351040.81	655.21	656.23	656.18	+0.05	1.02	8-8-01	TOPDRAIN
121	483063.40	1350859.75	626.23	627.30	627.08	+0.22	1.07	8-17-01	TOPDRAIN
123	483013.10	1350884.14	630.04	631.05	630.86	+0.19	1.01	8-17-01	TOPDRAIN
125	483012.48	1350934.13	638.38	639.39	639.20	+0.19	1.01	8-22-01	TOPDRAIN
128	482963.10	1350883.52	629.63	630.68	630.48	+0.20	1.05	8-17-01	TOPDRAIN
130	482962.48	1350933.52	638.00	639.01	638.82	+0.19	1.01	8-10-01	TOPDRAIN
132	482961.86	1350983.52	646.29	647.30	647.16	+0.14	1.01	8-10-01	TOPDRAIN
136	482913.10	1350882.91	629.28	630.34	630.09	+0.25	1.07	8-8-01	TOPDRAIN
138	482912.49	1350932.91	637.60	638.61	638.44	+0.17	1.01	8-22-01	TOPDRAIN
140	482911.87	1350982.91	645.88	646.96	646.79	+0.17	1.08	8-22-01	TOPDRAIN
144	482863.11	1350882.30	628.89	629.99	629.70	+0.29	1.10	8-8-01	TOPDRAIN
146	482862.49	1350932.30	637.11	638.20	638.05	+0.15	1.09	8-22-01	TOPDRAIN
148	482861.87	1350982.30	645.42	646.51	646.41	+0.10	1.09	8-22-01	TOPDRAIN
162	483036.98	1350926.99	637.25	638.27	638.15	+0.12	1.02	8-22-01	TOPDRAIN
168	483102.86	1350890.65	629.79	630.80	630.68	+0.12	1.01	8-21-01	TOPDRAIN
170	483069.40	1350927.81	635.94	637.01	637.10	-0.09	1.07	8-21-01	TOPDRAIN
180	483152.88	1350967.15	624.45	625.49	625.34	+0.15	1.04	8-22-01	TOPDRAIN
181	483152.27	1351017.14	624.99	626.01	625.85	+0.16	1.02	8-21-01	TOPDRAIN
182	483151.67	1351067.14	625.40	626.41	626.34	+0.07	1.01	8-27-01	TOPDRAIN
183	483151.06	1351117.14	625.95	627.04	626.83	+0.21	1.09	8-27-01	TOPDRAIN
184	483150.46	1351167.13	626.40	627.46	627.34	+0.12	1.06	8-27-01	TOPDRAIN
185	483149.85	1351217.13	626.84	627.93	627.83	+0.10	1.09	8-27-01	TOPDRAIN

* Pt#53 As-Built Drainage Elevation modified To Conform To Pt#3001 Due To Their Close Proximity. See Pt #3001

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COVER DRAINAGE LAYER AS-BUILT

DATE 8-28-01
CREW
* = OUT OF TOLERANCE

PT#	NORTH	EAST	AS-BUILT TOP CLAY ELEVATION	AS-BUILT DRAINAGE ELEVATION	PROPOSED DRAINAGE ELEVATION	DIFF. IN ELEV.	COV. DRAIN THICK	DATE	DESCRIPTION
186	483149.25	1351267.13	627.38	628.48	628.32	+0.06	1.10	8-27-01	TOPDRAIN
187	483148.64	1351317.12	627.89	628.92	628.82	+0.10	1.03	8-27-01	TOPDRAIN
188	483148.04	1351367.12	628.21	629.22	629.32	-0.10	1.01	8-29-01	TOPDRAIN
190	483001.09	1351015.28	649.94	650.99	650.99	0.00	1.05	8-22-01	TOPDRAIN
191	482967.51	1351064.87	656.11	657.12	656.97	+0.15	1.01	8-21-01	TOPDRAIN
192	482969.77	1351114.90	656.01	657.09	656.99	+0.09	1.08	8-24-01	TOPDRAIN
193	482972.02	1351164.93	656.05	657.06	657.01	+0.05	1.01	8-24-01	TOPDRAIN
194	482974.28	1351214.96	656.11	657.12	657.04	+0.08	1.01	8-27-01	TOPDRAIN
195	482976.54	1351264.99	656.10	657.11	657.06	+0.05	1.01	8-27-01	TOPDRAIN
196	482978.80	1351315.02	656.19	657.20	657.08	+0.12	1.01	8-24-01	TOPDRAIN
199	483098.04	1351366.50	636.76	637.80	637.64	+0.16	1.04	8-29-01	TOPDRAIN
201	483048.04	1351365.88	645.12	646.24	645.96	+0.18	1.02	8-29-01	TOPDRAIN
203	483097.52	1351409.42	637.02	638.03	638.07	-0.04	1.01	8-29-01	TOPDRAIN
205	483047.90	1351377.63	645.23	646.24	646.08	+0.16	1.01	8-29-01	TOPDRAIN
207	483098.65	1351316.50	636.14	637.23	637.14	+0.09	1.09	8-27-01	TOPDRAIN
209	483048.65	1351315.89	644.60	645.61	645.46	+0.15	1.01	8-27-01	TOPDRAIN
211	482998.65	1351315.27	652.86	653.87	653.78	+0.09	1.01	8-27-01	TOPDRAIN
213	483099.25	1351266.51	635.74	636.82	636.64	+0.18	1.08	8-27-01	TOPDRAIN
215	483049.26	1351265.89	644.02	645.04	644.96	+0.08	1.02	8-27-01	TOPDRAIN
217	482999.26	1351265.27	652.38	653.44	653.28	+0.16	1.06	8-27-01	TOPDRAIN
219	483099.86	1351216.51	635.23	636.80	636.15	+0.15	1.07	8-27-01	TOPDRAIN
221	483049.86	1351215.89	643.60	644.63	644.46	+0.17	1.03	8-27-01	TOPDRAIN
223	482999.86	1351215.28	651.82	652.83	652.78	+0.05	1.01	8-24-01	TOPDRAIN
225	483100.46	1351166.52	634.78	635.87	635.65	+0.22	1.09	8-27-01	TOPDRAIN
227	483050.47	1351165.90	643.00	644.06	643.96	+0.10	1.06	8-27-01	TOPDRAIN
229	483000.47	1351165.28	651.44	652.48	652.28	+0.20	1.04	8-27-01	TOPDRAIN
231	483101.07	1351116.52	634.24	635.30	635.15	+0.15	1.06	8-27-01	TOPDRAIN
233	483051.07	1351115.90	642.64	643.65	643.47	+0.18	1.01	8-24-01	TOPDRAIN
235	483001.08	1351115.28	650.91	651.99	651.78	+0.21	1.08	8-24-01	TOPDRAIN
237	483101.67	1351066.52	633.82	634.83	634.65	+0.18	1.01	8-22-01	TOPDRAIN
239	483051.68	1351065.91	641.86	642.97	642.97	0.00	1.11	8-22-01	TOPDRAIN
241	483001.68	1351065.29	650.45	651.46	651.29	+0.17	1.01	8-22-01	TOPDRAIN
244	483102.28	1351016.53	633.30	634.33	634.15	+0.18	1.03	8-21-01	TOPDRAIN
246	483052.28	1351015.91	641.65	642.67	642.47	+0.20	1.02	8-21-01	TOPDRAIN
249	483102.88	1350966.53	632.77	633.85	633.66	+0.19	1.08	8-22-01	TOPDRAIN
252	483103.25	1350936.09	632.44	633.52	633.36	+0.16	1.08	8-21-01	TOPDRAIN
254	483052.78	1350975.21	641.09	642.12	642.06	+0.06	1.03	8-21-01	TOPDRAIN
258	483093.46	1351448.74	635.56	636.62	636.48	+0.14	1.06	8-29-01	TOPDRAIN
260	483058.26	1351413.23	641.82	642.85	642.86	-0.01	1.03	8-29-01	TOPDRAIN
263	483055.47	1351501.20	629.03	630.13	629.91	+0.22	1.10	8-29-01	TOPDRAIN
264	483005.47	1351500.59	628.65	629.70	629.54	+0.16	1.05	8-29-01	TOPDRAIN
265	482955.48	1351499.98	628.22	629.24	629.15	+0.09	1.02	8-29-01	TOPDRAIN
266	482905.48	1351499.37	627.75	628.82	628.75	+0.07	1.07	8-28-01	TOPDRAIN
267	482855.48	1351498.76	627.43	628.50	628.35	+0.15	1.07	8-28-01	TOPDRAIN

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DATE 8-28-01
CREW

COVER DRAINAGE LAYER AS-BUILT

* = OUT OF TOLERANCE

PT#	NORTH	EAST	AS-BUILT TOP CLAY ELEVATION	AS-BUILT DRAINAGE ELEVATION	PROPOSED DRAINAGE ELEVATION	DIFF IN ELEV.	COV. DRAIN THICK	DATE	DESCRIPTION
269	483056.02	1351455.31	636.60	637.61	637.60	+0.01	1.01	8-29-01	TOPDRAIN
270	483006.96	1351377.32	649.13	650.14	650.12	+0.02	1.01	8-29-01	TOPDRAIN
273	483029.40	1351412.98	643.53	644.63	644.47	+0.16	1.10	8-29-01	TOPDRAIN
277	483006.08	1351450.59	637.07	637.17	637.97	+0.20	1.10	8-29-01	TOPDRAIN
279	483006.68	1351400.59	645.36	646.37	646.29	+0.08	1.01	8-29-01	TOPDRAIN
280	483055.77	1351476.20	633.11	634.12	634.12	0.00	1.01	8-29-01	TOPDRAIN
281	482907.49	1351333.02	655.57	656.58	656.58	0.00	1.01	8-29-01	TOPDRAIN
282	482857.50	1351332.41	655.18	656.25	656.19	+0.06	1.07	8-28-01	TOPDRAIN
285	482956.08	1351449.98	636.49	637.50	637.50	0.00	1.01	8-28-01	TOPDRAIN
287	482956.69	1351399.98	645.00	646.02	645.89	+0.13	1.02	8-28-01	TOPDRAIN
289	482957.29	1351349.99	653.17	654.26	654.17	+0.09	1.09	8-28-01	TOPDRAIN
291	482906.08	1351449.37	636.12	637.13	637.11	+0.02	1.01	8-29-01	TOPDRAIN
293	482906.69	1351399.37	644.5	645.51	645.48	+0.03	1.01	8-28-01	TOPDRAIN
295	482907.30	1351349.38	652.99	654.01	653.83	+0.18	1.02	8-28-01	TOPDRAIN
297	482856.09	1351448.76	635.8	636.85	636.72	+0.13	1.05	8-28-01	TOPDRAIN
299	482856.69	1351398.76	644.22	645.29	645.09	+0.20	1.07	8-28-01	TOPDRAIN
301	482857.30	1351348.77	652.61	653.62	653.46	+0.16	1.01	8-28-01	TOPDRAIN
1000	482852.01	1351625.53	N/A	611.64	611.63	+0.01	—	10-2-01	TOPDRAIN
1001	482852.62	1351575.44	"	616.83	616.64	+0.19		10-3-01	TOPDRAIN
1002	482852.95	1351548.82	"	620.06	620.06	0.00	—	8-29-01	TOPDRAIN
1003	482853.26	1351523.32	"	NOT USED	624.3				TOPDRAIN
1004	482853.33	1351517.82	"	625.31	625.22	+0.09	—	8-28-01	TOPDRAIN
1005	482852.24	1351606.78	"	614.76	614.76	0.00	—	10-3-01	TOPDRAIN
1006	482853.01	1351543.82	"	NOT USED	620.89				TOPDRAIN
1007	482852.73	1351566.11	"	617.20	617.20	0.00	—	8-28-01	TOPDRAIN
1008	482853.56	1351498.74	"	628.39	628.34	+0.05	—	8-28-01	TOPDRAIN
1009	482854.17	1351448.74	"	636.78	636.71	+0.07	—	8-28-01	TOPDRAIN
1010	482854.78	1351398.74	"	645.12	645.08	+0.04	—	8-28-01	TOPDRAIN
1011	482855.39	1351348.75	"	653.54	653.45	+0.09	—	8-28-01	TOPDRAIN
1012	482855.59	1351332.46	"	656.25	656.18	+0.07	—	8-23-01	TOPDRAIN
1013	482856.30	1351274.59	"	661.90	661.81	+0.09	—	8-23-01	TOPDRAIN
1014	482856.84	1351230.57	"	664.14	664.06	+0.08	—	8-23-01	TOPDRAIN
1015	482857.91	1351142.60	"	664.14	664.06	+0.08	—	8-23-01	TOPDRAIN
1016	482857.18	1351202.56	"	665.50	665.50	0.00	—	8-23-01	TOPDRAIN
1017	482857.60	1351168.35	"	665.40	665.40	0.00	—	8-23-01	TOPDRAIN
1018	482855.94	1351303.47	"	659.10	659.02	+0.08	—	8-23-01	TOPDRAIN
1019	482858.45	1351098.58	"	661.84	661.83	+0.01	—	8-23-01	TOPDRAIN
1020	482859.15	1351040.71	"	656.24	656.17	+0.07	—	8-8-01	TOPDRAIN
1021	482859.87	1350982.28	"	646.41	646.40	+0.01	—	8-8-01	TOPDRAIN
1022	482860.48	1350932.28	"	638.11	638.04	+0.07	—	8-8-01	TOPDRAIN
1023	482861.10	1350882.28	"	629.74	629.69	+0.05	—	8-23-01	TOPDRAIN
1024	482861.71	1350832.29	"	621.42	621.34	+0.08	—	8-20-01	TOPDRAIN
1025	482861.94	1350813.20	"	618.18	618.18	0.00	—	8-8-01	TOPDRAIN
1026	482862.01	1350807.70	N/A	NOT USED	617.27				TOPDRAIN

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COVER DRAINAGE LAYER AS-BUILT

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PT#	NORTH	EAST	AS-BUILT TOP CLAY ELEVATION	AS-BUILT DRAINAGE ELEVATION	PROPOSED DRAINAGE ELEVATION	DIFF. IN ELEV.	COV. DRAIN THICK	DATE	DESCRIPTION
1027	482862.26	1350787.20	N/A	NOT USED	613.87	—	—	—	TOPDRAIN
1028	482862.32	1350782.20	"	613.06	613.04	+0.02	—	8-22-01	TOPDRAIN
1029	482862.86	1350738.26	"	606.80	606.72	+0.08	—	10-29-01	TOPDRAIN
1030	482863.47	1350688.18	N/A	Not Used	601.71	—	—	—	TOPDRAIN
1031	482904.16	1351607.41	613.08	615.10	615.14	-0.04	2.02	10-3-01	TOPDRAIN
1032	482904.66	1351566.75	N/A	617.59	617.58	+0.01	—	8-28-01	TOPDRAIN
1033	482954.17	1351608.02	613.50	615.57	615.52	+0.05	2.07	10-3-01	TOPDRAIN
1034	482954.66	1351567.36	N/A	617.98	617.96	+0.02	—	9-17-01	TOPDRAIN
1035	483004.16	1351608.63	613.85	615.96	615.89	+0.07	2.11	10-3-01	TOPDRAIN
1036	483004.66	1351567.97	N/A	618.42	618.33	+0.09	—	9-17-01	TOPDRAIN
1037	483054.16	1351609.24	614.25	616.27	616.27	0.00	2.02	10-3-01	TOPDRAIN
1038	483054.65	1351568.58	N/A	618.80	618.71	+0.09	—	9-17-01	TOPDRAIN
1039	483089.99	1351609.68	614.41	616.43	616.54	-0.11	2.02	10-3-01	TOPDRAIN
1040	483090.48	1351569.02	N/A	618.99	618.98	+0.01	—	9-17-01	TOPDRAIN
1041	483114.10	1351611.32	614.34	616.36	616.54	-0.18	2.02	10-2-01	TOPDRAIN
1042	483170.29	1351605.46	613.88	616.03	615.90	+0.13	2.15	10-2-01	TOPDRAIN
1043	483217.67	1351576.14	613.66	615.75	615.73	+0.02	2.09	10-2-01	TOPDRAIN
1044	483248.15	1351529.49	613.79	615.90	615.89	+0.01	2.11	9-28-01	TOPDRAIN
1045	483255.38	1351473.47	614.44	616.52	616.52	0.00	2.08	9-28-01	TOPDRAIN
1046	483254.33	1351448.71	N/A	616.51	616.51	0.00	—	9-28-01	TOPDRAIN
1047	483213.67	1351448.22	N/A	619.01	618.95	+0.06	—	9-17-01	TOPDRAIN
1048	483254.82	1351408.73	614.03	616.18	616.11	+0.07	2.15	9-28-01	TOPDRAIN
1049	483214.16	1351408.22	N/A	618.55	618.54	+0.01	—	9-17-01	TOPDRAIN
1050	483255.31	1351368.45	613.68	615.87	615.71	+0.16	2.03	9-28-01	TOPDRAIN
1051	483214.65	1351367.95	N/A	618.17	618.14	+0.03	—	9-17-01	TOPDRAIN
1052	483205.37	1351500.63	N/A	619.05	618.96	+0.09	—	9-12-01	TOPDRAIN
1053	483142.72	1351561.86	N/A	618.97	618.97	0.00	—	9-17-01	TOPDRAIN
1054	483180.26	1351537.61	N/A	618.97	618.96	+0.01	—	9-17-01	TOPDRAIN
1055	483255.92	1351318.45	613.18	615.35	615.21	+0.14	2.17	9-28-01	TOPDRAIN
1056	483215.26	1351317.95	N/A	617.65	617.64	+0.01	—	9-17-01	TOPDRAIN
1057	483256.53	1351268.45	612.68	614.87	614.71	+0.16	2.19	9-28-01	TOPDRAIN
1058	483215.87	1351267.95	N/A	617.23	617.14	+0.09	—	9-12-01	TOPDRAIN
1059	483257.14	1351218.46	612.19	614.39	614.21	+0.18	2.20	9-28-01	TOPDRAIN
1060	483216.48	1351217.96	N/A	616.73	616.64	+0.09	—	9-12-01	TOPDRAIN
1061	483257.75	1351168.46	611.59	613.74	613.71	+0.03	2.12	9-28-01	TOPDRAIN
1062	483217.09	1351167.96	N/A	616.14	616.14	0.00	—	8-27-01	TOPDRAIN
1063	483258.36	1351118.47	611.04	613.22	613.21	+0.01	2.18	9-28-01	TOPDRAIN
1064	483217.70	1351117.96	N/A	615.70	615.64	+0.07	—	8-27-01	TOPDRAIN
1065	483258.98	1351068.47	610.67	612.86	612.71	+0.15	2.19	8-28-01	TOPDRAIN
1066	483218.32	1351067.97	N/A	615.22	615.14	+0.08	—	8-27-01	TOPDRAIN
1067	483259.59	1351018.47	610.18	612.21	612.21	0.00	2.11	9-28-01	TOPDRAIN
1068	483218.93	1351017.97	N/A	614.70	614.64	+0.06	—	8-21-01	TOPDRAIN
1069	483260.20	1350968.48	609.67	611.72	611.71	+0.01	2.05	9-29-01	TOPDRAIN
1070	483219.54	1350967.98	N/A	614.16	614.14	+0.02	—	8-22-01	TOPDRAIN

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DATE 8-28-01
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COVER DRAINAGE LAYER AS-BUILT

* = OUT OF TOLERANCE

PT#	NORTH	EAST	AS-BUILT TOP CLAY ELEVATION	AS-BUILT DRAINAGE ELEVATION	PROPOSED DRAINAGE ELEVATION	DIFF. IN ELEV.	COV. DRAIN THICK	DATE	DESCRIPTION
1071	483260.57	1350938.03	609.32	611.51	611.41	+0.10	2.19	9-28-01	TOPDRAIN
1072	483219.91	1350937.53	N/A	613.91	613.84	+0.07	—	8-23-01	TOPDRAIN
1073	483261.13	1350892.08	608.89	610.98	610.95	+0.03	2.06	9-28-01	TOPDRAIN
1074	483220.47	1350891.59	N/A	613.39	613.38	+0.01	—	8-20-01	TOPDRAIN
1075	483262.99	1350850.05	608.24	610.34	610.27	+0.07	2.10	9-28-01	TOPDRAIN
1076	483221.46	1350866.12	N/A	612.83	612.83	0.00	—	8-20-01	TOPDRAIN
1077	483257.14	1350793.85	606.87	608.93	608.82	+0.11	2.06	9-28-01	TOPDRAIN
1078	483213.73	1350821.77	N/A	612.02	611.94	+0.08	—	8-23-01	TOPDRAIN
1079	483227.82	1350746.47	"	607.86	607.83	+0.03	—	10-29-01	TOPDRAIN
1080	483189.37	1350784.00	"	611.06	611.04	+0.02	—	8-23-01	TOPDRAIN
1081	483181.72	1350715.17	"	607.12	607.02	+0.10	—	10-29-01	TOPDRAIN
1082	483152.20	1350758.71	"	610.22	610.14	+0.08	—	8-23-01	TOPDRAIN
1083	483126.57	1350705.31	"	606.44	606.37	+0.07	—	10-29-01	TOPDRAIN
1084	483108.05	1350749.91	"	609.26	609.25	+0.01	—	8-20-01	TOPDRAIN
1085	483100.99	1350709.83	"	606.62	606.57	+0.05	—	10-29-01	TOPDRAIN
1086	483100.50	1350750.48	"	609.10	609.07	+0.03	—	8-20-01	TOPDRAIN
1087	483065.26	1350709.39	"	606.39	606.32	+0.07	—	10-29-01	TOPDRAIN
1088	483064.76	1350750.04	"	608.85	608.79	+0.06	—	8-17-01	TOPDRAIN
1089	483015.26	1350708.78	"	606.01	605.95	+0.06	—	10-29-01	TOPDRAIN
1090	483014.76	1350749.43	"	608.44	608.42	+0.02	—	8-17-01	TOPDRAIN
1091	482965.27	1350708.17	"	605.64	605.58	+0.06	—	10-29-01	TOPDRAIN
1092	482964.77	1350748.82	"	608.08	608.04	+0.04	—	8-23-01	TOPDRAIN
1093	482915.27	1350707.56	"	605.31	605.22	+0.09	—	10-29-01	TOPDRAIN
1094	482914.77	1350748.21	"	607.70	607.67	+0.03		9-27-01	TOPDRAIN
1095	482865.28	1350706.95	"	604.90	604.85	+0.05	—	10-29-01	TOPDRAIN
1096	482864.77	1350747.60	"	607.38	607.29	+0.09	—	8-8-01	TOPDRAIN
1097	482863.24	1350706.92	"	604.88	604.84	+0.04	—	10-29-01	TOPDRAIN
1098	482862.75	1350747.57	N/A	607.35	607.28	+0.07	—	8-8-01	TOPDRAIN
1835	482922.65	1351264.33	661.57	662.66	662.41	+0.25	1.09	8-23-01	TOPDRAIN
1836	482920.39	1351214.29	661.57	662.65	662.38	+0.27	1.08	8-23-01	TOPDRAIN
1837	482918.13	1351164.26	661.54	662.63	662.36	+0.27	1.09	8-23-01	TOPDRAIN
1838	482915.87	1351114.23	661.4	662.41	662.35	+0.06	1.01	8-23-01	TOPDRAIN
1839	482949.60	1351264.66	658.81	659.87	659.72	+0.15	1.06	8-23-01	TOPDRAIN
1840	482947.34	1351214.63	658.89	659.97	659.70	+0.27	1.08	8-23-01	TOPDRAIN
1841	482945.08	1351164.60	658.81	659.89	659.67	+0.22	1.08	8-23-01	TOPDRAIN
1842	482942.82	1351114.56	658.81	659.87	659.65	+0.22	1.06	8-24-01	TOPDRAIN
1843	482908.19	1351275.19	661.48	662.49	662.28	+0.21	1.01	8-23-01	TOPDRAIN
1844	482858.20	1351274.58	660.94	662.02	661.83	+0.19	1.08	8-23-01	TOPDRAIN
1846	482907.84	1351304.10	658.53	659.54	659.41	+0.13	1.01	8-23-01	TOPDRAIN
1849	482951.40	1351304.63	658.94	660.02	659.74	+0.28	1.08	8-23-01	TOPDRAIN
1851	482940.84	1351070.70	658.74	659.75	659.64	+0.11	1.01	8-24-01	TOPDRAIN
1853	482860.43	1351098.64	658.94	661.95	661.83	+0.12	1.01	8-23-01	TOPDRAIN
1859	482859.89	1351142.62	663.19	664.28	664.08	+0.20	1.09	8-23-01	TOPDRAIN
1860	482878.87	1351142.85	663.35	664.36	664.26	+0.10	1.01	8-23-01	TOPDRAIN

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1864	482882.84	1351230.88	663.35	664.36	664.3	+0.06	1.01	8-23-01	TOPDRAIN
1866	482858.73	1351230.59	663.28	664.29	664.08	+0.21	1.01	8-23-01	TOPDRAIN
1867	482879.82	1351163.79	663.37	664.45	664.27	+0.18	1.08	8-23-01	TOPDRAIN
1868	482882.07	1351213.82	663.49	664.50	664.29	+0.21	1.01	8-23-01	TOPDRAIN
3000	482966.77	1351041.80	655.95	656.96	656.92	+0.04	1.01	8-24-01	PT10000
3001	482979.97	1351334.20	656.06	657.16	657.04	+0.12	1.10	8-24-01	PT10001
3002	482915.32	1351099.16	661.29	662.34	662.33	+0.01	1.05	8-27-01	PT10002
3003	482923.29	1351275.52	661.48	662.63	662.40	+0.23	1.09	8-28-01	PT10003
3014	483100.01	1350790.10	614.67	NOT USED	615.67				PT10014
3015	483138.17	1350798.20	615.02	NOT USED	616.03				PT10015
3016	483170.34	1350820.27	615.54	NOT USED	616.38				PT10016
3017	483191.62	1350852.87	615.69	NOT USED	616.74				PT10017
3018	483198.78	1350891.32	615.97	NOT USED	617.10				PT10018
3019	483191.97	1351447.95	621.47	NOT USED	622.66				PT10019
3020	483183.89	1351486.12	621.63	NOT USED	622.67				PT10020
3021	483161.82	1351518.30	621.65	NOT USED	622.68				PT10021
3022	483129.12	1351539.58	621.80	NOT USED	622.69				PT10022
3023	483090.76	1351546.72	621.61	NOT USED	622.70				PT10023
3038	482854.93	1351543.84	619.90	NOT USED	620.90				TOPDRAIN
3039	482854.87	1351548.84	619.11	620.15	620.07	+0.08	1.04	8-29-01	TOPDRAIN
3040	482855.18	1351523.34	623.28	NOT USED	624.31				TOPDRAIN
3041	482855.25	1351517.84	624.42	625.44	625.23	+0.21	1.02	8-28-01	TOPDRAIN
3042	482904.93	1351544.45	620.38	NOT USED	621.28				TOPDRAIN
3043	482904.87	1351549.45	619.41	620.49	620.45	+0.04	1.08	8-28-01	TOPDRAIN
3044	482905.18	1351523.95	623.67	NOT USED	624.69				TOPDRAIN
3045	482905.25	1351518.45	624.63	625.69	625.61	+0.08	1.06	8-28-01	TOPDRAIN
3046	482954.93	1351545.06	620.62	NOT USED	621.66				TOPDRAIN
3048	482954.87	1351550.06	619.77	620.79	620.83	-0.04	1.02	8-29-01	TOPDRAIN
3049	482955.18	1351524.56	624.00	NOT USED	625.07				TOPDRAIN
3050	482955.24	1351519.06	625.00	626.09	625.99	+0.10	1.09	8-29-01	TOPDRAIN
3051	483004.93	1351545.67	620.92	NOT USED	622.04				TOPDRAIN
3053	483004.87	1351550.67	620.15	621.25	621.21	+0.04	1.10	8-28-01	TOPDRAIN
3054	483005.17	1351525.17	624.45	NOT USED	625.46				TOPDRAIN
3055	483005.24	1351519.67	625.41	626.51	626.38	+0.13	1.10	8-29-01	TOPDRAIN
3056	483054.92	1351546.28	621.37	NOT USED	622.42				TOPDRAIN
3058	483054.86	1351551.28	620.60	621.69	621.59	+0.10	1.09	8-30-01	TOPDRAIN
3059	483055.17	1351525.78	624.92	NOT USED	625.84				TOPDRAIN
3060	483055.24	1351520.28	625.85	626.94	626.76	+0.18	1.09	8-29-01	TOPDRAIN
3061	483093.07	1351551.15	621.07	622.08	622.25	-0.17	1.01	8-29-01	TOPDRAIN
3062	483081.28	1351528.54	624.71	NOT USED	625.64				TOPDRAIN
3063	483078.74	1351523.66	625.42	626.43	626.43	0.00	1.01	8-30-01	TOPDRAIN
3064	483132.06	1351543.63	621.04	622.14	622.01	+0.13	1.10	8-30-01	TOPDRAIN
3065	483117.07	1351522.99	624.61	NOT USED	625.46				TOPDRAIN
3066	483113.84	1351518.54	625.30	626.31	626.20	+0.11	1.01	8-30-01	TOPDRAIN

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3067	483165.33	1351521.86	621.00	622.08	622.02	+0.06	1.08	8-30-01	TOPDRAIN
3068	483147.41	1351503.72	624.33	NOT USED	625.40				TOPDRAIN
3069	483143.55	1351499.80	625.06	626.16	626.13	+0.03	1.10	8-30-01	TOPDRAIN
3070	483187.90	1351489.11	620.81	621.84	621.99	-0.15	1.03	8-30-01	TOPDRAIN
3071	483167.45	1351473.87	624.62	NOT USED	625.44				TOPDRAIN
3072	483163.04	1351470.59	625.23	626.33	626.18	+0.15	1.10	8-30-01	TOPDRAIN
3073	483196.38	1351450.31	620.96	621.97	621.95	+0.02	1.01	8-29-01	TOPDRAIN
3074	483173.91	1351438.26	624.58	NOT USED	625.59				TOPDRAIN
3075	483169.06	1351435.66	625.26	626.36	626.38	-0.02	1.10	8-29-01	TOPDRAIN
3076	483192.95	1351367.67	620.66	NOT USED	621.86				TOPDRAIN
3077	483197.95	1351367.74	619.82	620.92	621.03	-0.11	1.10	8-29-01	TOPDRAIN
3078	483172.45	1351367.42	624.09	NOT USED	625.26				TOPDRAIN
3079	483166.95	1351367.35	624.96	626.06	626.17	-0.11	1.10	8-30-01	TOPDRAIN
3080	483192.46	1351407.95	621.20	NOT USED	622.26				TOPDRAIN
3081	483147.55	1351407.40	628.57	629.67	629.72	-0.05	1.10	8-29-01	TOPDRAIN
3082	483197.46	1351408.01	620.37	621.44	621.43	+0.01	1.07	8-29-01	TOPDRAIN
3083	483171.96	1351407.70	624.55	NOT USED	625.67				TOPDRAIN
3084	483166.46	1351407.63	625.52	626.59	626.58	+0.01	1.07	8-29-01	TOPDRAIN
3085	483193.56	1351317.68	620.19	NOT USED	621.36				TOPDRAIN
3086	483198.56	1351317.74	619.32	620.42	620.53	+0.11	1.10	8-29-01	TOPDRAIN
3087	483173.07	1351317.42	623.74	NOT USED	624.76				TOPDRAIN
3088	483167.57	1351317.36	624.66	625.76	625.67	+0.09	1.10	8-27-01	TOPDRAIN
3089	483194.18	1351267.68	619.97	NOT USED	620.86				TOPDRAIN
3090	483199.18	1351267.74	619.14	620.21	620.03	+0.18	1.07	8-27-01	TOPDRAIN
3091	483173.68	1351267.43	623.26	NOT USED	624.26				TOPDRAIN
3092	483168.18	1351267.36	624.29	625.36	625.17	+0.19	1.07	8-27-01	TOPDRAIN
3093	483194.79	1351217.69	619.46	NOT USED	620.36				TOPDRAIN
3094	483199.79	1351217.75	618.72	619.73	619.53	+0.20	1.01	8-27-01	TOPDRAIN
3095	483174.29	1351217.43	622.87	NOT USED	623.77				TOPDRAIN
3096	483168.79	1351217.36	623.78	624.87	624.68	+0.19	1.09	8-27-01	TOPDRAIN
3097	483195.40	1351167.69	618.97	NOT USED	619.86				TOPDRAIN
3098	483200.40	1351167.75	618.15	619.24	619.03	+0.21	1.09	8-27-01	TOPDRAIN
3099	483174.90	1351167.44	622.39	NOT USED	623.27				TOPDRAIN
3100	483169.40	1351167.37	623.22	624.25	624.19	+0.06	1.03	8-27-01	TOPDRAIN
3101	483196.01	1351117.69	618.44	NOT USED	619.36				TOPDRAIN
3102	483201.01	1351117.75	617.51	618.60	618.53	+0.07	1.09	8-27-01	TOPDRAIN
3103	483175.51	1351117.44	621.86	NOT USED	622.77				TOPDRAIN
3104	483170.01	1351117.37	621.81	623.82	623.68	+0.14	1.01	8-27-01	TOPDRAIN
3105	483196.62	1351067.70	617.72	NOT USED	618.86				TOPDRAIN
3106	483201.62	1351067.76	616.89	617.98	618.03	-0.05	1.09	8-27-01	TOPDRAIN
3107	483176.12	1351067.44	621.34	NOT USED	622.27				TOPDRAIN
3108	483170.62	1351067.38	622.21	623.29	623.19	+0.10	1.08	8-27-01	TOPDRAIN
3109	483197.23	1351017.70	617.33	NOT USED	618.36				TOPDRAIN
3110	483202.23	1351017.76	616.60	617.68	617.53	+0.15	1.08	8-21-01	TOPDRAIN

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3111	483176.74	1351017.45	620.78	NOT USED	621.77				TOPDRAIN
3112	483171.24	1351017.38	621.74	622.84	622.69	+0.15	1.10	8-21-01	TOPDRAIN
3113	483197.85	1350967.70	616.87	NOT USED	617.86				TOPDRAIN
3114	483202.85	1350967.77	616.14	617.15	617.03	+0.12	1.01	8-22-01	TOPDRAIN
3115	483177.35	1350967.45	620.42	NOT USED	621.27				TOPDRAIN
3116	483171.85	1350967.38	621.31	622.37	622.18	+0.19	1.06	8-22-01	TOPDRAIN
3117	483198.22	1350937.26	616.53	NOT USED	617.56				TOPDRAIN
3118	483153.25	1350936.70	624.10	625.11	625.04	+0.07	1.01	8-21-01	TOPDRAIN
3119	483203.22	1350937.32	615.64	616.70	616.73	+0.03	1.06	8-22-01	TOPDRAIN
3120	483177.72	1350937.01	620.10	NOT USED	620.97				TOPDRAIN
3121	483172.22	1350936.94	620.88	621.98	621.88	+0.10	1.01	8-21-01	TOPDRAIN
3122	483202.97	1350888.60	615.21	616.28	616.38	-0.10	1.07	8-22-01	TOPDRAIN
3123	483181.58	1350902.48	619.06	NOT USED	620.05				TOPDRAIN
3124	483176.97	1350905.47	619.92	620.94	620.84	+0.10	1.02	8-21-01	TOPDRAIN
3125	483195.45	1350849.65	614.85	615.94	616.06	-0.12	1.09	8-22-01	TOPDRAIN
3126	483175.92	1350866.06	618.63	NOT USED	619.54				TOPDRAIN
3127	483171.71	1350869.60	619.23	620.24	620.29	-0.05	1.01	8-22-01	TOPDRAIN
3128	483173.72	1350816.59	614.56	615.64	615.70	-0.06	1.08	8-22-01	TOPDRAIN
3129	483156.47	1350835.36	618.01	NOT USED	619.14				TOPDRAIN
3130	483152.75	1350839.41	618.72	619.81	619.88	-0.07	1.09	8-22-01	TOPDRAIN
3131	483141.05	1350794.11	614.51	615.56	615.34	+0.22	1.05	8-20-01	TOPDRAIN
3132	483126.37	1350814.97	617.82	NOT USED	618.84				TOPDRAIN
3133	483123.21	1350819.46	618.78	619.81	619.60	+0.21	1.03	8-20-01	TOPDRAIN
3134	483102.35	1350785.68	614.12	615.13	614.95	+0.18	1.01	8-22-01	TOPDRAIN
3135	483090.42	1350808.22	617.67	NOT USED	618.64				TOPDRAIN
3136	483087.85	1350813.08	618.39	619.40	619.44	-0.04	1.01	8-22-01	TOPDRAIN
3137	483064.27	1350789.66	614.42	NOT USED	615.40				TOPDRAIN
3138	483064.33	1350784.66	613.56	614.60	614.57	+0.03	1.04	8-20-01	TOPDRAIN
3139	483064.01	1350810.16	618.00	NOT USED	618.81				TOPDRAIN
3140	483063.95	1350815.66	618.87	619.95	619.73	+0.22	1.08	8-23-01	TOPDRAIN
3141	483014.27	1350789.05	614.16	NOT USED	615.02				TOPDRAIN
3142	483014.33	1350784.05	613.32	614.34	614.19	+0.15	1.02	8-20-01	TOPDRAIN
3143	483014.02	1350809.55	617.54	NOT USED	618.43				TOPDRAIN
3144	483013.95	1350815.05	618.44	619.46	619.34	+0.12	1.02	8-23-01	TOPDRAIN
3145	482964.27	1350788.44	613.76	NOT USED	614.64				TOPDRAIN
3146	482964.34	1350783.44	612.86	613.89	613.81	+0.08	1.03	8-20-01	TOPDRAIN
3147	482964.02	1350808.94	617.09	NOT USED	618.05				TOPDRAIN
3148	482963.95	1350814.44	618.05	619.09	618.96	+0.13	1.04	8-22-01	TOPDRAIN
3149	482914.28	1350787.83	613.32	NOT USED	614.26				TOPDRAIN
3150	482914.34	1350782.83	612.46	613.55	613.43	+0.12	1.09	8-20-01	TOPDRAIN
3151	482914.02	1350808.33	616.83	NOT USED	617.66				TOPDRAIN
3152	482913.96	1350813.83	617.72	618.75	618.57	+0.18	1.03	8-8-01	TOPDRAIN
3153	482864.28	1350787.22	612.81	NOT USED	613.88				TOPDRAIN
3154	482864.34	1350782.22	611.94	613.01	613.05	-0.04	1.07	8-22-01	TOPDRAIN

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STATE OF OH
LYNN E. HIRSCH
S-5738
REGISTERED SURVEYOR

DATE 8-28-01
CREW

COVER DRAINAGE LAYER AS-BUILT

* = OUT OF TOLERANCE

PT#	NORTH	EAST	AS-BUILT TOP CLAY ELEVATION	AS-BUILT DRAINAGE ELEVATION	PROPOSED DRAINAGE ELEVATION	DIFF. IN ELEV.	COV. DRAIN THICK	DATE	DESCRIPTION
3155	482864.03	1350807.72	616.43	NOT USED	617.28				TOPDRAIN
3156	482863.96	1350813.22	617.34	618.35	618.19	+0.16	1.01	8-8-01	TOPDRAIN
3178	483090.37	1351578.34	616.47	618.51	618.42	+0.09	2.04	10-2-01	TOPDRAIN#1139
3180	483089.76	1351628.43	613.61	613.61	613.41	+0.20	—	10-2-01	TOPDRAIN#1140
3181	483101.39	1351578.48	616.48	618.51	618.42	+0.09	2.03	10-2-01	TOPDRAIN#1137
3182	483120.87	1351628.81	613.12	613.12	613.41	-0.29	—	9-28-01	TOPDRAIN#1138
3183	483147.42	1351569.91	616.50	618.54	618.41	+0.13	2.04	10-3-01	TOPDRAIN#1134
3184	483178.40	1351618.08	613.38	613.38	613.40	-0.02	—	9-28-01	TOPDRAIN#1135
3185	483186.67	1351544.37	616.30	618.32	618.40	-0.08	2.02	10-2-01	TOPDRAIN#1131
3186	483227.45	1351586.16	613.31	613.31	613.40	+0.09	—	9-28-01	TOPDRAIN#1132
3187	483213.15	1351505.76	616.48	618.50	618.40	+0.10	2.02	9-28-01	TOPDRAIN#1128
3188	483260.56	1351537.91	613.40	613.40	613.39	+0.01	—	9-28-01	TOPDRAIN#1129
3189	483222.85	1351459.95	616.39	618.41	618.39	+0.02	2.02	9-28-01	TOPDRAIN#1125
3190	483272.69	1351480.66	613.43	613.43	613.39	+0.04	—	9-28-01	TOPDRAIN#1126
3191	483222.99	1351448.33	616.45	618.47	618.39	+0.08	2.02	9-28-01	TOPDRAIN#1123
3192	483273.08	1351448.94	613.43	613.43	613.38	+0.05	—	9-27-01	TOPDRAIN#1124
3193	483229.79	1350891.70	610.98	613.11	612.82	+0.29	2.13	10-1-01	TOPDRAIN#1120
3194	483279.88	1350892.31	607.63	607.63	607.82	-0.19	—	9-27-01	TOPDRAIN#1121
3195	483230.15	1350862.76	610.34	612.44	612.27	+0.17	2.10	10-1-01	TOPDRAIN#1118
3196	483280.48	1350843.28	607.06	607.06	607.14	-0.08	—	9-27-01	TOPDRAIN#1119
3197	483221.57	1350816.73	609.58	611.61	611.38	+0.23	2.03	10-1-01	TOPDRAIN#1115
3198	483269.76	1350785.74	606.42	606.42	606.32	+0.10	—	9-27-01	TOP DRAIN#1116
3199	483196.04	1350777.49	608.56	610.58	610.48	+0.10	2.02	10-17-01	TOPDRAIN#1112
3200	483237.84	1350736.69	605.60	605.60	605.50	+0.10	—	9-6-01	TOPDRAIN#1113
3201	483157.43	1350751.00	607.54	609.60	609.58	+0.02	2.06	10-29-01	TOPDRAIN#1109
3202	483189.58	1350703.58	604.72	604.72	604.69	+0.03	—	9-27-01	TOPDRAIN#1110
3203	483132.32	1350691.46	603.97	603.97	603.87	+0.10	—	9-27-01	TOPDRAIN#1107
3204	483111.62	1350741.30	606.56	608.69	608.69	0.00	2.13	10-29-01	TOPDRAIN#1106
3205	483101.22	1350691.08	603.32	603.32	603.44	-0.12	—	8-2-01	TOPDRAIN#1103
3206	483100.61	1350741.16	606.52	608.59	608.51	+0.08	2.07	10-29-01	TOPDRAIN#1104
3211	482864.89	1350738.28	604.73	606.82	606.73	+0.09	2.09	10-29-01	TOPDRAIN
3212	482865.51	1350688.20	601.52	601.52	601.72	-0.20	—	8-1-01	TOPDRAIN
3213	482914.88	1350738.89	605.06	607.15	607.11	+0.04	2.09	10-29-01	TOPDRAIN
3214	482915.50	1350688.81	601.94	601.94	602.09	-0.15	—	8-1-01	TOPDRAIN
3215	482964.88	1350739.50	605.56	607.56	607.48	+0.08	2.00	10-29-01	TOPDRAIN
3216	482965.50	1350689.42	602.45	602.45	602.45	0.00	—	8-1-01	TOPDRAIN
3217	483014.88	1350740.11	605.86	607.87	607.86	+0.01	2.01	10-29-01	TOPDRAIN
3218	483015.49	1350690.03	602.65	602.65	602.82	-0.17	—	8-2-01	TOPDRAIN
3219	483064.87	1350740.72	606.24	608.27	608.23	+0.04	2.03	10-29-01	TOPDRAIN
3220	483065.49	1350690.64	603.21	603.21	603.19	+0.02	—	8-2-01	TOPDRAIN
3221	483279.32	1350938.26	608.13	608.13	608.28	-0.15	—	9-27-01	TOPDRAIN
3222	483229.23	1350937.64	611.46	613.48	613.28	+0.20	2.02	9-28-01	TOPDRAIN
3223	483278.95	1350968.71	608.50	608.50	608.58	-0.08	—	9-27-01	TOPDRAIN
3224	483228.86	1350968.09	611.68	613.79	613.58	+0.21	2.11	9-28-01	TOPDRAIN

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STATE OF O
LYNN E. HIRSCH S-5738
REGISTERED SURVEYO

DATE 8-28-01
CREW

COVER DRAINAGE LAYER AS-BUILT

* = OUT OF TOLERANCE

PT#	NORTH	EAST	AS-BUILT TOP CLAY ELEVATION	AS-BUILT DRAINAGE ELEVATION	PROPOSED DRAINAGE ELEVATION	DIFF. IN ELEV.	COV. DRAIN. THICK.	DATE	DESCRIPTION
3225	483278.34	1351018.70	609.00	609.00	609.08	-0.08	—	9-27-01	TOPDRAIN
3226	483228.25	1351018.08	612.21	614.23	614.08	+0.13	2.02	9-28-01	TOPDRAIN
3227	483277.73	1351068.70	609.53	609.53	609.58	-0.05	—	9-27-01	TOPDRAIN
3228	483227.64	1351068.08	612.60	614.72	614.58	+0.14	2.12	10-1-01	TOPDRAIN
3229	483277.11	1351118.70	609.94	609.94	610.08	-0.14	—	9-27-01	TOPDRAIN
3230	483227.02	1351118.08	612.89	615.09	615.08	-0.01	2.20	10-1-01	TOPDRAIN
3231	483276.50	1351168.69	610.46	610.46	610.58	-0.12	—	9-27-01	TOPDRAIN
3232	483226.41	1351168.07	613.68	615.70	615.58	+0.12	2.02	9-28-01	TOPDRAIN
3233	483275.89	1351218.69	611.00	611.00	611.08	-0.08	—	9-27-01	TOPDRAIN
3234	483225.80	1351218.07	614.27	616.29	616.08	+0.21	2.02	9-28-01	TOPDRAIN
3235	483275.28	1351268.68	611.59	611.59	611.58	+0.01	—	9-28-01	TOPDRAIN
3236	483225.19	1351268.07	614.75	616.78	616.58	+0.20	2.03	9/17	TOPDRAIN
3237	483274.67	1351318.68	612.15	612.15	612.08	+0.07	—	9-28-01	TOPDRAIN
3238	483224.58	1351318.06	615.17	617.19	617.08	+0.11	2.02	9/17	TOPDRAIN
3239	483274.06	1351368.68	612.68	612.68	612.58	+0.10	—	9-28-01	TOPDRAIN
3240	483223.97	1351368.06	615.66	617.68	617.58	+0.10	2.02	9/17	TOPDRAIN
3241	483273.57	1351408.96	612.78	617.78	612.98	-0.20	—	9-28-01	TOPDRAIN
3242	483223.48	1351408.34	616.05	618.07	617.98	+0.09	2.02	9/17	TOPDRAIN
3243	483053.93	1351627.99	613.17	613.17	613.14	+0.03	—	10-2-01	TOPDRAIN
3244	483054.54	1351577.90	616.29	618.35	618.15	+0.20	2.06	10-2-01	TOPDRAIN
3245	483003.93	1351627.38	612.96	612.96	612.76	+0.20	—	10-2-01	TOPDRAIN
3246	483004.54	1351577.29	615.94	617.99	617.77	+0.22	2.05	10-2-01	TOPDRAIN
3247	482953.94	1351626.77	612.38	612.38	612.39	-0.01	—	10-2-01	TOPDRAIN
3248	482954.55	1351576.68	615.33	617.35	617.40	-0.05	2.02	10-2-01	TOPDRAIN
3249	482903.93	1351626.16	611.91	611.91	612.01	-0.10	—	10-2-01	TOPDRAIN
3250	482904.55	1351576.07	614.90	616.93	617.02	-0.09	2.03	10-2-01	TOPDRAIN
3251	482853.93	1351625.55	611.59	611.59	611.64	-0.05	—	10-2-01	TOPDRAIN
3252	482854.55	1351575.46	614.80	616.92	616.65	+0.27	2.12	10-3-01	TOPDRAIN

