LANDFILL CLOSURE REPORT
WDC ACQUISITION, LLC
PRIVATE LANDFILL CAP AND CLOSURE

UNION COUNTY, IOWA

Prepared For:

WDC Acquisition, LLC
1746 Commerce Road
Creston, IA 50801

Project No.: PA009761
December 2024

Prepared By:

Penn Environmental & Remediation, Inc.
100 Ryan Court, Suite 20
Pittsburgh, PA 15205

Landfill Closure Report
WDC Acquisition, LLC Private Landfill Closure
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Background

WDC Acquisition, LLC (WDC) owns a private landfill under Sanitary Landfill Permit No. 88-SDP-04-86P at its industrial facility in Creston, Iowa. The landfill is adjacent to its manufacturing facility buildings and was historically used for disposal of manufacturing byproducts such as foundry sand and baghouse dust. See **Appendix A** for a Project Location Map. The landfill has been regulated by Iowa Department of Natural Resources (IDNR) and the United States Environmental Protection Agency (EPA) and was recommended for closure. WDC has been working with its engineer, Penn Environmental & Remediation, Inc. (Penn E&R) for over twenty years, and engaged Penn E&R to assist with landfill closure design and planning. WDC has historically worked with Mick Leat of the IDNR. Mick was the IDNR contact before and through construction referenced in this report.

WDC proposed to close its landfill per IDNR regulations and has been working towards closure, while communicating with IDNR, in recent years. In recent years WDC has been removing material from the landfill and hauling it to another local sanitary landfill for beneficial use as alternative cover and access road base material. The material removal brought the landfill nearer to its proposed final size and elevations per the preliminary landfill closure plans. The material removal was slower than expected in 2022 and 2023 and WDC, with IDNR approval, decided to move forward with landfill closure before the landfill reached its planned final elevations. Thus, the preliminary closure plans needed altered. The final construction plans were similar to the preliminary plans but with higher elevations. The project also required an NPDES General Permit No. 2 with IDNR, which was issued on July 15, 2024. Penn E&R finalized the construction plans, contract specifications, and prepared the NPDES permit application.

Once the construction plans and specifications were prepared and the permit received, WDC received three bids from qualified local Contractors to complete the closure project. The lowest qualified bidder was selected and WDC, with support from Penn E&R, proceeded with the landfill closure construction in 2024. The construction was monitored by WDC and Penn E&R through construction and it was completed on time in October 2024. IDNR visited the landfill in October 2024 and indicated the construction progress was satisfactory. Penn E&R visited the landfill during construction in September 2024 and also completed a semiannual inspection (required per the Sanitary Landfill Permit). As part of the closure, WDC seeded the landfill in October 2024 before winter. This report serves as professional certification that the landfill was closed in accordance with IDNR regulations, specifically landfill slope, cover thickness, and clay cover compaction and moisture content.

Description of Work

Landfill Final Grading

The Contractor graded the final landfill waste to meet project plans and IDNR slope requirements (minimum 5% and maximum 25% slope). The final waste elevations were surveyed by a Professional Land Surveyor (PLS) licensed in the State of Iowa. The surveying firm throughout construction was Garden & Associates, LTD. (Garden), a local surveyor that has previously conducted required biennial landfill surveys for WDC. These past surveys noted the landfill material removal progress over the years as the landfill progressed toward readiness for closure.

Compacted Clay Cover

After final waste elevations were accepted, the Contractor installed a two-foot-thick compacted clay cover on the landfill. The clay material came from the adjacent on-site borrow area on WDC property. The clay material was placed in three 8-inch lifts and each lift was compacted and tested to ensure it complied with IDNR regulations (at least 95 percent specific density compaction and a dry mass percent moisture at or up to four percent above optimum moisture) before the subsequent lift was placed. At least one test was conducted per each acre per each lift (typically seven tests per lift). Per IDNR, a 95% passing rate was required for all the clay cover tests for it to be acceptable to IDNR. See **Appendix B** for all the test results conducted.