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POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
43	483093.26	1350835.11	623.16	PT5000
44	483116.63	1350840.02	623.52	PT5001
45	483136.32	1350853.50	624.05	PT5002
46	483149.35	1350873.49	624.36	PT5003
47	483153.73	1350896.96	624.67	PT5004
48	483147.14	1351441.21	630.28	PT5005
49	483142.18	1351464.58	630.31	PT5006
50	483128.65	1351484.26	630.22	PT5007
51	483108.62	1351497.24	630.30	PT5008
52	483085.12	1351501.56	630.29	PT5009
53	482979.65	1351333.90	657.22	PT5010
54	482966.48	1351042.10	656.97	PT5011
55	482923.15	1351275.37	662.57	PT5012
56	482915.20	1351099.31	662.30	PT5013
109	483063.71	1350834.75	623.06	TOPDRAIN
110	483063.10	1350884.36	631.34	TOPDRAIN
111	483013.71	1350834.14	622.74	TOPDRAIN
112	482963.72	1350833.53	622.39	TOPDRAIN
113	482913.72	1350832.92	622.03	TOPDRAIN
114	482863.72	1350832.31	621.52	TOPDRAIN
116	483012.06	1350967.68	644.90	TOPDRAIN
118	482911.14	1351041.42	656.68	TOPDRAIN
119	482861.15	1351040.81	656.23	TOPDRAIN
121	483063.40	1350859.75	627.30	TOPDRAIN
123	483013.10	1350884.14	631.05	TOPDRAIN
125	483012.48	1350934.13	639.39	TOPDRAIN
128	482963.10	1350883.52	630.68	TOPDRAIN
130	482962.48	1350933.52	639.01	TOPDRAIN
132	482961.86	1350983.52	647.30	TOPDRAIN
136	482913.10	1350882.91	630.34	TOPDRAIN
138	482912.49	1350932.91	638.61	TOPDRAIN
140	482911.87	1350982.91	646.96	TOPDRAIN
144	482863.11	1350882.30	629.99	TOPDRAIN
146	482862.49	1350932.30	638.20	TOPDRAIN
148	482861.87	1350982.30	646.51	TOPDRAIN
162	483036.98	1350926.99	638.27	TOPDRAIN
168	483102.86	1350890.65	630.80	TOPDRAIN
170	483069.40	1350927.81	637.01	TOPDRAIN
180	483152.88	1350967.15	625.49	TOPDRAIN
181	483152.27	1351017.14	626.01	TOPDRAIN
182	483151.67	1351067.14	626.41	TOPDRAIN
183	483151.06	1351117.14	627.04	TOPDRAIN
184	483150.46	1351167.13	627.46	TOPDRAIN
185	483149.85	1351217.13	627.93	TOPDRAIN
186	483149.25	1351267.13	628.48	TOPDRAIN
187	483148.64	1351317.12	628.92	TOPDRAIN
188	483148.04	1351367.12	629.22	TOPDRAIN
190	483001.09	1351015.28	650.99	TOPDRAIN
191	482967.51	1351064.87	657.12	TOPDRAIN
192	482969.77	1351114.90	657.09	TOPDRAIN
193	482972.02	1351164.93	657.06	TOPDRAIN
194	482974.28	1351214.96	657.12	TOPDRAIN
195	482976.54	1351264.99	657.11	TOPDRAIN
196	482978.80	1351315.02	657.20	TOPDRAIN
199	483098.04	1351366.50	637.80	TOPDRAIN
201	483048.04	1351365.88	646.24	TOPDRAIN
203	483097.52	1351409.42	638.03	TOPDRAIN

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
205	483047.90	1351377.63	646.24	TOPDRAIN
207	483098.65	1351316.50	637.23	TOPDRAIN
209	483048.65	1351315.89	645.61	TOPDRAIN
211	482998.65	1351315.27	653.87	TOPDRAIN
213	483099.25	1351266.51	636.82	TOPDRAIN
215	483049.26	1351265.89	645.04	TOPDRAIN
217	482999.26	1351265.27	653.44	TOPDRAIN
219	483099.86	1351216.51	636.30	TOPDRAIN
221	483049.86	1351215.89	644.63	TOPDRAIN
223	482999.86	1351215.28	652.83	TOPDRAIN
225	483100.46	1351166.52	635.87	TOPDRAIN
227	483050.47	1351165.90	644.06	TOPDRAIN
229	483000.47	1351165.28	652.48	TOPDRAIN
231	483101.07	1351116.52	635.30	TOPDRAIN
233	483051.07	1351115.90	643.65	TOPDRAIN
235	483001.08	1351115.28	651.99	TOPDRAIN
237	483101.67	1351066.52	634.83	TOPDRAIN
239	483051.68	1351065.91	642.97	TOPDRAIN
241	483001.68	1351065.29	651.46	TOPDRAIN
244	483102.28	1351016.53	634.33	TOPDRAIN
246	483052.28	1351015.91	642.67	TOPDRAIN
249	483102.88	1350966.53	633.85	TOPDRAIN
252	483103.25	1350936.09	633.52	TOPDRAIN
254	483052.78	1350975.21	642.12	TOPDRAIN
258	483093.46	1351448.74	636.62	TOPDRAIN
260	483058.26	1351413.23	642.85	TOPDRAIN
263	483055.47	1351501.20	630.13	TOPDRAIN
264	483005.47	1351500.59	629.70	TOPDRAIN
265	482955.48	1351499.98	629.24	TOPDRAIN
266	482905.48	1351499.37	628.82	TOPDRAIN
267	482855.48	1351498.76	628.50	TOPDRAIN
269	483056.02	1351455.31	637.61	TOPDRAIN
270	483006.96	1351377.32	650.14	TOPDRAIN
273	483029.40	1351412.98	644.63	TOPDRAIN
277	483006.08	1351450.59	637.17	TOPDRAIN
279	483006.68	1351400.59	646.37	TOPDRAIN
280	483055.77	1351476.20	634.12	TOPDRAIN
281	482907.49	1351333.02	656.58	TOPDRAIN
282	482857.50	1351332.41	656.25	TOPDRAIN
285	482956.08	1351449.98	637.50	TOPDRAIN
287	482956.69	1351399.98	646.02	TOPDRAIN
289	482957.29	1351349.99	654.26	TOPDRAIN
291	482906.08	1351449.37	637.13	TOPDRAIN
293	482906.69	1351399.37	645.51	TOPDRAIN
295	482907.30	1351349.38	654.01	TOPDRAIN
297	482856.09	1351448.76	636.85	TOPDRAIN
299	482856.69	1351398.76	645.29	TOPDRAIN
301	482857.30	1351348.77	653.62	TOPDRAIN
1000	482852.01	1351625.53		TOPDRAIN
1001	482852.62	1351575.44		TOPDRAIN
1002	482852.95	1351548.82	620.06	TOPDRAIN
1003	482853.26	1351523.32	NOT USED	TOPDRAIN
1004	482853.33	1351517.82	625.31	TOPDRAIN
1005	482852.24	1351606.78		TOPDRAIN
1006	482853.01	1351543.82	NOT USED	"TOPDRAIN"
1007	482852.73	1351566.11		TOPDRAIN
1008	482853.56	1351498.74	628.39	TOPDRAIN

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
1009	482854.17	1351448.74	636.78	TOPDRAIN
1010	482854.78	1351398.74	645.12	TOPDRAIN
1011	482855.39	1351348.75	653.54	TOPDRAIN
1012	482855.59	1351332.46	656.25	TOPDRAIN
1013	482856.30	1351274.59	661.90	TOPDRAIN
1014	482856.84	1351230.57	664.14	TOPDRAIN
1015	482857.91	1351142.60	664.14	TOPDRAIN
1016	482857.18	1351202.56	665.50	TOPDRAIN
1017	482857.60	1351168.35	665.40	TOPDRAIN
1018	482855.94	1351303.47	659.10	TOPDRAIN
1019	482858.45	1351098.58	661.84	TOPDRAIN
1020	482859.15	1351040.71	656.24	TOPDRAIN
1021	482859.87	1350982.27	646.41	TOPDRAIN
1022	482860.48	1350932.27	638.11	TOPDRAIN
1023	482861.10	1350882.28	629.74	TOPDRAIN
1024	482861.71	1350832.28	621.42	TOPDRAIN
1025	482861.94	1350813.19	618.18	TOPDRAIN
1026	482862.01	1350807.69	NOT USED	TOPDRAIN
1028	482862.32	1350782.19	613.06	TOPDRAIN
1029	482862.86	1350738.25		TOPDRAIN
1030	482863.47	1350688.17		TOPDRAIN
1031	482904.16	1351607.41		TOPDRAIN
1032	482904.66	1351566.75		TOPDRAIN
1033	482954.17	1351608.02		TOPDRAIN
1034	482954.66	1351567.36		TOPDRAIN
1035	483004.16	1351608.63		TOPDRAIN
1036	483004.66	1351567.97		TOPDRAIN
1037	483054.16	1351609.24		TOPDRAIN
1038	483054.65	1351568.58		TOPDRAIN
1039	483089.99	1351609.68		TOPDRAIN
1040	483090.48	1351569.02		TOPDRAIN
1041	483114.10	1351611.32		TOPDRAIN
1042	483170.29	1351605.46		TOPDRAIN
1043	483217.67	1351576.14		TOPDRAIN
1044	483248.15	1351529.49		TOPDRAIN
1045	483255.38	1351473.47		TOPDRAIN
1046	483254.33	1351448.71		TOPDRAIN
1047	483213.67	1351448.22		TOPDRAIN
1048	483254.82	1351408.73		TOPDRAIN
1049	483214.16	1351408.22		TOPDRAIN
1050	483255.31	1351368.45		TOPDRAIN
1051	483214.65	1351367.95		TOPDRAIN
1052	483205.37	1351500.63		TOPDRAIN
1053	483142.72	1351561.86		TOPDRAIN
1054	483180.26	1351537.61		TOPDRAIN
1055	483255.92	1351318.45		TOPDRAIN
1056	483215.26	1351317.95		TOPDRAIN
1057	483256.53	1351268.45		TOPDRAIN
1058	483215.87	1351267.95		TOPDRAIN
1059	483257.14	1351218.46		TOPDRAIN
1060	483216.48	1351217.96		TOPDRAIN
1061	483257.75	1351168.46		TOPDRAIN
1062	483217.09	1351167.96		TOPDRAIN
1063	483258.36	1351118.47		TOPDRAIN
1064	483217.70	1351117.96		TOPDRAIN
1065	483258.98	1351068.47		TOPDRAIN

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
1066	483218.32	1351067.97		TOPDRAIN
1067	483259.59	1351018.47		TOPDRAIN
1068	483218.93	1351017.97		TOPDRAIN
1069	483260.20	1350968.48		TOPDRAIN
1070	483219.54	1350967.98		TOPDRAIN
1071	483260.57	1350938.03		TOPDRAIN
1072	483219.91	1350937.53		TOPDRAIN
1073	483261.13	1350892.08		TOPDRAIN
1074	483220.47	1350891.59		TOPDRAIN
1075	483262.99	1350850.05		TOPDRAIN
1076	483221.46	1350866.12		TOPDRAIN
1077	483257.14	1350793.85		TOPDRAIN
1078	483213.73	1350621.77		TOPDRAIN
1079	483227.82	1350746.47		TOPDRAIN
1080	483189.37	1350784.00		TOPDRAIN
1081	483181.72	1350715.17		TOPDRAIN
1082	483152.20	1350758.71		TOPDRAIN
1083	483126.57	1350705.31		TOPDRAIN
1084	483108.05	1350749.91		TOPDRAIN
1085	483100.99	1350709.83		TOPDRAIN
1086	483100.50	1350750.48		TOPDRAIN
1087	483065.26	1350709.39		TOPDRAIN
1088	483064.76	1350750.04		TOPDRAIN
1089	483015.26	1350708.78		TOPDRAIN
1090	483014.76	1350749.43		TOPDRAIN
1091	482965.27	1350708.17		TOPDRAIN
1092	482964.77	1350748.82		TOPDRAIN
1093	482915.27	1350707.56		TOPDRAIN
1094	482914.77	1350748.21		TOPDRAIN
1095	482865.28	1350706.95		TOPDRAIN
1096	482864.77	1350747.60		TOPDRAIN
1097	482863.24	1350706.92		TOPDRAIN
1098	482862.75	1350747.57		TOPDRAIN
1835	482922.65	1351264.33	662.66	TOPDRAIN
1836	482920.39	1351214.29	662.65	TOPDRAIN
1837	482918.13	1351164.26	662.63	TOPDRAIN
1838	482915.87	1351114.23	661.41	TOPDRAIN
1839	482949.60	1351264.66	659.87	TOPDRAIN
1840	482947.34	1351214.63	659.97	TOPDRAIN
1841	482945.08	1351164.60	659.89	TOPDRAIN
1842	482942.82	1351114.56	659.87	TOPDRAIN
1843	482908.19	1351275.19	662.49	TOPDRAIN
1844	482858.20	1351274.58	662.02	TOPDRAIN
1846	482907.84	1351304.10	659.54	TOPDRAIN
1849	482951.40	1351304.63	660.02	TOPDRAIN
1851	482940.84	1351070.70	659.75	TOPDRAIN
1853	482860.43	1351098.64	661.95	TOPDRAIN
1859	482859.89	1351142.62	664.28	TOPDRAIN
1860	482878.87	1351142.85	664.36	TOPDRAIN
1864	482882.84	1351230.88	664.36	TOPDRAIN
1866	482858.73	1351230.59	664.29	TOPDRAIN
1867	482879.82	1351163.79	664.45	TOPDRAIN
1868	482882.07	1351213.82	664.50	TOPDRAIN
3000	482966.77	1351041.80	656.96	PT10000
3001	482979.97	1351334.20	657.16	PT10001
3002	482915.32	1351099.16	662.34	PT10002
3003	482923.29	1351275.52	662.63	PT10003

000163

Lynn E. Hirsch
STATE OF OHIO
LYNN E. HIRSCH
S-5738
REGISTERED SURVEYOR
9/11/01

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Checked By: L.E.H.
Approved By: L.E.H.

REVISIONS:

THE IT GROUP
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
OSDF CELL 1

4555

AS-BUILT TOP OF DRAINAGE LAYER TO EDGE OF SYNTHETIC LINER DRAWING

Scale: AS SHOWN
Date: 9-4-2001
Sheet No. 2 OF 3
Project No. 201-159

Y:\2011\159\dwg\Drainage Layer

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
3014	483100.01	1350790.10	NOT USED	PT10014
3015	483138.17	1350798.20	NOT USED	PT10015
3016	483170.34	1350820.27	NOT USED	PT10016
3017	483191.62	1350852.87	NOT USED	PT10017
3018	483198.78	1350891.32	NOT USED	PT10018
3019	483191.97	1351447.95	NOT USED	PT10019
3020	483183.89	1351486.12	NOT USED	PT10020
3021	483161.82	1351518.30	NOT USED	PT10021
3022	483129.12	1351539.58	NOT USED	PT10022
3023	483090.76	1351546.72	NOT USED	PT10023
3038	482854.93	1351543.84	NOT USED	TOPDRAIN
3039	482854.87	1351548.84	620.15	TOPDRAIN
3040	482855.18	1351523.34	NOT USED	TOPDRAIN
3041	482855.25	1351517.84	625.44	TOPDRAIN
3042	482904.93	1351544.45	NOT USED	TOPDRAIN
3043	482904.87	1351549.45	620.49	TOPDRAIN
3044	482905.18	1351523.95	NOT USED	TOPDRAIN
3045	482905.25	1351518.45	625.69	TOPDRAIN
3046	482954.93	1351545.06	NOT USED	TOPDRAIN
3048	482954.87	1351550.06	620.79	TOPDRAIN
3049	482955.18	1351524.56	NOT USED	TOPDRAIN
3050	482955.24	1351519.06	626.09	TOPDRAIN
3051	483004.93	1351545.67	NOT USED	TOPDRAIN
3053	483004.87	1351550.67	621.25	TOPDRAIN
3054	483005.17	1351525.17	NOT USED	TOPDRAIN
3055	483005.24	1351519.67	626.51	TOPDRAIN
3056	483054.92	1351546.28	NOT USED	TOPDRAIN
3058	483054.86	1351551.28	621.69	TOPDRAIN
3059	483055.17	1351525.78	NOT USED	TOPDRAIN
3060	483055.24	1351520.28	626.94	TOPDRAIN
3061	483093.07	1351551.15	622.08	TOPDRAIN
3062	483081.28	1351528.54	NOT USED	TOPDRAIN
3063	483078.74	1351523.66	626.43	TOPDRAIN
3064	483132.06	1351543.63	622.14	TOPDRAIN
3065	483117.07	1351522.99	NOT USED	TOPDRAIN
3066	483113.84	1351518.54	626.31	TOPDRAIN
3067	483165.33	1351521.86	622.08	TOPDRAIN
3068	483147.41	1351503.72	NOT USED	TOPDRAIN
3069	483143.55	1351499.80	626.16	TOPDRAIN
3070	483187.90	1351489.11	621.84	TOPDRAIN
3071	483167.45	1351473.87	NOT USED	TOPDRAIN
3072	483163.04	1351470.59	626.33	TOPDRAIN
3073	483196.38	1351450.31	621.97	TOPDRAIN
3074	483173.91	1351438.26	NOT USED	TOPDRAIN
3075	483169.06	1351435.66	626.36	TOPDRAIN
3076	483192.95	1351367.67	NOT USED	TOPDRAIN
3077	483197.95	1351367.74	620.92	TOPDRAIN
3078	483172.45	1351367.42	NOT USED	TOPDRAIN
3079	483166.95	1351367.35	626.06	TOPDRAIN
3080	483192.46	1351407.95	NOT USED	TOPDRAIN
3081	483147.55	1351407.40	629.67	TOPDRAIN
3082	483197.46	1351408.01	621.44	TOPDRAIN
3083	483171.96	1351407.70	NOT USED	TOPDRAIN
3084	483166.46	1351407.63	626.59	TOPDRAIN
3085	483193.56	1351317.68	NOT USED	TOPDRAIN
3086	483198.56	1351317.74	620.42	TOPDRAIN
3087	483173.07	1351317.42	NOT USED	TOPDRAIN

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
3088	483167.57	1351317.36	625.76	TOPDRAIN
3089	483194.18	1351267.68	NOT USED	TOPDRAIN
3090	483199.18	1351267.74	620.21	TOPDRAIN
3091	483173.68	1351267.43	NOT USED	TOPDRAIN
3092	483168.18	1351267.36	625.36	TOPDRAIN
3093	483194.79	1351217.69	NOT USED	TOPDRAIN
3094	483199.79	1351217.75	619.73	TOPDRAIN
3095	483174.29	1351217.43	NOT USED	TOPDRAIN
3096	483168.79	1351217.36	624.87	TOPDRAIN
3097	483195.40	1351167.69	NOT USED	TOPDRAIN
3098	483200.40	1351167.75	619.24	TOPDRAIN
3099	483174.90	1351167.44	NOT USED	TOPDRAIN
3100	483169.40	1351167.37	624.25	TOPDRAIN
3101	483196.01	1351117.69	NOT USED	TOPDRAIN
3102	483201.01	1351117.75	618.60	TOPDRAIN
3103	483175.51	1351117.44	NOT USED	TOPDRAIN
3104	483170.01	1351117.37	623.82	TOPDRAIN
3106	483201.62	1351067.76	617.98	TOPDRAIN
3108	483170.62	1351067.38	623.29	TOPDRAIN
3109	483197.23	1351017.70	NOT USED	TOPDRAIN
3110	483202.23	1351017.76	617.68	TOPDRAIN
3111	483176.74	1351017.45	NOT USED	TOPDRAIN
3112	483171.24	1351017.38	622.84	TOPDRAIN
3113	483197.85	1350967.70	NOT USED	TOPDRAIN
3114	483202.85	1350967.77	617.15	TOPDRAIN
3115	483177.35	1350967.45	NOT USED	TOPDRAIN
3116	483171.85	1350967.38	622.37	TOPDRAIN
3117	483198.22	1350937.26	NOT USED	TOPDRAIN
3118	483153.25	1350936.70	625.11	TOPDRAIN
3119	483203.22	1350937.32	616.70	TOPDRAIN
3120	483177.72	1350937.01	NOT USED	TOPDRAIN
3121	483172.22	1350936.94	621.98	TOPDRAIN
3122	483202.97	1350888.60	616.28	TOPDRAIN
3123	483181.58	1350902.48	NOT USED	TOPDRAIN
3124	483176.97	1350905.47	620.94	TOPDRAIN
3125	483195.45	1350849.65	615.94	TOPDRAIN
3126	483175.92	1350866.06	NOT USED	TOPDRAIN
3127	483171.71	1350869.60	620.24	TOPDRAIN
3128	483173.72	1350816.59	615.64	TOPDRAIN
3129	483156.47	1350835.36	NOT USED	TOPDRAIN
3130	483152.75	1350839.41	619.81	TOPDRAIN
3131	483141.05	1350794.11	615.56	TOPDRAIN
3132	483126.37	1350814.97	NOT USED	TOPDRAIN
3133	483123.21	1350819.46	619.81	TOPDRAIN
3134	483102.35	1350785.68	615.13	TOPDRAIN
3135	483090.42	1350808.22	NOT USED	TOPDRAIN
3136	483087.85	1350813.08	619.40	TOPDRAIN
3137	483064.27	1350789.66	NOT USED	TOPDRAIN
3138	483064.33	1350784.66	614.60	TOPDRAIN
3139	483064.01	1350810.16	NOT USED	TOPDRAIN
3140	483063.95	1350815.66	619.95	TOPDRAIN
3141	483014.27	1350789.05	NOT USED	TOPDRAIN
3142	483014.33	1350784.05	614.34	TOPDRAIN
3143	483014.02	1350809.55	NOT USED	TOPDRAIN
3144	483013.95	1350815.05	619.46	TOPDRAIN

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
3145	482964.27	1350788.44	NOT USED	TOPDRAIN
3146	482964.34	1350783.44	613.89	TOPDRAIN
3147	482964.02	1350808.94	NOT USED	TOPDRAIN
3148	482963.95	1350814.44	619.09	TOPDRAIN
3149	482914.28	1350787.83	NOT USED	TOPDRAIN
3150	482914.34	1350782.83	613.55	TOPDRAIN
3151	482914.02	1350808.33	NOT USED	TOPDRAIN
3152	482913.96	1350813.83	618.75	TOPDRAIN
3153	482864.28	1350787.22	NOT USED	TOPDRAIN
3154	482864.34	1350782.22	613.01	TOPDRAIN
3155	482864.03	1350807.72	NOT USED	TOPDRAIN
3156	482863.96	1350813.22	618.35	TOPDRAIN
3178	483090.37	1351578.34		TOPDRAIN#1139
3180	483089.76	1351628.43		TOPDRAIN#1140
3181	483101.39	1351578.48		TOPDRAIN#1137
3182	483120.87	1351628.81		TOPDRAIN#1138
3183	483147.42	1351569.91		TOPDRAIN#1134
3184	483178.40	1351618.08		TOPDRAIN#1135
3185	483186.67	1351544.37		TOPDRAIN#1131
3186	483227.45	1351586.16		TOPDRAIN#1132
3187	483213.15	1351505.76		TOPDRAIN#1128
3188	483260.56	1351537.91		TOPDRAIN#1129
3189	483222.85	1351459.95		TOPDRAIN#1125
3190	483272.69	1351480.66		TOPDRAIN#1126
3191	483222.99	1351448.33		TOPDRAIN#1123
3192	483273.08	1351448.94		TOPDRAIN#1124
3193	483229.79	1350891.70		TOPDRAIN#1120
3194	483279.88	1350892.31		TOPDRAIN#1121
3195	483230.15	1350862.76		TOPDRAIN#1118
3196	483280.48	1350843.28		TOPDRAIN#1119
3197	483221.57	1350816.73		TOPDRAIN#1115
3198	483269.76	1350785.74		TOP DRAIN#1116
3199	483196.04	1350777.49		TOPDRAIN#1112
3200	483237.84	1350736.69		TOPDRAIN#1113
3201	483157.43	1350751.00		TOPDRAIN#1109
3202	483189.58	1350703.58		TOPDRAIN#1110
3203	483132.32	1350691.46		TOPDRAIN#1107
3204	483111.62	1350741.30		TOPDRAIN#1106
3205	483101.22	1350691.08		TOPDRAIN#1103
3206	483100.61	1350741.16		TOPDRAIN#1104
3211	482864.89	1350738.28		TOPDRAIN
3212	482865.51	1350688.20		TOPDRAIN
3213	482914.88	1350738.89		TOPDRAIN
3214	482915.50	1350688.81		TOPDRAIN
3215	482964.88	1350739.50		TOPDRAIN
3216	482965.50	1350689.42		TOPDRAIN
3217	483014.88	1350740.11		TOPDRAIN
3218	483015.49	1350690.03		TOPDRAIN
3219	483064.87	1350740.72		TOPDRAIN
3220	483065.49	1350690.64		TOPDRAIN
3221	483279.32	1350938.26		TOPDRAIN
3222	483229.23	1350937.64		TOPDRAIN
3223	483278.95	1350968.71		TOPDRAIN
3224	483228.86	1350968.09		TOPDRAIN
3225	483278.34	1351018.70		TOPDRAIN
3226	483228.25	1351018.08		TOPDRAIN
3227	483277.73	1351068.70		TOPDRAIN

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
3228	483227.64	1351068.08		TOPDRAIN
3229	483277.11	1351118.70		TOPDRAIN
3230	483227.02	1351118.08		TOPDRAIN
3231	483276.50	1351168.69		TOPDRAIN
3232	483226.41	1351168.07		TOPDRAIN
3233	483275.89	1351218.69		TOPDRAIN
3234	483225.80	1351218.07		TOPDRAIN
3235	483275.28	1351268.68		TOPDRAIN
3236	483225.19	1351268.07		TOPDRAIN
3237	483274.67	1351318.68		TOPDRAIN
3238	483224.58	1351318.06		TOPDRAIN
3239	483274.06	1351366.66		TOPDRAIN
3240	483223.97	1351368.06		TOPDRAIN
3241	483273.57	1351408.96		TOPDRAIN
3242	483223.48	1351408.34		TOPDRAIN
3243	483053.93	1351627.99		TOPDRAIN
3244	483054.54	1351577.90		TOPDRAIN
3245	483003.93	1351627.38		TOPDRAIN
3246	483004.54	1351577.29		TOPDRAIN
3247	482953.94	1351626.77		TOPDRAIN
3248	482954.55	1351576.68		TOPDRAIN
3249	482903.93	1351626.16		TOPDRAIN
3250	482904.55	1351576.07		TOPDRAIN
3251	482853.93	1351625.55		TOPDRAIN
3252	482854.55	1351575.46		TOPDRAIN

—4555

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REVISIONS:

Designed By:
Drawn By: G.E.C./F.A.M.
Checked By: L.E.H.
Approved By: L.E.H.

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STATE OF OHIO
LYNN E. HIRSCH
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9/11/01

THE IT GROUP
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
OSDF CELL 1

AS-BUILT TOP OF DRAINAGE LAYER TO EDGE OF SYNTHETIC LINER DRAWING

Scale: AS SHOWN
Date: 9-4-2001
Sheet No. 3 OF 3
Project No 201-159

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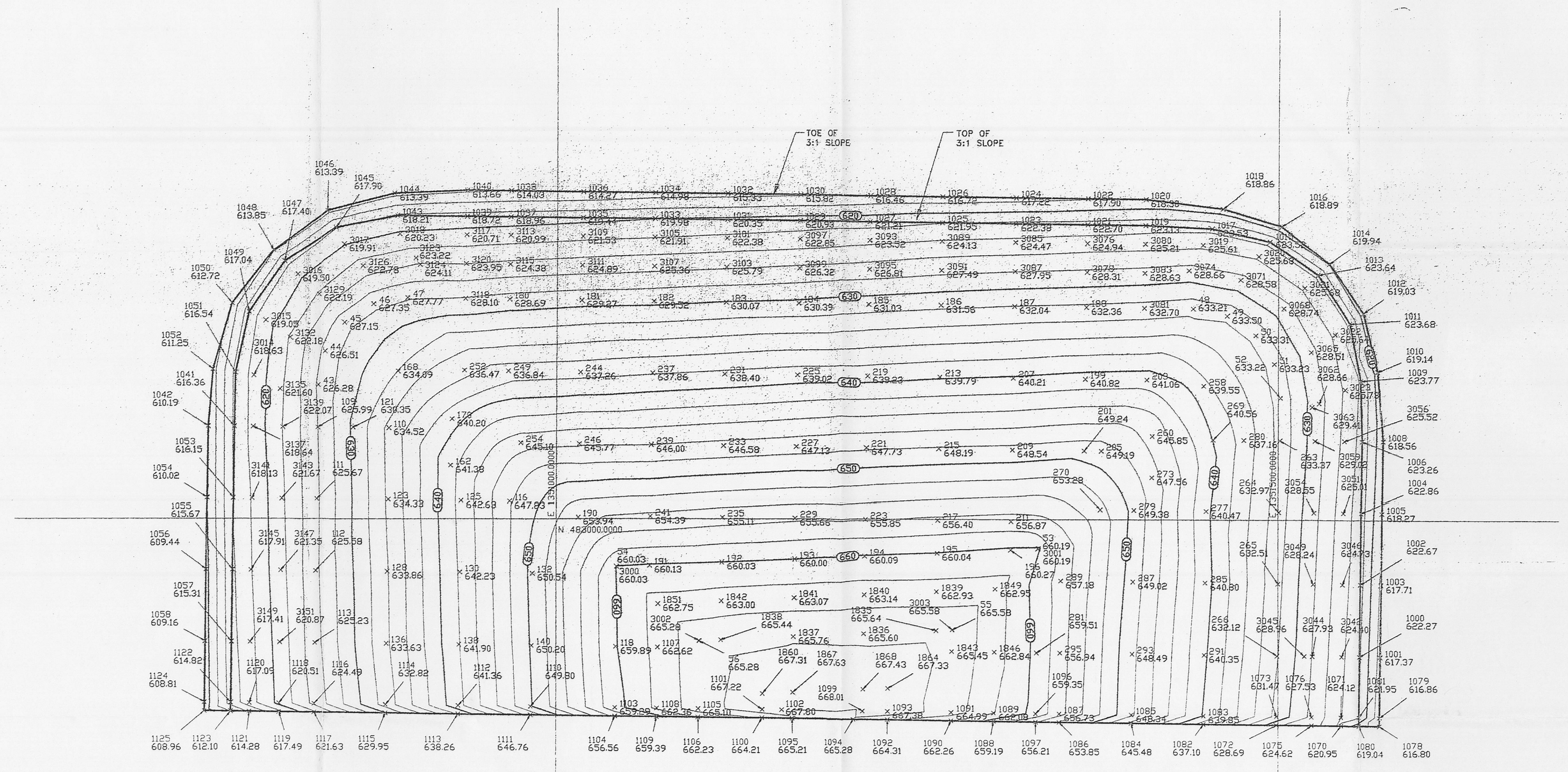
Y:\201\159\dwg\Drainage Layer



LEGEND:

× 2100 619.21 = ELEVATION AND POINT NUMBER OF CERTIFIED POINT

——— = INDEX CONTOUR AS-BUILT

——— = INTERMEDIATE CONTOUR AS-BUILT

⊙ = POINT NUMBER AND ELEVATION NOT USED

⊙ = POINT NUMBER AND ELEVATION NOT USED
TOPOGRAPHICAL SURVEY POINT FOR CONTOURS

CONTOUR INTERVAL = 2'

40 20 0 40 80 120

SCALE: 1"=40'

4555

000176

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Y:\201\159\dwg\BioIntrp Layer

STATE OF OHIO LYNN HIRSCH S-8738 REGISTERED PROFESSIONAL SURVEYOR

10/19/01

LAZ-CM-339

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Checked By:	L.E.H.
Approved By:	L.E.H.

REVISIONS:

THE IT GROUP
FERNALD ENVIRONMENTAL
MANAGEMENT PROJECT
OSDF CELL 1

AS-BUILT TOP OF
BIOINTRUSION LAYER

Scale: 1" = 40'

Date: 10-18-2001

Sheet No.
1 OF 3

Project No.
201-159

BIOINTRUSION BARRIER

SUPPLIER DOCUMENT SUBMITTAL

9A 11/15/01

FDF PROJECT NO.: 20103	CONTRACT NO: FSC-642	SUBMITTAL NO.: 20103-642-02100-006	REV.: ~~11~~ 12	DATE: 11/14/01	Page 1 OF 1

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3	642-C.4.33.9	0						X			SURVEY NOTES & DWGS		X		02100-1.04	X		
											BIONTRUSION LAYER AS-BUILTS							

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FRED WILSON	60				

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000166

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CFC - CERTIFIED FOR CONSTRUCTION
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DRFT - DRAFT/PRELIMINARY

SUBMITTAL ACTION CODE: (BY FDF)
A - Conforms to the Subcontract Requirements
B - Minor Comments - Incorporate and Resubmit
C - Revise and Resubmit (SEE COMMENTS)

4555

FS-F-4955
Rev. 3: 05/14/1999

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David E. Estes Engineering, Inc.

CIVIL & ENVIRONMENTAL ENGINEERING
HYDROGEOLOGY & LAND SURVEYING

August 31, 2001

SUBJECT: CERTIFICATION POINTS FOR COVER OF BIOINTRUSION BARRIER AS-BUILTS.

I hereby certify that the elevations listed on the next 8 pages are the as-built elevations of the Biointrusion Barrier Layer for the point numbers listed, along with the date the elevations were recorded.

Lynn Edward Hirsch

LYNN EDWARD HIRSCH NO. S-5738
THOMAS J. MACK NO. S-7964
REGISTERED OHIO PROFESSIONAL LAND SURVEYORS

STATE OF OHIO
LYNN E. HIRSCH S-5738
REGISTERED SURVEYOR

ECDC CONTROLLED
COPY NO. C- 011

[X] A - Conforms to the Subcontract Requirements
[ ] B - Minor Comment - Incorporate and Resubmit
[ ] C - Revise and Resubmit
Date: 12/5/01
SHWOUNSKY 000167

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4555

STATE OF OHIO
LYNN E. HIRSCH
S-5738
REGISTERED
SURVEYOR

COVER BIOINTRUSION BARRIER AS-BUILT

DATE
CREW
* = OUT OF TOLERANCE

B.io Layer 4

PT#	NORTH	EAST	AS-BUILT TOP DRAIN ELEVATION	AS-BUILT TOP BIO. ELEVATION	PROPOSED TOP BIO. ELEVATION	DIFF. IN ELEV.	COV. DRAIN THICK	DATE	DESCRIPTION
43	483093.26	1350835.11	623.16	626.28	626.18	+0.10	3.12	9/21	PT5000
44	483116.63	1350840.02	623.52	626.51	626.55	-0.04	2.99	9/21	PT5001
45	483136.32	1350853.50	624.05	627.15	626.93	+0.22	3.10	9/24	PT5002
46	483149.35	1350873.49	624.36	627.35	627.30	+0.05	2.99	9/24	PT5003
47	483153.73	1350896.96	624.67	627.77	627.67	+0.10	3.10	9/24	PT5004
48	483147.14	1351441.21	630.28	633.21	633.10	+0.11	2.93	9/26	PT5005
49	483142.18	1351464.58	630.31	633.50	633.12	+0.38	3.19	9/26	PT5006
50	483128.65	1351484.26	630.22	633.31	633.15	+0.16	3.09	9/26	PT5007
51	483108.62	1351497.24	630.30	633.23	633.18	+0.05	2.93	9/26	PT5008
52	483085.12	1351501.56	630.29	633.22	633.22	0.00	2.93	9/26	PT5009
53	482979.65	1351333.90	657.22	660.19	660.08	+0.11	2.97	9/26	PT5010
54	482966.48	1351042.10	656.97	660.03	659.96	+0.07	3.06	9/20	PT5011
55	482923.15	1351275.37	662.57	665.58	665.44	+0.14	3.01	9/26	PT5012
56	482915.20	1351099.31	662.30	665.28	665.37	-0.12	2.95	9/20	PT5013
109	483063.71	1350834.75	623.06	625.99	625.95	+0.04	2.93	9/21	TOPBIO
110	483063.10	1350884.36	631.34	634.52	634.23	+0.29	3.18	9/21	TOPBIO
111	483013.71	1350834.14	622.74	625.67	625.56	+0.11	2.93	9/21	TOPBIO
112	482963.72	1350833.53	622.39	625.58	625.17	+0.41	3.19	9/21	TOPBIO
113	482913.72	1350832.92	622.03	625.23	624.78	+0.45	3.20	9/21	TOPBIO
116	483012.06	1350967.68	644.90	647.83	647.84	-0.01	2.93	9/21	TOPBIO
118	482911.14	1351041.42	656.68	659.89	659.59	+0.30	3.21	9/20	TOPBIO
121	483063.40	1350859.75	627.30	630.35	630.12	+0.23	3.05	9/21	TOPBIO
123	483013.10	1350884.14	631.05	634.33	633.90	+0.43	3.28	9/21	TOPBIO
125	483012.48	1350934.13	639.39	642.63	642.24	+0.39	3.24	9/21	TOPBIO
128	482963.10	1350883.52	630.68	633.86	633.52	+0.34	3.18	9/21	TOPBIO
130	482962.48	1350933.52	639.01	642.23	641.86	+0.37	3.22	9/20	TOPBIO
132	482961.86	1350983.52	647.30	650.54	650.20	+0.34	3.24	9/20	TOPBIO
136	482913.10	1350882.91	630.34	633.63	633.13	+0.50	3.29	9/21	TOPBIO
138	482912.49	1350932.91	638.61	641.90	641.48	+0.42	3.29	9/20	TOPBIO
140	482911.87	1350982.91	646.96	650.20	649.83	+0.37	3.24	9/20	TOPBIO
162	483036.98	1350926.99	638.27	641.38	641.19	+0.19	3.11	9/21	TOPBIO
168	483102.86	1350890.65	630.80	634.09	633.72	+0.37	3.29	9/21	TOPBIO
170	483069.40	1350927.81	637.01	640.20	640.14	+0.06	3.19	9/21	TOPBIO
180	483152.88	1350967.15	625.49	628.69	628.38	+0.31	3.20	9/24	TOPBIO
181	483152.27	1351017.14	626.01	629.27	628.89	+0.38	3.26	9/24	TOPBIO
182	483151.67	1351067.14	626.41	629.52	629.38	+0.14	3.11	9/24	TOPBIO
183	483151.06	1351117.14	627.04	630.07	629.87	+0.20	3.03	9/25	TOPBIO
184	483150.46	1351167.13	627.46	630.39	630.38	+0.01	2.93	9/25	TOPBIO
185	483149.85	1351217.13	627.93	631.03	630.87	+0.16	3.10	9/25	TOPBIO
186	483149.25	1351267.13	628.48	631.56	631.36	+0.20	3.08	9/25	TOPBIO
187	483148.64	1351317.12	628.92	632.04	631.86	+0.18	3.12	9/25	TOPBIO
188	483148.04	1351367.12	629.22	632.36	632.36	+0.00	3.14	9/25	TOPBIO
190	483001.09	1351015.28	650.99	653.94	654.03	-0.09	2.95	9/24	TOPBIO
191	482967.51	1351064.87	657.12	660.13	660.01	+0.12	3.01	9/24	TOPBIO

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COVER BIOINTRUSION BARRIER AS-BUILT

PT#	NORTH	EAST	AS-BUILT TOP DRAIN. ELEVATION	AS-BUILT TOP BIO. ELEVATION	PROPOSED TOP BIO. ELEVATION	DIFF. IN ELEV.	~~COV.~~ BIO LMBR DRAIN THICK	DATE	DESCRIPTION
192	482969.77	1351114.90	657.09	660.03	660.03	0.00	2.94	9/25	TOPBIO
193	482972.02	1351164.93	657.06	660.00	660.05	-0.05	2.94	9/25	TOPBIO
194	482974.28	1351214.96	657.12	660.09	660.08	+0.01	2.97	9/25	TOPBIO
195	482976.54	1351264.99	657.11	660.04	660.10	-0.06	2.93	9/25	TOPBIO
196	482978.80	1351315.02	657.20	660.27	660.12	+0.15	3.07	9/25	TOPBIO
199	483098.04	1351366.50	637.80	640.82	640.68	+0.14	3.02	9/25	TOPBIO
201	483048.04	1351365.88	646.24	649.24	649.00	+0.24	3.00	9/25	TOPBIO
203	483097.52	1351409.42	638.03	641.06	641.11	-0.05	3.03	9/26	TOPBIO
205	483047.90	1351377.63	646.24	649.19	649.12	+0.07	2.95	9/26	TOPBIO
207	483098.65	1351316.50	637.23	640.21	640.18	+0.03	2.98	9/25	TOPBIO
209	483048.65	1351315.89	645.61	648.54	648.50	+0.04	2.93	9/25	TOPBIO
211	482998.65	1351315.27	653.87	656.87	656.82	+0.05	3.00	9/25	TOPBIO
213	483099.25	1351266.51	636.82	639.79	639.68	+0.11	2.97	9/25	TOPBIO
215	483049.26	1351265.89	645.04	648.19	648.00	+0.19	3.15	9/25	TOPBIO
217	482999.26	1351265.27	653.44	656.40	656.32	+0.08	2.96	9/25	TOPBIO
219	483099.86	1351216.51	636.30	639.23	639.19	+0.04	2.93	9/25	TOPBIO
221	483049.86	1351215.89	644.63	647.73	647.50	+0.23	3.10	9/25	TOPBIO
223	482999.86	1351215.28	652.83	655.85	655.82	+0.03	3.02	9/25	TOPBIO
225	483100.46	1351166.52	635.87	639.02	638.69	+0.33	3.15	9/25	TOPBIO
227	483050.47	1351165.90	644.06	647.13	647.00	+0.13	3.07	9/25	TOPBIO
229	483000.47	1351165.28	652.48	655.66	655.32	+0.34	3.18	9/25	TOPBIO
231	483101.07	1351116.52	635.30	638.40	638.19	+0.21	3.10	9/25	TOPBIO
233	483051.07	1351115.90	643.65	646.58	646.51	+0.07	2.93	9/25	TOPBIO
235	483001.08	1351115.28	651.99	655.11	654.82	+0.29	3.12	9/25	TOPBIO
237	483101.67	1351066.52	634.83	637.86	637.69	+0.17	3.03	9/24	TOPBIO
239	483051.68	1351065.91	642.97	646.00	646.01	-0.01	3.03	9/24	TOPBIO
241	483001.68	1351065.29	651.46	654.39	654.33	+0.06	2.93	9/24	TOPBIO
244	483102.28	1351016.53	634.33	637.26	637.19	+0.07	2.93	9/24	TOPBIO
246	483052.28	1351015.91	642.67	645.77	645.51	+0.26	3.10	9/24	TOPBIO
249	483102.88	1350966.53	633.85	636.84	636.70	+0.14	2.99	9/24	TOPBIO
252	483103.25	1350936.09	633.52	636.47	636.40	+0.07	2.95	9/24	TOPBIO
254	483052.78	1350975.21	642.12	645.10	645.10	0.00	2.98	9/24	TOPBIO
258	483093.46	1351448.74	636.62	639.55	639.52	+0.03	2.93	9/26	TOPBIO
260	483058.26	1351413.23	642.85	645.85	645.90	-0.05	3.00	9/26	TOPBIO
263	483055.47	1351501.20	630.13	633.37	632.95	+0.42	3.24	9/26	TOPBIO
264	483005.47	1351500.59	629.70	632.97	632.58	+0.39	3.27	9/26	TOPBIO
265	482955.48	1351499.98	629.24	632.51	632.19	+0.32	3.27	9/26	TOPBIO
266	482905.48	1351499.37	628.82	632.12	631.79	+0.33	3.30	9/26	TOPBIO
269	483056.02	1351455.31	637.61	640.56	640.64	-0.08	2.95	9/26	TOPBIO
270	483006.96	1351377.32	650.14	653.28	653.16	+0.12	3.14	9/26	TOPBIO
273	483029.40	1351412.98	644.63	647.56	647.51	+0.05	2.93	9/26	TOPBIO
277	483006.08	1351450.59	637.17	640.47	640.21	[illegible]	3.30	9/26	TOPBIO
279	483006.68	1351400.59	646.37	649.38	649.33	+0.05	3.01	9/26	TOPBIO
280	483055.77	1351476.20	634.12	637.16	637.16	0.00	3.04	9/26	TOPBIO

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B.O. LAYER LEFT SH

COVER BIOINTRUSION BARRIER AS-BUILT

PT#	NORTH	EAST	AS-BUILT TOP DRAIN. ELEVATION	AS-BUILT TOP BIO. ELEVATION	PROPOSED TOP BIO. ELEVATION	DIFF IN ELEV.	COV. DRAIN THICK	DATE	DESCRIPTION
281	482907.49	1351333.02	656.58	659.51	659.62	-0.11	2.93	9/26	TOPBIO
285	482956.08	1351449.98	637.50	640.80	640.54	+0.26	3.30	9/26	TOPBIO
287	482956.69	1351399.98	646.02	649.02	648.93	+0.09	3.00	9/26	TOPBIO
289	482957.29	1351349.99	654.26	657.18	657.21	-0.03	2.92	9/26	TOPBIO
291	482906.08	1351449.37	637.13	640.35	640.15	+0.20	3.22	9/26	TOPBIO
293	482906.69	1351399.37	645.51	648.49	648.52	-0.03	2.98	9/26	TOPBIO
295	482907.30	1351349.38	654.01	656.94	656.87	+0.07	2.93	9/26	TOPBIO
1000	482904.77	1351557.45	N/A	622.27	622.15	+0.12	—	9/26	TOPBIOTOP3:1
1001	482904.59	1351572.24	N/A	617.37	617.22	+0.15	—	10/1	TOPBIOTOE3:1
1002	482954.78	1351558.06	N/A	[illegible]	622.53	+0.14	—	9/26	TOPBIOTOP3:1
1003	482954.60	1351572.85	N/A	617.71	617.60	+0.11	—	10/1	TOPBIOTOE3:1
1004	483004.77	1351558.67	N/A	622.86	622.91	-0.05	—	9/26	TOPBIOTOP3:1
1005	483004.60	1351573.46	N/A	618.27	617.98	+0.29	—	10/1	TOPBIOTOE3:1
1006	483054.76	1351559.28	N/A	623.26	623.29	-0.03		10/04	TOPBIOTOP3:1
1007	482852.73	1351566.11	N/A	Not used	620.24				TOPBIO
1008	483054.58	1351574.07	N/A	618.56	618.36	+0.20	—	10/1	TOPBIOTOE3:1
1009	483096.77	1351558.25	N/A	623.77	623.57	+0.20	—	9/26	TOPBIOTOP3:1
1010	483103.02	1351570.23	N/A	619.14	619.07	+0.07	—	10/1	TOPBIOTOE3:1
1011	483136.76	1351550.10	N/A	623.68	623.56	+0.12	—	9/26	TOPBIOTOP3:1
1012	483143.94	1351559.99	N/A	619.03	618.98	+0.05	—	10/1	TOPBIOTOE3:1
1013	483170.96	1351527.55	N/A	623.64	623.55	+0.09	—	10/1	TOPBIOTOP3:1
1014	483178.64	1351535.32	N/A	619.94	619.91	+0.03	—	10/2	TOPBIOTOE3:1
1015	483194.31	1351493.89	N/A	623.52	623.54	-0.02	—	10/1	TOPBIOTOP3:1
1016	483204.11	1351501.18	N/A	618.89	618.96	-0.07	—	9/28	TOPBIOTOE3:1
1017	483203.43	1351454.10	N/A	623.53	623.53	0.00	—	10/1	TOPBIOTOP3:1
1018	483215.32	1351460.48	N/A	618.86	618.86	0.00	—	9/28	TOPBIOTOE3:1
1019	483205.46	1351408.11	N/A	623.13	623.13	0.00	—	10/1	TOPBIOTOP3:1
1020	483220.25	1351408.29	N/A	618.30	618.17	+0.13	—	9/28	TOPBIOTOE3:1
1021	483205.95	1351367.83	N/A	622.70	622.73	-0.03	—	10/1	TOPBIOTOP3:1
1022	483220.74	1351368.01	N/A	617.90	617.77	+0.13	—	9/28	TOPBIOTOE3:1
1023	483206.56	1351317.84	N/A	622.38	622.23	+0.15	—	10/1	TOPBIOTOP3:1
1024	483221.35	1351318.01	N/A	617.22	617.27	-0.05	—	9/28	TOPBIOTOE3:1
1025	483207.18	1351267.84	N/A	621.95	621.73	+0.22	—	10/1	TOPBIOTOP3:1
1026	483221.96	1351268.02	N/A	616.72	616.77	-0.05	—	9/28	TOPBIOTOE3:1
1027	483207.79	1351217.85	N/A	621.21	621.23	-0.02	—	10/1	TOPBIOTOP3:1
1028	483222.57	1351218.02	N/A	616.46	616.27	+0.19	—	9/28	TOPBIOTOE3:1
1029	483208.40	1351167.85	N/A	620.93	620.73	+0.20	—	9/25	TOPBIOTOP3:1
1030	483223.19	1351168.02	N/A	615.82	615.77	+0.05	—	9/28	TOPBIOTOE3:1
1031	483209.01	1351117.85	N/A	620.35	620.23	+0.12	—	9/25	TOPBIOTOP3:1
1032	483223.80	1351118.03	N/A	615.33	615.27	+0.06	—	9/28	TOPBIOTOE3:1
1033	483209.62	1351067.86	N/A	619.98	619.73	+0.25	—	9/24	TOPBIOTOP3:1
1034	483224.41	1351068.03	N/A	614.98	614.77	+0.21	—	9/28	TOPBIOTOE3:1
1035	483210.23	1351017.86	N/A	[illegible]	619.23	+0.21	—	9/24	TOPBIOTOP3:1

NOTE: PTS. 1000 - 1125 ARE ADDED PTS. TO THIS CHART FOR TOE AND TOP OF 3:1 AND TOE AND TOP OF 2:1

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COVER BIOINTRUTION BARRIER AS-BUILT

BIO LAYER

PT#	NORTH	EAST	AS-BUILT TOP DRAIN. ELEVATION	AS-BUILT TOP BIO. ELEVATION	PROPOSED TOP BIO. ELEVATION	DIFF. IN ELEV.	~~COV. DRAIN THICK~~	DATE	DESCRIPTION
1036	483225.02	1351018.04	N/A	614.27	614.27	0.00	—	9/28	TOPBIOTOE3:
1037	483210.85	1350967.86	N/A	618.96	618.73	+0.23	—	9/24	TOPBIOTOP3:
1038	483225.64	1350968.04	N/A	614.03	613.77	+0.26	—	9/28	TOPBIOTOE3:1
1039	483211.22	1350937.42	N/A	618.72	618.43	+0.29	—	9/24	TOPBIOTOP3:1
1040	483226.01	1350937.60	N/A	613.66	613.47	+0.19	—	9/28	TOPBIOTOE3:1
1041	483064.43	1350776.66	N/A	616.36	616.27	+0.09	—	9/21	TOPBIOTOP3:1
1042	483064.67	1350758.41	N/A	610.19	610.19	0.00	—	10/1	TOPBIOTOE3:1
1043	483211.68	1350889.71	N/A	618.21	617.97	+0.24	—	9/24	TOPBIOTOP3:1
1044	483225.07	1350888.03	N/A	613.39	613.01	-0.05	—	10/1	TOPBIOTOE3:1
1045	483203.30	1350847.17	N/A	617.90	617.61	+0.29	—	9/24	TOPBIOTOP3:1
1046	483214.28	1350841.82	N/A	613.39	613.44	-0.05	—	10/1	TOPBIOTOE3:1
1047	483179.64	1350811.19	N/A	617.40	617.25	+0.15	—	9/24	TOPBIOTOP3:1
1048	483187.46	1350803.55	N/A	613.85	613.63	+0.22	—	10/17	TOPBIOTOE3:1
1049	483144.12	1350786.64	N/A	617.04	616.90	+0.14	—	9/21	TOPBIOTOP3:1
1050	483150.24	1350774.76	N/A	612.72	612.81	-0.09	—	10/17	TOPBIOTOE3:1
1051	483101.94	1350777.24	N/A	616.54	616.54	0.00	—	9/21	TOPBIOTOP3:1
1052	483104.28	1350761.61	N/A	611.25	610.95	+0.30	—	10/1	TOPBIOTOE3:1
1053	483014.43	1350776.05	N/A	616.15	615.89	+0.26	—	9/21	TOPBIOTOP3:1
1054	483014.65	1350757.80	N/A	610.02	609.81	+0.21	—	10/1	TOPBIOTOE3:1
1055	482964.43	1350775.44	N/A	615.67	615.51	+0.16	—	9/21	TOPBIOTOP3:1
1056	482964.65	1350757.19	N/A	609.44	609.43	+0.01	—	10/1	TOPBIOTOE3:1
1057	482914.44	1350774.83	N/A	615.31	615.13	+0.18	—	9/21	TOPBIOTOP3:1
1058	482914.68	1350756.58	N/A	609.16	609.05	+0.11	—	10/1	TOPBIOTOE3:1
1070	482857.01	1351543.87	N/A	620.95	621.00	-0.05	—	10/2	TOPBIOTOE2:1
1071	482863.01	1351543.94	N/A	624.12	624.00	+0.12	—	9/26	TOPBIOTOP2:1
1072	482857.56	1351498.79	N/A	628.69	628.45	+0.24	—	9/26	TOPBIOTOE2:1
1073	482863.56	1351498.86	N/A	631.47	631.45	+0.02	—	9/26	TOPBIOTOP2:1
1075	482857.26	1351523.37	N/A	624.62	624.41	+0.21	—	10/2/01	TOPBIOTOE2:1
1076	482863.26	1351523.44	N/A	627.53	627.41	+0.12	—	9/26	TOPBIOTOP2:1
1078	482856.67	1351571.65	N/A	616.80	616.90	-0.10	—	10/2/01	TOPBIOTOE2:1
1079	482862.67	1351571.73	N/A	616.86	616.90	-0.04	—	10/04/01	TOPBIOTOP2:1
1080	482856.85	1351556.86	N/A	619.04	618.83	+0.21	—	10/2/01	TOPBIOTOE2:1
1081	482862.85	1351556.94	N/A	621.95	621.83	+0.12	—	9/26	TOPBIOTOP2:1
1082	482858.17	1351448.79	N/A	637.10	636.83	+0.27	—	10/2/01	TOPBIOTOE2:1
1083	482864.17	1351448.86	N/A	639.85	639.83	+0.02	—	9/26	TOPBIOTOP2:1
1084	482858.78	1351398.79	N/A	645.48	645.20	+0.28	—	10/2/01	TOPBIOTOE2:1
1085	482864.78	1351398.86	N/A	648.34	648.20	+0.14	—	9/26	TOPBIOTOP2:1
1086	482859.39	1351348.80	N/A	653.85	653.55	+0.30	—	10/2/01	TOPBIOTOE2:1
1087	482865.39	1351348.87	N/A	656.73	656.55	+0.18	—	9/26	TOPBIOTOP2:1
1088	482859.95	1351303.52	N/A	659.19	659.13	+0.06	—	10/2/01	TOPBIOTOE2:1
1089	482865.95	1351303.59	N/A	662.08	662.13	-0.05	—	9/26	TOPBIOTOP2:1
1090	482860.30	1351274.61	N/A	662.26	662.00	+0.26	—	10/2/01	TOPBIOTOE2:1
1091	482866.30	1351274.69	N/A	664.99	665.00	-0.01	—	9/26	TOPBIOTOP2:1

NOTE: PTS. 1000 - 1125 ARE ADDED PTS. TO THIS CHART FOR TOE AND TOP OF 3:1 AND TOE AND TOP OF 2:1

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BIO LAYER LEK SHU

PT#	NORTH	EAST	AS-BUILT TOP DRAIN. ELEVATION	AS-BUILT TOP BIO. ELEVATION	PROPOSED TOP BIO. ELEVATION	DIFF. IN ELEV.	GOV. DRAIN THICK	DATE	DESCRIPTION
1092	482860.84	1351230.61	N/A	664.31	664.18	+0.13	—	10/2/01	TOPBIOTOE2:1
1093	482866.84	1351230.68	N/A	667.38	667.18	+0.20	—	9/26	TOPBIOTOP2:1
1094	482861.13	1351206.92	N/A	665.28	665.35	-0.07	—	10/2/01	TOPBIOTOE2:1
1095	482861.66	1351163.48	N/A	665.21	665.22	-0.01	—	10/1	TOPBIOTOE2:1
1096	482865.59	1351332.51	N/A	659.35	659.30	+0.05	—	9/26	TOPBIOTOP2:1
1097	482859.59	1351332.44	N/A	656.21	656.30	-0.09	—	10/2/01	TOPBIOTOP2:1
1098	482862.75	1350747.57	N/A	Not Used	610.32				TOPBIO
1099	482867.05	1351213.45	N/A	668.01	668.03	-0.02	—	9/26	TOPBIOTOP2:1
1100	482861.91	1351142.64	N/A	664.21	664.18	+0.03	—	10/1	TOPBIOTOE2:1
1101	482867.91	1351142.72	N/A	667.22	667.18	+0.04	—	9/21	TOPBIOTOP2:1
1102	482867.75	1351156.18	N/A	667.80	667.85	-0.05	—	9/21	TOPBIOTOP2:1
1103	482869.16	1351040.90	N/A	659.29	659.27	+0.02	—	9/20	TOPBIOTOP2:1
1104	482863.16	1351040.83	N/A	656.56	656.27	+0.29	—	10/1	TOPBIOTOE2:1
1105	482868.45	1351098.74	N/A	665.10	665.01	+0.09	—	9/20	TOPBIOTOP2:1
1106	482862.45	1351098.66	N/A	662.23	662.01	+0.22	—	10/1	TOPBIOTOE2:1
1107	482910.78	1351070.33	N/A	662.62	662.42	+0.20	—	9/20	TOPBIO
1108	482868.80	1351069.81	N/A	662.36	662.10	+0.26	—	9/20	TOPBIOTOP2:1
1109	482862.81	1351069.74	N/A	659.39	659.10	+0.29	—	10/3/01	TOPBIOTOE2:1
1110	482869.87	1350982.40	N/A	649.80	649.51	+0.29	—	9/20	TOPBIOTOP2:1
1111	482863.87	1350982.32	N/A	646.76	646.51	-0.25	—	10/1	TOPBIOTOE2:1
1112	482870.49	1350932.40	N/A	641.36	641.16	+0.20	—	9/20	TOPBIOTOP2:1
1113	482864.49	1350932.32	N/A	638.26	638.16	+0.10	—	10/1	TOPBIOTOE2:1
1114	482871.10	1350882.40	N/A	632.82	632.81	+0.01	—	9/21	TOPBIOTOP2:1
1115	482865.10	1350882.32	N/A	629.95	629.81	+0.14	—	10/1	TOPBIOTOE2:1
1116	482871.71	1350832.41	N/A	624.49	624.46	+0.03	—	9/21	TOPBIOTOP2:1
1117	482865.71	1350832.33	N/A	621.63	621.46	+0.17	—	10/1	TOPBIOTOE2:1
1118	482872.01	1350807.82	N/A	620.51	620.38	+0.13	—	9/21	TOPBIOTOP2:1
1119	482866.01	1350807.74	N/A	617.49	617.38	+0.11	—	10/1	TOPBIOTOE2:1
1120	482872.26	1350787.32	N/A	617.09	616.98	+0.11	—	9/21	TOPBIOTOP2:1
1121	482866.26	1350787.24	N/A	614.28	613.98	+0.30	—	10/1	TOPBIOTOE2:1
1122	482872.42	1350774.32	N/A	614.82	614.81	+0.01	—	9/21	TOPBIOTOP2:1
1123	482866.42	1350774.25	N/A	612.10	611.81	+0.29	—	10/1	TOPBIOTOE2:1
1124	482872.64	1350756.07	N/A	608.81	608.73	+0.08	—	10/1	TOPBIOTOP2:1
1125	482866.64	1350756.00	N/A	608.96	608.73	+0.23	—	9/28/01	TOPBIOTOE2:1
1835	482922.65	1351264.33	662.66	665.64	665.45	+0.19	2.98	9/20	TOPBIO
1836	482920.39	1351214.29	662.65	665.60	665.42	+0.18	2.95	9/28	TOPBIO
1837	482918.13	1351164.26	662.63	665.76	665.40	+0.36	3.13	9/20	TOPBIO
1838	482915.87	1351114.23	662.41	665.44	665.39	+0.05	3.03	9/20	TOPBIO
1839	482949.60	1351264.66	659.87	662.93	662.73	+0.20	3.06	9/25	TOPBIO
1840	482947.34	1351214.63	659.97	663.14	662.71	+0.43	3.17	9/25	TOPBIO
1841	482945.08	1351164.60	659.89	663.07	662.68	+0.39	3.18	9/25	TOPBIO
1842	482942.82	1351114.56	659.87	663.00	662.66	+0.34	3.13	9/25	TOPBIO
1843	482908.19	1351275.19	662.49	665.45	665.32	+0.13	2.96	9/26	TOPBIO

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1846	482907.84	1351304.10	659.54	662.84	662.45	+0.39	3.30	9/26/01	TOPBIO
1849	482951.40	1351304.63	660.02	662.95	662.75	+0.20	2.93	9/26/01	TOPBIO
1851	482940.84	1351070.70	659.75	662.75	662.65	+0.10	3.00	9/20	TOPBIO
1860	482878.87	1351142.85	NOT USED	667.31	667.26	+0.05	—	9/20	TOPBIO
1864	482882.84	1351230.88	664.36	667.33	667.30	+0.03	2.97	9/26/01	TOPBIO
1867	482879.82	1351163.79	664.45	667.63	667.28	+0.34	3.18	9/21	TOPBIO
1868	482882.07	1351213.82	664.50	667.43	667.29	+0.14	2.93	9/26/01	TOPBIO
3000	482966.77	1351041.80	656.96	666.03	659.96	+0.07	3.07	9/20	PT10000
3001	482979.97	1351334.20	657.16	660.19	660.08	+0.11	3.03	9/26/01	PT10001
3002	482915.32	1351099.16	662.34	665.28	665.37	-0.09	2.94	9/20	PT10002
3003	482923.29	1351275.52	662.63	665.58	665.44	+0.14	2.95	9/26/01	PT10003
3014	483100.01	1350790.10	NOT USED	618.63	618.71	-0.08	—	9/21	PT10014
3015	483138.17	1350798.20	NOT USED	619.05	619.07	-0.02	—	9/21	PT10015
3016	483170.34	1350820.27	NOT USED	619.50	619.42	+0.08	—	9/24	PT10016
3017	483191.62	1350852.87	NOT USED	619.91	619.78	+0.13	—	9/24	PT10017
3018	483198.78	1350891.32	NOT USED	620.23	620.14	+0.09	—	9/24	PT10018
3019	483191.97	1351447.95	NOT USED	625.61	625.70	-0.09	—	9/26	PT10019
3020	483183.89	1351486.12	NOT USED	625.68	625.71	-0.03	—	9/26	PT10020
3021	483161.82	1351518.30	NOT USED	625.68	625.72	-0.04	—	9/26	PT10021
3022	483129.12	1351539.58	NOT USED	625.64	625.73	-0.09	—	9/26	PT10022
3023	483090.76	1351546.72	NOT USED	625.73	625.74	-0.01	—	9/26	PT10023
3042	482904.93	1351544.45	NOT USED	624.40	624.32	+0.08	—	9/26	TOPBIO
3044	482905.18	1351523.95	NOT USED	627.93	627.73	+0.20	—	9/26	TOPBIO
3045	482905.25	1351518.45	625.69	628.96	628.65	+0.31	3.27	9/26	TOPBIO
3046	482954.93	1351545.06	NOT USED	624.73	624.70	+0.03	—	9/26	TOPBIO
3049	482955.18	1351524.56	NOT USED	628.24	628.11	+0.13	—	9/26	TOPBIO
3050	482955.24	1351519.06		NOT USED	629.03				TOPBIO
3051	483004.93	1351545.67	NOT USED	625.01	625.08	-0.07	—	9/26	TOPBIO
3054	483005.17	1351525.17	NOT USED	628.55	628.50	+0.05	—	9/26	TOPBIO
3055	483005.24	1351519.67	626.51	Not Used	629.42				TOPBIO
3056	483054.92	1351546.28	NOT USED	625.52	625.46	+0.06	—	9/26	TOPBIO
3059	483055.17	1351525.78	NOT USED	629.02	628.88	+0.14	—	9/26	TOPBIO
3060	483055.24	1351520.28	626.94	Not Used	629.80				TOPBIO
3062	483081.28	1351528.54	NOT USED	628.66	628.68	-0.02	—	9/26	TOPBIO
3063	483078.74	1351523.66	626.43	629.41	629.47	-0.06	2.98	9/26	TOPBIO
3065	483117.07	1351522.99	NOT USED	628.51	628.50	+0.01	—	9/26	TOPBIO
3066	483113.84	1351518.54	626.31	Not Used	629.24				TOPBIO
3068	483147.41	1351503.72	NOT USED	628.74	628.44	+0.30	—	9/26	TOPBIO
3069	483143.55	1351499.80	626.16	NOT USED	629.17				TOPBIO
3071	483167.45	1351473.87	NOT USED	628.58	628.48	+0.10	—	9/26	TOPBIO
3072	483163.04	1351470.59	626.33	NOT USED	629.22				TOPBIO
3074	483173.91	1351438.26	NOT USED	628.66	628.63	+0.03	—	9/26	TOPBIO
3075	483169.06	1351435.66	626.36	Not Used	629.42				TOPBIO
3076	483192.95	1351367.67	NOT USED	624.94	624.90	+0.04	—	9/26	TOPBIO

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3078	483172.45	1351367.42	NOT USED	628.31	628.30	+0.01	—	9/25	TOPBIO
3079	483166.95	1351367.35	626.06	NOT USED	629.21				TOPBIO
3080	483192.46	1351407.95	NOT USED	625.21	625.30	-0.09	—	9/25	TOPBIO
3081	483147.55	1351407.40	629.67	632.76	632.76	-0.06	8.03	9/26	TOPBIO
3083	483171.96	1351407.70	NOT USED	628.63	628.71	-0.08	—	9/26	TOPBIO
3084	483166.46	1351407.63	626.59	NOT USED	629.62				TOPBIO
3085	483193.56	1351317.68	NOT USED	624.47	624.40	+0.07	—	9/25	TOPBIO
3087	483173.07	1351317.42	NOT USED	627.95	627.80	+0.15	—	9/25	TOPBIO
3088	483167.57	1351317.36	625.76	NOT USED	628.71				TOPBIO
3089	483194.18	1351267.68	NOT USED	624.13	623.90	+0.23	—	9/25	TOPBIO
3091	483173.68	1351267.43	NOT USED	627.49	627.30	+0.19	—	9/25	TOPBIO
3092	483168.18	1351267.36	625.36	NOT USED	628.21				TOPBIO
3093	483194.79	1351217.69	NOT USED	623.52	623.40	+0.12	—	9/25	TOPBIO
3095	483174.29	1351217.43	NOT USED	626.81	626.81	+0.00	—	9/25	TOPBIO
3096	483168.79	1351217.36	624.87	NOT USED	627.72				TOPBIO
3097	483195.40	1351167.69	NOT USED	622.85	622.90	-0.05	—	9/25	TOPBIO
3099	483174.90	1351167.44	NOT USED	626.32	626.31	+0.01	—	9/25	TOPBIO
3100	483169.40	1351167.37	624.25	NOT USED	627.23				TOPBIO
3101	483196.01	1351117.69	NOT USED	622.38	622.40	-0.02	—	9/25	TOPBIO
3103	483175.51	1351117.44	NOT USED	625.79	625.81	-0.02	—	9/25	TOPBIO
3104	483170.01	1351117.37	623.82	NOT USED	626.72				TOPBIO
3105	483196.62	1351067.70	NOT USED	621.91	621.90	+0.01	—	9/24	TOPBIO
3107	483176.12	1351067.44	NOT USED	625.36	625.31	+0.05	—	9/24	TOPBIO
3108	483170.62	1351067.38	623.29	NOT USED	626.23				TOPBIO
3109	483197.23	1351017.70	NOT USED	621.53	621.40	+0.13	—	9/24	TOPBIO
3111	483176.74	1351017.45	NOT USED	624.89	624.81	+0.08	—	9/24	TOPBIO
3112	483171.24	1351017.38	622.84	NOT USED	625.73				TOPBIO
3113	483197.85	1350967.70	NOT USED	620.99	620.90	+0.09	—	9/24	TOPBIO
3115	483177.35	1350967.45	NOT USED	624.38	624.31	+0.07	—	9/24	TOPBIO
3116	483171.85	1350967.38	622.37	NOT USED	625.22				TOPBIO
3117	483198.22	1350937.26	NOT USED	620.71	620.60	+0.11	—	9/24	TOPBIO
3118	483153.25	1350936.70	625.11	628.10	628.08	+0.02	2.99	9/24	TOPBIO
3120	483177.72	1350937.01	NOT USED	623.95	624.01	-0.06	—	9/24	TOPBIO
3121	483172.22	1350936.94	621.98	NOT USED	624.92				TOPBIO
3123	483181.58	1350902.48	NOT USED	623.22	623.09	+0.13	—	9/24	TOPBIO
3124	483176.97	1350905.47	620.94	624.11	623.88	+0.23	3.17	9/24	TOPBIO
3126	483175.92	1350866.06	NOT USED	622.78	622.58	+0.20	—	9/24	TOPBIO
3127	483171.71	1350869.60	620.24	NOT USED	623.33				TOPBIO
3129	483156.47	1350835.36	NOT USED	622.19	622.18	+0.01	—	9/24	TOPBIO
3130	483152.75	1350839.41	619.81	NOT USED	622.92				TOPBIO
3132	483126.37	1350814.97	NOT USED	622.18	621.88	+0.30	—	9/21	TOPBIO
3133	483123.21	1350819.46	619.81	NOT USED	622.64				TOPBIO
3135	483090.42	1350808.22	NOT USED	621.60	621.68	-0.08	—	9/21	TOPBIO
3136	483087.85	1350813.08	619.40	NOT USED	622.48				TOPBIO

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3137	483064.27	1350789.66	NOT USED	618.64	618.44	+0.20	—	9/21	TOPBIO
3139	483064.01	1350810.16	NOT USED	622.07	621.85	+0.22	—	9/21	TOPBIO
3140	483063.95	1350815.66	619.95	NOT USED	622.77				TOPBIO
3141	483014.27	1350789.05	NOT USED	618.13	618.06	+0.07	—	9/21	TOPBIO
3143	483014.02	1350809.55	NOT USED	621.67	621.47	+0.20	—	9/21	TOPBIO
3144	483013.95	1350815.05	619.46	NOT USED	622.38				TOPBIO
3145	482964.27	1350788.44	NOT USED	617.91	617.68	+0.23	—	9/21	TOPBIO
3147	482964.02	1350808.94	NOT USED	621.35	621.09	+0.26	—	9/21	TOPBIO
3148	482963.95	1350814.44	619.09	NOT USED	622.00				TOPBIO
3149	482914.28	1350787.83	NOT USED	617.41	617.30	+0.11	—	9/21	TOPBIO
3151	482914.02	1350808.33	NOT USED	620.87	620.70	+0.17	—	9/21	TOPBIO
3152	482913.96	1350813.83	618.75	NOT USED	621.61				TOPBIO

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
43	483093.26	1350835.11	626.28	PT5000
44	483116.63	1350840.02	626.51	PT5001
45	483136.32	1350853.50	627.15	PT5002
46	483149.35	1350873.49	627.35	PT5003
47	483153.73	1350896.96	627.77	PT5004
48	483147.14	1351441.21	633.21	PT5005
49	483142.18	1351464.58	633.50	PT5006
50	483128.65	1351484.26	633.31	PT5007
51	483108.62	1351497.24	633.23	PT5008
52	483085.12	1351501.56	633.22	PT5009
53	482979.65	1351333.90	660.19	PT5010
54	482966.48	1351042.10	660.03	PT5011
55	482923.15	1351275.37	665.58	PT5012
56	482915.20	1351099.31	665.28	PT5013
109	483063.71	1350834.75	625.99	TOPBIO
110	483063.10	1350884.36	634.52	TOPBIO
111	483013.71	1350834.14	625.67	TOPBIO
112	482963.72	1350833.53	625.58	TOPBIO
113	482913.72	1350832.92	625.23	TOPBIO
116	483012.06	1350967.68	647.83	TOPBIO
118	482911.14	1351041.42	659.89	TOPBIO
121	483063.40	1350859.75	630.35	TOPBIO
123	483013.10	1350884.14	634.33	TOPBIO
125	483012.48	1350934.13	642.63	TOPBIO
128	482963.10	1350883.52	633.86	TOPBIO
130	482962.48	1350933.52	642.23	TOPBIO
132	482961.86	1350983.52	650.54	TOPBIO
136	482913.10	1350882.91	633.63	TOPBIO
138	482912.49	1350932.91	641.90	TOPBIO
140	482911.87	1350982.91	650.20	TOPBIO
162	483036.98	1350926.99	641.38	TOPBIO
168	483102.86	1350890.65	634.09	TOPBIO
170	483069.40	1350927.81	640.20	TOPBIO
180	483152.88	1350967.15	628.69	TOPBIO
181	483152.27	1351017.14	629.27	TOPBIO
182	483151.67	1351067.14	629.52	TOPBIO
183	483151.06	1351117.14	630.07	TOPBIO
184	483150.46	1351167.13	630.39	TOPBIO
185	483149.85	1351217.13	631.03	TOPBIO
186	483149.25	1351267.13	631.56	TOPBIO
187	483148.64	1351317.12	632.04	TOPBIO
188	483148.04	1351367.12	632.36	TOPBIO
190	483001.09	1351015.28	653.94	TOPBIO
191	482967.51	1351064.87	660.13	TOPBIO
192	482969.77	1351114.90	660.03	TOPBIO
193	482972.02	1351164.93	660.00	TOPBIO
194	482974.28	1351214.96	660.09	TOPBIO
195	482976.54	1351264.99	660.04	TOPBIO
196	482978.80	1351315.02	660.27	TOPBIO
199	483098.04	1351366.50	640.82	TOPBIO
201	483048.04	1351365.88	649.24	TOPBIO
203	483097.52	1351409.42	641.06	TOPBIO
205	483047.90	1351377.63	649.19	TOPBIO
207	483098.65	1351316.50	640.21	TOPBIO
209	483048.65	1351315.89	648.54	TOPBIO
211	482998.65	1351315.27	656.87	TOPBIO
213	483099.25	1351266.51	639.79	TOPBIO
215	483049.26	1351265.89	648.19	TOPBIO
217	482999.26	1351265.27	656.40	TOPBIO

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
219	483099.86	1351216.51	639.23	TOPBIO
221	483049.86	1351215.89	647.73	TOPBIO
223	482999.86	1351215.28	655.85	TOPBIO
225	483100.46	1351166.52	639.02	TOPBIO
227	483050.47	1351165.90	647.13	TOPBIO
229	483000.47	1351165.28	655.66	TOPBIO
231	483101.07	1351116.52	638.40	TOPBIO
233	483051.07	1351115.90	646.58	TOPBIO
235	483001.08	1351115.28	655.11	TOPBIO
237	483101.67	1351066.52	637.86	TOPBIO
239	483051.68	1351065.91	646.00	TOPBIO
241	483001.68	1351065.29	654.39	TOPBIO
244	483102.28	1351016.53	637.26	TOPBIO
246	483052.28	1351015.91	645.77	TOPBIO
249	483102.88	1350966.53	636.84	TOPBIO
252	483103.25	1350936.09	636.47	TOPBIO
254	483052.78	1350975.21	645.10	TOPBIO
258	483093.46	1351448.74	639.55	TOPBIO
260	483058.26	1351413.23	645.85	TOPBIO
263	483055.47	1351501.20	633.37	TOPBIO
264	483005.47	1351500.59	632.97	TOPBIO
265	482955.48	1351499.98	632.51	TOPBIO
266	482905.48	1351499.37	632.12	TOPBIO
269	483056.02	1351455.31	640.56	TOPBIO
270	483006.96	1351377.32	653.28	TOPBIO
273	483029.40	1351412.98	647.56	TOPBIO
277	483006.08	1351450.59	640.47	TOPBIO
279	483006.68	1351400.59	649.38	TOPBIO
280	483055.77	1351476.20	637.16	TOPBIO
281	482907.49	1351333.02	659.51	TOPBIO
285	482956.08	1351449.98	640.80	TOPBIO
287	482956.69	1351399.98	649.02	TOPBIO
289	482957.29	1351349.99	657.18	TOPBIO
291	482906.08	1351449.37	640.35	TOPBIO
293	482906.69	1351399.37	648.49	TOPBIO
295	482907.30	1351349.38	656.94	TOPBIO
1000	482904.77	1351557.45	622.27	TOPBIOTOP3:1
1001	482904.59	1351572.24	617.37	TOPBIOTOE3:1
1002	482954.78	1351558.06	622.67	TOPBIOTOP3:1
1003	482954.60	1351572.85	617.71	TOPBIOTOE3:1
1004	483004.77	1351558.67	622.86	TOPBIOTOP3:1
1005	483004.60	1351573.46	618.27	TOPBIOTOE3:1
1006	483054.76	1351559.28	623.26	TOPBIOTOP3:1
1008	483054.58	1351574.07	618.56	TOPBIOTOE3:1
1009	483096.77	1351558.25	623.77	TOPBIOTOP3:1
1010	483103.02	1351570.23	619.14	TOPBIOTOE3:1
1011	483136.76	1351550.10	623.68	TOPBIOTOP3:1
1012	483143.94	1351559.99	619.03	TOPBIOTOE3:1
1013	483170.96	1351527.55	623.64	TOPBIOTOP3:1
1014	483178.64	1351535.32	619.94	TOPBIOTOE3:1
1015	483194.31	1351493.89	623.52	TOPBIOTOP3:1
1016	483205.04	1351501.88	618.89	TOPBIOTOE3:1
1017	483203.43	1351454.10	623.53	TOPBIOTOP3:1
1018	483217.36	1351461.57	618.86	TOPBIOTOE3:1
1019	483205.46	1351408.11	623.13	TOPBIOTOP3:1
1020	483223.71	1351408.33	618.30	TOPBIOTOE3:1
1021	483205.95	1351367.83	622.70	TOPBIOTOP3:1
1022	483224.20	1351368.05	617.90	TOPBIOTOE3:1
1023	483206.56	1351317.84	622.38	TOPBIOTOP3:1

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
1024	483224.81	1351318.08	617.22	TOPBIOTOE3:1
1025	483207.18	1351267.84	621.95	TOPBIOTOP3:1
1026	483225.43	1351268.06	616.72	TOPBIOTOE3:1
1027	483207.79	1351217.85	621.21	TOPBIOTOP3:1
1028	483226.04	1351218.09	616.46	TOPBIOTOE3:1
1029	483208.40	1351167.85	620.93	TOPBIOTOP3:1
1030	483226.65	1351168.07	615.82	TOPBIOTOE3:1
1031	483209.01	1351117.85	620.35	TOPBIOTOP3:1
1032	483227.26	1351118.07	615.33	TOPBIOTOE3:1
1033	483209.62	1351067.86	619.98	TOPBIOTOP3:1
1034	483227.87	1351068.10	614.98	TOPBIOTOE3:1
1035	483210.23	1351017.86	619.44	TOPBIOTOP3:1
1036	483228.48	1351018.08	614.27	TOPBIOTOE3:1
1037	483210.85	1350967.86	618.96	TOPBIOTOP3:1
1038	483229.10	1350968.08	614.03	TOPBIOTOE3:1
1039	483211.22	1350937.42	618.72	TOPBIOTOP3:1
1040	483226.01	1350937.60	613.66	TOPBIOTOP3:1
1041	483064.43	1350776.66	616.36	TOPBIOTOP3:1
1042	483064.67	1350758.41	610.19	TOPBIOTOE3:1
1043	483211.68	1350889.71	618.21	TOPBIOTOP3:1
1044	483227.37	1350887.74	613.39	TOPBIOTOE3:1
1045	483203.30	1350847.17	617.90	TOPBIOTOP3:1
1046	483215.32	1350841.31	613.39	TOPBIOTOE3:1
1047	483179.64	1350811.19	617.40	TOPBIOTOP3:1
1048	483187.46	1350803.55	613.85	TOPBIOTOE3:1
1049	483144.12	1350786.64	617.04	TOPBIOTOP3:1
1050	483150.24	1350774.76	612.72	TOPBIOTOE3:1
1051	483101.94	1350777.24	616.54	TOPBIOTOP3:1
1052	483104.28	1350761.61	611.25	TOPBIOTOE3:1
1053	483014.43	1350776.05	616.15	TOPBIOTOP3:1
1054	483014.65	1350757.80	610.02	TOPBIOTOE3:1
1055	482964.43	1350775.44	615.67	TOPBIOTOP3:1
1056	482964.65	1350757.19	609.44	TOPBIOTOE3:1
1057	482914.44	1350774.83	615.31	TOPBIOTOP3:1
1058	482914.68	1350756.58	609.16	TOPBIOTOE3:1
1070	482857.01	1351543.87	620.95	TOPBIOTOE2:1
1071	482863.01	1351543.94	624.12	TOPBIOTOP2:1
1072	482857.56	1351498.79	628.69	TOPBIOTOE2:1
1073	482863.56	1351498.86	631.47	TOPBIOTOP2:1
1075	482857.26	1351523.37	624.62	TOPBIOTOE2:1
1076	482863.26	1351523.44	627.53	TOPBIOTOP2:1
1078	482856.67	1351571.65	616.80	TOPBIOTOE2:1
1079	482862.67	1351571.73	616.86	TOPBIOTOP2:1
1080	482856.85	1351556.86	619.04	TOPBIOTOE2:1
1081	482862.85	1351556.94	621.95	TOPBIOTOP2:1
1082	482858.17	1351448.79	637.10	TOPBIOTOE2:1
1083	482864.17	1351448.86	639.85	TOPBIOTOP2:1
1084	482858.78	1351398.79	645.48	TOPBIOTOE2:1
1085	482864.78	1351398.86	648.34	TOPBIOTOP2:1
1086	482859.39	1351348.80	653.85	TOPBIOTOE2:1
1087	482865.39	1351348.87	656.73	TOPBIOTOP2:1
1088	482859.95	1351303.52	659.19	TOPBIOTOE2:1
1089	482865.95	1351303.59	662.08	TOPBIOTOP2:1
1090	482860.30	1351274.61	662.26	TOPBIOTOE2:1
1091	482866.30	1351274.69	664.99	TOPBIOTOP2:1
1092	482860.84	1351230.61	664.31	TOPBIOTOE2:1
1093	482866.84	1351230.68	667.38	TOPBIOTOP2:1
1094	482861.13	1351206.92	665.28	TOPBIOTOE2:1
1095	482861.66	1351163.48	665.21	TOPBIOTOE2:1
1096	482865.59	1351332.51	659.35	TOPBIOTOP2:1

NOTE:

NORTHING AND EASTING COORDINATES LISTED ON THESE DRAWINGS MAY BE +/- 0.01' DIFFERENT THAN THOSE LISTED FOR THE SAME POINT ON THE TABLE DUE TO TO ROUNDING OF SURVEY DATA.

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642-C.4.33.9

REVISIONS:

Designed By:
Drawn By: G.E.C.
Checked By: L.E.H.
Approved By: L.E.H.

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STATE OF OHIO LYNN E. HIRSCH S-5738 REGISTERED SURVEYOR
11/13/01

THE IT GROUP
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
OSDF CELL 1

AS-BUILT TOP OF BIOINTRUSION LAYER

Scale:
Date: 10-18-2001
Sheet No. 2 OF 3
Project No. 201-159

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Y:\201\159\dwg\BioIntru Layer

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POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
1097	482859.59	1351332.44	656.21	TOPBIOTOP2.1
1099	482867.05	1351213.45	668.01	TOPBIOTOP2.1
1100	482861.91	1351142.64	664.21	TOPBIOTOE2.1
1101	482867.91	1351142.72	667.22	TOPBIOTOP2.1
1102	482867.75	1351156.18	667.80	TOPBIOTOP2.1
1103	482869.16	1351040.90	659.29	TOPBIOTOP2.1
1104	482863.16	1351040.83	656.56	TOPBIOTOE2.1
1105	482868.45	1351098.74	665.10	TOPBIOTOP2.1
1106	482862.45	1351098.66	662.23	TOPBIOTOE2.1
1107	482910.78	1351070.33	662.62	TOPBIO
1108	482868.80	1351069.81	662.36	TOPBIOTOP2.1
1109	482862.81	1351069.74	659.39	TOPBIOTOE2.1
1110	482869.87	1350982.40	649.80	TOPBIOTOP2.1
1111	482863.87	1350982.32	646.76	TOPBIOTOE2.1
1112	482870.49	1350932.40	641.36	TOPBIOTOP2.1
1113	482864.49	1350932.32	638.26	TOPBIOTOE2.1
1114	482871.10	1350882.40	632.82	TOPBIOTOP2.1
1115	482865.10	1350882.32	629.95	TOPBIOTOE2.1
1116	482871.71	1350832.41	624.49	TOPBIOTOP2.1
1117	482865.71	1350832.33	621.63	TOPBIOTOE2.1
1118	482872.01	1350807.82	620.51	TOPBIOTOP2.1
1119	482866.01	1350807.74	617.49	TOPBIOTOE2.1
1120	482872.26	1350787.32	617.09	TOPBIOTOP2.1
1121	482866.26	1350787.24	614.28	TOPBIOTOE2.1
1122	482872.42	1350774.32	614.82	TOPBIOTOP2.1
1123	482866.42	1350774.25	612.10	TOPBIOTOE2.1
1124	482872.64	1350756.07	608.81	TOPBIOTOP2.1
1125	482866.64	1350756.00	608.96	TOPBIOTOE2.1
1835	482922.65	1351264.33	665.64	TOPBIO
1836	482920.39	1351214.29	665.60	TOPBIO
1837	482918.13	1351164.26	665.76	TOPBIO
1838	482915.87	1351114.23	665.44	TOPBIO
1839	482949.60	1351264.66	662.93	TOPBIO
1840	482947.34	1351214.63	663.14	TOPBIO
1841	482945.08	1351164.60	663.07	TOPBIO
1842	482942.82	1351114.56	663.00	TOPBIO
1843	482908.19	1351275.19	665.45	TOPBIO
1846	482907.84	1351304.10	662.84	TOPBIO
1849	482951.40	1351304.63	662.95	TOPBIO
1851	482940.84	1351070.70	662.75	TOPBIO
1860	482878.87	1351142.85	667.31	TOPBIO
1864	482882.84	1351230.88	667.33	TOPBIO
1867	482879.82	1351163.79	667.63	TOPBIO
1868	482882.07	1351213.82	667.43	TOPBIO
3000	482966.77	1351041.80	660.03	PT10000
3001	482979.97	1351334.20	660.19	PT10001
3002	482915.32	1351099.16	665.28	PT10002
3003	482923.29	1351275.52	665.58	PT10003
3014	483100.01	1350790.10	618.63	PT10014
3015	483138.17	1350798.20	619.05	PT10015
3016	483170.34	1350820.27	619.50	PT10016
3017	483191.62	1350852.87	619.91	PT10017
3018	483198.78	1350891.32	620.23	PT10018
3019	483191.97	1351447.95	625.61	PT10019
3020	483183.89	1351486.12	625.68	PT10020
3021	483161.82	1351518.30	625.68	PT10021
3022	483129.12	1351539.58	625.64	PT10022
3023	483090.76	1351546.72	625.73	PT10023
3042	482904.93	1351544.45	624.40	TOPBIO

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
3044	482905.18	1351523.95	627.93	TOPBIO
3045	482905.25	1351518.45	628.96	TOPBIO
3046	482954.93	1351545.06	624.73	TOPBIO
3049	482955.18	1351524.56	628.24	TOPBIO
3051	483004.93	1351545.67	625.01	TOPBIO
3054	483005.17	1351525.17	628.55	TOPBIO
3056	483054.92	1351546.28	625.52	TOPBIO
3059	483055.17	1351525.78	629.02	TOPBIO
3062	483081.28	1351528.54	628.66	TOPBIO
3063	483078.74	1351523.66	629.41	TOPBIO
3065	483117.07	1351522.99	628.51	TOPBIO
3068	483147.41	1351503.72	628.74	TOPBIO
3071	483167.45	1351473.87	628.58	TOPBIO
3074	483173.91	1351438.26	628.66	TOPBIO
3076	483192.95	1351367.67	624.94	TOPBIO
3078	483172.45	1351367.42	628.31	TOPBIO
3080	483192.46	1351407.95	625.21	TOPBIO
3081	483147.55	1351407.40	632.70	TOPBIO
3083	483171.96	1351407.70	628.63	TOPBIO
3085	483193.56	1351317.68	624.47	TOPBIO
3087	483173.07	1351317.42	627.95	TOPBIO
3089	483194.18	1351267.68	624.13	TOPBIO
3091	483173.68	1351267.43	627.49	TOPBIO
3093	483194.79	1351217.69	623.52	TOPBIO
3095	483174.29	1351217.43	626.81	TOPBIO
3097	483195.40	1351167.69	622.85	TOPBIO
3099	483174.90	1351167.44	626.32	TOPBIO
3101	483196.01	1351117.69	622.38	TOPBIO
3103	483175.51	1351117.44	625.79	TOPBIO
3105	483196.62	1351067.70	621.91	TOPBIO
3107	483176.12	1351067.44	625.36	TOPBIO
3109	483197.23	1351017.70	621.53	TOPBIO
3111	483176.74	1351017.45	624.89	TOPBIO
3113	483197.85	1350967.70	620.99	TOPBIO
3115	483177.35	1350967.45	624.38	TOPBIO
3117	483198.22	1350937.26	620.71	TOPBIO
3118	483153.25	1350936.70	628.10	TOPBIO
3120	483177.72	1350937.01	623.95	TOPBIO
3123	483181.58	1350902.48	623.22	TOPBIO
3124	483176.97	1350905.47	624.11	TOPBIO
3126	483175.92	1350866.06	622.78	TOPBIO
3129	483156.47	1350835.36	622.19	TOPBIO
3132	483126.37	1350814.97	622.18	TOPBIO
3135	483090.42	1350808.22	621.60	TOPBIO
3137	483064.27	1350789.66	618.64	TOPBIO
3139	483064.01	1350810.16	622.07	TOPBIO
3141	483014.27	1350789.05	618.13	TOPBIO
3143	483014.02	1350809.55	621.67	TOPBIO
3145	482964.27	1350788.44	617.91	TOPBIO
3147	482964.02	1350808.94	621.35	TOPBIO
3149	482914.28	1350787.83	617.41	TOPBIO
3151	482914.02	1350808.33	620.87	TOPBIO

NOTE:
NORTHING AND EASTING COORDINATES LISTED ON THESE DRAWINGS MAY BE +/- 0.01' DIFFERENT THAN THOSE LISTED FOR THE SAME POINT ON THE TABLE DUE TO TO ROUNDING OF SURVEY DATA.

AS-BUILT TOP OF BIOINTRUSION LAYER

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THE IT GROUP
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
OSDF CELL 1

REVISIONS:

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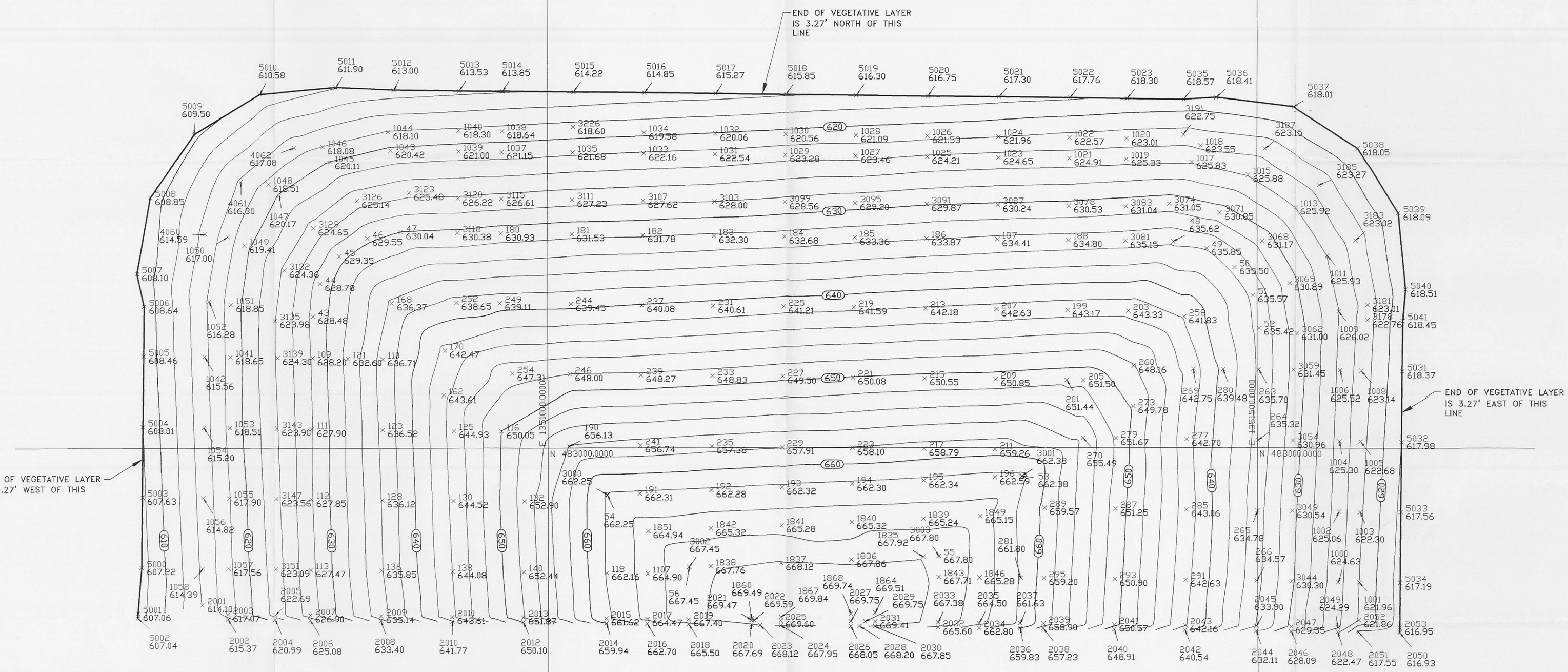
STATE OF OHIO
LYNN HIRSCH
S-5738
REGISTERED
PROFESSIONAL SURVEYOR
10/31/01

Designed By:
Drawn By: G.E.C.
Checked By: L.E.H.
Approved By: L.E.H.