The first test conducted, Report 1-1, indicated three failed tests out of six tests on the first lift (indicated on the report as Lift +1.00). Reports 2-0 and 3-0 retested the three failed tests on the first lift with passing results. Reports 3-0, 4-0, and 5-0 tested the second (Lift +2.00) lift and third (FSG +3.00) lift. The compacted clay cover final elevations were surveyed by Garden and compared to the final landfill waste elevations to confirm the clay cover was two foot thick. Initial surveys indicated that some areas of the landfill did not have a two-foot-thick clay cover. After discussion with IDNR, additional clay was placed and compacted in these areas. Garden returned to survey the compacted clay cover and confirmed the two-foot-thick clay cover was installed across the entire landfill.

After the testing results were acceptable and the clay cover thickness and slope confirmed, the Contractor installed two compacted clay interceptor ditches and berms on top of the landfill. The berms and ditches were designed to slow stormwater flow on the landfill and prevent erosion of the cover. The interceptor ditches conveyed the stormwater off the landfill to drainage structures. The Contractor installed perimeter channels, ditches, inlets, and subsurface tile piping to convey stormwater around the perimeter of the landfill and to the existing Outfall 001. Most stormwater on the site will be conveyed via subsurface tile piping.

Uncompacted Topsoil Cover

Next, the Contractor installed an uncompacted topsoil cover on the clay cover. Per conversations with IDNR, it is acceptable to IDNR if the total cover above the waste elevation is four feet. So, the uncompacted topsoil cover did not necessarily need to be at least two feet thick. After installation, Garden surveyed the topsoil cover. After it was confirmed the total cover above the waste (clay and topsoil) was four feet and the cover had appropriate slope, the landfill closure construction was deemed complete. See **Appendix C** for the surveyed plans depicting elevations, layer thickness, and slopes of the final waste, clay cover, and topsoil cover. Also in **Appendix C** are comparisons of the elevations for the top of waste versus the top of the compacted clay cover (indicating 2 feet of cover) and the top of waste versus the top of the uncompacted soil cover (indicating 4 feet of cover).

Ancillary Site Work

Before, during, and after working on the landfill, the Contractor worked on site drainage improvements and borrow area excavation and restoration. Drainage issues needed to be addressed in the northeast portion of the borrow area before the borrow area could be excavated and the landfill covered. The upstream (north) property neighbor was discharging stormwater in this location and causing ponding issues that needed addressed. This issue was recognized after heavy

rain events before construction began. WDC and the Contractor coordinated with the neighbor and worked together to connect to the upstream discharges with new subsurface tile lines to convey the stormwater across the WDC property to its existing Outfall 001 to a roadside ditch to the Middle Platte River. Additional tile lines were installed, existing tile lines were discovered and connected to, and inlets to the tile piping system were installed throughout the borrow area and landfill perimeter to convey stormwater across the entire borrow area and landfill perimeter to the existing Outfall 001.

Once drainage issues were addressed at the borrow area, topsoil was removed from the borrow area and stockpiled, clay was excavated and placed on the landfill, and the borrow area was graded to allow positive drainage. WDC seeded the borrow area and landfill with a cool season grass blend along with a cover crop of annual winter cereal rye in October before the winter. WDC will monitor the vegetative growth on the landfill and the borrow area and will conduct additional seeding efforts as needed.