Scale:
Date: 10-18-2001
Sheet No. 3 OF 3
Project No. 201-159

y:\2011\159\dwg\Bioinfltn Layer



4555

LEGEND:

× 2100 619.21 = ELEVATION AND POINT NUMBER OF CERTIFIED POINT

——— = INDEX CONTOUR AS-BUILT

——— = INTERMEDIATE CONTOUR AS-BUILT

CONTOUR INTERVAL = 2'

40 20 0 80 40 120

SCALE: 1"=40'

000203

STATE OF OHIO
LYNN E. HIRSCH
S-5738
SURVEYOR
Lynn Edward Hirsch
12-12-2001

David E. Estes Engineering, Inc.
CIVIL & ENVIRONMENTAL ENGINEERING
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www.estesengineering.com

Designed By:
Drawn By: F.A.M.
Checked By: L.E.H.
Approved By: L.E.H.

REVISIONS:
REVISION 1

THE IT GROUP
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
OSDF CELL 1

AS-BUILT TOP OF VEGETATIVE LAYER

Scale: 1" = 40'
Date: 12-12-2001
Sheet No. 1 OF 3
Project No. 201-159

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GRANULAR FILTER

SUPPLIER DOCUMENT SUBMITTAL

FDF PROJECT NO.: 20103

CONTRACT NO: FSC-642

SUBMITTAL NO.: 20103-642-02100-006 | REV.: 17 | DATE: 12/20/01 | Page 1 OF 1

FROM: IT CORPORATION
Mail Stop MS39
P.O. BOX 547
ROSS, OH 45061

SIGNATURE: David Lockard

TO: FDF ENGINEERING/CONSTRUCTION DOCUMENT CONTROL (ECDC)
MS52-7

RECEIVED BY: [signature] DATE: 12/20/01

QTY	DOCUMENT NUMBER	REV	PRO	H&S	MED	TRG	CON	ENG	QAC	OPER	TITLE/DESCRIPTION	SUBMITTAL TYPE: DRFT	CFC	INF	ASSOCIATED SPECIFICATION	SUBMITTAL ACTION: A	B	C
8	642-C3.33.10	1						X			SURVEY NOTES AND DRAWINGS		X		02100-1.04	X		
											AS-BUILT GRANULAR FILTER LAYER							

REVIEW DISTRIBUTION

NAME	MS	NAME	MS	NAME	MS
ECDC	52-7	LEE MCDANIEL	60		
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FRANK FLACK	64	TOM CARR	60		
SAM WOLINSKY (APPROVER)	64				
DON GOETZ	64				
MARY ELETON	64				
GREGG JOHNSON	64				
KEVIN HARBIN	64				

NO COMMENTS: (X) COMMENTS: (PLEASE USE SPACE BELOW FOR COMMENTS OR INDICATE IF ATTACHMENTS)

ORIGINAL

RECEIVED BY: [signature] DATE: 1/3/02

FS-F-4955 (SIGN/DATE AND RETURN A COPY TO ECDC, MS 52-7)
Rev. 3: 05/14/1999

SUBMITTAL TYPE: (BY SUPPLIER)
CFC - CERTIFIED FOR CONSTRUCTION
INF - INFORMATION/RECORD
1 of 1 DRFT - DRAFT/PRELIMINARY

SUBMITTAL ACTION CODE: (BY FDF)
A - Conforms to the Subcontract Requirements
B - Minor Comments - Incorporate and Resubmit
C - Revise and Resubmit (SEE COMMENTS)

000180

4559

--4555

ON-SITE DISPOSAL FACILITY (OSDF) (PHASE III) CELL 1 FINAL COVER CONSTRUCTION PROJECT

***

SURVEY NOTES AND DRAWINGS AS-BUILT GRANULAR FILTER LAYER

2100 1.04
REVISION 17

***

ECDC CONTROLLED COPY NO. C011

FLUOR FERNALD, INC.
Fernald, Ohio

FF Subcontract No. FSC-642
Submittal No. 20103-642-2100-006
IT Document No. 642-C.4.33.10 Rev. 1

***

Submitted By:

IT Corporation
2790 Mosside Boulevard
Monroeville, PA 15146-2790

IT Project No. 820045

***

December 20, 2001

000181

[X] A - Conforms to the Subcontract Requirements
[ ] B - Minor Comment - Incorporate and Resubmit
[ ] C - Revise and Resubmit
Sig: SH Wocinsky Date: 1/3/0

David E. Estes Engineering, Inc.

CIVIL & ENVIRONMENTAL ENGINEERING
HYDROGEOLOGY & LAND SURVEYING

September 20, 2001

SUBJECT: CERTIFICATION POINTS FOR COVER OF GRANULAR FILTER AS-BUILTS.

I hereby certify that the elevations listed on the next 9 pages are the as-built elevations of the cover of Granular Filter Layer for the point numbers listed, along with the date the elevations were recorded.

Lynn Edward Hirsch

LYNN EDWARD HIRSCH NO. S-5738
THOMAS J. MACK NO. S-7964
REGISTERED OHIO PROFESSIONAL SURVEYORS

STATE OF OHIO
LYNN E. HIRSCH S-5738
REGISTERED SURVEYOR

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STATE OF OHIO
LYNN E. HIRSCH
S-5738
REGISTERED SURVEYOR

DATE
CREW
• = OUT OF TOLERANCE

COVER GRANULAR FILTER LAYER AS-BUILT

P.T.#	NORTHING	EASTING	AS-BUILT BIO. & DRAIN. ELEV.	AS-BUILT GRAN. FILTER ELEV.	PROP. GRAN. FILTER ELEV.	DIFF. IN ELEV.	COV. GRAN. FILTER THICK.	DATE	DESCRIPTION
43	483093.26	1350835.11	626.28	626.80	626.69	+0.11	0.52	10/18	PT5000
44	483116.63	1350840.02	626.51	627.11	627.06	+0.05	0.60	10/18	PT5001
45	483136.32	1350853.50	627.15	627.67	627.44	+0.23	0.52	10/18	PT5002
46	483149.35	1350873.49	627.35	627.86	627.81	+0.05	0.51	10/18	PT5003
47	483153.73	1350896.96	627.77	628.35	628.18	+0.17	0.58	10/18	PT5004
48	483147.14	1351441.21	633.21	633.80	633.61	+0.19	0.59	10/15	PT5005
49	483142.18	1351464.58	633.50	634.01	633.63	+0.38	0.51	10/15	PT5006
50	483128.65	1351484.26	633.31	633.83	633.66	+0.17	0.52	10/10	PT5007
51	483108.62	1351497.24	633.23	633.80	633.69	+0.11	0.57	10/10	PT5008
52	483085.12	1351501.56	633.22	633.75	633.73	+0.02	0.53	10/10	PT5009
53	482979.65	1351333.90	660.19	660.71	660.59	+0.12	0.52	10/9	PT5010
54	482966.48	1351042.10	660.03	660.56	660.47	+0.09	0.53	10/17	PT5011
55	482923.15	1351275.37	665.58	666.10	665.95	+0.15	0.52	10/9	PT5012
56	482915.20	1351099.31	665.25	665.78	665.88	-0.10	0.53	9/30	PT5013
109	483063.71	1350834.75	625.99	626.58	626.46	+0.12	0.59	10/18	TOPGRAN
110	483063.10	1350884.36	634.52	635.04	634.74	+0.30	0.52	10/18	TOPGRAN
111	483013.71	1350834.14	625.67	626.21	626.07	+0.14	0.54	10/19	TOPGRAN
112	482963.72	1350833.53	625.58	626.18	625.68	+0.50	0.60	10/19/01	TOPGRAN
113	482913.72	1350832.92	625.23	625.80	625.29	+0.51	0.57	10/19/01	TOPGRAN
116	483012.06	1350967.68	647.83	648.36	648.35	+0.01	0.53	10/19/01	TOPGRAN
118	482911.14	1351041.42	659.89	660.49	660.10	+0.39	0.60	9/30	TOPGRAN
121	483063.40	1350859.75	630.35	630.86	630.63	+0.23	0.51	10/18	TOPGRAN
123	483013.10	1350884.14	634.33	634.85	634.41	+0.44	0.52	10/19/01	TOPGRAN
125	483012.48	1350934.13	642.63	643.22	642.75	+0.47	0.59	10/19/01	TOPGRAN
128	482963.10	1350883.52	633.86	634.37	634.03	+0.34	0.51	10/19/01	TOPGRAN
130	482962.48	1350933.52	642.23	642.81	642.37	+0.44	0.58	10/19/01	TOPGRAN
132	482961.86	1350983.52	650.54	651.14	650.71	+0.43	0.60	10/19/01	TOPGRAN
136	482913.10	1350882.91	633.63	634.16	633.64	+0.52	0.53	10/19/01	TOPGRAN
138	482912.49	1350932.91	641.90	642.41	641.99	+0.42	0.51	10/19/01	TOPGRAN
140	482911.87	1350982.91	650.20	650.75	650.34	+0.41	0.55	10/19/01	TOPGRAN
162	483036.98	1350926.99	641.38	641.94	641.70	+0.24	0.56	10/18	TOPGRAN
168	483102.86	1350890.65	634.09	634.60	634.23	+0.37	0.51	10/18	TOPGRAN
170	483069.40	1350927.81	640.20	640.80	640.65	+0.15	0.60	10/18	TOPGRAN
180	483152.88	1350967.15	628.69	629.21	628.89	+0.32	0.52	10/18	TOPGRAN
181	483152.27	1351017.14	629.27	629.80	629.40	+0.40	0.53	10/18	TOPGRAN
182	483151.67	1351067.14	629.52	630.04	629.89	+0.15	0.52	10/18	TOPGRAN
183	483151.06	1351117.14	630.07	630.58	630.38	+0.20	0.51	10/18	TOPGRAN
184	483150.46	1351167.13	630.39	630.91	630.89	+0.02	0.51	10/18	TOPGRAN
185	483149.85	1351217.13	631.03	631.57	631.38	+0.19	0.54	10/15	TOPGRAN
186	483149.25	1351267.13	631.56	632.16	631.87	+0.29	0.60	10/15	TOPGRAN
187	483148.64	1351317.12	632.04	632.58	632.37	+0.21	0.54	10/15	TOPGRAN
188	483148.04	1351367.12	632.36	632.93	632.87	+0.06	0.57	10/15	TOPGRAN
190	483001.09	1351015.28	653.94	654.46	654.54	-0.08	0.52	10/17	TOPGRAN

- 4555

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DATE
CREW
* = OUT OF TOLERANCE

COVER GRANULAR FILTER LAYER AS-BUILT

P.T.#	NORTHING	EASTING	AS-BUILT BIO. & DRAIN. ELEV.	AS-BUILT GRAN. FILTER ELEV.	PROP. GRAN. FILTER ELEV.	DIFF. IN ELEV.	COV. GRAN. FILTER THICK.	DATE	DESCRIPTION
191	482967.51	1351064.87	660.13	660.64	660.52	+0.12	0.51	10/17	TOPGRAN
192	482969.77	1351114.90	660.03	660.55	660.54	+0.01	0.52	10/18	TOPGRAN
193	482972.02	1351164.93	660.00	660.53	660.56	-0.03	0.53	10/18	TOPGRAN
194	482974.28	1351214.96	660.09	660.63	660.59	+0.04	0.54	10/15	TOPGRAN
195	482976.54	1351264.99	660.04	660.63	660.61	+0.02	0.59	10/15	TOPGRAN
196	482978.80	1351315.02	660.27	660.85	660.63	+0.22	0.58	10/15	TOPGRAN
199	483098.04	1351366.50	640.82	641.34	641.19	+0.15	0.52	10/15	TOPGRAN
201	483048.04	1351365.88	649.24	649.77	649.51	+0.26	0.53	10/15	TOPGRAN
203	483097.52	1351409.42	641.06	641.66	641.62	+0.04	0.60	10/15	TOPGRAN
205	483047.90	1351377.63	649.19	649.75	649.63	+0.12	0.56	10/15	TOPGRAN
207	483098.65	1351316.50	640.21	640.81	640.69	+0.12	0.60	10/15	TOPGRAN
209	483048.65	1351315.89	648.54	649.09	649.01	+0.08	0.55	10/15	TOPGRAN
211	482998.65	1351315.27	656.87	657.42	657.33	+0.09	0.55	10/15	TOPGRAN
213	483099.25	1351266.51	639.79	640.31	640.19	+0.12	0.52	10/15	TOPGRAN
215	483049.26	1351265.89	648.19	648.70	648.51	+0.19	0.51	10/15	TOPGRAN
217	482999.26	1351265.27	656.40	657.00	656.83	+0.17	0.60	10/15	TOPGRAN
219	483099.86	1351216.51	639.23	639.82	639.70	+0.12	0.59	10/15	TOPGRAN
221	483049.86	1351215.89	647.73	648.24	648.01	+0.23	0.51	10/15	TOPGRAN
223	482999.86	1351215.28	655.85	656.37	656.33	+0.04	0.52	10/15	TOPGRAN
225	483100.46	1351166.52	639.02	639.51	639.20	+0.33	0.49	10/18	TOPGRAN
227	483050.47	1351165.90	647.13	647.67	647.51	+0.16	0.54	10/17	TOPGRAN
229	483000.47	1351165.28	655.66	656.18	655.83	+0.35	0.52	10/17	TOPGRAN
231	483101.07	1351116.52	638.40	638.91	638.70	+0.21	0.51	10/18	TOPGRAN
233	483051.07	1351115.90	646.58	647.16	647.02	+0.14	0.58	10/17	TOPGRAN
235	483001.08	1351115.28	655.11	655.71	655.33	+0.38	0.60	10/17	TOPGRAN
237	483101.67	1351066.52	637.86	638.37	638.20	+0.17	0.51	10/18	TOPGRAN
239	483051.68	1351065.91	646.00	646.51	646.52	-0.01	0.51	10/17	TOPGRAN
241	483001.68	1351065.29	654.39	654.99	654.84	+0.15	0.60	10/17	TOPGRAN
244	483102.28	1351016.53	637.26	637.78	637.70	+0.08	0.52	10/18	TOPGRAN
246	483052.28	1351015.91	645.77	646.28	646.02	+0.26	0.51	10/17	TOPGRAN
249	483102.88	1350966.53	636.84	637.35	637.21	+0.14	0.51	10/18	TOPGRAN
252	483103.25	1350936.09	636.47	636.98	636.91	+0.07	0.51	10/18	TOPGRAN
254	483052.78	1350975.21	645.10	645.64	645.61	+0.03	0.54	10/17	TOPGRAN
258	483093.46	1351448.74	639.55	640.06	640.03	+0.03	0.51	10/15	TOPGRAN
260	483058.26	1351413.23	645.85	646.37	646.41	-0.04	0.52	10/15	TOPGRAN
263	483055.47	1351501.20	633.37	633.97	633.46	+0.51	0.60	10/10	TOPGRAN
264	483005.47	1351500.59	632.97	633.49	633.09	+0.40	0.52	10/09	TOPGRAN
265	482955.48	1351499.98	632.51	633.01	632.70	+0.31	0.50	10/08	TOPGRAN
266	482905.48	1351499.37	632.12	632.70	632.30	+0.40	0.58	10/08	TOPGRAN
269	483056.02	1351455.31	640.56	641.08	641.15	-0.07	0.52	10/09	TOPGRAN
270	483006.96	1351377.32	653.28	653.81	653.67	+0.14	0.53	10/09	TOPGRAN
273	483029.40	1351412.98	647.56	648.09	648.02	+0.07	0.53	10/09	TOPGRAN
277	483006.08	1351450.59	640.47	640.99	640.72	-0.27	0.52	10/9	TOPGRAN

4555

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STATE OF OHIO
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COVER GRANULAR FILTER LAYER AS-BUILT

P.T.#	NORTHING	EASTING	AS-BUILT BIO. & DRAIN. ELEV.	AS-BUILT GRAN. FILTER ELEV.	PROP. GRAN. FILTER ELEV.	DIFF. IN ELEV.	COV. GRAN. FILTER THICK.	DATE	DESCRIPTION
279	483006.68	1351400.59	649.38	649.92	649.84	+0.08	0.54	10/09	TOPGRAN
280	483055.77	1351476.20	637.16	637.67	637.67	0.00	0.51	10/09	TOPGRAN
281	482907.49	1351333.02	659.51	660.02	660.13	-0.11	0.51	10/09	TOPGRAN
285	482956.08	1351449.98	640.80	641.34	641.05	+0.29	0.54	10/09	TOPGRAN
287	482956.69	1351399.98	649.02	649.53	649.44	+0.09	0.51	10/09	TOPGRAN
289	482957.29	1351349.99	658.18	657.70	657.72	-0.02	0.52	10/09	TOPGRAN
291	482906.08	1351449.37	640.35	640.86	640.66	+0.20	0.51	10/09	TOPGRAN
293	482906.69	1351399.37	648.49	649.08	649.03	+0.05	0.59	10/09	TOPGRAN
295	482907.30	1351349.38	656.94	657.45	657.38	+0.07	0.51	10/09	TOPGRAN
1000	482904.77	1351557.45	622.27	622.86	622.66	+0.20	0.59	10/08	TOPGRANTOP3:1BI#1000
1001	482904.59	1351572.24	617.37	617.91	617.73	+0.18	0.54	10/08	TOPGRANTOE3:1BI#1001
1002	482954.78	1351558.06	622.67	623.22	623.04	+0.18	0.55	10/08	TOPGRANTOP3:1BI#1002
1003	482954.60	1351572.85	617.71	618.23	618.11	+0.12	0.52	10/08	TOPGRANTOE3:1BI#1003
1004	483004.77	1351558.67	622.86	623.45	623.42	+0.03	0.59	10/09	TOPGRANTOP3:1BI#1004
1005	483004.60	1351573.46	618.27	618.77	618.49	+0.28	0.50	10/08	TOPGRANTOE3:1BI#1005
1006	483054.76	1351559.28	623.26	623.81	623.80	+0.01	0.55	10/09	TOPGRANTOP3:1BI#1006
1008	483054.58	1351574.07	618.56	619.08	618.87	+0.21	0.52	10/08	TOPGRABTOE3:1BI#1008
1009	483096.77	1351558.25	623.77	624.31	624.08	+0.23	0.54	10/09	TOPGRANTOP3:1BI#1009
1010	483103.02	1351570.23	619.14	619.64	619.58	+0.06	0.50	10/08	TOPGRANTOP3:1BI#1010
1011	483136.76	1351550.10	623.68	624.22	624.07	+0.15	0.54	10/09	TOPGRANTOP3:1BI#1011
1012	483143.94	1351559.99	619.03	619.53	619.49	+0.04	0.50	10/08	TOPGRANTOE3:1BI#1012
1013	483170.96	1351527.55	623.64	624.18	624.06	+0.12	0.54	10/15	TOPGRANTOP3:1BI#1013
1014	483178.64	1351535.32	619.94	620.52	620.42	+0.10	0.58	10/17	TOPGRANTOE3:1BI#1014
1015	483194.31	1351493.89	623.52	624.05	624.05	0.00	0.53	10/15	TOPGRANTOP3:1BI#1015
1016	483204.11	1351501.18	618.89	619.44	619.47	-0.03	0.55	10/17	TOPGRANTOE3:1BI#1016
1017	483203.43	1351454.10	623.53	624.11	624.04	+0.07	0.52	10/15	TOPGRABTOP3:1BI#1017
1018	483215.32	1351460.48	618.86	619.45	619.37	+0.08	0.59	10/17	TOPGRANTOE3:1BI#1018
1019	483205.46	1351408.11	623.73	623.65	623.64	+0.01	0.52	10/15	TOPGRANTOP3:1BI#1019
1020	483220.25	1351408.29	618.30	618.88	618.68	+0.20	0.58	10/17	TOPGRANTOE3:1BI#1020
1021	483205.95	1351367.83	622.70	623.24	623.24	0.00	0.54	10/15	TOPGRANTOP3:1BI#1021
1022	483220.74	1351368.01	617.90	618.44	618.28	+0.16	0.54	10/17	TOPGRANTOE3:1BI#1022
1023	483206.56	1351317.84	622.38	622.90	622.74	+0.16	0.52	10/15	TOPGRANTOP3:1BI#1023
1024	483221.35	1351318.01	617.22	617.79	617.78	+0.01	0.57	10/17	TOPGRANTOE3:1BI#1024
1025	483207.18	1351267.84	621.95	622.54	622.24	+0.30	0.59	10/15	TOPGRANTOP3:1BI#1025
1026	483221.96	1351268.02	616.72	617.30	617.28	+0.02	0.58	10/17	TOPGRANTOE3:1BI#1026
1027	483207.79	1351217.85	621.21	621.72	621.74	-0.02	0.51	10/15	TOPGRANTOP3:1BI#1027
1028	483222.57	1351218.02	616.46	616.97	616.78	+0.19	0.51	10/20/01	TOPGRANTOE3:1BI#1028
1029	483208.40	1351167.85	620.93	621.47	621.24	+0.23	0.54	10/19/01	TOPGRANTOP3:1BI#1029
1030	483223.19	1351168.02	615.82	616.38	616.28	+0.10	0.56	10/19/01	TOPGRANTOE3:1BI#1030
1031	483209.01	1351117.85	620.35	620.87	620.74	+0.13	0.52	10/18	TOPGRANTOP3:1BI#1031
1032	483223.80	1351118.03	615.33	615.91	615.78	+0.13	0.58	10/20/01	TOPGRANTOE3:1BI#1032
1033	483209.62	1351067.86	619.98	620.49	620.24	+0.25	0.51	10/18	TOPGRANTOP3:1BI#1033
1034	483224.41	1351068.03	614.98	615.57	615.28	+0.29	0.59	10/20/01	TOPGRANTOE3:1BI#1034

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COVER GRANULAR FILTER LAYER AS-BUILT

P.T.#	NORTHING	EASTING	AS-BUILT BIO. & DRAIN. ELEV.	AS-BUILT GRAN. FILTER ELEV.	PROP. GRAN. FILTER ELEV.	DIFF. IN ELEV.	COV. GRAN. FILTER THICK.	DATE	DESCRIPTION
1035	483210.23	1351017.86	619.44	620.00	619.74	+0.26	0.56	10/18	TOPGRANTOP3:1BI#1035
1036	483225.02	1351018.04	614.27	614.78	614.78	0.00	0.51	10/20/01	TOPGRANTOP3:1BI#1036
1037	483210.85	1350967.86	618.96	619.47	619.24	+0.23	0.51	10/20/01	TOPGRANTOP3:1BI#1037
1038	483225.64	1350968.04	614.03	614.58	614.28	+0.30	0.55	10/20/01	TOPGRANTOE3:1BI#1038
1039	483211.22	1350937.42	618.72	619.28	618.94	+0.34	0.56	10/18	TOPGRANTOP3:1BI#1039
1040	483226.01	1350937.60	613.66	614.18	613.98	+0.20	0.52	10/20/01	TOPGRANTOE3:1BI#1040
1041	483064.43	1350776.66	616.36	616.90	616.78	+0.12	0.54	10/18	TOPGRANTOP3:1BI#1041
1042	483064.67	1350758.41	610.19	610.70	610.70	0.00	0.51	10/30/01	TOPGRANTOE3:1BI#1042
1043	483211.68	1350889.71	618.21	618.73	618.48	+0.25	0.52	10/20/01	TOPGRANTOP3:1BI#1043
1044	483225.07	1350888.03	613.39	613.90	613.52	+0.38	0.51	10/20/01	TOPGRANTOE3:1BI#1044
1045	483203.30	1350847.17	617.90	618.44	618.12	+0.32	0.54	10/18	TOPGRANTOP3:1BI#1045
1046	483214.28	1350841.82	613.39	613.95	613.95	0.00	0.56	10/17	TOPGRANTOE3:1BI#1046
1047	483179.64	1350811.19	617.40	617.96	617.76	+0.20	0.56	10/18	TOPGRANTOP3:1BI#1047
1048	483187.46	1350803.55	613.85	614.48	614.13	+0.35	0.63	10/30/01	TOPGRANTOE3:1BI#1048
1049	483144.12	1350786.64	617.04	617.64	617.41	+0.23	0.60	10/18	TOPGRANTOP3:1BI#1049
1050	483150.24	1350774.76	612.72	613.34	613.32	+0.02	0.62	10/30/01	TOPGRANTOE3:1BI#1050
1051	483101.94	1350777.24	616.54	617.08	617.05	+0.03	0.54	10/18	TOPGRANTOP3:1BI#1051
1052	483104.28	1350761.61	611.25	611.76	611.46	+0.30	0.51	10/30/01	TOPGRANTOE3:1BI#1052
1053	483014.43	1350776.05	616.15	616.75	616.40	+0.35	0.60	10/19/01	TOPGRANTOP3:1BI#1053
1054	483014.65	1350757.80	610.02	610.53	610.32	+0.21	0.51	10/30/01	TOPGRANTOE3:1BI#1054
1055	482964.43	1350775.44	615.67	616.23	616.02	+0.21	0.56	10/19/01	TOPGRANTOP3:1BI#1055
1056	482964.65	1350757.19	609.44	610.10	609.94	+0.16	0.66	10/30/01	TOPGRANTOE3:1BI#1056
1057	482914.44	1350774.83	615.31	615.82	615.64	+0.18	0.51	10/19/01	TOPGRANTOP3:1BI#1057
1058	482914.68	1350756.58	609.16	609.70	609.56	+0.14	0.54	10/30/01	TOPGRANTOE3:1BI#1058
1107	482910.78	1351070.33	662.62	663.22	662.93	+0.29	0.60	10/19/01	TOPGRAN
1835	482922.65	1351264.33	665.64	666.15	665.96	+0.19	0.51	10/09	TOPGRAN
1836	482920.39	1351214.29	665.60	666.11	665.93	+0.18	0.51	10/09	TOPGRAN
1837	482918.13	1351164.26	665.76	666.34	665.91	+0.43	0.58	10/17	TOPGRAN
1838	482915.87	1351114.23	665.44	665.96	665.90	+0.06	0.52	9/30	TOPGRAN
1839	482949.60	1351264.66	662.93	663.44	663.24	+0.20	0.51	10/09	TOPGRAN
1840	482947.34	1351214.63	663.14	663.65	663.22	+0.43	0.51	10/09	TOPGRAN
1841	482945.08	1351164.60	663.07	663.61	663.19	+0.42	0.54	10/17	TOPGRAN
1842	482942.82	1351114.56	663.00	663.51	663.17	+0.34	0.51	10/17	TOPGRAN
1843	482908.19	1351275.19	665.45	666.04	665.83	+0.21	0.59	10/09	TOPGRAN
1846	482907.84	1351304.10	662.84	663.43	662.96	+0.47	0.59	10/09	TOPGRAN
1849	482951.40	1351304.63	662.95	663.46	663.26	+0.20	0.51	10/09	TOPGRAN
1851	482940.84	1351070.70	662.75	663.27	663.16	+0.11	0.52	10/17	TOPGRAN
1860	482878.87	1351142.85	667.31	667.82	667.77	+0.05	0.51	10/17	TOPGRAN
1864	482882.84	1351230.88	667.33	667.84	667.81	+0.03	0.51	10/09	TOPGRAN
1867	482879.82	1351163.79	667.63	668.13	667.79	+0.34	0.50	10/02	TOPGRAN
1868	482882.07	1351213.82	667.43	668.02	667.80	+0.22	0.59	10/09	TOPGRAN
3000	482966.77	1351041.80	660.03	660.56	660.47	+0.09	0.53	10/17	PT10000
3001	482979.97	1351334.20	660.19	660.71	660.59	+0.12	0.52	10/09	PT10001
3002	482915.32	1351099.16	665.28	665.78	665.88	-0.10	0.50	9/30	PT10002

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3003	482923.29	1351275.52	665.58	666.10	665.95	+0.15	0.52	10/09	PT10003
3022	483129.12	1351539.58	not Used		626.24				PT10022TD#3022
3044	482905.18	1351523.95	627.93	628.50	628.24	+0.26	0.57	10/08	TOPGRANTD#3044
3049	482955.18	1351524.56	628.24	628.81	628.62	+0.19	0.57	10/08	TOPGRANTD#3049
3054	483005.17	1351525.17	N/A	629.10	629.01	+0.09	—	10/09	TOPGRANTD#3054
3059	483055.17	1351525.78	629.02	629.60	629.39	+0.21	0.58	10/09	TOPGRANTD#3059
3062	483081.28	1351528.54	628.66	629.18	629.19	-0.01	0.52	10/09	TOPGRANTD#3062
3065	483117.07	1351522.99	628.51	629.02	629.01	+0.01	0.51	10/09	TOPGRANTD#3065
3068	483147.41	1351503.72	628.74	629.32	628.95	+0.37	0.58	10/15	TOPGRANTD#3068
3071	483167.45	1351473.87	628.58	629.18	628.99	+0.19	0.60	10/15	TOPGRANTD#3071
3074	483173.91	1351438.26	628.66	629.21	629.14	+0.07	0.55	10/15	TOPGRANTD#3074
3078	483172.45	1351367.42	628.31	628.82	628.81	+0.01	0.51	10/15	TOPGRANTD#3078
3081	483147.55	1351407.40	632.70	633.28	633.27	+0.01	0.58	10/15	TOPGRANTD#3081
3083	483171.96	1351407.70	628.63	629.23	629.22	+0.01	0.60	10/15	TOPGRANTD#3083
3087	483173.07	1351317.42	627.95	628.47	628.31	+0.16	0.52	10/15	TOPGRANTD#3087
3091	483173.68	1351267.43	627.49	628.07	627.81	+0.26	0.58	10/15	TOPGRANTD#3091
3095	483174.29	1351217.43	626.81	627.34	627.32	+0.02	0.53	10/15	TOPGRANTD#3095
3099	483174.90	1351167.44	626.32	626.84	626.82	+0.02	0.52	10/18	TOPGRANTD#3099
3103	483175.51	1351117.44	625.79	626.30	626.32	-0.02	0.51	10/18	TOPGRANTD#3103
3107	483176.12	1351067.44	625.36	625.89	625.82	+0.07	0.53	10/18	TOPGRANTD#3107
3111	483176.74	1351017.45	624.89	625.48	625.32	+0.16	0.59	10/18	TOPGRANTD#3111
3115	483177.35	1350967.45	624.38	624.94	624.82	+0.12	0.56	10/20/01	TOPGRANTD#3115
3118	483153.25	1350936.70	628.10	628.62	628.59	+0.03	0.52	10/18	TOPGRAN
3120	483177.72	1350937.01	623.95	624.49	624.52	-0.03	0.54	10/18	TOPGRANTD#3120
3123	483181.58	1350902.48	623.22	623.73	623.60	+0.13	0.51	10/18	TOPGRANTD#3123
3126	483175.92	1350866.06	622.78	623.37	623.09	+0.28	0.59	10/20/01	TOPGRANTD#3126
3129	483156.47	1350835.36	622.19	622.78	622.69	+0.09	0.59	10/20/01	TOPGRANTD#3129
3132	483126.37	1350814.97	622.18	622.69	622.39	+0.30	0.51	10/18	TOPGRANTD#3132
3135	483090.42	1350808.22	621.60	622.11	622.11	0.00	0.51	10/18	TOPGRANTD#3135
3139	483064.01	1350810.16	622.07	622.59	622.36	+0.23	0.52	10/18	TOPGRANTD#3139
3143	483014.02	1350809.55	621.67	622.23	621.98	+0.25	0.56	10/19/01	TOPGRANTD#3143
3147	482964.02	1350808.94	621.35	621.89	621.60	+0.29	0.54	10/20/01	TOPGRANTD#3147
3151	482914.02	1350808.33	620.87	621.41	621.21	+0.20	0.54	10/20/01	TOPGRANTD#3151
3178	483090.37	1351578.34	618.51	619.10	618.93	+0.17	0.59	10/09	TOPGRAN TD#3178
3181	483101.39	1351578.48	618.51	619.09	618.93	+0.16	0.58	10/09	TOPGRAN TD #3181
3183	483147.42	1351569.91	618.51	619.05	618.92	+0.13	0.51	10/09	TOPGRAN TD#3183
3185	483186.67	1351544.37	618.32	618.84	618.92	+0.08	0.52	10/17	TOPGRAN TD#3185
3187	483213.15	1351505.76	618.55	619.03	618.91	+0.12	0.53	10/17	TOPGRAN TD#3187
3189	483222.85	1351459.95	618.41	619.01	618.90	+0.11	0.60	10/17	TOPGRAN TD#3189
3191	483222.99	1351448.33	618.47	619.07	618.90	+0.17	0.60	10/17	TOPGRAN TD#3191
3193	483229.79	1350891.70	613.11	613.74	613.33	+0.31	0.53	10/20/01	TOPGRAN TD#3193
3222	483229.23	1350937.64	613.48	614.04	613.79	+0.25	0.56	10/20/01	TOPGRANTD#3222
3224	483228.86	1350968.09	613.79	614.38	614.09	+0.29	0.59	10/20/01	TOPGRANTD#3224

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3226	483228.25	1351018.08	614.23	614.83	614.59	+0.24	0.60	10/20/01	TOPGRANTD#3226
3228	483227.64	1351068.08	614.72	615.30	615.09	+0.21	0.58	10/20/01	TOPGRANTD#3228
3230	483227.02	1351118.08	615.09	615.69	615.59	+0.10	0.60	10/20/01	TOPGRANTD#3230
3232	483226.41	1351168.07	615.70	616.29	616.09	+0.20	0.59	10/20/01	TOPGRANTD#3232
3234	483225.80	1351218.07	616.29	616.84	616.59	+0.25	0.55	10/20/01	TOPGRANTD#3234
3236	483225.19	1351268.07	616.78	617.32	617.09	+0.23	0.54	10/17	TOPGRANTD#3236
3238	483224.58	1351318.06	617.19	617.74	617.59	+0.15	0.55	10/17	TOPGRANTD#3238
3240	483223.97	1351368.06	617.68	618.28	618.10	+0.18	0.60	10/17	TOPGRANTD#3240
3242	483223.48	1351408.34	618.07	618.66	618.49	+0.17	0.59	10/17	TOPGRANTD#3242
3244	483054.54	1351577.90	618.35	618.86	618.66	+0.20	0.51	10/09	TOPGRANTD#3244
3246	483004.54	1351577.29	617.99	618.50	618.28	+0.22	0.51	10/09	TOPGRANTD#3246
3248	482954.55	1351576.68	617.35	617.90	617.91	-0.01	0.55	10/08	TOPGRANTD#3248
3250	482904.55	1351576.07	616.93	617.53	617.53	0.00	0.60	10/08	TOPGRANTD#3250
4000	482873.64	1350756.08	N/A	608.83	608.73	+0.10	—	10/30/01	TOE2:1TOPGRAN
4001	482874.64	1350756.09	608.74	609.32	609.23	+0.09	0.58	10/30/01	TOP2:1TOPGRAN
4002	482873.42	1350774.33	N/A	614.85	614.81	+0.04	—	10/30/01	TOE2:1TOPGRAN
4003	482874.42	1350774.34	614.78	615.30	615.31	-0.01	0.52	10/20/01	TOP2:1TOPGRAN
4006	482873.01	1350807.83	N/A	620.38	620.38	0.00	—	10/20/01	TOE2:1TOPGRAN
4007	482874.01	1350807.84	620.35	620.93	620.88	+0.05	0.58	10/20/01	TOP2:1TOPGRAN
4008	482872.71	1350832.42	N/A	624.49	624.46	+0.03	—	10/20/01	TOE2:1TOPGRAN
4009	482873.71	1350832.43	624.49	625.05	624.96	+0.09	0.56	10/20/01	TOP2:1TOPGRAN
4010	482872.10	1350882.41	N/A	632.83	632.81	+0.02	—	10/20/01	TOE2:1TOPGRAN
4011	482873.10	1350882.42	"	633.41	633.31	+0.10	—	10/19/01	TOP 2:1TOPGRAN
4012	482871.49	1350932.41	"	641.19	641.16	+0.03	—	10/19/01	TOE 2:1TOPGRAN
4013	482872.49	1350932.42	"	641.70	641.66	+0.04	—	10/19/01	TOP2:1TOPGRAN
4014	482870.87	1350982.41	"	649.55	649.51	+0.04	—	10/19/01	TOE2:1TOPGRAN
4015	482871.87	1350982.42	"	650.04	650.01	+0.03	—	10/19/01	TOP2:1TOPGRAN
4016	482870.16	1351040.92	"	659.30	659.27	+0.03	—	10/19/01	TOE2:1TOPGRAN
4017	482871.16	1351040.93	"	659.82	659.77	+0.05	—	10/19/01	TOP2:1TOPGRAN
4018	482869.80	1351069.83	"	662.15	662.10	+0.04	—	10/19/01	TOE2:1TOPGRAN
4019	482870.80	1351069.84	"	662.70	662.60	+0.10	—	10/19/01	TOP2:1TOPGRAN
4020	482869.45	1351098.75	"	665.04	665.01	+0.03	—	10/19/01	TOE2:1TOPGRAN
4021	482870.45	1351098.76	"	665.51	665.51	0.00	—	10/18	TOP2:1TOPGRAN
4022	482868.91	1351142.73	"	667.23	667.18	+0.05	—	10/18	TOE2:1TOPGRAN
4023	482869.91	1351142.74	"	667.77	667.68	+0.09	—	10/17	TOP2:1TOPGRAN
4024	482868.76	1351154.96	"	667.79	667.79	0.00	—	10/17	TOE2:1TOPGRAN
4025	482869.78	1351153.75	"	668.24	668.23	+0.01	—	10/17	TOP2:1TOPGRAN
4026	482868.66	1351163.65	"	667.38	667.36	+0.02	—	10/17	TOE2:1TOPGRAN
4027	482869.66	1351163.67	"	667.89	667.86	+0.03	—	10/18/01	TOP2:1TOPGRAN
4028	482868.03	1351214.54	"	668.00	667.99	+0.01	—	10/18/01	TOE2:1TOPGRAN
4029	482869.02	1351215.63	"	668.43	668.43	0.00	—	10/09	TOP2:1TOPGRAN
4030	482867.84	1351230.70	"	667.20	667.18	+0.02	—	10/09	TOE2:1TOPGRAN
4031	482868.84	1351230.71	N/A	667.77	667.68	+0.09	—	10/09	TOP2:1TOPGRAN

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4032	482867.30	1351274.70	Part of Topsoil/Layer		665.00				TOE2:1TOPGRAN
4033	482868.30	1351274.71	NA	665.58	665.50	+0.08	—	10/9	TOP2:1TOPGRAN
4034	482866.95	1351303.60	"	662.16	662.13	+0.03	—	10/9	TOE2:1TOPGRAN
4035	482867.95	1351303.61	"	662.63	662.63	0.00	—	10/9	TOP2:1TOPGRAN
4036	482866.59	1351332.52	"	659.31	659.30	+0.01	—	10/9	TOE2:1TOPGRAN
4037	482867.59	1351332.53	"	659.81	659.80	+0.01	—	10/9	TOP2:1TOPGRAN
4038	482866.39	1351348.88	"	656.55	656.55	0.00	—	10/9	TOE2:1TOPGRAN
4039	482867.39	1351348.89	"	657.05	657.05	0.00	—	10/9	TOP2:1TOPGRAN
4040	482865.78	1351398.87	"	648.19	648.20	-0.01	—	10/9	TOE2:1TOPGRAN
4041	482866.78	1351398.88	"	648.79	648.70	+0.09	—	10/09	TOP2:1TOPGRAN
4042	482865.17	1351448.87	"	639.84	639.83	+0.01	—	10/09	TOE2:1TOPGRAN
4043	482866.17	1351448.88	"	640.34	640.33	+0.01	—	10/09	TOP2:1TOPGRAN
4044	482864.56	1351498.87	"	631.47	631.45	+0.02	—	10/08	TOE2:1TOPGRAN
4045	482865.56	1351498.88	"	632.01	631.95	+0.06	—	10/08	TOP2:1TOPGRAN
4046	482864.26	1351523.45	"	627.50	627.41	+0.09	—	10/08	TOE2:1TOPGRAN
4047	482865.26	1351523.46	"	627.91	627.91	0.00	—	10/08	TOP2:1TOPGRAN
4048	482864.01	1351543.95	"	624.09	624.00	+0.09	—	10/08	TOE2:1TOPGRAN
4049	482865.01	1351543.96	"	624.54	624.50	+0.04	—	10/08	TOP2:1TOPGRAN
4050	482863.85	1351556.95	"	621.92	621.83	+0.09	—	10/08	TOE2:1TOPGRAN
4051	482864.85	1351556.96	"	622.35	622.33	+0.02	—	10/08	TOP2:1TOPGRAN
4052	482863.67	1351571.74	"	616.92	616.90	+0.02	—	10/08	TOE2:1TOPGRAN
4053	482864.67	1351571.75	"	617.40	617.40	0.00	—	10/08	TOP2:1TOPGRAN
4054	482914.77	1350748.21	"	608.28	608.18	+0.10	—	10/30/01	TOE6:1TOPGRANTD#1094
4055	482964.77	1350748.82	"	608.70	608.55	+0.15	—	10/30/01	TOE6:1TOPGRANTD#1091
4056	483014.76	1350749.43	"	609.15	608.93	+0.22	—	10/30/01	TOE6:1TOPGRANTD#1090
4057	483064.76	1350750.04	"	609.47	609.30	+0.17	—	10/30/01	TOE6:1TOPGRANTD#1088
4058	483100.50	1350750.48	"	609.67	609.58	+0.09	—	10/30/01	TOE6:1TOPGRANTD#1086
4059	483108.05	1350749.91	"	609.86	609.76	+0.10	—	10/30/01	TOE6:1TOPGRANTD#1084
4060	483152.20	1350758.71	"	610.73	610.65	+0.08	—	10/30/01	TOE6:1TOPGRANTD#1082
4061	483189.37	1350784.00	"	611.65	611.55	+0.10	—	10/30/01	TOE6:1TOPGRANTD#1080
4062	483213.73	1350821.77	"	612.55	612.45	+0.10	—	10/30/01	TOE6:1TOPGRANTD#1078
4085	482904.20	1351604.33	"	615.83	615.83	0.001	—	10/08	TOE6%TOPGRAN
4086	482954.21	1351604.94	"	616.21	616.21	0.00	—	10/08	TOE6%TOPGRAN
4087	483004.20	1351605.55	"	616.61	616.58	+0.03	—	10/08	TOE6%TOPGRAN
4088	483054.20	1351606.16	"	616.96	616.96	0.00	—	10/08	TOE6%TOPGRAN
4089	483090.03	1351606.60	"	617.28	617.23	+0.05	—	10/08	TOE6%TOPGRAN
4090	483113.30	1351608.35	"	616.87	616.87	0.00	—	10/08	TOE6%TOPGRAN
4091	483168.62	1351602.87	"	616.57	616.57	0.00	—	10/08	TOE6%TOPGRAN
4092	483215.52	1351573.94	615.97	616.48	616.42	+0.06	0.51	10/18	TOE6%TOPGRAN
4093	483245.60	1351527.76	616.05	616.59	616.56	+0.03	0.54	10/18	TOE6%TOPGRAN
4094	483252.45	1351472.52	616.71	617.22	617.21	+0.01	0.51	10/18	TOE6%TOPGRAN
4095	483251.25	1351448.67	616.65	617.17	617.20	-0.03	0.52	10/18	TOE6%TOPGRAN
4096	483251.74	1351408.69	616.28	616.87	616.79	+0.08	0.59	10/18	TOE6%TOPGRAN

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STATE OF OHIO
LYNN E. HIRSCH
S-5738
REGISTERED SURVEYOR

COVER GRANULAR FILTER LAYER AS-BUILT

DATE
CREW
* = OUT OF TOLERANCE

P.T.#	NORTHING	EASTING	AS-BUILT BIO. & DRAIN. ELEV.	AS-BUILT GRAN. FILTER ELEV.	PROP. GRAN. FILTER ELEV.	DIFF. IN ELEV.	COV. GRAN. FILTER THICK.	DATE	DESCRIPTION
4097	483252.23	1351368.41	616.00	616.51	616.56	-0.05	0.51	10/18	TOE6%TOPGRAN
4098	483252.84	1351318.41	615.43	616.03	615.89	+0.14	0.60	10/18	TOE6%TOPGRAN
4099	483253.45	1351268.41	614.85	615.43	615.39	+0.04	0.58	10/18	TOE6%TOPGRAN
4100	483254.06	1351218.42	614.43	614.94	614.89	+0.05	0.51	10/20/01	TOE6%TOPGRAN
4101	483254.67	1351168.42	613.91	614.49	614.39	+0.10	0.58	10/20/01	TOE6%TOPGRAN
4102	483255.28	1351118.43	613.27	613.85	613.89	-0.04	0.58	10/20/01	TOE6%TOPGRAN
4103	483255.90	1351068.43	612.93	613.45	613.39	+0.06	0.52	10/20/01	TOE6%TOPGRAN
4104	483256.51	1351018.43	612.39	612.90	612.89	+0.01	0.51	10/20/01	TOE6%TOPGRAN
4105	483257.12	1350968.44	611.83	612.41	612.39	+0.02	0.58	10/20/01	TOE6%TOPGRAN
4106	483257.49	1350937.99	611.53	612.13	612.09	+0.04	0.60	10/20/01	TOE6%TOPGRAN
4107	483258.05	1350892.04	611.05	611.56	611.63	+0.07	0.51	10/20/01	TOE6%TOPGRAN
4108	483259.96	1350850.61	Not Used		610.96				TOE6%TOPGRAN
4109	483254.55	1350795.52	N/A	609.56	609.54	+0.02	—	10/30/01	TOE6%TOPGRAN
4110	483225.62	1350748.62	"	608.60	608.51	+0.09	—	10/30/01	TOE6%TOPGRAN
4111	483179.99	1350717.72	"	607.74	607.68	+0.06	—	10/30/01	TOE6%TOPGRAN
4112	483125.39	1350708.15	Not Used		607.06				TOP6%TOPGRAN
4113	483100.95	1350712.91	"	607.33	607.27	+0.06	—	10/30/01	TOP6%TOPGRAN
4114	483065.22	1350712.47	"	607.19	607.05	+0.14	—	10/30/01	TOP6%TOPGRAN
4115	483015.22	1350711.86	"	606.75	606.68	+0.07	—	10/30/01	TOP6%TOPGRAN
4116	482965.23	1350711.25	"	606.42	606.30	+0.12	—	10/30/01	TOE6%TOPGRAN
4117	482915.23	1350710.64	"	606.13	605.93	+0.20	—	10/30/01	TOE6%TOPGRAN
4118	482863.62	1351575.57	Part of	TOPSOIL layer	616.73				TOE2:1TOPGRAN
4119	482864.62	1351575.58	"	617.32	617.23	+0.09	—	10/08	TOP2:1TOPGRAN
4120	482863.27	1351603.83	"	615.05	615.03	+0.02	—	10/08	TOE2:1TOPGRAN
4121	482864.27	1351603.84	"	615.54	615.53	+0.01	—	10/08	TOE6%TOPGRAN
4122	482873.74	1350747.71	"	607.50	607.38	+0.12	—	10/30/01	TOE2:1TOPGRAN
4123	482874.74	1350747.72	"	607.96	607.88	+0.08	—	10/30/01	TOP2:1TOPGRAN
4126	482874.20	1350710.14	"	605.25	605.13	+0.12	—	10/30/01	TOE2:1TOPGRAN
4127	482875.20	1350710.15	"	605.80	605.63	+0.17	—	10/30/01	TOP2:1TOPGRAN
4128	482915.21	1350712.89	"		607.43				TOP1.5:1TOPGRAN
4129	482875.18	1350712.40	"		607.13				TOP1.5:1TOPGRAN
4130	482965.20	1350713.50	"		607.80				TOP1.5:1TOPGRAN
4131	483015.19	1350714.11	"		608.18				TOP1.5:1TOPGRAN
4132	483065.20	1350714.72	"		608.55				TOP1.5:1TOPGRAN
4133	483100.93	1350715.16	"		608.77				TOP1.5:1TOPGRAN
4134	483124.53	1350710.23	"		608.56				TOP1.5:1TOPGRAN
4135	483178.73	1350719.58	"		609.18				TOP1.5:1TOPGRAN
4136	483224.01	1350750.19	"		610.01				TOP1.5:1TOPGRAN
4137	483252.66	1350796.73	"		611.04				TOP1.5:1TOPGRAN
4138	483257.75	1350851.02	"		612.46				TOP1.5:1TOPGRAN
4139	483255.80	1350892.02	"		613.13				TOP1.5:1TOPGRAN
4140	483255.24	1350937.96	"		613.59				TOP1.5:1TOPGRAN
4141	483254.87	1350968.41	N/A		613.89				TOP1.5:1TOPGRAN

Not Needed This Layer + will be Part of TOPSOIL Layer

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COVER GRANULAR FILTER LAYER AS-BUILT

P.T.#	NORTHING	EASTING	AS-BUILT BIO. & DRAIN. ELEV.	AS-BUILT GRAN. FILTER ELEV.	PROP. GRAN. FILTER ELEV.	DIFF. IN ELEV.	COV. GRAN. FILTER THICK.	DATE	DESCRIPTION
4142	483254.26	1351018.40	N/A		614.39				TOP1.5:1TOPGRAN
4143	483253.65	1351068.40	"		614.89				TOP1.5:1TOPGRAN
4144	483253.03	1351118.40	"		615.39				TOP1.5:1TOPGRAN
4145	483252.42	1351168.39	"		615.89				TOP1.5:1TOPGRAN
4146	483251.81	1351218.39	"		616.39				TOP1.5:1TOPGRAN
4147	483251.20	1351268.39	"		616.89				TOP1.5:1TOPGRAN
4148	483250.59	1351318.38	"		617.39				TOP1.5:1TOPGRAN
4149	483249.98	1351368.38	"		617.90				TOP1.5:1TOPGRAN
4150	483249.49	1351408.66	"		618.29				TOP1.5:1TOPGRAN
4151	483249.00	1351448.65	"		618.70				TOP1.5:1TOPGRAN
4152	483250.31	1351471.83	"		618.71				TOP1.5:1TOPGRAN
4153	483243.74	1351526.50	"		~~618.56~~				TOP1.5:1TOPGRAN
4154	483213.95	1351572.33	"		618.59				TOP1.5:1TOPGRAN
4155	483167.41	1351600.98	"		618.59				TOP1.5:1TOPGRAN
4156	483112.71	1351606.17	"		618.59				TOP1.5:1TOPGRAN
4157	483090.05	1351604.35	"		618.73				TOP1.5:1TOPGRAN
4158	483054.22	1351603.91	"		618.46				TOP1.5:1TOPGRAN
4159	483004.22	1351603.30	"		618.08				TOP1.5:1TOPGRAN
4160	482954.23	1351602.69	"		617.71				TOP1.5:1TOPGRAN
4161	482904.23	1351602.08	"		617.33				TOP1.5:1TOPGRAN
4162	482864.30	1351601.59	N/A		617.03				TOP1.5:1TOPGRAN

Not Needed This Layer Will Be Part of Topsoil Layer

000191

VEGETATIVE SOIL LAYER

ON-SITE DISPOSAL FACILITY (OSDF) (PHASE III) CELL 1 FINAL COVER CONSTRUCTION PROJECT

***

SURVEY NOTES AND DRAWINGS VEGETATIVE SOIL LAYER AS-BUILTS

2100 1.04
REVISION 32

***

FLUOR FERNALD, INC.
Fernald, Ohio

FF Subcontract No. FSC-642
Submittal No. 20103-642-2100-006
IT Document No. 642-C.4.33.12 Rev. 2

***

Submitted By:

IT Corporation
2790 Mosside Boulevard
Monroeville, PA 15146-2798

[ ] A - Conforms to the Subcontract Requirements
[ ] B - Minor Comment - Incorporate and Resubmit
[ ] C - Revise and Resubmit
Sig:_____ Date:_____

IT Project Nos. 820045

***

April 11, 2002

David E. Estes Engineering, Inc.

CIVIL & ENVIRONMENTAL ENGINEERING
HYDROGEOLOGY & LAND SURVEYING

4555

September 20, 2001

SUBJECT: CERTIFICATION POINTS FOR COVER OF VEGETATIVE SOIL LAYER AS-BUILTS.

I hereby certify that the elevations listed on the next 8 pages are the as-built elevations of the cover of Vegetative Soil Layer for the point numbers listed, along with the date the elevations were recorded.

Lynn Edward Hirsch

LYNN EDWARD HIRSCH NO. S-5738
THOMAS J. MACK NO. S-7964
REGISTERED OHIO PROFESSIONAL SURVEYORS

STATE OF OHIO
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000194

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COVER VEGETATIVE SOIL LAYER

P.T.#	NORTHING	EASTING	AS-BUILT GRAN. FILTER ELEV.	AS-BUILT VEG. LAYER ELEV.	PROP. VEG LAYER ELEV.	DIFF. IN ELEV.	COV. VEG. THICK.	DATE	DESCRIPTION
43	483093.26	1350835.11	626.80	628.48	628.46	+0.02	1.68	11/06/01	PT5000"TOPVEG"
44	483116.63	1350840.02	627.11	628.78	628.83	-0.05	1.67	11/06/01	PT5001"TOPVEG"
45	483136.32	1350853.50	627.67	629.35	629.21	+0.14	1.68	11/06/01	PT5002"TOPVEG"
46	483149.35	1350873.49	627.86	629.55	629.58	-0.03	1.69	11/06/01	PT5003"TOPVEG"
47	483153.73	1350896.96	628.35	630.04	629.95	+0.09	1.69	11/06/01	PT5004"TOPVEG"
48	483147.14	1351441.21	633.80	635.62	635.38	+0.24	1.82	11/07/01	PT5005"TOPVEG"
49	483142.18	1351464.58	634.01	635.85	635.40	+0.45	1.84	11/07/01	PT5006"TOPVEG"
50	483128.65	1351484.26	633.83	635.50	635.43	+0.07	1.67	11/07/01	PT5007"TOPVEG"
51	483108.62	1351497.24	633.80	635.57	635.46	+0.11	1.77	11/05/01	PT5008"TOPVEG"
52	483085.12	1351501.56	633.75	635.42	635.50	-0.08	1.67	11/07/01	PT5009"TOPVEG"
53	482979.65	1351333.90	660.71	662.38	662.36	+0.02	1.67	11/09/01	PT5010"TOPVEG"
54	482966.48	1351042.10	660.56	662.25	662.24	+0.01	1.69	11/06/01	PT5011"TOPVEG"
55	482923.15	1351275.37	666.10	667.80	667.71	+0.09	1.70	11/09/01	PT5012"TOPVEG"
56	482915.20	1351099.31	665.78	667.45	667.64	-0.19	1.67	11/09/01	PT5013"TOPVEG"
109	483063.71	1350834.75	626.58	628.20	628.23	-0.03	1.62	11/06/01	TOPVEG""
110	483063.10	1350884.36	635.04	636.71	636.51	+0.20	1.67	11/06/01	TOPVEG""
111	483013.71	1350834.14	626.21	627.90	627.84	+0.06	1.69	11/06/01	TOPVEG""
112	482963.72	1350833.53	626.18	627.85	627.45	+0.40	1.67	11/06/01	TOPVEG""
113	482913.72	1350832.92	625.80	627.47	627.06	+0.41	1.67	11/06/01	TOPVEG""
116	483012.06	1350967.68	648.36	650.05	650.12	-0.07	1.69	11/05/01	TOPVEG""
118	482911.14	1351041.42	660.49	662.16	661.87	+0.29	1.67	11/06/01	TOPVEG""
121	483063.40	1350859.75	630.88	632.60	632.40	+0.20	1.74	11/06/01	TOPVEG""
123	483013.10	1350884.14	634.85	636.52	636.18	+0.34	1.67	11/06/01	TOPVEG""
125	483012.48	1350934.13	643.22	644.93	644.52	+0.41	1.71	11/06/01	TOPVEG""
128	482963.10	1350883.52	634.37	636.12	635.80	+0.32	1.75	11/06/01	TOPVEG""
130	482962.48	1350933.52	642.81	644.52	644.14	+0.38	1.71	11/06/01	TOPVEG""
132	482961.86	1350983.52	651.14	652.90	652.48	+0.42	1.76	11/06/01	TOPVEG""
136	482913.10	1350882.91	634.16	635.85	635.41	+0.44	1.69	11/06/01	TOPVEG""
138	482912.49	1350932.91	642.41	644.08	643.76	+0.32	1.67	11/06/01	TOPVEG""
140	482911.87	1350982.91	650.75	652.44	652.11	+0.33	1.69	11/06/01	TOPVEG""
162	483036.98	1350926.99	641.94	643.61	643.47	+0.14	1.67	11/06/01	TOPVEG""
168	483102.86	1350890.65	634.60	636.37	636.00	+0.37	1.77	11/06/01	TOPVEG""
170	483069.40	1350927.81	640.80	642.47	642.42	+0.05	1.67	11/06/01	TOPVEG""
180	483152.88	1350967.15	629.21	630.93	630.66	+0.27	1.72	11/06/01	TOPVEG""
181	483152.27	1351017.14	629.80	631.53	631.17	+0.36	1.73	11/06/01	TOPVEG""
182	483151.67	1351067.14	630.04	631.78	631.66	+0.12	1.74	11/06/01	TOPVEG""
183	483151.06	1351117.14	630.58	632.30	632.15	+0.15	1.72	11/05/01	TOPVEG""
184	483150.46	1351167.13	630.91	632.68	632.66	+0.02	1.77	11/06/01	TOPVEG""
185	483149.85	1351217.13	631.57	633.36	633.15	+0.21	1.79	11/07/01	TOPVEG""
186	483149.25	1351267.13	632.16	633.87	633.64	+0.23	1.71	11/07/01	TOPVEG""
187	483148.64	1351317.12	632.58	634.41	634.14	+0.27	1.83	11/07/01	TOPVEG""
188	483148.04	1351367.12	632.93	634.80	634.64	+0.16	1.87	11/06/01	TOPVEG""
190	483001.09	1351015.28	654.46	656.13	656.31	-0.18	1.67	11/06/01	TOPVEG""

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COVER VEGETATIVE SOIL LAYER

P.T.#	NORTHING	EASTING	AS-BUILT GRAN. FILTER ELEV.	AS-BUILT VEG. LAYER ELEV.	PROP. VEG LAYER ELEV.	DIFF. IN ELEV.	COV. VEG. THICK.	DATE	DESCRIPTION
191	482967.51	1351064.87	660.64	662.31	662.29	+0.02	1.67	11/06/01	TOPVEG**
192	482969.77	1351114.90	660.55	662.28	662.31	-0.03	1.73	11/06/01	TOPVEG**
193	482972.02	1351164.93	660.53	662.32	662.33	-0.01	1.79	11/07/01	TOPVEG**
194	482974.28	1351214.96	660.63	662.30	662.36	-0.06	1.67	11/07/01	TOPVEG**
195	482976.54	1351264.99	660.63	662.34	662.38	-0.04	1.71	11/07/01	TOPVEG**
196	482978.80	1351315.02	660.85	662.59	662.40	+0.19	1.74	11/07/01	TOPVEG**
199	483098.04	1351366.50	641.34	643.17	642.96	+0.21	1.83	11/07/01	TOPVEG**
201	483048.04	1351365.88	649.77	651.44	651.28	+0.16	1.67	11/07/01	TOPVEG**
203	483097.52	1351409.42	641.66	643.33	643.39	-0.06	1.67	11/07/01	TOPVEG**
205	483047.90	1351377.63	649.75	651.50	651.40	+0.10	1.75	11/09/01	TOPVEG**
207	483098.65	1351316.50	640.81	642.63	642.46	+0.17	1.82	11/05/01	TOPVEG**
209	483048.65	1351315.89	649.09	650.85	650.78	+0.07	1.76	11/07/01	TOPVEG**
211	482998.65	1351315.27	657.42	659.26	659.10	+0.16	1.84	11/07/01	TOPVEG**
213	483099.25	1351266.51	640.31	642.18	641.96	+0.22	1.87	11/07/01	TOPVEG**
215	483049.26	1351265.89	648.70	650.55	650.28	+0.27	1.85	11/07/01	TOPVEG**
217	482999.26	1351265.27	657.00	658.79	658.60	+0.19	1.79	11/07/01	TOPVEG**
219	483099.86	1351216.51	639.82	641.59	641.47	+0.12	1.77	11/07/01	TOPVEG**
221	483049.86	1351215.89	648.24	650.08	649.78	+0.50	1.84	11/07/01	TOPVEG**
223	482999.86	1351215.28	656.37	658.10	658.10	0.00	1.73	11/07/01	TOPVEG**
225	483100.46	1351166.52	639.51	641.21	640.97	+0.24	1.70	11/05/01	TOPVEG**
227	483050.47	1351165.90	647.67	649.50	649.28	+0.22	1.83	11/07/01	TOPVEG**
229	483000.47	1351165.28	656.18	657.91	657.60	+0.31	1.73	11/07/01	TOPVEG**
231	483101.07	1351116.52	638.91	640.61	640.47	+0.14	1.70	11/06/01	TOPVEG**
233	483051.07	1351115.90	647.16	648.83	648.79	+0.04	1.67	11/06/01	TOPVEG**
235	483001.08	1351115.28	655.71	657.38	657.10	+0.28	1.67	11/06/01	TOPVEG**
237	483101.67	1351066.52	638.37	640.08	639.97	+0.11	1.71	11/06/01	TOPVEG**
239	483051.68	1351065.91	646.51	648.27	648.29	-0.02	1.76	11/06/01	TOPVEG**
241	483001.68	1351065.29	654.99	656.74	656.61	+0.13	1.75	11/06/01	TOPVEG**
244	483102.28	1351016.53	637.78	639.45	639.47	-0.02	1.67	11/06/01	TOPVEG**
246	483052.28	1351015.91	646.28	648.00	647.79	+0.21	1.72	11/05/01	TOPVEG**
249	483102.88	1350966.53	637.35	639.11	638.98	+0.13	1.76	11/05/01	TOPVEG**
252	483103.25	1350936.09	636.98	638.65	638.68	-0.03	1.67	11/06/01	TOPVEG**
254	483052.78	1350975.21	645.64	647.31	647.38	-0.07	1.67	11/06/01	TOPVEG**
258	483093.46	1351448.74	640.06	641.83	641.80	+0.03	1.77	11/07/01	TOPVEG**
260	483058.26	1351413.23	646.37	648.16	648.18	-0.02	1.79	11/07/01	TOPVEG**
263	483055.47	1351501.20	633.97	635.70	635.23	+0.47	1.73	11/07/01	TOPVEG**
264	483005.47	1351500.59	633.49	635.32	634.86	+0.46	1.83	11/06/01	TOPVEG**
265	482955.48	1351499.98	633.01	634.78	634.47	+0.31	1.77	11/07/01	TOPVEG**
266	482905.48	1351499.37	632.70	634.57	634.07	+0.50	1.87	11/07/01	TOPVEG**
269	483056.02	1351455.31	641.08	642.75	642.92	-0.17	1.67	11/07/01	TOPVEG**
270	483006.96	1351377.32	653.81	655.49	655.44	+0.05	1.68	11/06/01	TOPVEG**
273	483029.40	1351412.98	648.09	649.78	649.79	-0.01	1.69	11/06/01	TOPVEG**
277	483006.08	1351450.59	640.99	642.70	643.29	-0.59	1.71	11/05/01	TOPVEG**

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279	483006.68	1351400.59	649.92	651.67	651.61	+0.06	1.75	11/06/01	TOPVEG""
280	483055.77	1351476.20	637.67	639.48	639.44	+0.04	1.81	11/07/01	TOPVEG""
281	482907.49	1351333.02	660.02	661.80	661.90	-0.10	1.78	11/05/01	TOPVEG""
285	482956.08	1351449.98	641.34	643.06	642.82	+0.24	1.72	11/07/01	TOPVEG""
287	482956.69	1351399.98	649.53	651.25	651.21	+0.04	1.72	11/05/01	TOPVEG""
289	482957.29	1351349.99	657.70	659.57	659.49	+0.08	1.87	11/07/01	TOPVEG""
291	482906.08	1351449.37	640.86	642.63	642.43	+0.20	1.77	11/05/01	TOPVEG""
293	482906.69	1351399.37	649.08	650.90	650.80	+0.10	1.82	11/05/01	TOPVEG""
295	482907.30	1351349.38	657.45	659.20	659.15	+0.05	1.75	11/05/01	TOPVEG""
1000	482904.77	1351557.45	622.86	624.63	624.43	+0.20	1.77	11/05/01	TOPVEGTOP3:1GR#1000"
1001	482904.59	1351572.24	617.91	621.96	621.97	-0.01	4.05	11/06/01	TOPVEGTOE3:1GR#1001
1002	482954.78	1351558.06	623.22	625.06	624.81	+0.25	1.84	11/06/01	TOPVEGTOP3:1GR#1002"
1003	482954.60	1351572.85	618.23	622.30	622.35	-0.05	4.07	11/05/01	TOPVEGTOE3:1GR#1003
1004	483004.77	1351558.67	623.45	625.30	625.19	+0.11	1.85	11/06/01	TOPVEGTOP3:1GR#1004"
1005	483004.60	1351573.46	618.77	622.68	622.73	-0.05	3.91	11/06/01	TOPVEGTOE3:1GR#1005
1006	483054.76	1351559.28	623.81	625.52	625.57	-0.05	1.71	11/06/01	TOPVEGTOP3:1GR#1006"
1008	483054.58	1351574.07	619.08	623.14	623.10	+0.04	4.06	11/06/01	TOPVEGTOE3:1GR#1008
1009	483096.77	1351558.25	624.31	626.02	625.85	+0.17	1.71	11/05/01	TOPVEGTOP3:1GR#1009"
1010	483103.02	1351570.23	619.64	Not Used	619.58	—	—	—	TOPGRANTOP3:1BI#1010
1011	483136.76	1351550.10	624.22	625.93	625.84	+0.09	1.71	11/07/01	TOPVEGTOP3:1GR#1011"
1012	483143.94	1351559.99	619.53	Not Used	619.49	—	—	—	TOPGRANTOE3:1BI#1012
1013	483170.96	1351527.55	624.18	625.92	625.83	+0.09	1.74	11/07/01	TOPVEGTOP3:1GR#1013"
1014	483178.64	1351535.32	620.52	Not Used	620.42	—	—	—	TOPGRANTOE3:1BI#1014
1015	483194.31	1351493.89	624.05	625.88	625.82	+0.06	1.83	11/07/01	TOPVEGTOP3:1GR#1015"
1016	483204.11	1351501.18	619.44	Not Used	619.47	—	—	—	TOPGRANTOE3:1BI#1016
1017	483203.43	1351454.10	624.11	625.83	625.81	+0.02	1.72	11/07/01	TOPVEGTOP3:1GR#1017"
1018	483215.32	1351460.48	619.45	623.55	623.59	-0.04	4.10	11/07/01	TOPVEGTOE3:1GR#1018
1019	483205.46	1351408.11	623.65	625.33	625.41	-0.08	1.68	11/07/01	TOPVEGTOP3:1GR#1019"
1020	483220.25	1351408.29	618.88	623.01	622.93	+0.08	4.13	11/07/01	TOPVEGTOE3:1GR#1020
1021	483205.95	1351367.83	623.24	624.91	625.01	-0.10	1.67	11/07/01	TOPVEGTOP3:1GR#1021"
1022	483220.74	1351368.01	618.48	622.57	622.53	+0.04	4.13	11/06/01	TOPVEGTOE3:1GR#1022
1023	483206.56	1351317.84	622.90	624.65	624.51	+0.14	1.75	11/07/01	TOPVEGTOP3:1GR#1023"
1024	483221.35	1351318.01	617.79	621.96	622.03	-0.07	4.17	11/07/01	TOPVEGTOE3:1GR#1024
1025	483207.18	1351267.84	622.54	624.21	624.01	+0.20	1.67	11/07/01	TOPVEGTOP3:1GR#1025"
1026	483221.96	1351268.02	617.30	621.53	621.53	0.00	4.23	11/07/01	TOPVEGTOE3:1GR#1026
1027	483207.79	1351217.85	621.72	623.46	623.51	-0.05	1.74	11/07/01	TOPVEGTOP3:1GR#1027"
1028	483222.57	1351218.02	616.97	621.09	621.03	+0.06	4.12	11/07/01	TOPVEGTOE3:1GR#1028
1029	483208.40	1351167.85	621.47	623.28	623.01	+0.27	1.81	11/05/01	TOPVEGTOP3:1GR#1029"
1030	483223.19	1351168.02	616.38	620.56	620.53	+0.03	4.18	11/06/01	TOPVEGTOE3:1GR#1030
1031	483209.01	1351117.85	620.87	622.54	622.51	+0.03	1.67	11/06/01	TOPVEGTOP3:1GR#1031"
1032	483223.80	1351118.03	615.91	620.06	620.03	+0.03	4.15	11/05/01	TOPVEGTOE3:1GR#1032
1033	483209.62	1351067.86	620.49	622.16	622.01	+0.15	1.67	11/06/01	TOPVEGTOP3:1GR#1033"
1034	483224.41	1351068.03	615.57	619.58	619.54	+0.04	4.01	11/06/01	TOPVEGTOE3:1GR#1034

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1035	483210.23	1351017.86	620.00	621.68	621.51	+0.17	1.68	11/06/01	TOPVEGTOP3:1GR#1035"
1037	483210.85	1350967.86	619.47	621.15	621.01	+0.14	1.68	11/06/01	TOPVEGTOP3:1GR#1037"
1038	483225.64	1350968.04	614.58	618.64	618.54	+0.10	4.06	11/06/01	TOPVEGTOE3:1GR#1038
1039	483211.22	1350937.42	619.28	621.00	620.71	+0.29	1.72	11/06/01	TOPVEGTOP3:1GR#1039"
1040	483226.01	1350937.60	614.18	618.30	618.24	+0.06	4.12	11/06/01	TOPVEGTOE3:1GR#1040
1041	483064.43	1350776.66	616.90	618.65	618.55	+0.10	1.75	11/05/01	TOPVEGTOP3:1GR#1041"
1042	483064.67	1350758.41	610.70	615.56	615.50	+0.06	4.86	11/05/01	TOPVEGTOE3:1GR#1042
1043	483211.68	1350889.71	618.73	620.42	620.25	+0.17	1.69	11/06/01	TOPVEGTOP3:1GR#1043"
1044	483225.07	1350888.03	613.90	618.10	618.00	+0.10	4.20	11/06/01	TOPVEGTOE3:1GR1044
1045	483203.30	1350847.17	618.44	620.11	619.89	+0.22	1.67	11/06/01	TOPVEGTOP3:1GR#1045"
1046	483214.28	1350841.82	613.95	618.08	617.99	+0.09	4.13	11/06/01	TOPVEGTOE3:1GR#1046
1047	483179.64	1350811.19	617.96	620.17	619.53	+0.64	2.21	11/06/01	TOPVEGTOP3:1GR#1047"
1048	483187.46	1350803.55	614.48	618.51	617.73	+0.78	4.03	11/06/01	TOPVEGTOE3:1GR#1048
1049	483144.12	1350786.64	617.64	619.41	619.18	+0.23	1.77	11/06/01	TOPVEGTOP3:1GR#1049"
1050	483150.24	1350774.76	613.34	617.00	616.95	+0.05	3.66	11/06/01	TOPVEGTOE3:1GR#1050
1051	483101.94	1350777.24	617.08	618.85	618.82	+0.03	1.77	11/05/01	TOPVEGTOP3:1GR#1051"
1052	483104.28	1350761.61	611.76	616.28	616.18	+0.10	4.52	11/05/01	TOPVEGTOE3:1GR#1052
1053	483014.43	1350776.05	616.75	618.51	618.17	+0.34	1.76	11/05/01	TOPVEGTOP3:1GR#1053"
1054	483014.65	1350757.80	610.53	615.20	615.12	+0.08	4.67	11/05/01	TOPVEGTOE3:1GR#1054
1055	482964.43	1350775.44	616.23	617.90	617.79	+0.11	1.67	11/05/01	TOPVEGTOP3:1GR#1055"
1056	482964.65	1350757.19	610.10	614.82	614.74	+0.08	4.72	11/05/01	TOPVEGTOE3:1GR#1056
1057	482914.44	1350774.83	615.82	617.56	617.41	+0.15	1.74	11/05/01	TOPVEGTOP3:1GR#1057"
1058	482914.68	1350756.58	609.70	614.39	614.37	+0.02	4.69	11/05/01	TOPVEGTOE3:1GR#1058
1107	482910.78	1351070.33	663.22	664.90	664.69	+0.21	1.68	11/06/01	TOPVEG""
1835	482922.65	1351264.33	666.15	667.92	667.72	+0.20	1.77	11/06/01	TOPVEG""
1836	482920.39	1351214.29	666.11	668.86	667.69	+0.17	1.75	11/09/01	TOPVEG""
1837	482918.13	1351164.26	666.34	668.12	667.67	+0.45	1.78	11/09/01	TOPVEG""
1838	482915.87	1351114.23	665.96	667.76	667.66	+0.10	1.80	11/09/01	TOPVEG""
1839	482949.60	1351264.66	663.44	665.24	664.64	-0.40	1.80	11/09/01	TOPVEG""
1840	482947.34	1351214.63	663.65	665.32	664.98	+0.34	1.67	11/09/01	TOPVEG""
1841	482945.08	1351164.60	663.61	665.28	664.95	+0.33	1.67	11/09/01	TOPVEG""
1842	482942.82	1351114.56	663.51	665.32	664.93	+0.39	1.81	11/09/01	TOPVEG""
1843	482908.19	1351275.19	666.04	667.71	667.59	+0.12	1.67	11/09/01	TOPVEG""
1846	482907.84	1351304.10	663.43	665.28	664.72	+0.56	1.85	11/05/01	TOPVEG""
1849	482951.40	1351304.63	663.46	665.15	665.02	+0.13	1.69	11/09/01	TOPVEG""
1851	482940.84	1351070.70	663.27	664.94	664.92	+0.02	1.67	11/06/01	TOPVEG""
1860	482878.87	1351142.85	667.82	669.49	669.52	-0.03	1.67	11/09/01	TOPVEG""
1864	482882.84	1351230.88	667.84	669.51	669.56	-0.05	1.67	11/09/01	TOPVEG""
1867	482879.82	1351163.79	668.13	669.84	669.54	+0.30	1.71	11/06/01	TOPVEG""
1868	482882.07	1351213.82	668.02	669.74	669.55	+0.19	1.72	11/09/01	TOPVEG""
2000	482878.64	1350756.14	—	Not Used	609.31	—	—	—	TOE2:1TOPVEG
2001	482888.64	1350756.26	—	614.10	614.17	-0.07	—	11/05/01	TOP2:1TOPVEG
2002	482878.42	1350774.39	—	615.37	615.39	-0.02	—	11/05/01	TOE2:1TOPVEG
2003	482881.92	1350774.43	—	617.07	617.17	-0.10	—	11/05/01	TOP2:1TOPVEG

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2004	482878.01	1350807.89	—	620.99	620.96	+0.03	—	11/05/01	TOE2:1TOPVEG
2005	482881.51	1350807.93	—	622.69	622.74	-0.05	—	11/05/01	TOP2:1TOPVEG
2006	482877.71	1350832.48	—	625.08	625.04	+0.04	—	11/05/01	TOE2:1TOPVEG
2007	482881.21	1350832.52	—	626.90	626.82	+0.08	—	11/05/01	TOP2:1TOPVEG
2008	482877.10	1350882.47	—	633.40	633.39	+0.01	—	11/06/01	TOE2:1TOPVEG
2009	482880.60	1350882.51	—	635.14	635.17	-0.03	—	11/06/01	TOP2:1TOPVEG
2010	482876.48	1350932.47	—	641.77	641.74	+0.03	—	11/06/01	TOE2:1TOPVEG
2011	482879.98	1350932.51	—	643.61	643.52	+0.09	—	11/06/01	TOP2:1TOPVEG
2012	482875.87	1350982.47	—	650.10	650.09	+0.01	—	11/06/01	TOE2:1TOPVEG
2013	482879.37	1350982.51	—	651.87	651.87	0.00	—	11/06/01	TOP2:1TOPVEG
2014	482875.16	1351040.98	—	659.94	659.84	+0.10	—	11/06/01	TOE2:1TOPVEG
2015	482878.66	1351041.02	—	661.62	661.62	0.00	—	11/06/01	TOP2:1TOPVEG
2016	482874.80	1351069.89	—	662.70	662.66	+0.04	—	11/06/01	TOE2:1TOPVEG
2017	482878.30	1351069.93	—	664.47	664.44	+0.03	—	11/06/01	TOP2:1TOPVEG
2018	482874.45	1351098.81	—	665.50	665.58	-0.08	—	11/06/01	TOE2:1TOPVEG
2019	482877.95	1351098.85	—	667.40	667.36	+0.04	—	11/06/01	TOP2:1TOPVEG
2020	482873.91	1351142.79	—	667.69	667.73	-0.04	—	11/09/01	TOE2:1TOPVEG
2021	482877.41	1351142.83	—	669.47	669.57	-0.10	—	11/09/01	TOP2:1TOPVEG
2022	482877.39	1351144.62	—	669.59	669.58	+0.01	—	11/06/01	TOP2:1TOPVEG
2023	482873.84	1351148.88	—	668.12	668.02	+0.10	—	11/06/01	TOE2:1TOPVEG
2024	482873.66	1351163.71	—	667.95	667.89	+0.06	—	11/06/01	TOE2:1TOPVEG
2025	482877.16	1351163.76	—	669.60	669.67	-0.07	—	11/06/01	TOP2:1TOPVEG
2026	482873.05	1351213.71	—	668.05	668.08	-0.03	—	11/09/01	TOE2:1TOPVEG
2027	482876.55	1351213.75	—	669.75	669.83	-0.08	—	11/09/01	TOP2:1TOPVEG
2028	482872.97	1351219.99	—	668.20	668.10	+0.10	—	11/09/01	TOE2:1TOPVEG
2029	482876.42	1351223.80	—	669.75	669.85	-0.10	—	11/09/01	TOP2:1TOPVEG
2030	482872.84	1351230.76	—	667.85	667.76	+0.09	—	11/09/01	TOE2:1TOPVEG
2031	482876.34	1351230.80	—	669.41	669.51	-0.10	—	11/09/01	TOP2:1TOPVEG
2032	482872.30	1351274.76	—	665.60	665.60	-0.0	—	11/09/01	TOE2:1TOPVEG
2033	482875.80	1351274.80	—	667.38	667.35	+0.03	—	11/09/01	TOP2:1TOPVEG
2034	482871.95	1351303.66	—	662.80	662.73	+0.07	—	11/09/01	TOE2:1TOPVEG
2035	482875.45	1351303.71	—	664.50	664.48	+0.02	—	11/09/01	TOP2:1TOPVEG
2036	482871.59	1351332.58	—	659.83	659.91	-0.08	—	11/09/01	TOE2:1TOPVEG
2037	482875.09	1351332.62	—	661.63	661.66	-0.03	—	11/09/01	TOP2:1TOPVEG
2038	482871.39	1351348.94	—	657.23	657.16	+0.07	—	11/09/01	TOE2:1TOPVEG
2039	482874.89	1351348.98	—	658.90	658.91	-0.01	—	11/09/01	TOP2:1TOPVEG
2040	482870.78	1351398.93	—	648.91	648.81	+0.10	—	11/09/01	TOE2:1TOPVEG
2041	482874.28	1351398.97	—	650.57	650.56	+0.01	—	11/09/01	TOP2:1TOPVEG
2042	482870.17	1351448.93	—	640.54	640.44	+0.10	—	11/09/01	TOE2:1TOPVEG
2043	482873.67	1351448.97	—	642.16	642.19	-0.03	—	11/09/01	TOP2:1TOPVEG
2044	482869.56	1351498.93	—	632.11	632.08	+0.03	—	11/09/01	TOE2:1TOPVEG
2045	482873.06	1351498.97	—	633.90	633.83	+0.07	—	11/09/01	TOP2:1TOPVEG
2046	482869.26	1351523.51	—	628.09	628.02	+0.07	—	12/05/01	TOE2:1TOPVEG

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COVER VEGETATIVE SOIL LAYER

P.T.#	NORTHING	EASTING	AS-BUILT GRAN. FILTER ELEV.	AS-BUILT VEG. LAYER ELEV.	PROP. VEG LAYER ELEV.	DIFF. IN ELEV.	COV. VEG. THICK.	DATE	DESCRIPTION
2047	482872.76	1351523.55	—	629.55	629.47	+ 0.08	—	11/07/01	TOP2:1TOPVEG
2048	482868.85	1351557.01	—	622.47	622.44	+0.03	—	12/05/01	TOE2:1TOPVEG
2049	482872.35	1351557.05	—	624.29	624.19	+0.10	—	12/05/01	TOP2:1TOPVEG
2050	482868.31	1351600.64	—	616.93	616.91	+0.02	—	11/06/01	TOE2:1TOPVEG
2051	482868.67	1351571.80	—	617.55	617.51	+0.04	—	12/05/01	TOE2:1TOPVEG
2052	482877.19	1351571.90	—	621.86	621.76	+0.10	—	12/05/01	TOP2:1TOPVEG
2053	482871.81	1351600.68	—	616.95	616.91	+0.04	—	11/06/01	TOP2:1TOPVEG
3000	482966.77	1351041.80	660.56	662.25	662.24	+0.01	1.69	11/06/01	PT10000"TOPVEG"
3001	482979.97	1351334.20	660.71	662.38	662.36	+0.02	1.67	11/09/01	PT10001"TOPVEG"
3002	482915.32	1351099.16	665.78	667.45	667.64	-0.19	1.67	11/09/01	PT10002"TOPVEG"
3003	482923.29	1351275.52	666.10	667.80	667.71	+0.09	1.70	11/09/01	PT10003"TOPVEG"
3044	482905.18	1351523.95	628.50	630.30	630.01	+0.29	1.80	11/07/01	TOPVEGGR#3044""
3049	482955.18	1351524.56	628.81	630.54	630.39	+0.15	1.73	11/07/01	TOPVEGGR#3049""
3054	483005.17	1351525.17	629.10	630.96	630.78	+0.22	1.86	11/07/01	TOPVEGGR#3054""
3059	483055.17	1351525.78	629.60	631.45	631.16	+0.29	1.85	11/07/01	TOPVEGGR#3059""
3062	483081.28	1351528.54	629.18	631.00	630.96	+0.04	1.82	11/07/01	TOPVEGGR#3062""
3065	483117.07	1351522.99	629.02	630.89	630.78	+0.11	1.87	11/07/01	TOPVEGGR#3065""
3068	483147.41	1351503.72	629.32	631.17	630.72	+0.45	1.85	11/07/01	TOPVEGGR#3068""
3071	483167.45	1351473.87	629.18	630.85	630.76	+0.09	1.67	11/07/01	TOPVEGGR#3071""
3074	483173.91	1351438.26	629.21	631.05	630.91	+0.14	1.84	11/05/01	TOPVEGGR#3074""
3078	483172.45	1351367.42	628.82	630.53	630.58	-0.05	1.71	11/07/01	TOPVEGGR#3078""
3081	483147.55	1351407.40	633.28	635.15	635.04	+0.11	1.87	11/07/01	TOPVEGGR#3081""
3083	483171.96	1351407.70	629.23	631.04	630.99	+0.05	1.81	11/07/01	TOPVEGGR#3083""
3087	483173.07	1351317.42	628.47	630.24	630.08	+0.16	1.77	11/07/01	TOPVEGGR#3087""
3091	483173.68	1351267.43	628.07	629.87	629.58	+0.29	1.80	11/07/01	TOPVEGGR#3091""
3095	483174.29	1351217.43	627.34	629.20	629.09	+0.11	1.86	11/07/01	TOPVEGGR#3095""
3099	483174.90	1351167.44	626.84	628.56	628.59	-0.03	1.72	11/06/01	TOPVEGGR#3099""
3103	483175.51	1351117.44	626.30	628.00	628.09	+0.09	1.70	11/06/01	TOPVEGGR#3103""
3107	483176.12	1351067.44	625.89	627.62	627.59	+0.03	1.73	11/06/01	TOPVEGGR#3107""
3111	483176.74	1351017.45	625.48	627.23	627.09	+0.14	1.75	11/06/01	TOPVEGGR#3111""
3115	483177.35	1350967.45	624.94	626.61	626.59	+0.02	1.67	11/06/01	TOPVEGGR#3115""
3118	483153.25	1350936.70	628.62	630.38	630.36	+0.02	1.76	11/06/01	TOPVEG""
3120	483177.72	1350937.01	624.49	626.22	626.29	-0.07	1.73	11/06/01	TOPVEGGR#3120""
3123	483181.58	1350902.48	623.73	625.48	625.37	+0.11	1.75	11/06/01	TOPVEGGR#3123""
3126	483175.92	1350866.06	623.37	625.14	624.86	+0.28	1.77	11/06/01	TOPVEGGR#3126""
3129	483156.47	1350835.36	622.78	624.65	624.46	+0.19	1.87	11/07/01	TOPVEGGR#3129""
3132	483126.37	1350814.97	622.69	624.36	624.16	+0.20	1.67	11/06/01	TOPVEGGR#3132""
3135	483090.42	1350808.22	622.11	623.98	624.26	-0.28	1.87	11/07/01	TOPVEGGR#3135""
3139	483064.01	1350810.16	622.59	624.30	624.13	+0.17	1.71	11/06/01	TOPVEGGR#3139""
3143	483014.02	1350809.55	622.23	623.90	623.75	+0.15	1.67	11/06/01	TOPVEGGR#3143""
3147	482964.02	1350808.94	621.89	623.56	623.37	+0.19	1.67	11/06/01	TOPVEGGR#3147""
3151	482914.02	1350808.33	621.41	623.09	622.98	+0.11	1.68	11/06/01	TOPVEGGR#3151""
3178	483090.37	1351578.34	619.10	622.76	622.72	+0.04	3.66	11/06/01	TOPVEGGR#3178

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3181	483101.39	1351578.48	619.09	623.01	623.09	+0.08	3.92	11/07/01	TOPVEGGR#3181
3183	483147.42	1351569.91	619.05	623.02	622.99	+0.03	3.97	11/07/01	TOPVEGGR#3183
3185	483186.67	1351544.37	618.84	623.27	623.19	+0.08	4.43	11/07/01	TOPVEGGR#3185
3187	483213.15	1351505.76	619.03	623.15	623.09	+0.06	4.12	11/07/01	TOPVEGGR#3187
3189	483222.85	1351459.95	619.01	Not Used	618.90				TOPGRAN#1125TD#3189
3191	483222.99	1351448.33	619.07	622.75	622.80	-0.05	3.68	11/06/01	TOPVEGGR#3191
3193	483229.79	1350891.70	613.64	Not Used	613.33				TOPGRAN#1120TD#3193
3222	483229.23	1350937.64	614.04	Not Used	613.79				TOPGRANTD#3222
3224	483228.86	1350968.09	614.38	Not Used	614.09				TOPGRANTD#3224
3226	483228.25	1351018.08	614.83	618.60	618.50	+0.10	3.77	11/06/01	TOPVEGGR#3226
3228	483227.64	1351068.08	615.30	Not Used	615.09				TOPGRANTD#3228
3230	483227.02	1351118.08	615.69	Not Used	615.59				TOPGRANTD#3230
3232	483226.41	1351168.07	616.29	Not Used	616.09				TOPGRANTD#3232
3234	483225.80	1351218.07	616.84	Not Used	616.59				TOPGRANTD#3234
3236	483225.19	1351268.07	617.32	Not Used	617.09				TOPGRANTD#3236
3238	483224.58	1351318.06	617.74	Not Used	617.59				TOPGRANTD#3238
3240	483223.97	1351368.06	618.28	Not Used	618.10				TOPGRANTD#3240
3242	483223.48	1351408.34	618.66	Not Used	618.49				TOPGRANTD#3242
3244	483054.54	1351577.90	618.86	Not Used	618.66				TOPGRANTD#3244
3246	483004.54	1351577.29	618.50	Not Used	618.28				TOPGRANTD#3246
3248	482954.55	1351576.68	617.90	Not Used	617.91				TOPGRANTD#3248
3250	482904.55	1351576.07	617.53	Not Used	617.53				TOPGRANTD#3250
4055	482964.77	1350748.82	608.70	Not Used	608.55				TOE6:1TOPGRANTD#1091
4056	483014.76	1350749.43	609.15	Not Used	608.93				TOE6:1TOPGRANTD#1090
4057	483064.76	1350750.04	609.47	Not Used	609.30				TOE6:1TOPGRANTD#1088
4058	483100.50	1350750.48	609.67	Not Used	609.58				TOE6:1TOPGRANTD#1086
4059	483108.05	1350749.91	609.86	Not Used	609.76				TOE6:1TOPGRANTD#1084
4060	483152.20	1350758.71	610.73	614.59	614.49	+0.10	3.86	11/06/01	TOPVEGGR#4060
4061	483189.37	1350784.00	611.65	616.30	616.02	+0.28	4.65	11/06/01	TOPVEGGR#4061
4062	483213.73	1350821.77	612.55	617.08	616.99	+0.09	4.53	11/06/01	TOPVEGGR#4062
5000	482915.19	1350713.89	—	607.22	607.24	-0.02	—	11/05/01	TOPVEG
5001	482882.69	1350711.24	—	607.06	607.00	+0.06	—	11/05/01	TOPVEG
5002	482879.19	1350711.20	—	607.04	607.00	+0.04	—	11/05/01	TOPVEG
5003	482965.19	1350714.50	—	607.63	607.61	+0.02	—	11/05/01	TOPVEG
5004	483015.18	1350715.11	—	608.01	607.99	+0.02	—	11/05/01	TOPVEG
5005	483065.18	1350715.72	—	608.46	608.37	+0.09	—	11/05/01	TOPVEG
5006	483100.91	1350716.16	—	608.64	608.62	+0.02	—	11/05/01	TOPVEG
5007	483124.14	1350711.16	—	608.10	608.06	+0.04	—	11/06/01	TOPVEG
5008	483178.27	1350720.47	—	608.85	608.68	+0.17	—	11/06/01	TOPVEG
5009	483223.42	1350751.00	—	609.50	609.51	+0.01	—	11/06/01	TOPVEG
5010	483251.82	1350797.27	—	610.58	610.54	+0.04	—	11/06/01	TOPVEG
5011	483256.75	1350850.95	—	611.90	611.96	-0.06	—	11/06/01	TOPVEG
5012	483254.80	1350892.00	—	613.00	613.04	-0.04	—	11/06/01	TOPVEG

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5013	483254.24	1350937.95	—	613.53	613.52	+0.01	—	11/06/01	TOPVEG
5014	483253.87	1350968.40	—	613.85	613.82	+0.03	—	11/06/01	TOPVEG
5015	483253.26	1351018.39	—	614.22	614.32	-0.10	—	11/06/01	TOPVEG
5016	483252.65	1351068.39	—	614.85	614.82	+0.03	—	11/06/01	TOPVEG
5017	483252.03	1351118.39	—	615.27	615.32	-0.05	—	11/06/01	TOPVEG
5018	483251.42	1351168.38	—	615.85	615.82	+0.03	—	11/06/01	TOPVEG
5019	483250.81	1351218.38	—	616.30	616.32	-0.02	—	11/07/01	TOPVEG
5020	483250.20	1351268.37	—	616.75	616.82	-0.07	—	11/07/01	TOPVEG
5021	483249.59	1351318.37	—	617.30	617.32	-0.02	—	11/07/01	TOPVEG
5022	483248.98	1351368.37	—	617.76	617.82	-0.06	—	11/06/01	TOPVEG
5023	483248.49	1351408.65	—	618.30	618.22	+0.08	—	11/06/01	TOPVEG
5031	483054.24	1351602.91	—	618.37	618.28	+0.09	—	11/06/01	TOPVEG
5032	483004.24	1351602.30	—	617.98	617.91	+0.07	—	11/07/01	TOPVEG
5033	482954.25	1351601.69	—	617.56	617.53	+0.03	—	11/06/01	TOPVEG
5034	482904.24	1351601.08	—	617.19	617.15	+0.04	—	11/06/01	TOPVEG
5035	483248.00	1351448.63	—	618.57	618.62	-0.05	—	11/06/01	TOPVEG
5036	483249.39	1351471.43	—	618.41	618.49	-0.08	—	11/07/01	TOPVEG
5037	483242.90	1351525.95	—	618.01	618.06	-0.05	—	11/07/01	TOPVEG
5038	483213.26	1351571.60	—	618.05	618.09	-0.04	—	11/07/01	TOPVEG
5039	483166.89	1351600.12	—	618.09	618.09	0.00	—	11/07/01	TOPVEG
5040	483112.40	1351605.22	—	618.51	618.59	-0.08	—	11/06/01	TOPVEG
5041	483090.07	1351603.35	—	618.45	618.54	-0.09	—	11/07/01	TOPVEG