APPENDIX A

Project Location Map

WDC ACQUISITION FACILITY
1746 COMMERCE ROAD
CRESTON, IOWA 50801

COMMERCE ROAD

PATTERN STORAGE
PROPANE TANKS
RECEIVING DOCK
FORMER LEACHATE STORAGE SHED
WAREHOUSE
DROSS SHED
CULVERT
PATTERN STORAGE
STORAGE SHEDS
LEACHATE TANK
COMPUTER CASTING CENTER
MAINTENANCE
EDC
MAGNESIUM MELTING
LAB
KNOCK OUT
SAW ROOM
SAND SHED
DRY SAND MOLDING
GREEN SAND MOLDING
CORE MAKING
CORE ROOM
MAIN PRODUCTION BUILDING
ALUMINUM MELTING
CORE STORAGE
GUARD SHACK
VAPOR DEGREASER
PARKING LOT
CLEANING ROOM
ADD ETCH PROCESS TANKS
HEAT TREAT
FIXTURE ROOM
WELDING
EFFLUENT SEWER SHED
SHIPPING
PARKING LOT
PARKING LOT
LANDFILL
SWMU-12 LANDFILL
OSAGE STREET
1746 COMMERCE ROAD, CRESTON, IA 50801
US HIGHWAY 34

LEGEND
- PROPERTY LINE
- FENCE
- LANDFILL LIMITS

NORTH

SCALE – FEET
0 50 100 150

REVISION	DATE	DESCRIPTION

FIGURE 1
SITE MAP
WDC ACQUISITION FACILITY
WDC ACQUISITION, LLC
CRESTON, IOWA

PREPARED FOR
WDC ACQUISITION, LLC
1746 COMMERCE ROAD
CRESTON, IOWA 50801

APPROVED	RFD 12/14/2022
CHECKED	RFD 12/14/2022
DRAWN	EWB 12/14/2022
PROJECT NO.	4000-PA008981
DRAWING NUMBER	8981D001

Penn E&R
Environmental & Remediation, Inc.

S:\PROJECT FILES\4000-PA008981 WDC OPS 2022\DRAWINGS\8981D001 SITE MAP.DWG,12/20/2022 1:53 PM

APPENDIX B

Compacted Clay Cover Density Field Reports

DENSITY FIELD REPORT

PROJECT NO: 2-9732

REPORT DATE: 9/6/2024 Report No: 1-1 *** REVISED ***

WDC Acquisition LLC Landfill Closure, Creston, IA

TO: Schaefer Excavating, Inc.
1864 215th Street
Mount Ayr, IA 50854

Changed Elevation Datum to Lift # instead of FSG

Date	Test No.	Location {Comments}	Elev. (Ft.)	Mtl. Mark	Wet Density pcf	% H2O of Dry Mass	Dry Density pcf	% Compact ASTM D6938	% H2O Var. ASTM D6938	Spec. Density %	Spec. % H2O
09-04-24	1	West side	Lift +1.00	6	118.8	24.3	97.6	**98**	1.6	95.0	0/+4
09-04-24	2	SW side	Lift +1.00	6	117.6	24.8	94.2	**94**	2.1	95.0	0/+4
09-04-24	3	South side	Lift +1.00	6	114.7	21.3	94.5	**94**	-1.4	95.0	0/+4
09-04-24	4	SE side	Lift +1.00	6	119.5	25.4	95.3	**95**	2.7	95.0	0/+4
09-04-24	5	East side	Lift +1.00	6	114.3	24.2	92.5	**92**	1.5	95.0	0/+4
09-04-24	6	NE side	Lift +1.00	6	116.3	23.9	96.2	**96**	1.2	95.0	0/+4

MTL. MARK	PROCEDURE	MATERIAL DESCRIPTION	MAX DRY DENS. PCF	OPT. MOISTURE
6	ASTM D698-A Standard	CH Gray with Grayish Brown	100.1	22.7

Date	Operator	Standard Counts from Calibration		Gauge ID	Make	Model	S/N	Test Mode
		Density	Moisture					
09-04-24	Mehmedovic	1,726.0	620.0	2974	Troxler	3430	27393	Direct Transmission

Note: Locations indicated are approximate. results represent only the locations tested at the time of testing. Values may change due to construction activity, weather, or environmental conditions. Reports shall not be reproduced, except in full, without our written permission. We use the simple acceptance/simple rejection decision rule to determine in-tolerance and out-of-tolerance or pass/fail comply (yes/no) conditions and no measurement uncertainty is applied to this determination.