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POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
43	483093.26	1350835.11	628.48	P75000"TOPVEG"
44	483116.63	1350840.02	628.78	P75001"TOPVEG"
45	483136.32	1350853.50	629.35	P75002"TOPVEG"
46	483149.35	1350873.49	629.55	P75003"TOPVEG"
47	483153.73	1350896.96	630.04	P75004"TOPVEG"
48	483147.14	1351441.21	635.62	P75005"TOPVEG"
49	483142.18	1351464.58	635.85	P75006"TOPVEG"
50	483128.65	1351484.26	635.50	P75007"TOPVEG"
51	483108.62	1351497.24	635.57	P75008"TOPVEG"
52	483085.12	1351501.56	635.42	P75009"TOPVEG"
53	482979.65	1351333.90	662.38	P75010"TOPVEG"
54	482966.48	1351042.10	662.25	P75011"TOPVEG"
55	482923.15	1351275.37	667.80	P75012"TOPVEG"
56	482915.20	1351099.31	667.45	P75013"TOPVEG"
109	483063.71	1350834.75	628.20	TOPVEG""
110	483063.10	1350884.36	636.71	TOPVEG""
111	483013.71	1350834.14	627.90	TOPVEG""
112	482963.72	1350833.53	627.85	TOPVEG""
113	482913.72	1350832.92	627.47	TOPVEG""
116	483012.06	1350967.68	650.05	TOPVEG""
118	482911.14	1351041.42	662.16	TOPVEG""
121	483063.40	1350859.75	632.60	TOPVEG""
123	483013.10	1350884.14	636.52	TOPVEG""
125	483012.48	1350934.13	644.93	TOPVEG""
128	482963.10	1350883.52	636.12	TOPVEG""
130	482962.48	1350933.52	644.52	TOPVEG""
132	482961.86	1350983.52	652.90	TOPVEG""
136	482913.10	1350882.91	635.85	TOPVEG""
138	482912.49	1350932.91	644.08	TOPVEG""
140	482911.87	1350982.91	652.44	TOPVEG""
162	483036.98	1350926.99	643.61	TOPVEG""
168	483102.86	1350890.65	636.37	TOPVEG""
170	483069.40	1350927.81	642.47	TOPVEG""
180	483152.88	1350967.15	630.93	TOPVEG""
181	483152.27	1351017.14	631.53	TOPVEG""
182	483151.67	1351067.14	631.78	TOPVEG""
183	483151.06	1351117.14	632.30	TOPVEG""
184	483150.46	1351167.13	632.68	TOPVEG""
185	483149.85	1351217.13	633.36	TOPVEG""
186	483149.25	1351267.13	633.87	TOPVEG""
187	483148.64	1351317.12	634.41	TOPVEG""
188	483148.04	1351367.12	634.80	TOPVEG""
190	483001.09	1351015.28	656.13	TOPVEG""
191	482967.51	1351064.87	662.31	TOPVEG""
192	482969.77	1351114.90	662.28	TOPVEG""
193	482972.02	1351164.93	662.32	TOPVEG""
194	482974.28	1351214.96	662.30	TOPVEG""
195	482976.54	1351264.99	662.34	TOPVEG""
196	482978.80	1351315.02	662.59	TOPVEG""
199	483098.04	1351366.50	643.17	TOPVEG""
201	483048.04	1351365.88	651.44	TOPVEG""
203	483097.52	1351409.42	643.33	TOPVEG""
205	483047.90	1351377.63	651.50	TOPVEG""
207	483098.65	1351316.50	642.63	TOPVEG""
209	483048.65	1351315.89	650.85	TOPVEG""
211	482998.65	1351315.27	659.26	TOPVEG""
213	483099.25	1351266.51	642.18	TOPVEG""
215	483049.26	1351265.89	650.55	TOPVEG""
217	482999.26	1351265.27	658.79	TOPVEG""
219	483099.86	1351216.51	641.59	TOPVEG""
221	483049.86	1351215.89	650.08	TOPVEG""
223	482999.86	1351215.28	658.10	TOPVEG""
225	483100.46	1351166.52	641.21	TOPVEG""
227	483050.47	1351165.90	649.50	TOPVEG""
229	483000.47	1351165.28	657.91	TOPVEG""
231	483101.07	1351116.52	640.61	TOPVEG""
233	483051.07	1351115.90	648.83	TOPVEG""

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
235	483001.08	1351115.28	657.38	TOPVEG""
237	483101.67	1351066.52	640.08	TOPVEG""
239	483051.68	1351065.91	648.27	TOPVEG""
241	483001.68	1351065.29	656.74	TOPVEG""
243	483102.28	1351016.53	639.45	TOPVEG""
244	483102.28	1351016.91	648.00	TOPVEG""
246	483052.28	1350966.53	639.11	TOPVEG""
249	483102.88	1350936.09	638.65	TOPVEG""
252	483103.25	1350975.21	647.31	TOPVEG""
254	483052.78	1350967.59	635.32	TOPVEG""
258	483093.46	1351448.74	641.83	TOPVEG""
260	483058.26	1351413.23	648.16	TOPVEG""
263	483055.47	1351501.20	635.70	TOPVEG""
264	483005.47	1351500.59	635.32	TOPVEG""
265	482955.48	1351499.98	634.78	TOPVEG""
266	482905.48	1351499.37	634.57	TOPVEG""
269	483056.02	1351455.31	642.75	TOPVEG""
270	483006.96	1351377.32	655.49	TOPVEG""
273	483029.40	1351412.98	649.78	TOPVEG""
277	483006.08	1351450.59	642.70	TOPVEG""
279	483006.68	1351400.59	651.67	TOPVEG""
280	483055.77	1351476.20	639.48	TOPVEG""
281	482907.49	1351333.02	661.80	TOPVEG""
285	482956.08	1351449.98	643.06	TOPVEG""
287	482956.69	1351399.98	651.25	TOPVEG""
289	482957.29	1351349.99	659.57	TOPVEG""
291	482906.08	1351449.37	642.63	TOPVEG""
293	482906.69	1351399.37	650.90	TOPVEG""
295	482907.30	1351349.38	659.20	TOPVEG""
1000	482904.77	1351557.45	624.63	TOPVEGTOE3:1GR#1000"
1001	482904.59	1351572.24	621.96	TOPVEGTOE3:1GR#1001
1002	482954.78	1351558.06	625.06	TOPVEGTOP3:1GR#1002"
1003	482954.60	1351572.85	622.30	TOPVEGTOE3:1GR#1003
1004	483004.77	1351558.67	625.30	TOPVEGTOP3:1GR#1004"
1005	483004.60	1351573.46	622.68	TOPVEGTOE3:1GR#1005
1006	483054.76	1351559.28	625.52	TOPVEGTOP3:1GR#1006"
1008	483054.58	1351574.07	623.14	TOPVEGTOE3:1GR#1008
1009	483096.77	1351558.25	626.02	TOPVEGTOP3:1GR#1009"
1011	483136.76	1351550.10	625.93	TOPVEGTOP3:1GR#1011"
1013	483170.96	1351527.55	625.92	TOPVEGTOP3:1GR#1013"
1015	483194.31	1351493.89	625.88	TOPVEGTOP3:1GR#1015"
1017	483203.43	1351454.10	625.83	TOPVEGTOP3:1GR#1017"
1018	483215.32	1351460.48	623.55	TOPVEGTOE3:1GR#1018
1019	483205.46	1351408.11	625.33	TOPVEGTOP3:1GR#1019"
1020	483220.25	1351408.29	623.01	TOPVEGTOE3:1GR#1020
1021	483205.95	1351367.83	624.91	TOPVEGTOP3:1GR#1021"
1022	483220.74	1351368.01	622.57	TOPVEGTOE3:1GR#1022
1023	483206.56	1351317.84	624.65	TOPVEGTOP3:1GR#1023"
1024	483221.35	1351318.01	621.96	TOPVEGTOE3:1GR#1024
1025	483207.18	1351267.84	624.21	TOPVEGTOP3:1GR#1025"
1026	483221.96	1351268.02	621.53	TOPVEGTOE3:1GR#1026
1027	483207.79	1351217.85	623.46	TOPVEGTOP3:1GR#1027"
1028	483222.57	1351218.02	621.09	TOPVEGTOE3:1GR#1028
1029	483208.40	1351167.85	623.28	TOPVEGTOP3:1GR#1029"
1030	483223.19	1351168.02	620.56	TOPVEGTOE3:1GR#1030
1031	483209.01	1351117.85	622.54	TOPVEGTOP3:1GR#1031"
1032	483223.80	1351118.03	620.06	TOPVEGTOE3:1GR#1032
1033	483209.62	1351067.86	622.16	TOPVEGTOP3:1GR#1033"
1034	483224.41	1351068.03	619.58	TOPVEGTOE3:1GR#1034
1035	483210.23	1351017.86	621.68	TOPVEGTOP3:1GR#1035"
1037	483210.85	1350967.86	621.15	TOPVEGTOP3:1GR#1037"
1038	483225.64	1350968.04	618.64	TOPVEGTOE3:1GR#1038
1039	483211.22	1350937.42	621.00	TOPVEGTOP3:1GR#1039"
1040	483226.01	1350937.60	618.30	TOPVEGTOE3:1GR#1040
1041	483064.43	1350776.66	618.65	TOPVEGTOP3:1GR#1041"
1042	483064.67	1350758.41	615.56	TOPVEGTOE3:1GR#1042
1043	483211.68	1350889.71	620.42	TOPVEGTOP3:1GR#1043"
1044	483225.07	1350888.03	618.10	TOPVEGTOE3:1GR1044

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
1045	483203.30	1350847.17	620.11	TOPVEGTOP3:1GR#1045"
1046	483214.28	1350841.82	618.08	TOPVEGTOE3:1GR#1046
1047	483179.64	1350811.19	620.17	TOPVEGTOP3:1GR#1047"
1048	483187.46	1350803.55	618.51	TOPVEGTOE3:1GR#1048
1049	483144.12	1350786.64	619.41	TOPVEGTOP3:1GR#1049"
1050	483150.24	1350774.76	617.00	TOPVEGTOE3:1GR#1050
1051	483101.94	1350777.24	618.85	TOPVEGTOP3:1GR#1051"
1052	483104.28	1350761.61	616.28	TOPVEGTOE3:1GR#1052
1053	483014.43	1350776.05	618.51	TOPVEGTOP3:1GR#1053"
1054	483014.65	1350757.80	615.20	TOPVEGTOE3:1GR#1054
1055	482964.43	1350775.44	617.90	TOPVEGTOP3:1GR#1055"
1056	482964.65	1350757.19	614.82	TOPVEGTOE3:1GR#1056
1057	482914.44	1350774.83	617.56	TOPVEGTOP3:1GR#1057"
1058	482914.68	1350756.58	614.39	TOPVEGTOE3:1GR#1058
1107	482910.78	1351070.33	664.90	TOPVEG""
1835	482922.65	1351264.33	667.92	TOPVEG""
1836	482920.39	1351214.29	667.86	TOPVEG""
1837	482918.13	1351164.26	668.12	TOPVEG""
1838	482915.87	1351114.23	667.76	TOPVEG""
1839	482949.60	1351264.66	665.24	TOPVEG""
1840	482947.34	1351214.63	665.32	TOPVEG""
1841	482945.08	1351164.60	665.28	TOPVEG""
1842	482942.82	1351114.56	665.32	TOPVEG""
1843	482908.19	1351275.19	667.71	TOPVEG""
1846	482907.84	1351304.10	665.28	TOPVEG""
1849	482951.40	1351304.63	665.15	TOPVEG""
1851	482940.84	1351070.70	664.94	TOPVEG""
1860	482878.87	1351142.85	669.49	TOPVEG""
1864	482882.84	1351230.88	669.51	TOPVEG""
1867	482879.82	1351163.79	669.84	TOPVEG""
1868	482882.07	1351213.82	669.74	TOPVEG""
2001	482888.64	1350756.26	614.10	TOPE2:11OPVEG
2002	482878.42	1350774.39	615.37	TOPE2:11OPVEG
2003	482881.92	1350774.43	617.07	TOPP2:11OPVEG
2004	482878.01	1350807.89	620.99	TOPE2:11OPVEG
2005	482881.51	1350807.93	622.69	TOPP2:11OPVEG
2006	482877.71	1350832.48	625.08	TOPE2:11OPVEG
2007	482881.21	1350832.52	626.90	TOPP2:11OPVEG
2008	482877.10	1350882.47	633.40	TOPE2:11OPVEG
2009	482880.60	1350882.51	635.14	TOPP2:11OPVEG
2010	482876.48	1350932.47	641.77	TOPE2:11OPVEG
2011	482879.98	1350932.51	643.61	TOPP2:11OPVEG
2012	482875.87	1350982.47	650.10	TOPE2:11OPVEG
2013	482879.37	1350982.51	651.87	TOPP2:11OPVEG
2014	482875.16	1351040.98	659.94	TOPE2:11OPVEG
2015	482878.66	1351041.02	661.62	TOPP2:11OPVEG
2016	482874.80	1351069.89	662.70	TOPE2:11OPVEG
2017	482878.30	1351069.93	664.47	TOPP2:11OPVEG
2018	482874.45	1351098.81	665.50	TOPE2:11OPVEG
2019	482877.95	1351098.85	667.40	TOPP2:11OPVEG
2020	482873.91	1351142.79	667.69	TOPE2:11OPVEG
2021	482877.41	1351142.83	669.47	TOPP2:11OPVEG
2022	482877.39	1351144.62	669.59	TOPP2:11OPVEG
2023	482873.84	1351148.88	668.12	TOPE2:11OPVEG
2024	482873.66	1351163.71	667.95	TOPE2:11OPVEG
2025	482877.16	1351163.76	669.60	TOPP2:11OPVEG
2026	482877.05	1351213.71	668.05	TOPE2:11OPVEG
2027	482876.55	1351213.75	669.75	TOPP2:11OPVEG
2028	482872.97	1351219.99	668.20	TOPE2:11OPVEG
2029	482876.42	1351223.80	669.75	TOPP2:11OPVEG
2030	482872.84	1351230.76	667.85	TOPE2:11OPVEG
2031	482876.34	1351230.80	669.41	TOPP2:11OPVEG
2032	482872.30	1351274.76	665.60	TOPE2:11OPVEG
2033	482875.80	1351274.80	667.38	TOPP2:11OPVEG
2034	482871.95	1351303.66	662.80	TOPE2:11OPVEG
2035	482875.45	1351303.71	664.50	TOPP2:11OPVEG
2036	482871.59	1351332.58	659.83	TOPE2:11OPVEG

NOTE:

NORTHING AND EASTING COORDINATES LISTED ON THESE DRAWINGS MAY BE +/- 0.01' DIFFERENT THAN THOSE LISTED FOR THE SAME POINT ON THE TABLE DUE TO TO ROUNDING OF SURVEY DATA.

0000204

4555

AS-BUILT TOP OF VEGETATIVE LAYER

Scale:	
Date:	12-12-2001
Sheet No.	2 OF 3
Project No.	201-159

THE IT GROUP
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
OSDF CELL 1

REVISIONS:

REVISION 1

Designed By:

Drawn By: F.A.M.

Checked By: L.E.H.

Approved By: L.E.H.

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STATE OF OHIO
LYNN E. HIRSCH
S-5738
SURVEYOR

Lynn Edward Hirsch
12-12-2001

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POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
2037	482875.09	1351332.62	661.63	TOP2:1TOPVEG
2038	482871.39	1351348.94	657.23	TOE2:1TOPVEG
2039	482874.89	1351348.98	658.90	TOP2:1TOPVEG
2040	482870.78	1351398.93	648.91	TOE2:1TOPVEG
2041	482874.28	1351398.97	650.57	TOP2:1TOPVEG
2042	482870.17	1351448.93	640.54	TOE2:1TOPVEG
2043	482873.67	1351448.97	642.16	TOP2:1TOPVEG
2044	482869.56	1351498.93	632.11	TOE2:1TOPVEG
2045	482873.06	1351498.97	633.90	TOP2:1TOPVEG
2046	482869.26	1351523.51	628.09	TOE2:1TOPVEG
2047	482872.76	1351523.55	629.55	TOP2:1TOPVEG
2048	482868.85	1351557.01	622.47	TOE2:1TOPVEG
2049	482872.35	1351557.05	624.29	TOP2:1TOPVEG
2050	482868.31	1351600.64	616.93	TOE2:1TOPVEG
2051	482868.67	1351571.80	617.55	TOE2:1TOPVEG
2052	482877.19	1351571.90	621.86	TOP2:1TOPVEG
2053	482871.81	1351600.68	616.95	TOP2:1TOPVEG
3000	482966.77	1351041.80	662.25	PT10000"TOPVEG"
3001	482979.97	1351334.20	662.38	PT10001"TOPVEG"
3002	482915.32	1351099.16	667.45	PT10002"TOPVEG"
3003	482923.29	1351275.52	667.80	PT10003"TOPVEG"
3044	482905.18	1351523.95	630.30	TOPVEGGR#3044''''
3049	482955.18	1351524.56	630.54	TOPVEGGR#3049''''
3054	483005.17	1351525.17	630.96	TOPVEGGR#3054''''
3059	483055.17	1351525.78	631.45	TOPVEGGR#3059''''
3062	483081.28	1351528.54	631.00	TOPVEGGR#3062''''
3065	483117.07	1351522.99	630.89	TOPVEGGR#3065''''
3068	483147.41	1351503.72	631.17	TOPVEGGR#3068''''
3071	483167.45	1351473.87	630.85	TOPVEGGR#3071''''
3074	483173.91	1351438.26	631.05	TOPVEGGR#3074''''
3078	483172.45	1351367.42	630.53	TOPVEGGR#3078''''
3081	483147.55	1351407.40	635.15	TOPVEGGR#3081''''
3083	483171.96	1351407.70	631.04	TOPVEGGR#3083''''
3087	483173.07	1351317.42	630.24	TOPVEGGR#3087''''
3091	483173.68	1351267.43	629.87	TOPVEGGR#3091''''
3095	483174.29	1351217.43	629.20	TOPVEGGR#3095''''
3099	483174.90	1351167.44	628.56	TOPVEGGR#3099''''
3103	483175.51	1351117.44	628.00	TOPVEGGR#3103''''
3107	483176.12	1351067.44	627.62	TOPVEGGR#3107''''
3111	483176.74	1351017.45	627.23	TOPVEGGR#3111''''
3115	483177.35	1350967.45	626.61	TOPVEGGR#3115''''
3118	483153.25	1350936.70	630.38	TOPVEG''''
3120	483177.72	1350937.01	626.22	TOPVEGGR#3120''''
3123	483181.58	1350902.48	625.48	TOPVEGGR#3123''''
3126	483175.92	1350866.06	625.14	TOPVEGGR#3126''''
3129	483156.47	1350835.36	624.65	TOPVEGGR#3129''''
3132	483126.37	1350814.97	624.36	TOPVEGGR#3132''''
3135	483090.42	1350808.22	623.98	TOPVEGGR#3135''''
3139	483064.01	1350810.16	624.30	TOPVEGGR#3139''''
3143	483014.02	1350809.55	623.90	TOPVEGGR#3143''''
3147	482964.02	1350808.94	623.56	TOPVEGGR#3147''''
3151	482914.02	1350808.33	623.09	TOPVEGGR#3151''''
3178	483090.37	1351578.34	622.76	TOPVEGGR#3178
3181	483101.39	1351578.48	623.01	TOPVEGGR#3181
3183	483147.42	1351569.91	623.02	TOPVEGGR#3183
3185	483186.67	1351544.37	623.27	TOPVEGGR#3185
3187	483213.15	1351505.76	623.15	TOPVEGGR#3187
3191	483222.99	1351448.33	622.75	TOPVEGGR#3191
3226	483228.25	1351018.08	618.60	TOPVEGGR#3226
4060	483152.20	1350758.71	614.59	TOPVEGGR#4060
4061	483189.37	1350784.00	616.30	TOPVEGGR#4061
4062	483213.73	1350821.77	617.08	TOPVEGGR#4062
5000	482915.19	1350713.89	607.22	TOPVEG
5001	482882.69	1350711.24	607.06	TOPVEG
5002	482879.19	1350711.20	607.04	TOPVEG
5003	482965.19	1350714.50	607.63	TOPVEG
5004	483015.18	1350715.11	608.01	TOPVEG

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
5005	483065.18	1350715.72	608.46	TOPVEG
5006	483100.91	1350716.16	608.64	TOPVEG
5007	483124.14	1350711.16	608.10	TOPVEG
5008	483178.27	1350720.47	608.85	TOPVEG
5009	483223.42	1350751.00	609.50	TOPVEG
5010	483251.82	1350797.27	610.58	TOPVEG
5011	483256.75	1350850.95	611.90	TOPVEG
5012	483254.80	1350892.00	613.00	TOPVEG
5013	483254.24	1350937.95	613.53	TOPVEG
5014	483253.87	1350968.40	613.85	TOPVEG
5015	483253.26	1351018.39	614.22	TOPVEG
5016	483252.65	1351068.39	614.85	TOPVEG
5017	483252.03	1351118.39	615.27	TOPVEG
5018	483251.42	1351168.38	615.85	TOPVEG
5019	483250.81	1351218.38	616.30	TOPVEG
5020	483250.20	1351268.37	616.75	TOPVEG
5021	483249.59	1351318.37	617.30	TOPVEG
5022	483248.98	1351368.37	617.76	TOPVEG
5023	483248.49	1351408.65	618.30	TOPVEG
5031	483054.24	1351602.91	618.37	TOPVEG
5032	483004.24	1351602.30	617.98	TOPVEG
5033	482954.25	1351601.69	617.56	TOPVEG
5034	482904.24	1351601.08	617.19	TOPVEG
5035	483248.00	1351448.63	618.57	TOPVEG
5036	483249.39	1351471.43	618.41	TOPVEG
5037	483249.90	1351525.95	618.01	TOPVEG
5038	483213.26	1351571.60	618.05	TOPVEG
5039	483166.89	1351600.12	618.09	TOPVEG
5040	483112.40	1351605.22	618.51	TOPVEG
5041	483090.07	1351603.35	618.45	TOPVEG

NOTE:
NORTHING AND EASTING COORDINATES LISTED ON THESE DRAWINGS MAY BE +/- 0.01' DIFFERENT THAN THOSE LISTED FOR THE SAME POINT ON THE TABLE DUE TO ROUNDING OF SURVEY DATA.

000205

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AS-BUILT TOP OF VEGETATIVE LAYER

Scale:

Date: 12-12-2001

Sheet No. 3 OF 3

Project No. 201-159

THE IT GROUP
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
OSDF CELL 1

REVISIONS:
REVISION 1

Designed By:
Drawn By: F.A.M.
Checked By: L.E.H.
Approved By: L.E.H.

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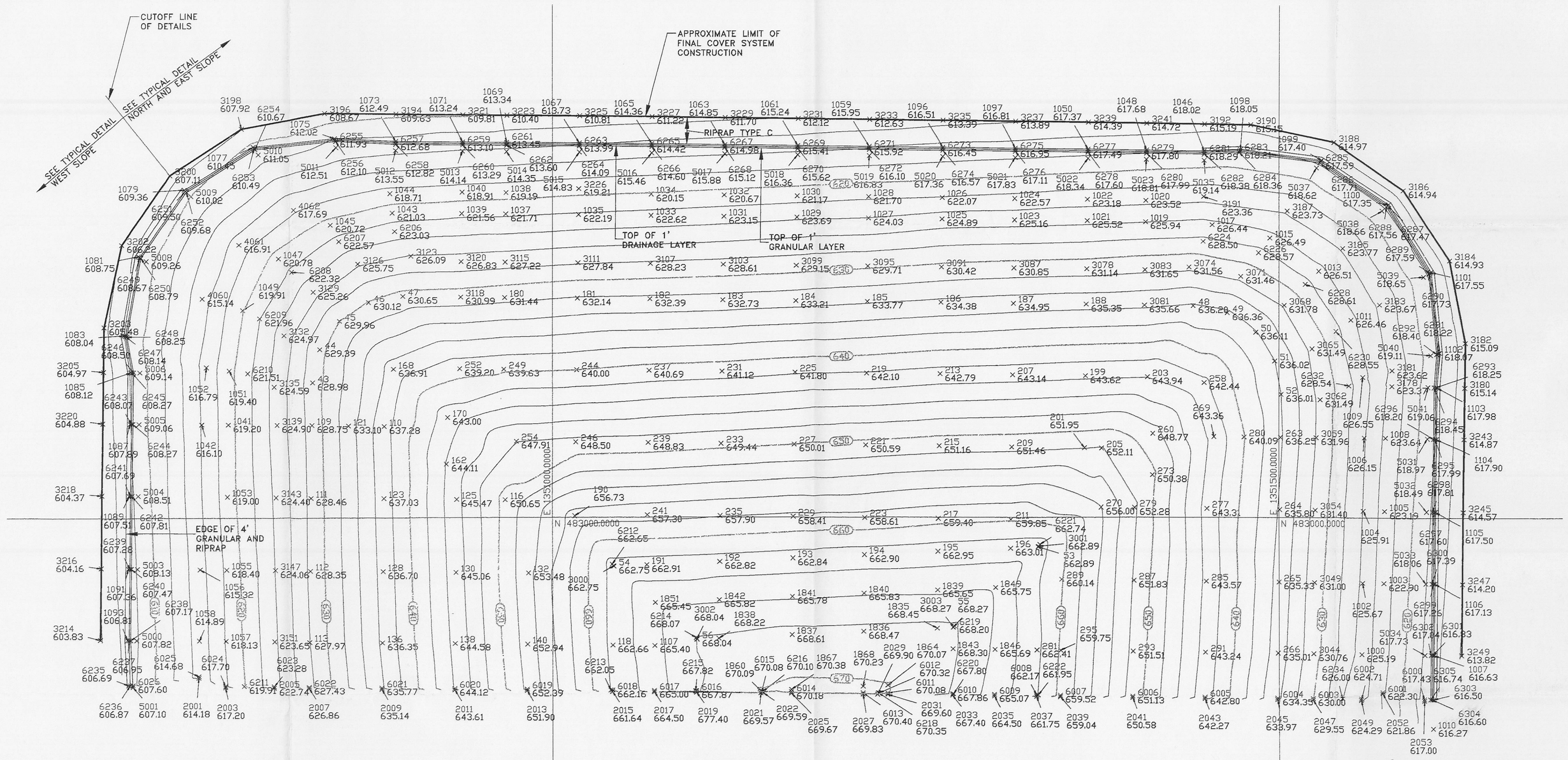
STATE OF OHIO
LYNN E. HIRSCH
S-6738
SURVEYOR

Lynn Edward Hirsch
12-12-2001



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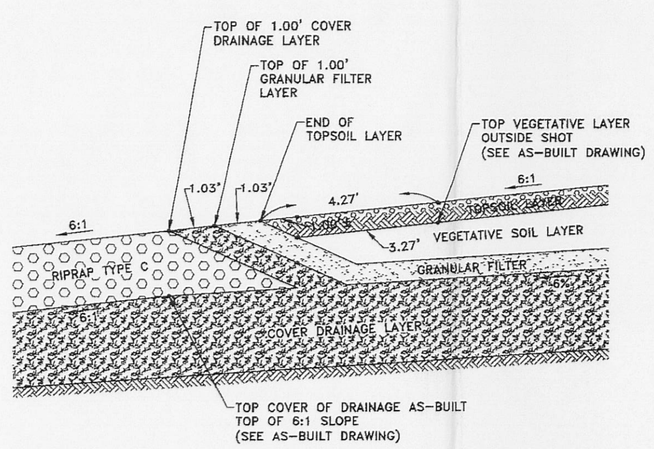
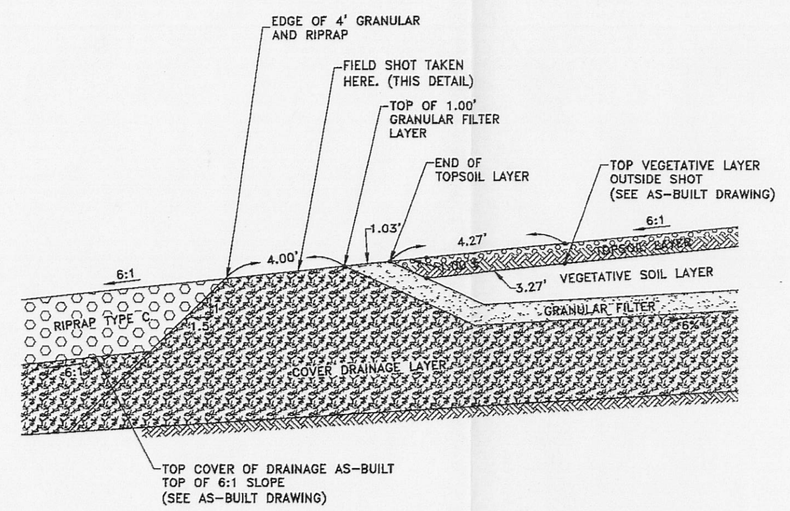


TYPICAL DETAIL
AS-BUILT TIE IN
EAST & NORTH SLOPES
(NOT TO SCALE)



TYPICAL DETAIL
AS-BUILT TIE IN
WEST SLOPE
(NOT TO SCALE)

LEGEND:

× 2100 619.21 = ELEVATION AND POINT NUMBER OF CERTIFIED POINT

——— = INDEX CONTOUR AS-BUILT

——— = INTERMEDIATE CONTOUR AS-BUILT

CONTOUR INTERVAL = 2'

40 20 0 40 80 120

SCALE: 1"=40'

000221

STATE OF OHIO
LYNN E. HIRSCH
S-5738
SURVEYOR
Lynn Edward Hirsch
12-28-2001

David E. Estes Engineering, Inc.
CIVIL & ENVIRONMENTAL ENGINEERING
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Designed By:
Drawn By: F.A.M.
Checked By: L.E.H.
Approved By: L.E.H.

REVISIONS:

THE IT GROUP
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
OSDF CELL 1

AS-BUILT TOP OF TOPSOIL LAYER

Scale: 1" = 40'
Date: 12-28-2001
Sheet No. 1 OF 3
Project No. 201-159

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TOPSOIL

4555

ON-SITE DISPOSAL FACILITY (OSDF) (PHASE III) CELL 1 FINAL COVER CONSTRUCTION PROJECT

***

SURVEY NOTES AND DRAWINGS TOP SOIL LAYER AS-BUILT

2100 1.04
REVISION 24

***

FLUOR FERNALD, INC.
Fernald, Ohio

FF Subcontract No. FSC-642
Submittal No. 20103-642-2100-006
IT Document No. 642-C.4.33.14 Rev. 0

***

Submitted By:

IT Corporation
2790 Mosside Boulevard
Monroeville, PA 15146-2790

IT Project Nos. 820045

***

March 14, 2002

000207

David E. Estes Engineering, Inc.

CIVIL & ENVIRONMENTAL ENGINEERING
HYDROGEOLOGY & LAND SURVEYING

4555

November 1, 2001

SUBJECT: CERTIFICATION POINTS FOR COVER OF TOPSOIL LAYER AS-BUILTS.

I hereby certify that the elevations listed on the next 12 pages are the as-built elevations of the top of cover topsoil layer for the point numbers listed, along with the date the elevations were recorded.

Lynn Edward Hirsch

LYNN EDWARD HIRSCH NO. S-5738
THOMAS J. MACK NO. S-7964
REGISTERED OHIO PROFESSIONAL SURVEYORS

LEGEND

* = As-built top of Riprap – see typical detail
** = As-built top of Granular layer – see typical detail
*** = As-built top of Drainage layer – see typical detail

STATE OF OHIO
LYNN E. HIRSCH S-5738
REGISTERED SURVEYOR

000208

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STATE OF OHIO
LYNN E. HIRSCH
S-5738
REGISTERED SURVEYOR

DATE
CREW
* = OUT OF TOLERANCE

COVER TOPSOIL LAYER AS-BUILT

P.T.#	NORTHING	EASTING	AS-BUILT VEG LAYER ELEV.	AS-BUILT TOPSOIL LAYER ELEV.	PROP. TOPSOIL LAYER ELEV.	DIFF. IN ELEV.	COV. Topsoil LAYER THICK.	DATE	DESCRIPTION
43	483093.26	1350835.11	628.48	628.98	628.97	+0.01	0.50	11/12/01	"PT5000topsoil""
44	483116.63	1350840.02	628.78	629.39	629.34	+0.05	0.61	11/14/01	"PT5001topsoil""
45	483136.32	1350853.50	629.35	629.96	629.72	+0.24	0.61	11/14/01	"PT5002topsoil""
46	483149.35	1350873.49	629.55	630.12	630.09	+0.03	0.57	11/14/01	"PT5003topsoil""
47	483153.73	1350896.96	630.04	630.65	630.46	+0.19	0.61	11/14/01	"PT5004topsoil""
48	483147.14	1351441.21	635.62	636.20	635.89	+0.31	0.58	11/15/01	"PT5005topsoil""
49	483142.18	1351464.58	635.85	636.36	635.91	+0.45	0.51	11/15/01	"PT5006topsoil""
50	483128.65	1351484.26	635.50	636.11	635.94	+0.17	0.61	11/26/01	"PT5007topsoil""
51	483108.62	1351497.24	635.57	636.02	635.97	+0.05	0.45	11/26/01	"PT5008topsoil""
52	483085.12	1351501.56	635.42	636.01	636.01	0.00	0.59	11/26/01	"PT5009topsoil""
53	482979.65	1351333.90	662.38	662.89	662.87	+0.02	0.51	11/14/01	"PT5010topsoil""
54	482966.48	1351042.10	662.25	662.75	662.75	0.00	0.50	11/12/01	"PT5011topsoil""
55	482923.15	1351275.37	667.80	668.27	668.22	+0.05	0.47	11/14/01	"PT5012topsoil""
56	482915.20	1351099.31	667.45	668.04	668.15	+0.11	0.59	11/13/01	"PT5013topsoil""
109	483063.71	1350834.75	628.20	628.75	628.74	+0.01	0.55	11/12/01	"topsoil"
110	483063.10	1350884.36	636.71	637.28	637.02	+0.26	0.57	11/12/01	"topsoil"
111	483013.71	1350834.14	627.90	628.46	628.35	+0.11	0.56	11/12/01	"topsoil"
112	482963.72	1350833.53	627.85	628.35	627.96	+0.39	0.50	11/12/01	"topsoil"
113	482913.72	1350832.92	627.47	627.97	627.57	+0.40	0.50	11/12/01	"topsoil"
116	483012.06	1350967.68	650.05	650.65	650.63	+0.02	0.60	11/12/01	"topsoil"
118	482911.14	1351041.42	662.16	662.66	662.38	+0.28	0.50	11/12/01	"topsoil"
121	483063.40	1350859.75	632.60	633.10	632.91	+0.19	0.50	11/12/01	"topsoil"
123	483013.10	1350884.14	636.52	637.03	636.69	+0.34	0.51	11/12/01	"topsoil"
125	483012.48	1350934.13	644.93	645.47	645.03	+0.44	0.54	11/12/01	"topsoil"
128	482963.10	1350883.52	636.12	636.70	636.31	+0.39	0.58	11/12/01	"topsoil"
130	482962.48	1350933.52	644.52	645.06	644.65	+0.41	0.54	11/12/01	"topsoil"
132	482961.86	1350983.52	652.90	653.48	652.99	+0.49	0.58	11/12/01	"topsoil"
136	482913.10	1350882.91	635.85	636.35	635.92	+0.43	0.50	11/12/01	"topsoil"
138	482912.49	1350932.91	644.08	644.58	644.27	+0.31	0.50	11/12/01	"topsoil"
140	482911.87	1350982.91	652.44	652.94	652.62	+0.32	0.50	11/12/01	"topsoil"
162	483036.98	1350926.99	643.61	644.11	643.98	+0.13	0.50	11/12/01	"topsoil"
168	483102.86	1350890.65	636.37	636.91	636.51	+0.40	0.54	11/12/01	"topsoil"
170	483069.40	1350927.81	642.47	643.00	642.93	+0.07	0.53	11/12/01	"topsoil"
180	483152.88	1350967.15	630.93	631.44	631.17	+0.27	0.51	11/14/01	"topsoil"
181	483152.27	1351017.14	631.53	632.14	631.68	+0.46	0.61	11/14/01	"topsoil"
182	483151.67	1351067.14	631.78	632.39	632.17	+0.22	0.61	11/14/01	"topsoil"
183	483151.06	1351117.14	632.30	632.73	632.66	+0.07	0.43	11/14/01	"topsoil"
184	483150.46	1351167.13	632.68	633.21	633.17	+0.04	0.53	11/14/01	"topsoil"
[illegible]	483149.85	1351217.13	633.36	633.77	633.66	+0.11	0.41	11/14/01	"topsoil"
186	483149.25	1351267.13	633.87	634.38	634.15	+0.23	0.51	11/14/01	"topsoil"
187	483148.64	1351317.12	634.41	634.95	634.65	+0.30	0.54	11/15/01	"topsoil"
188	483148.04	1351367.12	634.80	635.35	635.15	+0.20	0.55	11/15/01	"topsoil"
190	483001.09	1351015.28	656.13	656.73	656.82	-0.09	0.60	11/13/01	"topsoil"

4555

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STATE OF OHIO
LYNN E. HIRSCH
S-5738
REGISTERED SURVEYOR

DATE
CREW
* = OUT OF TOLERANCE

COVER TOPSOIL LAYER AS-BUILT

P.T.#	NORTHING	EASTING	AS-BUILT VEG LAYER ELEV.	AS-BUILT TOPSOIL LAYER ELEV.	PROP. TOPSOIL LAYER ELEV.	DIFF. IN ELEV.	COV. Topsoil LAYER THICK.	DATE	DESCRIPTION
191	482967.51	1351064.87	662.31	662.91	662.80	+0.11	0.60	11/12/01	"topsoil"
192	482969.77	1351114.90	662.28	662.82	662.82	0.00	0.54	11/13/01	"topsoil"
193	482972.02	1351164.93	662.32	662.84	662.84	0.00	0.52	11/13/01	"topsoil"
194	482974.28	1351214.96	662.30	662.90	662.87	+0.03	0.60	11/14/01	"topsoil"
195	482976.54	1351264.99	662.34	662.95	662.89	+0.06	0.61	11/14/01	"topsoil"
196	482978.80	1351315.02	662.59	663.01	662.91	+0.10	0.41	11/15/01	"topsoil"
199	483098.04	1351366.50	643.17	643.62	643.47	+0.15	0.45	11/15/01	"topsoil"
201	483048.04	1351365.88	651.44	651.95	651.79	+0.16	0.51	11/15/01	"topsoil"
203	483097.52	1351409.42	643.33	643.94	643.90	+0.04	0.61	11/15/01	"topsoil"
205	483047.90	1351377.63	651.50	652.11	651.91	+0.20	0.61	11/14/01	"topsoil"
207	483098.65	1351316.50	642.63	643.14	642.97	+0.17	0.51	11/15/01	"topsoil"
209	483048.65	1351315.89	650.85	651.46	651.29	+0.17	0.61	11/15/01	"topsoil"
211	482998.65	1351315.27	659.26	659.85	659.61	+0.24	0.59	11/15/01	"topsoil"
213	483099.25	1351266.51	642.18	642.79	642.47	+0.32	0.61	11/14/01	"topsoil"
215	483049.26	1351265.89	650.55	651.46	650.79	+0.37	0.61	11/14/01	"topsoil"
217	482999.26	1351265.27	658.79	659.40	659.11	+0.29	0.61	11/14/01	"topsoil"
219	483099.86	1351216.51	641.59	642.10	641.98	+0.12	0.51	11/14/01	"topsoil"
221	483049.86	1351215.89	650.08	650.59	650.29	+0.30	0.51	11/14/01	"topsoil"
223	482999.86	1351215.28	658.10	658.61	658.61	0.00	0.51	11/14/01	"topsoil"
225	483100.46	1351166.52	641.21	641.80	641.48	+0.32	0.59	11/14/01	"topsoil"
227	483050.47	1351165.90	649.50	650.01	649.79	+0.22	0.51	11/14/01	"topsoil"
229	483000.47	1351165.28	657.91	658.41	658.11	+0.30	0.50	11/13/01	"topsoil"
231	483101.07	1351116.52	640.61	641.12	640.98	+0.14	0.51	11/14/01	"topsoil"
233	483051.07	1351115.90	648.83	649.44	649.30	+0.14	0.61	11/14/01	"topsoil"
235	483001.08	1351115.28	657.38	657.90	657.61	+0.29	0.52	11/14/01	"topsoil"
237	483101.67	1351066.52	640.08	640.69	640.48	+0.21	0.61	11/14/01	"topsoil"
239	483051.68	1351065.91	648.27	648.83	648.80	+0.03	0.56	11/12/01	"topsoil"
241	483001.68	1351065.29	656.74	657.30	657.12	+0.18	0.56	11/12/01	"topsoil"
244	483102.28	1351016.53	639.45	640.00	639.98	+0.02	0.55	11/13/01	"topsoil"
246	483052.28	1351015.91	648.00	648.50	648.30	+0.20	0.50	11/12/01	"topsoil"
249	483102.88	1350966.53	639.11	639.63	639.49	+0.14	0.52	11/12/01	"topsoil"
252	483103.25	1350936.09	638.65	639.20	639.19	+0.01	0.55	11/12/01	"topsoil"
254	483052.78	1350975.21	647.31	647.91	647.89	+0.02	0.60	11/13/01	"topsoil"
258	483093.46	1351448.74	641.83	642.44	642.31	+0.13	0.61	11/26/01	"topsoil"
260	483058.26	1351413.23	648.16	648.77	648.69	+0.08	0.61	11/15/01	"topsoil"
263	483055.47	1351501.20	635.70	636.25	635.74	+0.51	0.55	11/26/01	"topsoil"
264	483005.47	1351500.59	635.32	635.80	635.37	+0.43	0.48	11/26/01	"topsoil"
265	482955.48	1351499.98	634.78	635.33	634.98	+0.35	0.55	11/26/01	"topsoil"
266	482905.48	1351499.37	634.57	635.01	634.58	+0.43	0.44	11/26/01	"topsoil"
269	483056.02	1351455.31	642.75	643.36	643.43	-0.07	0.61	11/26/01	"topsoil"
270	483006.96	1351377.32	655.49	656.00	655.95	+0.05	0.51	11/14/01	"topsoil"
273	483029.40	1351412.98	649.78	650.38	650.30	+0.08	0.60	11/15/01	"topsoil"
277	483006.08	1351450.59	642.70	643.31	643.80	-0.49	0.61	11/26/01	"topsoil"

4555

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DATE
CREW
* = OUT OF TOLERANCE

COVER TOPSOIL LAYER AS-BUILT

P.T.#	NORTHING	EASTING	AS-BUILT VEG LAYER ELEV.	AS-BUILT TOPSOIL LAYER ELEV.	PROP. TOPSOIL LAYER ELEV.	DIFF. IN ELEV.	COV. TOPSOIL LAYER THICK.	DATE	DESCRIPTION
279	483006.68	1351400.59	651.67	652.28	652.12	+0.16	0.61	11/14/01	"topsoil"
280	483055.77	1351476.20	639.48	640.09	639.95	+0.14	0.61	11/26/01	"topsoil"
281	482907.49	1351333.02	661.80	662.41	662.41	0.00	0.61	11/14/01	"topsoil"
285	482956.08	1351449.98	643.06	643.57	643.33	+0.24	0.51	11/26/01	"topsoil"
287	482956.69	1351399.98	651.25	651.83	651.72	+0.11	0.58	11/14/01	"topsoil"
289	482957.29	1351349.99	659.57	660.14	660.00	+0.14	0.57	11/14/01	"topsoil"
291	482906.08	1351449.37	642.63	643.24	642.94	+0.30	0.61	11/26/01	"topsoil"
293	482906.69	1351399.37	650.90	651.51	651.31	+0.20	0.61	11/14/01	"topsoil"
295	482907.30	1351349.38	659.20	659.75	659.66	+0.09	0.55	11/14/01	"topsoil"
1000	482904.77	1351557.45	624.63	625.19	624.94	+0.25	0.56	11/26/01	"topsoil"
1001	482904.59	1351572.24	621.96	Not Used	622.48	—	—	—	TOPSOIL""
1002	482954.78	1351558.06	625.06	625.67	625.83	-0.16	0.61	11/26/01	"topsoil"
1003	482954.60	1351572.85	622.30	622.90	622.35	+0.55	0.60	11/26/01	TOPSOIL
1004	483004.77	1351558.67	625.30	625.91	626.21	-0.30	0.61	11/26/01	"topsoil"
1005	483004.60	1351573.46	622.68	623.19	622.73	+0.46	0.51	11/26/01	TOPSOIL
1006	483054.76	1351559.28	625.52	626.15	626.59	-0.44	0.61	11/26/01	"topsoil"
1008	483054.58	1351574.07	623.14	623.64	623.10	+0.54	0.50	11/26/01	TOPSOIL
1009	483096.77	1351558.25	626.02	626.55	626.36	+0.19	0.53	11/26/01	"topsoil"
1011	483136.76	1351550.10	625.93	626.46	626.35	+0.11	0.53	11/26/01	"topsoil"
1013	483170.96	1351527.55	625.92	626.51	626.34	+0.17	0.59	11/26/01	"topsoil"
1015	483194.31	1351493.89	625.88	626.49	626.33	+0.16	0.61	11/26/01	"topsoil'
1017	483203.43	1351454.10	625.83	626.44	626.32	+0.12	0.61	11/15/01	"topsoil"
1019	483205.46	1351408.11	625.33	625.94	625.92	+0.02	0.61	11/15/01	"topsoil"
1020	483220.25	1351408.29	623.01	623.52	623.44	+0.08	0.51	11/15/01	TOPSOIL""
1021	483205.95	1351367.83	624.91	625.52	625.52	0.00	0.61	11/14/01	"topsoil"
1022	483220.74	1351368.01	622.57	623.18	623.04	+0.14	0.61	11/14/01	TOPSOIL""
1023	483206.56	1351317.84	624.65	625.16	625.02	+0.14	0.51	11/14/01	"topsoil"
1024	483221.35	1351318.01	621.96	622.57	622.54	+0.03	0.61	11/14/01	TOPSOIL""
1025	483207.18	1351267.84	624.21	624.89	624.52	+0.37	0.68	11/14/01	"topsoil"
1026	483221.96	1351268.02	621.53	622.07	622.04	+0.03	0.54	11/14/01	TOPSOIL""
1027	483207.79	1351217.85	623.46	624.03	624.02	+0.01	0.57	11/14/01	"topsoil"
1028	483222.57	1351218.02	621.09	621.70	621.54	+0.16	0.61	11/14/01	TOPSOIL""
1029	483208.40	1351167.85	623.28	623.69	623.52	+0.17	0.41	11/14/01	"topsoil"
1030	483223.19	1351168.02	620.56	621.17	621.04	+0.13	0.61	11/14/01	TOPSOIL""
1031	483209.01	1351117.85	622.54	623.15	623.02	+0.13	0.61	11/14/01	"topsoil"
1032	483223.80	1351118.03	620.06	620.67	620.54	+0.13	0.61	11/14/01	TOPSOIL""
1033	483209.62	1351067.86	622.16	622.62	622.52	+0.10	0.46	11/14/01	"topsoil"
1034	483224.41	1351068.03	619.58	620.15	620.05	+0.10	0.57	11/14/01	TOPSOIL""
1035	483210.23	1351017.86	621.68	622.19	622.02	+0.17	0.51	11/14/01	"topsoil"
1037	483210.85	1350967.86	621.15	621.71	621.52	+0.19	0.56	11/14/01	"topsoil"
1038	483225.64	1350968.04	618.64	619.19	619.05	+0.14	0.55	11/14/01	TOPSOIL""
1039	483211.22	1350937.42	621.00	621.56	621.22	+0.34	0.56	11/14/01	"topsoil"
1040	483226.01	1350937.60	618.30	618.91	618.75	+0.16	0.61	11/14/01	TOPSOIL""

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STATE OF OHIO
LYNN E. HIRSCH
S-5738
REGISTERED SURVEYOR

DATE
CREW
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COVER TOPSOIL LAYER AS-BUILT