Approved:
Adam Gehrts

TEAM Services * 717 S.E. 6th St. * Des Moines, IA 50309
ph: 515-282-8818 * fx: 515-282-8741 * email: staff@teamservices.com

DENSITY FIELD REPORT

PROJECT NO: 2-9732

REPORT DATE: 9/6/2024

Report No: 2-0

WDC Acquisition LLC Landfill Closure, Creston, IA

TO: Schaefer Excavating, Inc.

1864 215th Street

Mount Ayr, IA 50854

Date	Test No.	Location {Comments}	Elev. (Ft.)	Mtl. Mark	Wet Density pcf	% H2O of Dry Mass	Dry Density pcf	% Compact ASTM D6938	% H2O Var. ASTM D6938	Spec. Density %	Spec. % H2O
09-06-24	7	SW Side {Retest of Test 2}	Lift +1.00	3	126.6	21.7	104.1	**101**	2.2	95.0	0/+4

MTL. MARK	PROCEDURE	MATERIAL DESCRIPTION	MAX DRY DENS. PCF	OPT. MOISTURE
3	ASTM D698-A Standard	CL Gray with Dark Gray trace Brown	102.8	19.5

Date	Operator	Standard Counts from Calibration		Gauge ID	Make	Model	S/N	Test Mode
		Density	Moisture					
09-06-24	Gehrts			3278	Troxler	3440	20828	Direct Transmission

Approved:
Adam Gehrts

TEAM Services * 717 S.E. 6th St. * Des Moines, IA 50309
ph: 515-282-8818 * fx: 515-282-8741 * email: staff@teamservices.com

DENSITY FIELD REPORT

PROJECT NO: 2-9732

REPORT DATE: 9/6/2024

Report No: 3-0

WDC Acquisition LLC Landfill Closure, Creston, IA

TO: Schaefer Excavating, Inc.

1864 215th Street

Mount Ayr, IA 50854

Date	Test No.	Location {Comments}	Elev. (Ft.)	Mtl. Mark	Wet Density pcf	% H2O of Dry Mass	Dry Density pcf	% Compact ASTM D6938	% H2O Var. ASTM D6938	Spec. Density %	Spec. % H2O
09-06-24	8	South Side {Retest of Test 3}	Lift +1.00	3	124.0	20.8	102.6	**100**	1.3	95.0	0/+4
09-06-24	9	East Side {Retest of Test 5}	Lift +1.00	3	125.1	20.8	103.6	**101**	1.3	95.0	0/+4
09-06-24	10	NE Side {Extra Test}	Lift +1.00	3	124.1	20.4	103.1	**100**	0.9	95.0	0/+4
09-06-24	11	NW Side	Lift +2.00	3	123.2	22.0	101.0	**98**	2.5	95.0	0/+4
09-06-24	12	West Side	Lift +2.00	3	125.1	21.2	103.2	**100**	1.7	95.0	0/+4

MTL. MARK	PROCEDURE	MATERIAL DESCRIPTION	MAX DRY DENS. PCF	OPT. MOISTURE
3	ASTM D698-A Standard	CL Gray with Dark Gray trace Brown	102.8	19.5

		Standard Counts from Calibration		Gauge				
Date	**Operator**	**Density**	**Moisture**	**ID**	**Make**	**Model**	**S/N**	**Test Mode**
09-06-24	Gehrts	1,619.0	688.0	3278	Troxler	3440	20828	Direct Transmission

Note: Locations indicated are approximate. results represent only the locations tested at the time of testing. Values may change due to construction activity, weather, or environmental conditions. Reports shall not be reproduced, except in full, without our written permission. We use the simple acceptance/simple rejection decision rule to determine in-tolerance and out-of-tolerance or pass/fail comply (yes/no) conditions and no measurement uncertainty is applied to this determination.