P.T.#	NORTHING	EASTING	AS-BUILT VEG LAYER ELEV.	AS-BUILT TOPSOIL LAYER ELEV.	PROP. TOPSOIL LAYER ELEV.	DIFF. IN ELEV.	COV. Topsoil LAYER THICK.	DATE	DESCRIPTION
1041	483064.43	1350776.66	618.65	619.20	619.06	+0.14	0.55	11/12/01	"topsoil"
1042	483064.67	1350758.41	615.56	616.10	616.01	+0.09	0.54	11/12/01	TOPSOIL""
1043	483211.68	1350889.71	620.42	621.03	620.76	+0.27	0.61	11/14/01	"topsoil"
1044	483225.07	1350888.03	618.10	618.71	618.51	+0.20	0.61	11/14/01	TOPSOIL
1045	483203.30	1350847.17	620.11	620.72	620.40	+0.32	0.61	11/14/01	"topsoil"
1047	483179.64	1350811.19	620.17	620.78	620.04	+0.74	0.61	11/14/01	"topsoil"
1049	483144.12	1350786.64	619.41	619.91	619.69	+0.22	0.50	11/12/01	"topsoil"
1051	483101.94	1350777.24	618.85	619.40	619.33	+0.07	0.55	11/12/01	"topsoil"
1052	483104.28	1350761.61	616.28	616.79	616.69	+0.10	0.51	11/13/01	TOPSOIL""
1053	483014.43	1350776.05	618.51	619.00	618.68	+0.32	0.49	11/12/01	"topsoil"
1055	482964.43	1350775.44	617.90	618.40	618.30	+0.10	0.50	11/12/01	"topsoil"
1056	482964.65	1350757.19	614.82	615.32	615.25	+0.07	0.50	11/12/01	TOPSOIL""
1057	482914.44	1350774.83	617.56	618.13	617.92	+0.21	0.57	11/12/01	"topsoil"
1058	482914.68	1350756.58	614.39	614.89	614.88	+0.01	0.50	11/12/01	TOPSOIL""
1107	482910.78	1351070.33	664.90	665.40	665.20	+0.20	0.50	11/12/01	"topsoil"
1835	482922.65	1351264.33	667.92	668.45	668.23	+0.22	0.53	11/14/01	"topsoil"
1836	482920.39	1351214.29	667.86	668.47	668.20	+0.27	0.61	11/14/01	"topsoil"
1837	482918.13	1351164.26	668.12	668.61	668.18	+0.43	0.49	11/13/01	"topsoil"
1838	482915.87	1351114.23	667.76	668.22	668.17	+0.05	0.46	11/13/01	"topsoil"
1839	482949.60	1351264.66	665.24	665.65	665.15	+0.50	0.41	11/14/01	"topsoil"
1840	482947.34	1351214.63	665.32	665.83	665.49	+0.34	0.51	11/14/01	"topsoil"
1841	482945.08	1351164.60	665.28	665.78	665.46	+0.32	0.50	11/13/01	"topsoil"
1842	482942.82	1351114.56	665.32	665.82	665.44	+0.38	0.50	11/13/01	"topsoil"
1843	482908.19	1351275.19	667.71	668.30	668.10	+0.20	0.59	11/14/01	"topsoil"
1846	482907.84	1351304.10	665.28	665.69	665.23	+0.46	0.41	11/14/01	"topsoil"
1849	482951.40	1351304.63	665.15	665.75	665.53	+0.22	0.60	11/14/01	"topsoil"
1851	482940.84	1351070.70	664.94	665.45	665.43	+0.02	0.51	11/13/01	"topsoil"
1860	482878.87	1351142.85	669.49	670.09	670.03	+0.06	0.60	11/13/01	"topsoil"
1864	482882.84	1351230.88	669.51	670.07	670.07	0.00	0.56	11/14/01	"topsoil"
1867	482879.82	1351163.79	669.84	670.38	670.05	+0.33	0.54	11/13/01	"topsoil"
1868	482882.07	1351213.82	669.74	670.23	670.06	+0.17	0.49	11/14/01	"topsoil"
2001	482888.64	1350756.26	614.10	614.18	614.17	+0.01	N/A	11/13/01	TOE2:1TOPSOIL
2003	482881.92	1350774.43	617.07	617.20	617.17	+0.03	"	11/13/01	TOE2:1TOPSOIL
2005	482881.51	1350807.93	622.69	622.74	622.74	0.00	"	11/13/01	TOE2:1TOPSOIL
2007	482881.21	1350832.52	626.90	626.86	626.82	+004	"	11/13/01	TOE2:1TOPSOIL
2009	482880.60	1350882.51	635.14	635.14	635.17	-0.03	"	11/13/01	TOE2:1TOPSOIL
2011	482879.98	1350932.51	643.61	643.61	643.52	+0.09	"	11/13/01	TOE2:1TOPSOIL
2013	482879.37	1350982.51	651.87	651.90	651.87	-0.03	"	11/13/01	TOE2:1TOPSOIL
2015	482878.66	1351041.02	661.62	661.64	661.62	+0.02	"	11/13/01	TOE2:1TOPSOIL
2017	482878.30	1351069.93	664.47	664.50	664.44	+0.06	"	11/13/01	TOE2:1TOPSOIL
2019	482877.95	1351098.85	667.40	677.40	667.36	+0.04	"	11/13/01	TOE2:1TOPSOIL
2021	482877.41	1351142.83	669.47	669.57	669.57	0.00	"	11/13/01	TOE2:1TOPSOIL
2022	482877.39	1351144.62	669.59	669.59	669.58	+0.01	N/A	11/13/01	TOE2:1TOPSOIL

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2025	482877.16	1351163.76	669.60	669.67	669.67	0.00	N/A	11/13/01	TOE2:1TOPSOIL
2027	482876.55	1351213.75	669.75	669.83	669.83	0.00	0.08	12/05/01	TOE2:1TOPSOIL
2029	482876.42	1351223.80	669.75	669.90	669.85	+0.05	0.15	12/05/01	TOE2:1TOPSOIL
2031	482876.34	1351230.80	669.41	669.60	669.51	+0.09	0.19	12/05/01	TOE2:1TOPSOIL
2033	482875.80	1351274.80	667.38	667.40	667.35	+0.05	0.02	12/05/01	TOE2:1TOPSOIL
2035	482875.45	1351303.71	664.50	664.50	664.48	+0.02	0.00	12/05/01	TOE2:1TOPSOIL
2037	482875.09	1351332.62	661.63	661.75	661.66	+0.09	0.12	12/05/01	TOE2:1TOPSOIL
2039	482874.89	1351348.98	658.90	659.04	658.91	+0.13	0.14	12/05/01	TOE2:1TOPSOIL
2041	482874.28	1351398.97	650.57	650.58	650.56	+0.02	0.01	12/05/01	TOE2:1TOPSOIL
2043	482873.67	1351448.97	642.16	642.27	642.19	+0.08	0.11	12/05/01	TOE2:1TOPSOIL
2045	482873.06	1351498.97	633.90	633.97	633.83	+0.14	0.07	12/05/01	TOE2:1TOPSOIL
2047	482872.76	1351523.55	629.55	629.55	629.47	+0.08	0.00	12/05/01	TOE2:1TOPSOIL
2049	482872.35	1351557.05	624.29	624.29	624.19	+0.10	0.00	12/05/01	TOE2:1TOPSOIL
2052	482877.19	1351571.90	621.86	621.86	621.76	+0.10	0.00	12/05/01	TOE2:1TOPSOIL
2053	482871.81	1351600.68	616.95	617.00	616.91	+0.09	0.05	12/05/01	TOE2:1TOPSOIL
3000	482966.77	1351041.80	662.25	662.75	662.75	+0.00	0.50	11/12/01	"PT10000topsoil""
3001	482979.97	1351334.20	662.38	662.89	662.87	+0.02	0.51	11/14/01	"PT10001topsoil""
3002	482915.32	1351099.16	667.45	668.04	668.15	-0.11	0.59	11/13/01	"PT10002topsoil""
3003	482923.29	1351275.52	667.80	668.27	668.22	+0.05	0.47	11/14/01	"PT10003topsoil""
3044	482905.18	1351523.95	630.30	630.76	630.52	+0.24	0.46	11/26/01	"topsoilveg#3044"
3049	482955.18	1351524.56	630.54	631.00	630.90	+0.10	0.46	11/26/01	"topsoil"
3054	483005.17	1351525.17	630.96	631.40	631.29	+0.11	0.44	11/26/01	"topsoil"
3059	483055.17	1351525.78	631.45	631.96	631.67	+0.29	0.51	11/26/01	"topsoil"
3062	483081.28	1351528.54	631.00	631.49	631.47	+0.02	0.49	11/26/01	"topsoil'
3065	483117.07	1351522.99	630.89	631.49	631.29	+0.20	0.60	11/26/01	"topsoil"
3068	483147.41	1351503.72	631.17	631.78	631.23	+0.55	0.61	11/26/01	"topsoil"
3071	483167.45	1351473.87	630.85	631.46	631.27	+0.19	0.61	11/26/01	"topsoil"
3074	483173.91	1351438.26	631.05	631.56	631.42	+0.14	0.51	11/15/01	"topsoil"
3078	483172.45	1351367.42	630.53	631.14	631.09	+0.05	0.61	11/14/01	"topsoil'
3081	483147.55	1351407.40	635.15	635.66	635.55	+0.11	0.51	11/15/01	"topsoil"
3083	483171.96	1351407.70	631.04	631.65	631.50	+0.15	0.61	11/15/01	"topsoil"
3087	483173.07	1351317.42	630.24	630.85	630.59	+0.26	0.61	11/14/01	"topsoil"
3091	483173.68	1351267.43	629.87	630.42	630.09	+0.33	0.55	11/14/01	"topsoil"
3095	483174.29	1351217.43	629.20	629.71	629.60	+0.11	0.51	11/14/01	"topsoil"
3099	483174.90	1351167.44	628.56	629.15	629.10	+0.05	0.59	11/14/01	"topsoil"
3103	483175.51	1351117.44	628.00	628.61	628.60	+0.01	0.61	11/14/01	"topsoil"
3107	483176.12	1351067.44	627.62	628.23	628.10	+0.13	0.61	11/14/01	"topsoil"
3111	483176.74	1351017.45	627.23	627.84	627.60	+0.24	0.61	11/14/01	"topsoil"
3115	483177.35	1350967.45	626.61	627.22	627.10	+0.12	0.61	11/14/01	"topsoil"
3118	483153.25	1350936.70	630.38	630.99	630.87	+0.12	0.61	11/14/01	"topsoil"
3120	483177.72	1350937.01	626.22	626.83	626.80	+0.03	0.61	11/14/01	"topsoil"
3123	483181.58	1350902.48	625.48	626.09	625.88	+0.21	0.61	11/14/01	"topsoil"
3126	483175.92	1350866.06	625.14	625.75	625.37	+0.38	0.61	11/14/01	"topsoil"

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3129	483156.47	1350835.36	624.65	625.26	624.97	+0.29	0.61	11/15/01	"topsoil"
3132	483126.37	1350814.97	624.36	624.97	624.67	+0.30	0.61	11/14/01	"topsoil"
3135	483090.42	1350808.22	623.98	624.59	624.77	-0.19	0.61	11/13/01	"topsoil"
3139	483064.01	1350810.16	624.30	624.90	624.64	+0.26	0.60	11/12/01	"topsoil"
3143	483014.02	1350809.55	623.90	624.40	624.26	+0.14	0.50	11/12/01	"topsoil"
3147	482964.02	1350808.94	623.56	624.06	623.88	+0.18	0.50	11/12/01	"topsoil"
3151	482914.02	1350808.33	623.09	623.65	623.49	+0.16	0.56	11/12/01	"topsoil"
3178	483090.37	1351578.34	622.76	623.37	623.23	+0.14	0.61	11/26/01	TOPSOIL""
3181	483101.39	1351578.48	623.01	623.62	623.60	+0.02	0.61	11/26/01	TOPSOIL""
3183	483147.42	1351569.91	623.02	623.67	623.50	+0.17	0.60	11/26/01	TOPSOIL""
3185	483186.67	1351544.37	623.27	623.77	623.70	+0.07	0.50	11/26/01	TOPSOIL""
3187	483213.15	1351505.76	623.15	623.73	623.60	+0.13	0.58	11/26/01	TOPSOIL""
3191	483222.99	1351448.33	622.75	623.36	623.31	+0.05	0.61	11/15/01	TOPSOIL""
[illegible]226	483228.25	1351018.08	618.60	619.21	619.01	+0.20	0.61	11/14/01	TOPSOIL""
[illegible]060	483152.20	1350758.71	614.59	615.14	615.00	+0.14	0.55	11/12/01	TOPSOIL""
4061	483189.37	1350784.00	616.30	616.91	616.53	+0.38	0.61	11/14/01	TOPSOIL""
4062	483213.73	1350821.77	617.08	617.69	617.51	+0.18	0.61	11/14/01	TOPSOIL""
5000	482915.19	1350713.89	607.22	607.82	607.75	+0.07	0.60	11/13/01	ENDTOPSOIL
5001	482882.69	1350711.24	607.06	607.10	607.00	+0.10	N/A	11/14/01	ENDTOPSOIL
5003	482965.19	1350714.50	607.63	608.13	608.12	+0.01	0.50	11/12/01	ENDTOPSOIL
5004	483015.18	1350715.11	608.01	608.51	608.50	+0.01	0.50	11/12/01	ENDTOPSOIL
5005	483065.18	1350715.72	608.46	609.06	608.88	+0.18	0.60	11/12/01	ENDTOPSOIL
5006	483100.91	1350716.16	608.64	609.14	609.13	+0.01	0.50	11/12/01	ENDTOPSOIL
5007	483124.14	1350711.16	608.10	NOT USED	608.57	—	—	—	ENDTOPSOIL
5008	483178.27	1350720.47	608.85	609.26	609.19	+0.07	0.41	11/14/01	ENDTOPSOIL
5009	483223.42	1350751.00	609.50	610.02	610.02	0.00	0.52	11/14/01	ENDTOPSOIL
5010	483251.82	1350797.27	610.58	611.05	611.05	0.00	0.47	11/14/01	ENDTOPSOIL
5011	483256.75	1350850.95	611.90	612.51	612.47	+0.04	0.61	11/14/01	ENDTOPSOIL
5012	483254.80	1350892.00	613.00	613.55	613.55	0.00	0.55	11/14/01	ENDTOPSOIL
5013	483254.24	1350937.95	613.53	614.14	614.03	+0.11	0.61	11/14/01	ENDTOPSOIL
5014	483253.87	1350968.40	613.85	614.35	614.33	+0.02	0.50	11/14/01	ENDTOPSOIL
5015	483253.26	1351018.39	614.22	614.83	614.83	0.00	0.61	11/14/01	ENDTOPSOIL
5016	483252.65	1351068.39	614.85	615.46	615.33	+0.13	0.61	11/14/01	ENDTOPSOIL
5017	483252.03	1351118.39	615.27	615.88	615.83	+0.05	0.61	11/15/01	ENDTOPSOIL
5018	483251.42	1351168.38	615.85	616.36	616.33	+0.03	0.51	11/14/01	ENDTOPSOIL
5019	483250.81	1351218.38	616.30	616.83	616.83	0.00	0.53	11/14/01	ENDTOPSOIL
5020	483250.20	1351268.37	616.75	617.36	617.33	+0.03	0.61	11/14/01	ENDTOPSOIL
5021	483249.59	1351318.37	617.30	617.83	617.83	0.00	0.53	11/14/01	ENDTOPSOIL
[illegible]2	483248.98	1351368.37	617.76	618.34	618.33	+0.01	0.58	11/14/01	ENDTOPSOIL
5023	483248.49	1351408.65	618.30	618.81	618.73	+0.08	0.51	11/15/01	ENDTOPSOIL
5031	483054.24	1351602.91	618.37	618.97	618.79	+0.18	0.60	11/26/01	ENDTOPSOIL
5032	483004.24	1351602.30	617.98	618.49	618.42	+0.07	0.51	11/26/01	ENDTOPSOIL
5033	482954.25	1351601.69	617.56	618.06	618.04	+0.02	0.50	11/26/01	ENDTOPSOIL

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5034	482904.24	1351601.08	617.19	617.73	617.66	+0.07	0.54	11/26/01	ENDTOPSOIL
5035	483248.00	1351448.63	618.57	619.14	619.13	+0.01	0.57	11/26/01	ENDTOPSOIL
5036	483249.39	1351471.43	618.41	Not Used	619.00	—	—	—	ENDTOPSOIL
5037	483242.90	1351525.95	618.01	618.62	618.57	+0.05	0.61	11/26/01	ENDTOPSOIL
5038	483213.26	1351571.60	618.05	618.66	618.60	+0.06	0.61	11/26/01	ENDTOPSOIL
5039	483166.89	1351600.12	618.09	618.65	618.60	+0.05	0.56	11/26/01	ENDTOPSOIL
5040	483112.40	1351605.22	618.51	619.11	619.10	+0.01	0.54	11/26/01	ENDTOPSOIL
5041	483090.07	1351603.35	618.45	619.06	619.05	+0.01	0.61	11/26/01	ENDTOPSOIL
6000	482872.81	1351600.70	N/A	617.43	617.42	+0.01	—	12/05/01	TOP2:1TOPSOIL
6001	482878.19	1351571.92	"	622.30	622.28	+0.02	—	12/05/01	TOP2:1TOPSOIL
6002	482873.35	1351557.07	"	624.71	624.70	+0.01	—	12/05/01	TOP2:1TOPSOIL
6003	482873.76	1351523.57	"	630.00	629.98	+0.02	—	12/05/01	TOP2:1TOPSOIL
6004	482874.06	1351498.99	"	634.35	634.34	+0.01	—	12/05/01	TOP2:1TOPSOIL
6005	482874.67	1351448.99	"	642.80	642.70	+0.10	—	12/05/01	TOP2:1TOPSOIL
6006	482875.28	1351398.99	"	651.13	651.07	+0.06	—	12/05/01	TOP2:1TOPSOIL
6007	482875.89	1351349.00	"	659.52	659.42	+0.10	—	12/05/01	TOP2:1TOPSOIL
6008	482876.09	1351332.64	"	662.17	662.17	0.00	—	12/05/01	TOP2:1TOPSOIL
6009	482876.45	1351303.72	"	665.07	664.99	+0.08	—	12/05/01	TOP2:1TOPSOIL
6010	482876.80	1351274.81	"	667.86	667.86	0.00	—	12/05/01	TOP2:1TOPSOIL
6011	482877.34	1351230.81	"	670.08	670.02	+0.06	—	12/05/01	TOP2:1TOPSOIL
6012	482877.41	1351224.89	"	670.32	670.32	0.00	—	12/05/01	TOP2:1TOPSOIL
6013	482877.55	1351213.76	"	670.40	670.34	+0.06	—	11/26/01	TOP2:1TOPSOIL
6014	482878.16	1351163.77	"	670.18	670.18	0.00	N/A	11/13/01	TOP2:1TOPSOIL
6015	482878.41	1351143.41	"	670.08	670.08	0.00	"	11/13/01	TOP2:1TOPSOIL
6016	482878.95	1351098.86	"	667.87	667.87	0.00	"	11/13/01	TOP2:1TOPSOIL
6017	482879.30	1351069.94	"	665.00	664.95	+0.05	"	11/13/01	TOP2:1TOPSOIL
6018	482879.66	1351041.03	"	662.16	662.13	+0.03	"	11/13/01	TOP2:1TOPSOIL
6019	482880.37	1350982.53	"	652.39	652.38	+0.01	"	11/13/01	TOP2:1TOPSOIL
6020	482880.98	1350932.53	"	644.12	644.03	+0.09	"	11/12/01	TOP2:1TOPSOIL
6021	482881.60	1350882.53	"	635.77	635.68	+0.09	"	11/12/01	TOP2:1TOPSOIL
6022	482882.21	1350832.54	"	627.43	627.33	+0.10	"	11/12/01	TOP2:1TOPSOIL
6023	482882.51	1350807.95	"	623.28	623.25	+0.03	"	11/12/01	TOP2:1TOPSOIL
6024	482882.92	1350774.45	"	617.70	617.68	+0.02	"	11/12/01	TOP2:1TOPSOIL
6025	482889.64	1350756.28	"	614.68	614.68	0.00	"	11/12/01	TOP2:1TOPSOIL
6026	482883.69	1350711.32	"	607.60	607.51	+0.09	"	11/14/01	TOP2:1TOPSOIL
6200	483279.66	1350838.88	"	Not Used	609.02				Proposed Final Cover Grading Plan #
6201	483270.01	1350787.08	"	Not Used	608.54				"
6202	483241.63	1350742.52	"	Not Used	607.98				"
6203	483199.66	1350710.50	"	Not Used	607.14				"
6204	483149.96	1350695.19	"	Not Used	605.95				"
6205	482883.97	1350688.42	"	Not Used	603.37				"
6206	483198.78	1350891.32	"	623.03	622.93	+0.10	"	11/14/01	"
6207	483191.61	1350852.97	N/A	622.57	622.57	0.00	N/A	11/14/01	"

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COVER TOPSOIL LAYER AS-BUILT

P.T.#	NORTHING	EASTING	AS-BUILT VEG LAYER ELEV.	AS-BUILT TOPSOIL LAYER ELEV.	PROP. TOPSOIL LAYER ELEV.	DIFF. IN ELEV.	COV. TOPSOIL LAYER THICK.	DATE	DESCRIPTION
6208	483170.33	1350820.28	N/A	622.32	622.22	+0.10	N/A	11/14/01	Proposed Final Cover Grading Plan #
6209	483138.17	1350798.20	"	621.96	621.86	+0.10	"	11/14/01	"
6210	483100.01	1350790.10	"	621.51	621.51	0.00	"	11/12/01	"
6211	482882.76	1350787.45	"	619.91	619.88	+0.03	"	11/12/01	"
6212	482967.97	1351040.96	"	662.65	662.61	+0.04	"	11/12/01	"
6213	482879.67	1351039.88	"	662.05	661.95	+0.10	"	11/12/01	"
6214	482916.25	1351098.67	"	668.07	668.07	0.00	"	11/13/01	"
6215	482878.96	1351098.22	"	667.82	667.79	+0.03	"	11/13/01	"
6216	482878.40	1351144.04	"	670.10	670.08	+0.02	"	11/13/01	"
6217	482843.05	1351186.41	"	Not Used	671.98	—	"	—	"
6218	482877.42	1351224.34	"	670.35	670.34	+0.01	"	12/05/01	"
6219	482924.26	1351276.03	"	668.20	668.14	+0.06	"	11/14/01	"
6220	482876.79	1351275.46	"	667.80	667.79	+0.01	"	12/5/01	"
6221	482981.25	1351335.07	"	662.74	662.74	0.00	"	11/14/01	"
6222	482876.08	1351333.79	"	661.95	661.95	0.00	"	12/05/01	"
6223	483270.69	1351490.12	"	Not Used	615.71	—	"	—	"
6224	483191.97	1351447.95	"	628.50	628.50	0.00	"	11/15/01	"
6225	483258.12	1351541.46	"	Not Used	615.96	—	"	—	"
6226	483183.87	1351486.11	"	628.57	628.51	+0.06	"	11/26/01	"
6227	483227.96	1351585.41	"	Not Used	615.97	—	"		"
6228	483161.80	1351518.28	"	628.61	628.51	+0.10	"	11/26/01	"
6229	483183.49	1351614.77	"	Not Used	615.94	—	"	—	"
6230	483129.11	1351539.56	"	628.55	628.52	+0.03	"	11/26/01	"
6231	483132.14	1351626.71	"	Not Used	615.60	—	"	—	"
6232	483090.76	1351548.72	"	628.54	628.53	+0.01	"	11/26/01	"
6233	482872.51	1351625.78	"	Not Used	613.28	—	"	—	"
6234	482873.51	1351544.07	N/A	626.00	625.90	+0.10	N/A	12/05/01	"

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6235	482883.73	1350708.20	***	606.69	606.67	+0.02	—	11/7/01	TOPDRAIN
6236	482883.72	1350709.23	**	606.87	606.84	+0.03	—	11/7/01	TOPGRAN
6237	482915.26	1350708.59	***	606.95	606.90	+0.05	—	11/7/01	TOPDRAIN
6238	482915.24	1350709.62	**	607.17	607.07	+0.10	—	11/7/01	TOPGRAN
6239	482965.26	1350709.20	***	607.28	607.26	+0.02	—	11/7/01	TOPDRAIN
6240	482965.24	1350710.23	**	607.47	607.43	+0.04	—	11/7/01	TOPGRAN
6241	483015.25	1350709.81	***	607.69	607.63	+0.06	—	11/7/01	TOPDRAIN
6242	483015.24	1350710.84	**	607.81	607.80	+0.01	—	11/7/01	TOPGRAN
6243	483065.25	1350710.42	***	608.07	608.00	+0.07	—	11/7/01	TOPDRAIN
6244	483065.23	1350711.45	**	608.27	608.17	+0.10	—	11/7/01	TOPGRAN
6245	483100.98	1350710.86	***	608.27	608.25	+0.02	—	11/7/01	TOPDRAIN
6246	483100.97	1350711.89	**	608.50	608.42	+0.08	—	11/7/01	TOPGRAN
6247	483126.17	1350706.26	***	608.14	608.05	+0.09	—	11/7/01	TOPDRAIN
6248	483125.78	1350707.22	**	608.25	608.22	+0.03	—	11/9/01	TOPGRAN
6249	483181.15	1350716.02	***	608.67	608.65	+0.02	—	11/9/01	TOPDRAIN
6250	483180.57	1350716.87	**	608.79	608.78	+0.01	—	11/9/01	TOPGRAN
6251	483227.08	1350747.19	***	609.50	609.46	+0.04	—	11/9/01	TOPDRAIN
6252	483226.35	1350747.91	**	609.68	609.58	+0.10	—	11/9/01	TOPGRAN
6253	483256.28	1350794.41	***	610.49	610.47	+0.02	—	11/9/01	TOPDRAIN
6254	483255.41	1350794.97	**	610.67	610.62	+0.05	—	11/9/01	TOPGRAN
6255	483262.03	1350850.42	***	611.93	611.92	+0.01	—	11/9/01	TOPDRAIN
6256	483261.07	1350850.79	**	612.10	612.07	+0.03	—	11/9/01	TOPGRAN
6257	483260.10	1350892.07	***	612.68	612.63	+0.05	—	11/9/01	TOPDRAIN
6258	483259.07	1350892.06	**	612.82	612.80	+0.02	—	11/9/01	TOPGRAN
6259	483259.54	1350938.02	***	613.10	613.09	+0.01	—	11/9/01	TOPDRAIN
6260	483258.51	1350938.00	**	613.29	613.26	+0.03	—	11/9/01	TOPGRAN
6261	483259.17	1350968.47	***	613.45	613.39	+0.06	—	11/9/01	TOPDRAIN
6262	483258.14	1350968.45	**	613.60	613.56	+0.04	—	11/9/01	TOPGRAN
6263	483258.56	1351018.46	***	613.99	613.89	+0.10	—	11/9/01	TOPDRAIN
6264	483257.53	1351018.44	**	614.09	614.06	+0.03	—	11/9/01	TOPGRAN
6265	483257.95	1351068.46	***	614.42	614.39	+0.03	—	11/9/01	TOPDRAIN
6266	483256.92	1351068.44	**	614.60	614.56	+0.04	—	11/9/01	TOPGRAN
6267	483257.33	1351118.46	***	614.98	614.89	+0.09	—	11/9/01	TOPDRAIN
6268	483256.30	1351118.44	**	615.12	615.06	+0.06	—	11/9/01	TOPGRAN
6269	483256.72	1351168.45	***	615.41	615.39	+0.02	—	11/9/01	TOPDRAIN
6270	483255.69	1351168.43	**	615.62	615.56	+0.06	—	11/9/01	TOPGRAN
6271	483256.11	1351218.45	***	615.92	615.89	+0.03	—	11/9/01	TOPDRAIN
6272	483255.08	1351218.43	**	616.10	616.06	+0.04	—	11/9/01	TOPGRAN
6273	483255.50	1351268.44	***	616.45	616.39	+0.06	—	11/9/01	TOPDRAIN
6274	483254.47	1351268.43	**	616.57	616.56	+0.01	—	11/12/01	TOPGRAN
6275	483254.89	1351318.44	***	616.95	616.89	+0.06	—	11/12/01	TOPDRAIN
6276	483253.86	1351318.42	**	617.11	617.06	+0.05	—	11/12/01	TOPGRAN
6277	483254.28	1351368.44	***	617.49	617.39	+0.10	—	11/12/01	TOPDRAIN

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6278	483253.25	1351368.42	**	617.60	617.56	+0.04	—	11/12/01	TOPGRAN
6279	483253.79	1351408.72	***	617.80	617.79	+0.01	—	11/12/01	TOPDRAIN
6280	483252.76	1351408.70	**	617.99	617.96	+0.03	—	11/12/01	TOPGRAN
6281	483253.30	1351448.70	***	618.29	618.19	+0.10	—	11/12/01	TOPDRAIN
6282	483252.27	1351448.69	*	618.38	618.36	+0.02	—	11/12/01	TOPGRAN
6283	483254.42	1351473.07	***	618.21	618.16	+0.05	—	11/12/01	TOPDRAIN
6284	483253.47	1351472.67	**	618.36	618.30	+0.06	—	11/12/01	TOPGRAN
6285	483247.29	1351528.91	***	617.59	617.55	+0.04	—	11/12/01	TOPDRAIN
6286	483246.44	1351528.34	**	617.71	617.70	+0.01	—	11/12/01	TOPGRAN
6287	483216.95	1351575.40	***	617.47	617.39	+0.08	—	11/12/01	TOPDRAIN
6288	483216.23	1351574.67	**	617.56	617.54	+0.02	—	11/12/01	TOPGRAN
6289	483169.73	1351604.60	***	617.59	617.56	+0.03	—	11/12/01	TOPDRAIN
6290	483169.17	1351603.73	**	617.73	617.71	+0.02	—	11/12/01	TOPGRAN
6291	483113.73	1351610.36	***	618.22	618.20	+0.02	—	11/12/01	TOPDRAIN
6292	483113.36	1351609.40	**	618.40	618.36	+0.04	—	11/15/01	TOPGRAN
6293	483090.00	1351608.65	***	618.25	618.22	+0.03	—	11/15/01	TOPDRAIN
6294	483090.01	1351607.62	**	618.45	618.36	+0.09	—	11/15/01	TOPGRAN
6295	483054.17	1351608.21	***	617.99	617.95	+0.04	—	11/15/01	TOPDRAIN
6296	483054.18	1351607.18	**	618.20	618.12	+0.08	—	11/15/01	TOPGRAN
6297	483004.17	1351607.58	***	617.60	617.57	+0.03	—	11/15/01	TOPDRAIN
6298	483004.18	1351606.55	**	617.81	617.74	+0.05	—	11/15/01	TOPGRAN
6299	482954.18	1351606.99	***	617.26	617.20	+0.06	—	11/15/01	TOPDRAIN
6300	482954.19	1351605.96	**	617.39	617.37	+0.02	—	11/15/01	TOPGRAN
6301	482904.17	1351606.38	***	616.83	616.82	+0.01	—	11/15/01	TOPDRAIN
6302	482904.19	1351605.35	**	617.04	616.99	+0.05	—	11/15/01	TOPGRAN
6303	482872.74	1351607.03	*	616.50	616.42	+0.08	—	11/15/01	TOPRIPRAP
6304	482872.75	1351606.00	***	616.60	616.59	+0.01	—	11/15/01	TOPDRAIN
6305	482872.76	1351604.97	**	616.74	616.76	-0.02	—	11/15/01	TOPGRAN
1007	482904.16	1351607.41	*	616.63	616.65	-0.02	1.53	10/08/01	TOPRIPRAP#1031
1010	482852.24	1351606.78	*	616.27	616.27	0.00	1.51	10/08/01	TOPRIPRAP#1005
1012	482852.01	1351625.53	*	—	613.14	—	—	—	TOPRIPRAP#1000
1014	482883.74	1350707.17	*	—	606.50	—	—	—	TOPRIPRAP
1046	483254.33	1351448.71	*	618.02	618.02	0.00	1.51	10/12/01	TOPRIPRAP
1048	483254.82	1351408.73	*	617.68	617.62	+0.06	1.50	10/12/01	TOPRIPRAP
1050	483255.31	1351368.45	*	617.37	617.22	+0.15	1.50	10/12/01	TOPRIPRAP
1059	483257.14	1351218.46	*	615.95	615.72	+0.23	1.56	10/17/01	TOPRIPRAP
1061	483257.75	1351168.46	*	615.24	615.22	+0.02	1.50	10/17/01	TOPRIPRAP
1063	483258.36	1351118.47	*	614.85	614.72	+0.13	1.63	10/17/01	TOPRIPRAP
1065	483258.98	1351068.47	*	614.36	614.22	+0.14	1.50	10/17/01	TOPRIPRAP
1067	483259.59	1351018.47	*	613.73	613.72	+0.01	1.52	10/17/01	TOPRIPRAP
1069	483260.20	1350968.48	*	613.34	613.22	+0.12	1.62	10/17/01	TOPRIPRAP
1071	483260.57	1350938.03	*	613.24	612.92	+0.32	1.73	10/17/01	TOPRIPRAP
1073	483261.13	1350892.08	*	612.49	612.46	+0.03	1.51	10/17/01	TOPRIPRAP

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1075	483262.99	1350850.05	*	612.02	611.78	+0.24	1.68	10/17/01	TOPRIPRAP
1077	483257.14	1350793.85	*	610.45	610.33	+0.12	1.52	12/20/01	TOPRIPRAP
1079	483227.82	1350746.47	*	609.36	609.34	+0.02	1.50	12/20/01	TOPRIPRAP
1081	483181.72	1350715.17	*	608.75	608.53	+0.22	1.63	12/20/01	TOPRIPRAP
1083	483126.57	1350705.31	*	608.04	607.88	+0.16	1.60	12/20/01	TOPRIPRAP
1085	483100.99	1350709.83	*	608.12	608.08	+0.04	1.50	12/20/01	TOPRIPRAP
1087	483065.26	1350709.39	*	607.89	607.83	+0.06	1.50	12/20/01	TOPRIPRAP
1089	483015.26	1350708.78	*	607.51	607.46	+0.05	1.50	12/20/01	TOPRIPRAP
1091	482965.27	1350708.17	*	607.36	607.09	+0.27	1.72	12/20/01	TOPRIPRAP
1093	482915.27	1350707.56	*	606.81	606.73	+0.08	1.50	12/20/01	TOPRIPRAP
1096	483256.53	1351268.45	*	616.51	616.22	+0.29	1.64	10/17/01	TOPRIPRAP#1057
1097	483255.92	1351318.45	*	616.81	616.72	+0.09	1.60	10/12/01	TOPRIPRAP#1055
1098	483255.38	1351473.47	*	618.05	618.03	+0.02	1.53	10/12/01	TOPRIPRAP#1045
1099	483248.15	1351529.49	*	617.40	617.40	0.00	1.50	10/12/01	TOPRIPRAP#1044
1100	483217.67	1351576.14	*	617.35	617.24	+0.11	1.60	10/12/01	TOPRIPRAP#1043
1101	483170.29	1351605.46	*	617.55	617.41	+0.14	1.52	10/08/01	TOPRIPRAP#1042
1102	483114.10	1351611.32	*	618.07	618.05	+0.02	1.71	10/08/01	TOPRIPRAP#1041
1103	483089.99	1351609.68	*	617.98	618.05	+0.07	1.71	10/08/01	TOPRIPRAP#1039
1104	483054.16	1351609.24	*	617.90	617.78	+0.12	1.63	10/08/01	TOPRIPRAP#1037
1105	483004.16	1351608.61	*	617.50	617.40	+0.10	1.54	10/08/01	TOPRIPRAP#1035
1106	482954.17	1351608.02	*	617.13	617.03	+0.10	1.56	10/08/01	TOPRIPRAP#1033
3180	483089.76	1351628.43	*	615.14	614.92	+0.22	1.53	12/20/01	TOPRIPRAP
3182	483120.87	1351628.81	*	615.09	614.92	+0.17	1.97	12/20/01	TOPRIPRAP
3184	483178.40	1351618.08	*	614.93	614.91	+0.02	1.55	10/17/01	TOPRIPRAP
3186	483227.45	1351586.16	*	614.94	614.91	+0.03	1.63	10/17/01	TOPRIPRAP
3188	483260.56	1351537.91	*	614.97	614.90	+0.07	1.57	10/17/01	TOPRIPRAP
3190	483272.69	1351480.66	*	615.15	614.90	+0.25	1.72	12/20/01	TOPRIPRAP
3192	483273.08	1351448.94	*	615.19	614.89	+0.30	1.76	12/20/01	TOPRIPRAP
3194	483279.88	1350892.31	*	609.63	609.33	+0.30	2.00	12/20/01	TOPRIPRAP
3196	483280.48	1350843.28	*	608.67	608.65	+0.02	1.61	10/17/01	TOPRIPRAP
3198	483269.76	1350785.74	*	607.92	607.83	+0.09	1.50	10/17/01	TOPRIPRAP
3200	483237.84	1350736.69	*	607.11	607.01	+0.10	1.51	10/17/01	TOPRIPRAP
3202	483189.58	1350703.58	*	606.22	606.20	+0.02	1.50	10/17/01	TOPRIPRAP
3203	483132.32	1350691.46	*	605.48	605.38	+0.10	1.51	12/20/01	TOPRIPRAP
3205	483101.22	1350691.08	*	604.97	604.95	+0.03	1.65	12/20/01	TOPRIPRAP
3214	482915.50	1350688.81	*	603.83	603.60	+0.26	1.89	12/20/01	TOPRIPRAP
3216	482965.50	1350689.42	*	604.16	603.96	+0.20	1.71	12/20/01	TOPRIPRAP
3218	483015.49	1350690.03	*	604.37	604.33	+0.04	1.72	12/20/01	TOPRIPRAP
3220	483065.49	1350690.64	*	604.88	604.70	+0.18	1.67	12/20/01	TOPRIPRAP
3221	483279.32	1350938.26	*	609.81	609.79	+0.02	1.68	10/17/01	TOPRIPRAP
3223	483278.95	1350968.71	*	610.40	610.09	+0.31	2.27	12/20/01	TOPRIPRAP
3225	483278.34	1351018.70	*	610.81	610.59	+0.22	1.81	12/20/01	TOPRIPRAP
3227	483277.73	1351068.70	*	611.22	611.09	+0.13	1.69	12/20/01	TOPRIPRAP

4555

David E. Estes Engineering, Inc.

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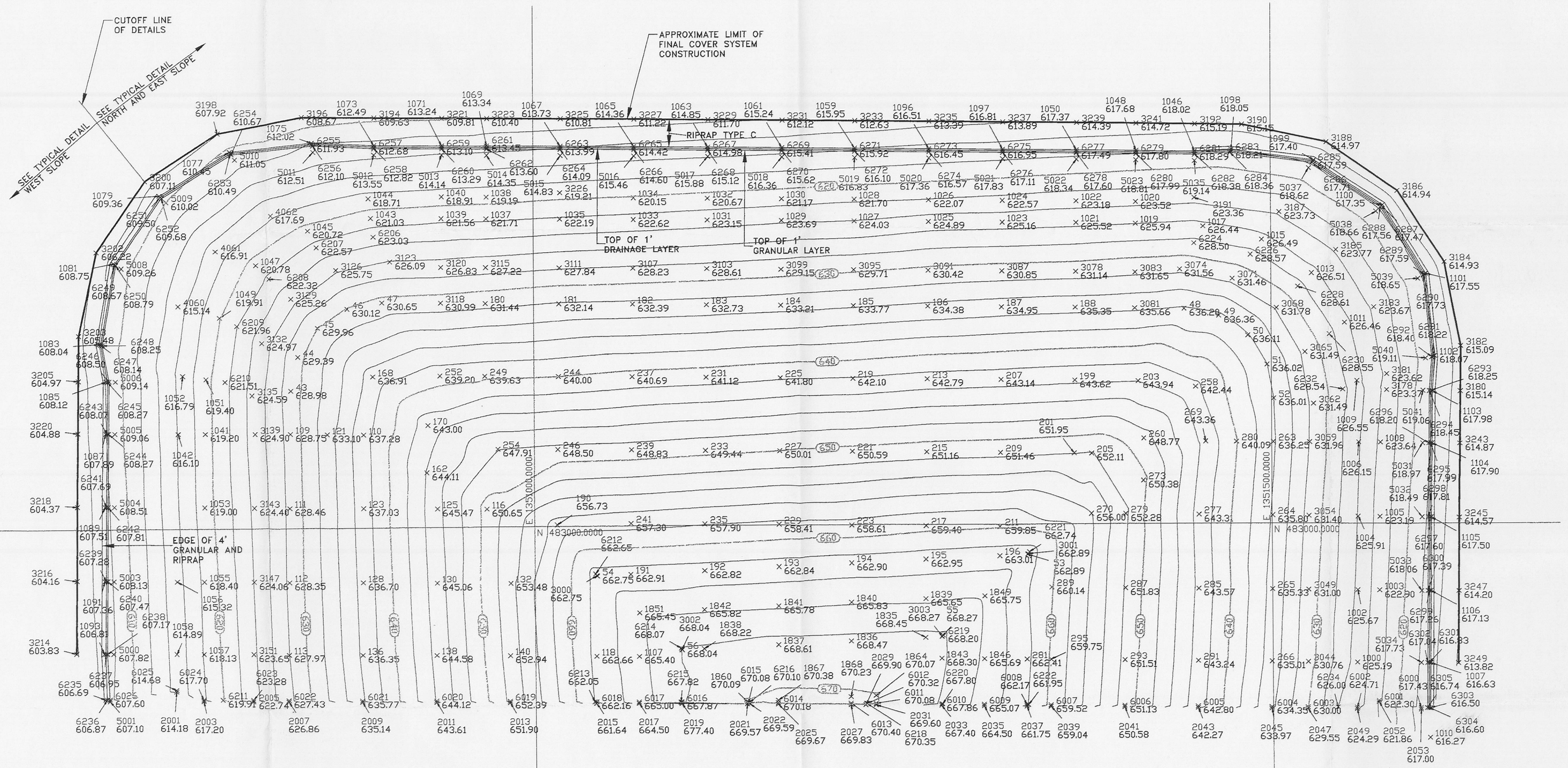
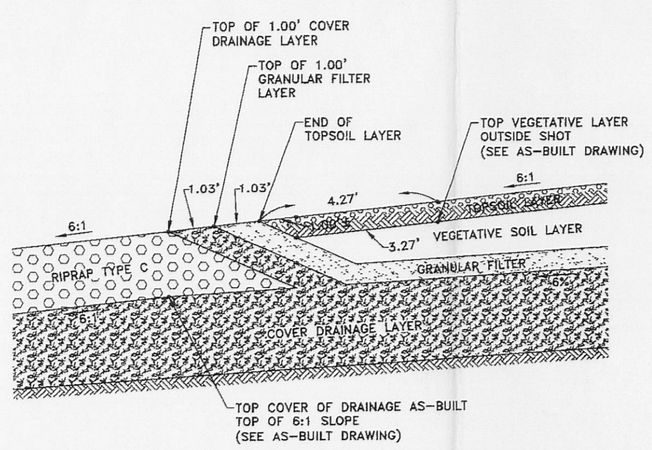
STATE OF OHIO
LYNN E. HIRSCH
S-5738
REGISTERED SURVEYOR

DATE
CREW
* = OUT OF TOLERANCE

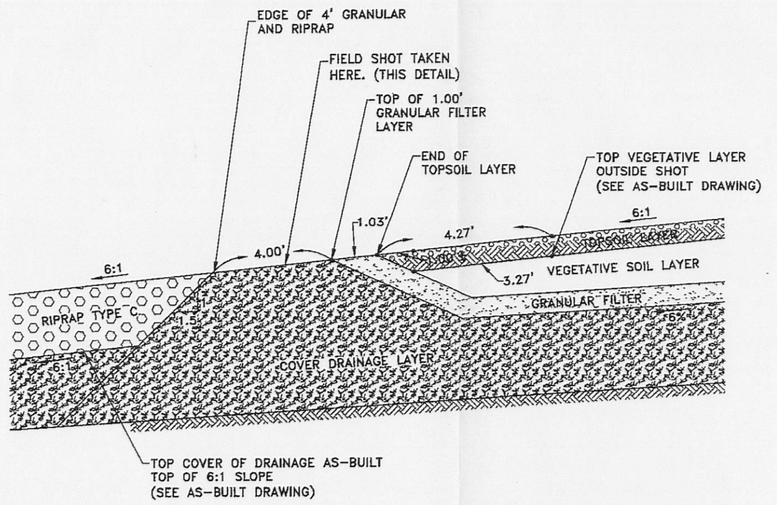
COVER TOPSOIL LAYER AS-BUILT

P.T.#	NORTHING	EASTING	SEE LEGEND	AS-BUILT LAYER ELEV.	PROP. TOPSOIL LAYER ELEV.	DIFF. IN ELEV.	COV. TOPSOIL LAYER THICK.	DATE	DESCRIPTION
3229	483277.11	1351118.70	*	611.70	611.59	+0.11	1.76	12/20/01	TOPRIPRAP
3231	483276.50	1351168.69	*	612.12	612.09	+0.03	1.66	12/20/01	TOPRIPRAP
3233	483275.89	1351218.69	*	612.63	612.59	+0.04	1.63	12/20/01	TOPRIPRAP
3235	483275.28	1351268.68	*	613.39	613.09	+0.30	1.80	12/20/01	TOPRIPRAP
3237	483274.67	1351318.68	*	613.89	613.59	+0.30	1.74	12/20/01	TOPRIPRAP
3239	483274.06	1351368.68	*	614.39	614.09	+0.30	1.71	12/20/01	TOPRIPRAP
3241	483273.57	1351408.96	*	614.72	614.49	+0.23	1.94	12/20/01	TOPRIPRAP
3243	483053.93	1351627.99	*	614.87	614.65	+0.22	1.70	12/20/01	TOPRIPRAP
3245	483003.93	1351627.38	*	614.57	614.27	+0.30	1.61	12/20/01	TOPRIPRAP
3247	482953.94	1351626.77	*	614.20	613.90	+0.30	1.82	12/20/01	TOPRIPRAP
3249	482903.93	1351626.16	*	613.82	613.52	+0.30	1.91	12/20/01	TOPRIPRAP





TYPICAL DETAIL
AS-BUILT TIE IN
EAST & NORTH SLOPES
(NOT TO SCALE)



TYPICAL DETAIL
AS-BUILT TIE IN
WEST SLOPE
(NOT TO SCALE)

LEGEND:

× 2100 619.21 = ELEVATION AND POINT NUMBER OF CERTIFIED POINT

——— = INDEX CONTOUR AS-BUILT

——— = INTERMEDIATE CONTOUR AS-BUILT

CONTOUR INTERVAL = 2'

40 20 0 40 80 120

SCALE: 1"=40'

000221

STATE OF OHIO
LYNN E. HIRSCH
S-5738
SURVEYOR
Lynn Edward Hirsch
12-28-2001

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Designed By:	
Drawn By:	F.A.M.
Checked By:	L.E.H.
Approved By:	L.E.H.

REVISIONS:

THE IT GROUP
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
OSDF CELL 1

AS-BUILT TOP OF TOPSOIL LAYER

Scale:	1" = 40'
Date:	12-28-2001
Sheet No.	1 OF 3
Project No.	201-159

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POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
43	483093.26	1350835.11	628.98	"PT5000topsoil""
44	483116.63	1350840.02	629.39	"PT5001topsoil""
45	483136.32	1350853.50	629.96	"PT5002topsoil""
46	483149.35	1350873.49	630.12	"PT5003topsoil""
47	483153.73	1350896.96	630.65	"PT5004topsoil""
48	483147.14	1351441.21	636.20	"PT5005topsoil""
49	483142.18	1351464.58	636.36	"PT5006topsoil""
50	483128.65	1351484.26	636.11	"PT5007topsoil""
51	483108.62	1351497.24	636.02	"PT5008topsoil""
52	483085.12	1351501.56	636.01	"PT5009topsoil""
53	482979.65	1351333.90	662.89	"PT5010topsoil""
54	482966.48	1351042.10	662.75	"PT5011topsoil""
55	482923.15	1351275.37	668.27	"PT5012topsoil""
56	482915.20	1351099.31	668.04	"PT5013topsoil""
109	483063.71	1350834.75	628.75	"topsoil"
110	483063.10	1350884.36	637.28	"topsoil"
111	483013.71	1350834.14	628.46	"topsoil"
112	482963.72	1350833.53	628.35	"topsoil"
113	482913.72	1350832.92	627.97	"topsoil"
116	483012.06	1350967.68	650.65	"topsoil"
118	482911.14	1351041.42	662.66	"topsoil"
121	483063.40	1350859.75	633.10	"topsoil"
123	483013.10	1350884.14	637.03	"topsoil"
125	483012.48	1350934.13	645.47	"topsoil"
128	482963.10	1350883.52	636.70	"topsoil"
130	482962.48	1350933.52	645.06	"topsoil"
132	482961.86	1350983.52	653.48	"topsoil"
136	482913.10	1350882.91	636.35	"topsoil"
138	482912.49	1350932.91	644.58	"topsoil"
140	482911.87	1350982.91	652.94	"topsoil"
162	483036.98	1350926.99	644.11	"topsoil"
168	483102.86	1350890.65	636.91	"topsoil"
170	483069.40	1350927.81	643.00	"topsoil"
180	483152.88	1350967.15	631.44	"topsoil"
181	483152.27	1351017.14	632.14	"topsoil"
182	483151.67	1351067.14	632.39	"topsoil"
183	483151.06	1351117.14	632.73	"topsoil"
184	483150.46	1351167.13	633.21	"topsoil"
185	483149.85	1351217.13	633.77	"topsoil"
186	483149.25	1351267.13	634.38	"topsoil"
187	483148.64	1351317.12	634.95	"topsoil"
188	483148.04	1351367.12	635.35	"topsoil"
190	483001.09	1351015.28	656.73	"topsoil"
191	482967.51	1351064.87	662.91	"topsoil"
192	482969.77	1351114.90	662.82	"topsoil"
193	482972.02	1351164.93	662.84	"topsoil"
194	482974.28	1351214.96	662.90	"topsoil"
195	482976.54	1351264.99	662.95	"topsoil"
196	482978.80	1351315.02	663.01	"topsoil"
199	483098.04	1351366.50	643.62	"topsoil"
201	483048.04	1351365.88	651.95	"topsoil"
203	483097.52	1351409.42	643.94	"topsoil"
205	483047.90	1351377.63	652.11	"topsoil"
207	483098.65	1351316.50	643.14	"topsoil"
209	483048.65	1351315.89	651.46	"topsoil"
211	482998.65	1351315.27	659.85	"topsoil"
213	483099.25	1351266.51	642.79	"topsoil"
215	483049.26	1351265.89	651.16	"topsoil"
217	482999.26	1351265.27	659.40	"topsoil"
219	483099.86	1351216.51	642.10	"topsoil"
221	483049.86	1351215.89	650.59	"topsoil"
223	482999.86	1351215.28	658.61	"topsoil"
225	483100.46	1351166.52	641.80	"topsoil"
227	483050.47	1351165.90	650.01	"topsoil"
229	483000.47	1351165.28	658.41	"topsoil"
231	483101.07	1351116.52	641.12	"topsoil"
233	483051.07	1351115.90	649.44	"topsoil"

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
235	483001.08	1351115.28	657.90	"topsoil"
237	483101.67	1351066.52	640.69	"topsoil"
239	483051.68	1351065.91	648.83	"topsoil"
241	483001.68	1351065.29	657.30	"topsoil"
244	483102.28	1351016.53	640.00	"topsoil"
246	483052.28	1351015.91	648.50	"topsoil"
249	483102.88	1350966.53	639.63	"topsoil"
252	483103.25	1350936.09	639.20	"topsoil"
254	483052.78	1350975.21	647.91	"topsoil"
258	483093.46	1351448.74	642.44	"topsoil"
260	483058.26	1351413.23	648.77	"topsoil"
263	483055.47	1351501.20	636.25	"topsoil"
264	483005.47	1351500.59	635.80	"topsoil"
265	482955.48	1351499.98	635.33	"topsoil"
266	482905.48	1351499.37	635.01	"topsoil"
269	483056.02	1351455.31	643.36	"topsoil"
270	483006.96	1351377.32	656.00	"topsoil"
273	483029.40	1351412.98	650.38	"topsoil"
277	483006.08	1351450.59	643.31	"topsoil"
279	483006.68	1351400.59	652.28	"topsoil"
280	483055.77	1351476.20	640.09	"topsoil"
281	482907.49	1351333.02	662.41	"topsoil"
285	482956.08	1351449.98	643.57	"topsoil"
287	482956.69	1351399.98	651.83	"topsoil"
289	482957.29	1351349.99	660.14	"topsoil"
291	482906.08	1351449.37	643.24	"topsoil"
293	482906.69	1351399.37	651.51	"topsoil"
295	482907.30	1351349.38	659.75	"topsoil"
1000	482904.77	1351557.45	625.19	"topsoil"
1002	482954.78	1351558.06	625.67	"topsoil"
1003	482954.60	1351572.85	622.90	TOPSOIL
1004	483004.77	1351558.67	625.91	"topsoil"
1005	483004.60	1351573.46	623.19	TOPSOIL
1006	483054.76	1351559.28	626.15	"topsoil"
1008	483054.58	1351574.07	623.64	TOPSOIL
1009	483096.77	1351558.25	626.55	"topsoil"
1011	483136.76	1351550.10	626.46	"topsoil"
1013	483170.96	1351527.55	626.51	"topsoil"
1015	483194.31	1351493.89	626.49	"topsoil"
1017	483203.43	1351454.10	626.44	"topsoil"
1019	483205.46	1351408.11	625.94	"topsoil"
1020	483220.25	1351408.29	623.52	TOPSOIL""
1021	483205.95	1351367.83	625.52	"topsoil"
1022	483220.74	1351368.01	623.18	TOPSOIL""
1023	483206.56	1351317.84	625.16	"topsoil"
1024	483221.35	1351318.01	622.57	TOPSOIL""
1025	483207.18	1351267.84	624.89	"topsoil"
1026	483221.96	1351268.02	622.07	TOPSOIL""
1027	483207.79	1351217.85	624.03	"topsoil"
1028	483222.57	1351218.02	621.70	TOPSOIL""
1029	483208.40	1351167.85	623.69	"topsoil"
1030	483223.19	1351168.02	621.17	TOPSOIL""
1031	483209.01	1351117.85	623.15	"topsoil"
1032	483223.80	1351118.03	620.67	TOPSOIL""
1033	483209.62	1351067.86	622.62	"topsoil"
1034	483224.41	1351068.03	620.15	TOPSOIL""
1035	483210.23	1351017.86	622.19	"topsoiL"
1037	483210.85	1350967.86	621.71	"topsoil"
1038	483225.64	1350968.04	619.19	TOPSOIL""
1039	483211.22	1350937.42	621.56	"topsoil"
1040	483226.01	1350937.60	618.91	TOPSOIL""
1041	483064.43	1350776.66	619.20	"topsoil"
1042	483064.67	1350758.41	616.10	TOPSOIL""
1043	483211.68	1350889.71	621.03	"topsoil"
1044	483225.07	1350888.03	618.71	TOPSOIL
1045	483203.30	1350847.17	620.72	"topsoil"
1047	483179.64	1350811.19	620.78	"topsoil"

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
1049	483144.12	1350786.64	619.91	"topsoil"
1051	483101.94	1350777.24	619.40	"topsoil"
1052	483104.28	1350761.61	616.79	TOPSOIL""
1053	483014.43	1350776.05	619.00	"topsoil"
1055	482964.43	1350775.44	618.40	"topsoil"
1056	482964.65	1350757.19	615.32	TOPSOIL""
1057	482914.44	1350774.83	618.13	"topsoil"
1058	482914.68	1350756.58	614.89	TOPSOIL""
1107	482910.78	1351070.33	665.40	"topsoil"
1835	482922.65	1351264.33	668.45	"topsoil"
1836	482920.39	1351214.29	668.47	"topsoil"
1837	482918.13	1351164.26	668.61	"topsoil"
1838	482915.87	1351114.23	668.22	"topsoil"
1839	482949.60	1351264.66	665.65	"topsoil"
1840	482947.34	1351214.63	665.83	"topsoil"
1841	482945.08	1351164.60	665.78	"topsoil"
1842	482942.82	1351114.56	665.82	"topsoil"
1843	482908.19	1351275.19	668.30	"topsoil"
1846	482907.84	1351304.10	665.69	"topsoil"
1849	482951.40	1351304.63	665.75	"topsoil"
1851	482940.84	1351070.70	665.45	"topsoil"
1860	482878.87	1351142.85	670.09	"topsoil"
1864	482882.84	1351230.88	670.07	"topsoil"
1867	482879.82	1351163.79	670.38	"topsoil"
1868	482882.07	1351213.82	670.23	"topsoil"
2001	482888.64	1350756.26	614.18	TOE2:1TOPSOIL
2003	482881.92	1350774.43	617.20	TOE2:1TOPSOIL
2005	482881.51	1350807.93	622.74	TOE2:1TOPSOIL
2007	482881.21	1350832.52	626.86	TOE2:1TOPSOIL
2009	482880.60	1350882.51	635.14	TOE2:1TOPSOIL
2011	482879.98	1350932.51	643.61	TOE2:1TOPSOIL
2013	482879.37	1350982.51	651.90	TOE2:1TOPSOIL
2015	482878.66	1351041.02	661.64	TOE2:1TOPSOIL
2017	482878.30	1351069.93	664.50	TOE2:1TOPSOIL
2019	482877.95	1351098.85	677.40	TOE2:1TOPSOIL
2021	482877.41	1351142.83	669.57	TOE2:1TOPSOIL
2022	482877.39	1351144.62	669.59	TOE2:1TOPSOIL
2025	482877.16	1351163.76	669.67	TOE2:1TOPSOIL
2027	482876.55	1351213.75	669.83	TOE2:1TOPSOIL
2029	482876.42	1351223.80	669.90	TOE2:1TOPSOIL
2031	482876.34	1351230.80	669.60	TOE2:1TOPSOIL
2033	482875.80	1351274.80	667.40	TOE2:1TOPSOIL
2035	482875.45	1351303.71	664.50	TOE2:1TOPSOIL
2037	482875.09	1351332.62	661.75	TOE2:1TOPSOIL
2039	482874.89	1351348.98	659.04	TOE2:1TOPSOIL
2041	482874.28	1351398.97	650.58	TOE2:1TOPSOIL
2043	482873.67	1351448.97	642.27	TOE2:1TOPSOIL
2045	482873.06	1351498.97	633.97	TOE2:1TOPSOIL
2047	482872.76	1351523.55	629.55	TOE2:1TOPSOIL
2049	482872.35	1351557.05	624.29	TOE2:1TOPSOIL
2052	482877.19	1351571.90	621.86	TOE2:1TOPSOIL
2053	482871.81	1351600.68	617.00	TOE2:1TOPSOIL
3000	482966.77	1351041.80	662.75	"PT10000topsoil""
3001	482979.97	1351334.20	662.89	"PT10001topsoil""
3002	482915.32	1351099.16	668.04	"PT10002topsoil""
3003	482923.29	1351275.52	668.27	"PT10003topsoil""
3044	482905.18	1351523.95	630.76	"topsoilveg#3044"
3049	482955.18	1351524.56	631.00	"topsoil"
3054	483005.17	1351525.17	631.40	"topsoil"
3059	483055.17	1351525.78	631.96	"topsoil"
3062	483081.28	1351528.54	631.49	"topsoil"
3065	483117.07	1351522.99	631.49	"topsoil"
3068	483147.41	1351503.72	631.78	"topsoil"
3071	483167.45	1351473.87	631.46	"topsoil"
3074	483173.91	1351438.26	631.56	"topsoil"
3078	483172.45	1351367.42	631.14	"topsoil"
3081	483147.55	1351407.40	635.66	"topsoil"

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
3083	483171.96	1351407.70	631.65	"topsoil"
3087	483173.07	1351317.42	630.85	"topsoil"
3091	483173.68	1351267.43	630.42	"topsoil"
3095	483174.29	1351217.43	629.71	"topsoil"
3099	483174.90	1351167.44	629.15	"topsoil"
3103	483175.51	1351117.44	628.61	"topsoil"
3107	483176.12	1351067.44	628.23	"topsoil"
3111	483176.74	1351017.45	627.84	"topsoil"
3115	483177.35	1350967.45	627.22	"topsoil"
3118	483153.25	1350936.70	630.99	"topsoil"
3120	483177.72	1350937.01	626.83	"topsoil"
3123	483181.58	1350902.48	626.09	"topsoil"
3126	483175.92	1350866.06	625.75	"topsoil"
3129	483156.47	1350835.36	625.26	"topsoil"
3132	483126.37	1350814.97	624.97	"topsoil"
3135	483090.42	1350808.22	624.59	"topsoil"
3139	483064.01	1350810.16	624.90	"topsoil"
3143	483014.02	1350809.55	624.40	"topsoil"
3147	482964.02	1350808.94	624.06	"topsoil"
3151	482914.02	1350808.33	623.65	"topsoil"
3178	483090.37	1351578.34	623.37	TOPSOIL""
3181	483101.39	1351578.48	623.62	TOPSOIL""
3183	483147.42	1351569.91	623.67	TOPSOIL""
3185	483186.67	1351544.37	623.77	TOPSOIL""
3187	483213.15	1351505.76	623.73	TOPSOIL""
3191	483222.99	1351448.33	623.36	TOPSOIL""
3226	483228.25	1351018.08	619.21	TOPSOIL""
4060	483152.20	1350758.71	615.14	TOPSOIL""
4061	483189.37	1350784.00	616.91	TOPSOIL""
4062	483213.73	1350821.77	617.69	TOPSOIL""
5000	482915.19	1350713.89	607.82	ENDTOPSOIL
5001	482882.69	1350711.24	607.10	ENDTOPSOIL
5003	482965.19	1350714.50	608.13	ENDTOPSOIL
5004	483015.18	1350715.11	608.51	ENDTOPSOIL
5005	483065.18	1350715.72	609.06	ENDTOPSOIL
5006	483100.91	1350716.16	609.14	ENDTOPSOIL
5008	483178.27	1350720.47	609.26	ENDTOPSOIL
5009	483223.42	1350751.00	610.02	ENDTOPSOIL
5010	483251.82	1350797.27	611.05	ENDTOPSOIL
5011	483256.75	1350850.95	612.51	ENDTOPSOIL
5012	483254.80	1350892.00	613.55	ENDTOPSOIL
5013	483254.24	1350937.95	614.14	ENDTOPSOIL
5014	483253.87	1350968.40	614.35	ENDTOPSOIL
5015	483253.26	1351018.39	614.83	ENDTOPSOIL
5016	483252.65	1351068.39	615.46	ENDTOPSOIL
5017	483252.03	1351118.39	615.88	ENDTOPSOIL
5018	483251.42	1351168.38	616.36	ENDTOPSOIL
5019	483250.81	1351218.38	616.83	ENDTOPSOIL
5020	483250.20	1351268.37	617.36	ENDTOPSOIL
5021	483249.59	1351318.37	617.83	ENDTOPSOIL
5022	483248.98	1351368.37	618.34	ENDTOPSOIL
5023	483248.49	1351408.65	618.81	ENDTOPSOIL
5031	483054.24	1351602.91	618.97	ENDTOPSOIL
5032	483004.24	1351602.30	618.49	ENDTOPSOIL
5033	482954.25	1351601.69	618.06	ENDTOPSOIL
5034	482904.24	1351601.08	617.73	ENDTOPSOIL
5035	483248.00	1351448.63	619.14	ENDTOPSOIL
5037	483242.90	1351525.95	618.62	ENDTOPSOIL
5038	483213.26	1351571.60	618.66	ENDTOPSOIL
5039	483166.89	1351600.12	618.65	ENDTOPSOIL
5040	483112.40	1351605.22	619.11	ENDTOPSOIL
5041	483090.07	1351603.35	619.06	ENDTOPSOIL
6000	482872.81	1351600.70	617.43	TOP2:1TOPSOIL
6001	482878.19	1351571.92	622.30	TOP2:1TOPSOIL
6002	482873.35	1351557.07	624.71	TOP2:1TOPSOIL
6003	482873.76	1351523.57	630.00	TOP2:1TOPSOIL
6004	482874.06	1351498.99	634.35	TOP2:1TOPSOIL

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NOTE:

NORTHING AND EASTING COORDINATES LISTED ON THESE DRAWINGS MAY BE +/- 0.01' DIFFERENT THAN THOSE LISTED FOR THE SAME POINT ON THE TABLE DUE TO TO ROUNDING OF SURVEY DATA.

STATE OF OHIO
LYNN E. HIRSCH
S-5738
SURVEYOR
Lynn Edward Hirsch
12-28-2001

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Designed By:
Drawn By: F.A.M.
Checked By: L.E.H.
Approved By: L.E.H.

REVISIONS:

THE IT GROUP
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
OSDF CELL 1

AS-BUILT TOP OF TOPSOIL LAYER

Scale:
Date: 12-28-2001
Sheet No. 2 OF 3
Project No. 201-159

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POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
6005	482874.67	1351448.99	642.80	TOP2:1TOPSOIL
6006	482875.28	1351398.99	651.13	TOP2:1TOPSOIL
6007	482875.89	1351349.00	659.52	TOP2:1TOPSOIL
6008	482876.09	1351332.64	662.17	TOP2:1TOPSOIL
6009	482876.45	1351303.72	665.07	TOP2:1TOPSOIL
6010	482876.80	1351274.81	667.86	TOP2:1TOPSOIL
6011	482877.34	1351230.81	670.08	TOP2:1TOPSOIL
6012	482877.41	1351224.89	670.32	TOP2:1TOPSOIL
6013	482877.55	1351213.76	670.40	TOP2:1TOPSOIL
6014	482878.16	1351163.77	670.18	TOP2:1TOPSOIL
6015	482878.41	1351143.41	670.08	TOP2:1TOPSOIL
6016	482878.95	1351098.86	667.87	TOP2:1TOPSOIL
6017	482879.30	1351069.94	665.00	TOP2:1TOPSOIL
6018	482879.66	1351041.03	662.16	TOP2:1TOPSOIL
6019	482880.37	1350982.53	652.39	TOP2:1TOPSOIL
6020	482880.98	1350932.53	644.12	TOP2:1TOPSOIL
6021	482881.60	1350882.53	635.77	TOP2:1TOPSOIL
6022	482882.21	1350832.54	627.43	TOP2:1TOPSOIL
6023	482882.51	1350807.95	623.28	TOP2:1TOPSOIL
6024	482882.92	1350774.45	617.70	TOP2:1TOPSOIL
6025	482889.64	1350756.28	614.68	TOP2:1TOPSOIL
6026	482883.69	1350711.32	607.60	TOP2:1TOPSOIL
6206	483198.78	1350891.32	623.03	PROP. FINAL COVER GRADING PLAN#
6207	483191.61	1350852.97	622.57	PROP. FINAL COVER GRADING PLAN#
6208	483170.33	1350820.28	622.32	PROP. FINAL COVER GRADING PLAN#
6209	483138.17	1350798.20	621.96	PROP. FINAL COVER GRADING PLAN#
6210	483100.01	1350790.10	621.51	PROP. FINAL COVER GRADING PLAN#
6211	482882.76	1350787.45	619.91	PROP. FINAL COVER GRADING PLAN#
6212	482967.97	1351040.96	662.65	PROP. FINAL COVER GRADING PLAN#
6213	482879.67	1351039.88	662.05	PROP. FINAL COVER GRADING PLAN#
6214	482916.25	1351098.67	668.07	PROP. FINAL COVER GRADING PLAN#
6215	482878.96	1351098.22	667.82	PROP. FINAL COVER GRADING PLAN#
6216	482878.40	1351144.04	670.10	PROP. FINAL COVER GRADING PLAN#
6218	482877.42	1351224.34	670.35	PROP. FINAL COVER GRADING PLAN#
6219	482924.26	1351276.03	668.20	PROP. FINAL COVER GRADING PLAN#
6220	482876.79	1351275.46	667.80	PROP. FINAL COVER GRADING PLAN#
6221	482981.25	1351335.07	662.74	PROP. FINAL COVER GRADING PLAN#
6222	482876.08	1351333.79	661.95	PROP. FINAL COVER GRADING PLAN#
6224	483191.97	1351447.95	628.50	PROP. FINAL COVER GRADING PLAN#
6226	483183.87	1351486.11	628.57	PROP. FINAL COVER GRADING PLAN#
6228	483161.80	1351518.28	628.61	PROP. FINAL COVER GRADING PLAN#
6230	483129.11	1351539.56	628.55	PROP. FINAL COVER GRADING PLAN#
6232	483090.76	1351548.72	628.54	PROP. FINAL COVER GRADING PLAN#
6234	482873.51	1351544.07	626.00	PROP. FINAL COVER GRADING PLAN#
6235	482883.73	1350708.20	606.69	TOPDRAIN
6236	482883.72	1350709.23	606.87	TOPGRAN
6237	482915.26	1350708.59	606.95	TOPDRAIN
6238	482915.24	1350709.62	607.17	TOPGRAN
6239	482965.26	1350709.20	607.28	TOPDRAIN
6240	482965.24	1350710.23	607.47	TOPGRAN
6241	483015.25	1350709.81	607.69	TOPDRAIN
6242	483015.24	1350710.84	607.81	TOPGRAN
6243	483065.25	1350710.42	608.07	TOPDRAIN
6244	483065.23	1350711.45	608.27	TOPGRAN
6245	483100.98	1350710.86	608.27	TOPDRAIN
6246	483100.97	1350711.89	608.50	TOPGRAN
6247	483126.17	1350706.26	608.14	TOPDRAIN
6248	483125.78	1350707.22	608.25	TOPGRAN
6249	483181.15	1350716.02	608.67	TOPDRAIN
6250	483180.57	1350716.87	608.79	TOPGRAN
6251	483227.08	1350747.19	609.50	TOPDRAIN
6252	483226.35	1350747.91	609.68	TOPGRAN
6253	483256.28	1350794.41	610.49	TOPDRAIN
6254	483255.41	1350794.97	610.67	TOPGRAN
6255	483262.03	1350850.42	611.93	TOPDRAIN
6256	483261.07	1350850.79	612.10	TOPGRAN
6257	483260.10	1350892.07	612.68	TOPDRAIN

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
6258	483259.07	1350892.06	612.82	TOPGRAN
6259	483259.54	1350938.02	613.10	TOPDRAIN
6260	483258.51	1350938.00	613.29	TOPGRAN
6261	483259.17	1350968.47	613.45	TOPDRAIN
6262	483258.14	1350968.45	613.60	TOPGRAN
6263	483258.56	1351018.46	613.99	TOPDRAIN
6264	483257.53	1351018.44	614.09	TOPGRAN
6265	483257.95	1351068.46	614.42	TOPDRAIN
6266	483256.92	1351068.44	614.60	TOPGRAN
6267	483257.33	1351118.46	614.98	TOPDRAIN
6268	483256.30	1351118.44	615.12	TOPGRAN
6269	483256.72	1351168.45	615.41	TOPDRAIN
6270	483255.69	1351168.43	615.62	TOPGRAN
6271	483256.11	1351218.45	615.92	TOPDRAIN
6272	483255.08	1351218.43	616.10	TOPGRAN
6273	483255.50	1351268.44	616.45	TOPDRAIN
6274	483254.47	1351268.43	616.57	TOPGRAN
6275	483254.89	1351318.44	616.95	TOPDRAIN
6276	483253.86	1351318.42	617.11	TOPGRAN
6277	483254.28	1351368.44	617.49	TOPDRAIN
6278	483253.25	1351368.42	617.60	TOPGRAN
6279	483253.79	1351408.72	617.80	TOPDRAIN
6280	483252.76	1351408.70	617.99	TOPGRAN
6281	483253.30	1351448.70	618.29	TOPDRAIN
6282	483252.27	1351448.69	618.38	TOPGRAN
6283	483254.42	1351473.07	618.21	TOPDRAIN
6284	483253.47	1351472.67	618.36	TOPGRAN
6285	483247.29	1351528.91	617.59	TOPDRAIN
6286	483246.44	1351528.34	617.71	TOPGRAN
6287	483216.95	1351575.40	617.47	TOPDRAIN
6288	483216.23	1351574.67	617.56	TOPGRAN
6289	483169.73	1351604.60	617.59	TOPDRAIN
6290	483169.17	1351603.73	617.73	TOPGRAN
6291	483113.73	1351610.36	618.22	TOPDRAIN
6292	483113.36	1351609.40	618.40	TOPGRAN
6293	483090.00	1351608.65	618.25	TOPDRAIN
6294	483090.01	1351607.62	618.45	TOPGRAN
6295	483054.17	1351608.21	617.99	TOPDRAIN
6296	483054.18	1351607.18	618.20	TOPGRAN
6297	483004.17	1351607.58	617.60	TOPDRAIN
6298	483004.18	1351606.55	617.81	TOPGRAN
6299	482954.18	1351606.99	617.26	TOPDRAIN
6300	482954.19	1351605.96	617.39	TOPGRAN
6301	482904.17	1351606.38	616.83	TOPDRAIN
6302	482904.19	1351605.35	617.04	TOPGRAN
6303	482872.74	1351607.03	616.50	TOPRIPRAP
6304	482872.75	1351606.00	616.60	TOPDRAIN
6305	482872.76	1351604.97	616.74	TOPGRAN
1007	482904.16	1351607.41	616.63	TOPRIPRAP#1031
1010	482852.24	1351606.78	616.27	TOPRIPRAP#1005
1046	483254.33	1351448.71	618.02	TOPRIPRAP
1048	483254.82	1351408.73	617.68	TOPRIPRAP
1050	483255.31	1351368.45	617.37	TOPRIPRAP
1059	483257.14	1351218.46	615.95	TOPRIPRAP
1061	483257.75	1351168.46	615.24	TOPRIPRAP
1063	483258.36	1351118.47	614.85	TOPRIPRAP
1065	483258.98	1351068.47	614.36	TOPRIPRAP
1067	483259.59	1351018.47	613.73	TOPRIPRAP
1069	483260.20	1350968.48	613.34	TOPRIPRAP
1071	483260.57	1350938.03	613.24	TOPRIPRAP
1073	483261.13	1350892.08	612.49	TOPRIPRAP
1075	483262.99	1350850.05	612.02	TOPRIPRAP
1077	483257.14	1350793.85	610.45	TOPRIPRAP
1079	483227.82	1350746.47	609.36	TOPRIPRAP
1081	483181.72	1350715.17	608.75	TOPRIPRAP
1083	483126.57	1350705.31	608.04	TOPRIPRAP
1085	483100.99	1350709.83	608.12	TOPRIPRAP

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
1087	483065.26	1350709.39	607.89	TOPRIPRAP
1089	483015.26	1350708.78	607.51	TOPRIPRAP
1091	482965.27	1350708.17	607.36	TOPRIPRAP
1093	482915.27	1350707.56	606.81	TOPRIPRAP
1096	483256.53	1351268.45	616.51	TOPRIPRAP#1057
1097	483255.92	1351318.45	616.81	TOPRIPRAP#1055
1098	483255.38	1351473.47	618.05	TOPRIPRAP#1045
1099	483248.15	1351529.49	617.40	TOPRIPRAP#1044
1100	483217.67	1351576.14	617.35	TOPRIPRAP#1043
1101	483170.29	1351605.46	617.55	TOPRIPRAP#1042
1102	483114.10	1351611.32	618.07	TOPRIPRAP#1041
1103	483089.99	1351609.68	617.98	TOPRIPRAP#1039
1104	483054.16	1351609.24	617.90	TOPRIPRAP#1037
1105	483004.16	1351608.61	617.50	TOPRIPRAP#1035
1106	482954.17	1351608.02	617.13	TOPRIPRAP#1033
3180	483089.76	1351628.43	615.14	TOPRIPRAP
3182	483120.87	1351628.81	615.09	TOPRIPRAP
3184	483178.40	1351618.08	614.93	TOPRIPRAP
3186	483227.45	1351586.16	614.94	TOPRIPRAP
3188	483260.56	1351537.91	614.97	TOPRIPRAP
3190	483272.69	1351480.66	615.15	TOPRIPRAP
3192	483273.08	1351448.94	615.19	TOPRIPRAP
3194	483279.88	1350892.31	609.63	TOPRIPRAP
3196	483280.48	1350843.28	608.67	TOPRIPRAP
3198	483269.76	1350785.74	607.92	TOPRIPRAP
3200	483237.84	1350736.69	607.11	TOPRIPRAP
3202	483189.58	1350703.58	606.22	TOPRIPRAP
3203	483132.32	1350691.46	605.48	TOPRIPRAP
3205	483101.22	1350691.08	604.97	TOPRIPRAP
3214	482915.50	1350688.81	603.83	TOPRIPRAP
3216	482965.50	1350689.42	604.16	TOPRIPRAP
3218	483015.49	1350690.03	604.37	TOPRIPRAP
3220	483065.49	1350690.64	604.88	TOPRIPRAP
3221	483279.32	1350938.26	609.81	TOPRIPRAP
3223	483278.95	1350968.71	610.40	TOPRIPRAP
3225	483278.34	1351018.70	610.81	TOPRIPRAP
3227	483277.73	1351068.70	611.22	TOPRIPRAP
3229	483277.11	1351118.70	611.70	TOPRIPRAP
3231	483276.50	1351168.69	612.12	TOPRIPRAP
3233	483275.89	1351218.69	612.63	TOPRIPRAP
3235	483275.28	1351268.68	613.39	TOPRIPRAP
3237	483274.67	1351318.68	613.89	TOPRIPRAP
3239	483274.06	1351368.68	614.39	TOPRIPRAP
3241	483273.57	1351408.96	614.72	TOPRIPRAP
3243	483053.93	1351627.99	614.87	TOPRIPRAP
3245	483003.93	1351627.38	614.57	TOPRIPRAP
3247	482953.94	1351626.77	614.20	TOPRIPRAP
3249	482903.93	1351626.16	613.82	TOPRIPRAP

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NOTE:

NORTHING AND EASTING COORDINATES LISTED ON THESE DRAWINGS MAY BE +/- 0.01' DIFFERENT THAN THOSE LISTED FOR THE SAME POINT ON THE TABLE DUE TO TO ROUNDING OF SURVEY DATA.

STATE OF OHIO — LYNN E. HIRSCH S-5738 SURVEYOR
Lynn Edward Hirsch 12-28-2001

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Designed By:
Drawn By: F.A.M.
Checked By: L.E.H.
Approved By: L.E.H.

REVISIONS:

THE IT GROUP
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
OSDF CELL 1

AS-BUILT TOP OF TOPSOIL LAYER

Scale:
Date: 12-28-2001
Sheet No. 3 OF 3
Project No. 201-159

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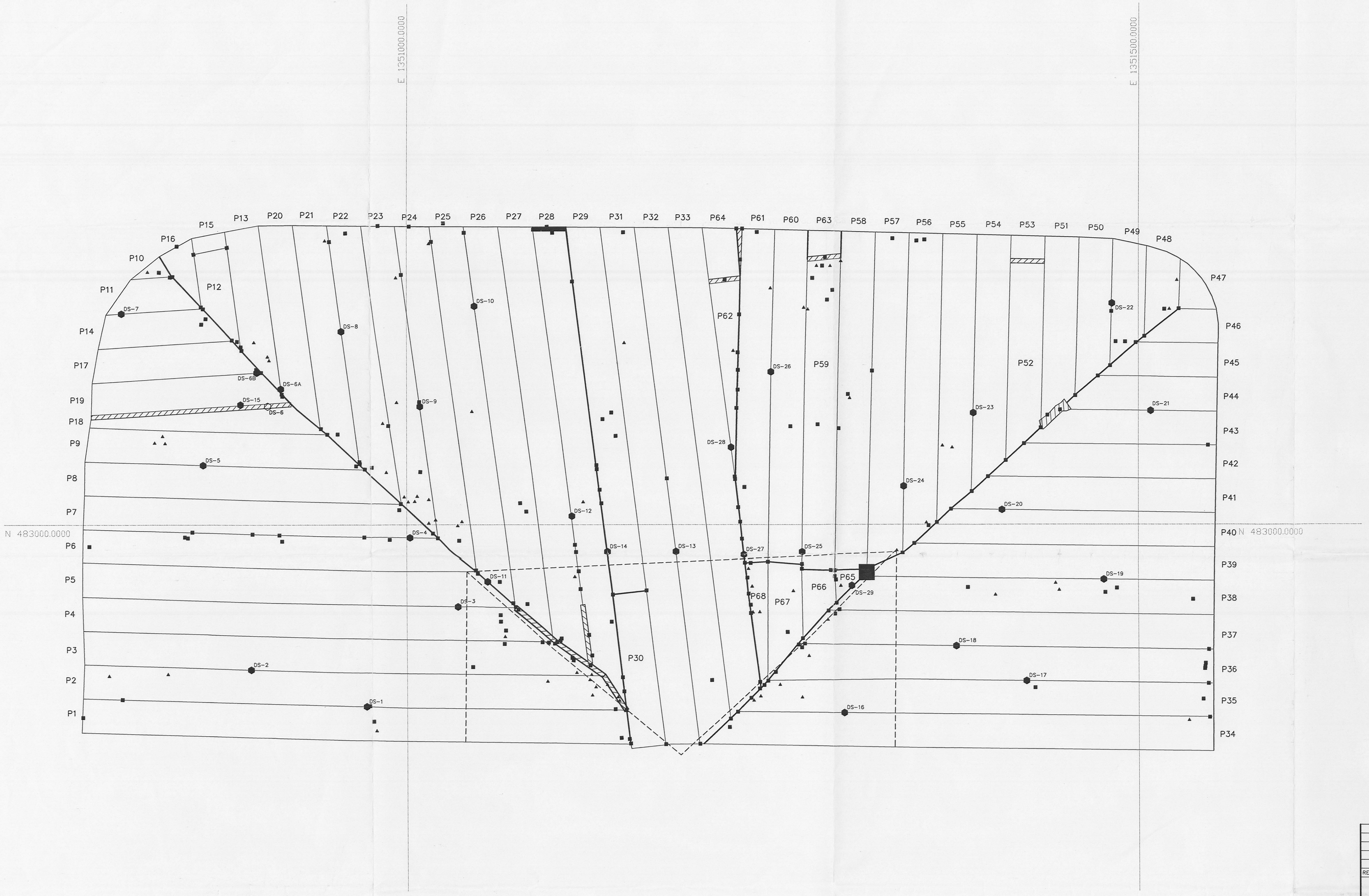
GEOMEMBRANE PANEL LAYOUT



LEGEND

P10	GEOMEMBRANE PANEL NUMBER
▼	EXTRUDATE REPAIR
■	PATCH REPAIR LOCATION
DS-1	DESTRUCTIVE SAMPLE (PASS)
DS-6	DESTRUCTIVE SAMPLE (FAIL)
	FUSION WELDED SEAM
	CAPPED SEAM OR REPAIRED PANEL
	EXTRUDED SEAM
	CREST OF SLOPE

NOTES:

1. PANEL LOCATIONS ARE IN GENERAL ACCORDANCE WITH SURVEY INFORMATION PROVIDED BY HIRSCH AND ASSOCIATES SURVEYING, INC., AND FIELD MEASUREMENTS SHOWN ON THE SEAM AND PANEL REPAIR LOCATION LOGS. THE PERIMETER LENGTHS HAVE BEEN ALTERED SLIGHTLY TO PRESENT A STRAIGHT ALIGNMENT.
2. GRID COORDINATE SYSTEM CORRESPONDS TO STATE PLANAR NORTH AMERICAN DATUM (NAD) 1983 OHIO SOUTH.

30 15 0 30 60
SCALE IN FEET

REV. NO.	DATE	DESCRIPTION	DES. BY	DR. BY	CHK. BY	RVW. BY	APP. BY

OWNER/FACILITY:
UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

CLIENT:
FLUOR FERNALD, INC.

DEPARTMENT OF ENERGY · UNITED STATES OF AMERICA
4555

PROJECT:
ON – SITE DISPOSAL FACILITY – PHASE III

TITLE:
CELL 1 FINAL COVER – GEOMEMBRANE PANEL LAYOUT

THIS DRAWING MAY NOT BE ISSUED FOR PROJECT TENDER OR CONSTRUCTION, UNLESS SEALED.

SIGNATURE
DATE

STATE OF OHIO · KWASI BADU TWENEBOAH · E-83354 · REGISTERED PROFESSIONAL ENGINEER
SEAL

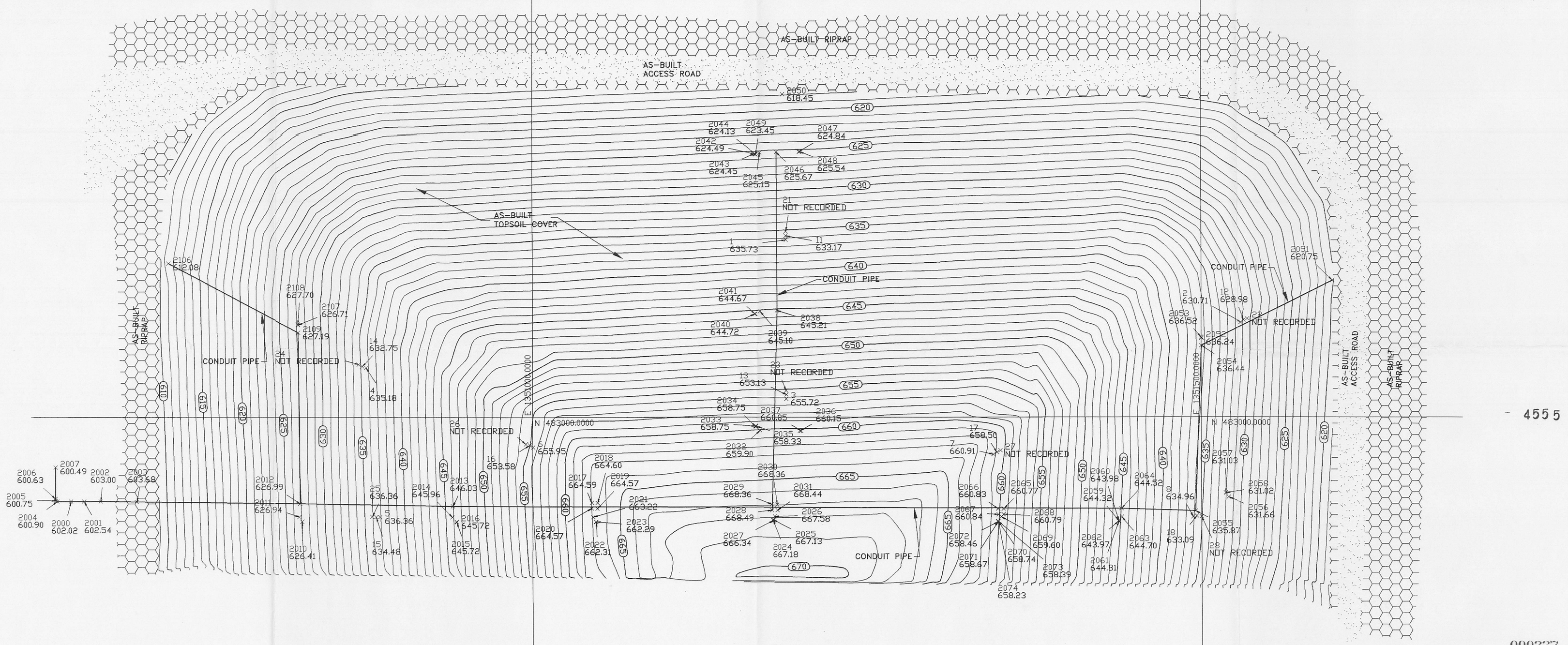
GEOSYNTEC CONSULTANTS
1100 LAKE HEARN DRIVE
ATLANTA, GEORGIA 30342 USA

PROJECT NO.:	–
CONTRACT NO.:	–
FEMP DRAWING NO.:	1342-001
GEOSYNTEC PROJECT NO.:	GO1342-17.2
GEOSYNTEC DOCUMENT NO.:	–
SHEET NO.:	1
REVISION NO.:	–

FINAL COVER MONITORING SYSTEM LOCATIONS

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
8	482924.91	1351483.83	634.98	GPR8C
7	482971.91	1351344.70	690.61	GPR7C
4	483037.57	1350875.53	625.15	4C
35	482905.00	1350880.00	636.38	GPR5
3	483013.60	1351190.05	655.72	GPR3C
2	483072.11	1351528.90	636.71	GPR2C
11	483136.80	1351189.90	632.17	GPR1B
28	482925.00	1351500.00	NOT RECORDED	GPR8
18	482925.43	1351408.44	633.09	GPR8B
17	482973.57	1351347.32	658.50	GPR7B
16	482976.08	1350967.55	653.58	GPR6E
15	482924.82	1350683.03	634.48	GPR5B
14	483038.44	1350372.58	632.75	GPR4B
13	483016.97	1351190.22	653.13	GPR3B
12	483073.97	1351520.15	628.98	GPR2B
27	482975.00	1351500.00	NOT RECORDED	GPR7
24	483040.00	1350870.00	NOT RECORDED	GPR4
23	483020.00	1351190.00	NOT RECORDED	GPR3
22	483075.00	1351535.00	NOT RECORDED	GPR2
1	483135.77	1351190.05	635.73	GPR1C
21	483140.00	1351190.00	NOT RECORDED	GPR1A
26	482980.00	1350995.00	NOT RECORDED	GPR6A
5	482924.90	1350885.94	636.36	GPR5C
6	482977.50	1351000.48	655.95	GPR6C
2000	482938.59	1350854.72	602.02	END TOP CONDUIT
2001	482936.59	1350854.46	602.54	TOP CONDUIT
2002	482938.91	1350878.93	603.00	TOP CONDUIT
2003	482938.23	1350703.68	603.68	TOP CONDUIT
2004	482936.59	1350644.53	600.90	TOP PIPE
2005	482937.13	1350643.36	600.75	TOP PIPE
2006	482938.57	1350643.17	600.63	TOP PIPE
2007	482962.32	1350643.16	600.49	TOP PIPE
2010	482921.44	1350827.82	626.41	SENSORS AT WALL
2011	482924.91	1350825.41	626.94	SW-4
2012	482964.18	1350828.06	626.99	1.5X2.5 HAND HOLE
2013	482955.12	1350840.19	646.03	1.5X2.5 HAND HOLE
2014	482934.83	1350839.89	645.96	SW-5
2015	482921.51	1350843.18	645.72	SENSORS AT WALL
2016	482921.37	1350843.05	645.72	SENSORS AT WALL
2017	482935.08	1351044.32	664.59	COR ELEC BOX
2018	482938.53	1351048.52	664.60	COR ELEC BOX
2019	482951.27	1351048.39	664.57	COR ELEC BOX
2020	482931.43	1351044.15	664.57	COR ELEC BOX
2021	482924.88	1351045.29	663.22	SW 6
2022	482921.14	1351047.41	662.31	SENSORS AT WALL
2023	482921.39	1351047.30	662.29	SENSORS AT WALL
2024	482922.41	1351179.22	667.18	SENSORS AT WALL
2025	482922.90	1351179.32	667.13	SENSORS AT WALL
2026	482925.25	1351180.68	667.58	SW 7
2027	482922.13	1351179.49	666.34	SENSOR IN WALL

POINT	NORTHING	EASTING	ELEVATION (AS-BUILT)	DESCRIPTION
2028	482929.81	1351178.54	668.49	COR ELEC BOX
2029	482934.22	1351178.39	668.36	COR ELEC BOX
2030	482934.11	1351182.65	668.36	COR ELEC BOX
2031	482929.90	1351182.95	668.44	COR ELEC BOX
2032	482990.06	1351169.86	659.90	SW 8
2033	482993.21	1351166.77	658.75	SENSORS IN WALL
2034	482993.06	1351166.84	658.75	SENSORS IN WALL
2035	482993.47	1351166.89	658.33	SENSORS IN WALL
2036	482989.82	1351200.34	660.15	PT 3
2037	482989.86	1351201.29	660.85	SP 3
2038	483080.91	1351182.67	645.21	1.5X2.5 HAND HOLE
2039	483050.38	1351170.05	645.10	SW 2
2040	483078.43	1351166.25	644.72	SENSORS IN WALL
2041	483078.41	1351166.67	644.67	SENSORS IN WALL
2042	483198.18	1351166.92	624.49	SENSORS IN WALL
2043	483198.46	1351166.40	624.45	SENSORS IN WALL
2044	483198.69	1351166.62	624.13	SENSORS IN WALL
2045	483199.46	1351170.12	625.15	SW 1
2046	483199.66	1351182.22	625.67	1.5X2.5 HAND HOLE
2047	483199.98	1351200.08	624.84	PT 1
2048	483200.12	1351200.62	625.54	SP 1
2049	483199.67	1351167.27	623.45	SENSOR IN WALL
2050	483243.38	1351187.58	618.45	PT 6
2051	483103.73	1351598.63	620.75	PT 7
2052	483058.88	1351500.23	636.24	SP 2
2053	483060.69	1351500.04	636.52	PT 2
2054	483054.35	1351500.16	636.44	1.5X2.5 HAND HOLE
2055	482929.26	1351496.57	635.87	1.5X2.5 HAND HOLE
2056	482938.71	1351630.34	631.66	SW 10
2057	482943.07	1351618.22	631.03	SENSORS IN WALL
2058	482942.75	1351618.26	631.02	SENSORS IN WALL
2059	482921.96	1351438.36	644.32	SENSORS IN WALL
2060	482922.04	1351438.41	643.98	SENSORS IN WALL
2061	482921.56	1351438.38	644.31	SENSORS IN WALL
2062	482921.58	1351438.28	643.97	SENSORS IN WALL
2063	482924.90	1351440.70	644.70	SW 9
2064	482931.17	1351440.39	644.52	1.5X2.5 HAND HOLE
2065	482931.06	1351352.38	660.77	COR ELEC BOX
2066	482930.88	1351348.13	660.83	COR ELEC BOX
2067	482928.61	1351348.45	660.84	COR ELEC BOX
2068	482928.80	1351352.20	660.79	COR ELEC BOX
2069	482924.89	1351350.61	659.60	SW 8
2070	482921.58	1351348.06	658.74	SENSORS IN WALL
2071	482921.40	1351348.07	658.67	SENSORS IN WALL
2072	482921.22	1351348.14	658.46	SENSORS IN WALL
2073	482921.59	1351348.16	658.40	SENSORS IN WALL
2074	482921.60	1351348.24	658.23	SENSORS IN WALL
2106	483116.24	1350727.53	612.08	PT 5
2107	483070.22	1350824.75	626.71	SP 4
2108	483070.69	1350824.92	627.70	PT4
2109	483064.53	1350824.72	627.19	1.5X2.5 HAND HOLE



NOTE: SW SENSORS WERE VERTICALLY ALIGNED EXCEPT AS NOTED.

LEGEND:

——— = INDEX CONTOUR AS-BUILT

——— = INTERMEDIATE CONTOUR AS-BUILT

CONTOUR INTERVAL = 1'

SCALE: 1"=40'

000227

STATE OF OHIO
LYNN E. HIRSCH
S-5738
SURVEYOR
Lynn Edward Hirsch
3-15-2002

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Checked By: L.E.H.
Approved By: L.E.H.

REVISIONS:

THE IT GROUP
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
OSDF CELL 1

CELL 1 CAP AS-BUILT

Scale: 1" = 40'
Date: 3-15-2002
Sheet No. 1 OF 1
Project No. 201-159

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