Approved:
Adam Gehrts

TEAM Services * 717 S.E. 6th St. * Des Moines, IA 50309
ph: 515-282-8818 * fx: 515-282-8741 * email: staff@teamservices.com

DENSITY FIELD REPORT

PROJECT NO: 2-9732

REPORT DATE: 9/17/2024

Report No: 4-0

WDC Acquisition LLC Landfill Closure, Creston, IA

TO: Schaefer Excavating, Inc.

1864 215th Street

Mount Ayr, IA 50854

Date	Test No.	Location {Comments}	Elev. (Ft.)	Mtl. Mark	Wet Density pcf	% H2O of Dry Mass	Dry Density pcf	% Compact ASTM D6938	% H2O Var. ASTM D6938	Spec. Density %	Spec. % H2O
09-13-24	13	East	Lift +2.00	3	122.3	19.7	102.2	**99**	0.2	95.0	0/+4
09-13-24	14	Northeast	Lift +2.00	3	118.5	19.6	99.1	**96**	0.1	95.0	0/+4
09-13-24	15	North	Lift +2.00	3	120.9	20.1	100.7	**98**	0.6	95.0	0/+4
09-13-24	16	Middle {Extra Test}	Lift +2.00	3	120.0	19.8	100.1	**97**	0.3	95.0	0/+4
09-13-24	17	Southeast	Lift +2.00	3	127.4	23.4	103.3	**100**	3.9	95.0	0/+4
09-13-24	18	Northwest	Lift +3.00	3	124.9	19.6	104.4	**102**	0.1	95.0	0/+4
09-13-24	19	West	Lift +3.00	3	117.4	20.7	97.3	**95**	1.2	95.0	0/+4

MTL. MARK	PROCEDURE	MATERIAL DESCRIPTION	MAX DRY DENS. PCF	OPT. MOISTURE
3	ASTM D698-A Standard	CL Gray with Dark Gray trace Brown	102.8	19.5

		Standard Counts from Calibration		Gauge				
Date	**Operator**	**Density**	**Moisture**	**ID**	**Make**	**Model**	**S/N**	**Test Mode**
09-13-24	Gehrts	1,619.0	688.0	3278	Troxler	3440	20828	Direct Transmission

Approved:
Andy Eisinger

TEAM Services * 717 S.E. 6th St. * Des Moines, IA 50309
ph: 515-282-8818 * fx: 515-282-8741 * email: staff@teamservices.com

DENSITY FIELD REPORT

PROJECT NO: 2-9732

REPORT DATE: 9/23/2024

Report No: 5-0

WDC Acquisition LLC Landfill Closure, Creston, IA

TO: Schaefer Excavating, Inc.

1864 215th Street

Mount Ayr, IA 50854

Date	Test No.	Location {Comments}	Elev. (Ft.)	Mtl. Mark	Wet Density pcf	% H2O of Dry Mass	Dry Density pcf	% Compact ASTM D6938	% H2O Var. ASTM D6938	Spec. Density %	Spec. % H2O
09-19-24	20	West Side {Retest}	FSG +3.00	3	119.6	20.2	99.5	**97**	0.7	95.0	0/+4
09-19-24	21	North	FSG +3.00	3	122.3	22.4	99.9	**97**	2.9	95.0	0/+4
09-19-24	22	NW Side	FSG +3.00	3	119.4	20.7	98.9	**96**	1.2	95.0	0/+4
09-19-24	23	SE Side	FSG +3.00	3	118.6	20.2	98.6	**96**	0.7	95.0	0/+4
09-19-24	24	SW Side	FSG +3.00	3	121.8	23.3	98.8	**96**	3.8	95.0	0/+4

MTL. MARK	PROCEDURE	MATERIAL DESCRIPTION	MAX DRY DENS. PCF	OPT. MOISTURE
3	ASTM D698-A Standard	CL Gray with Dark Gray trace Brown	102.8	19.5

		Standard Counts from Calibration		Gauge				
Date	**Operator**	**Density**	**Moisture**	**ID**	**Make**	**Model**	**S/N**	**Test Mode**
09-19-24	Mehmedovic	1,720.0	618.0	165	Humboldt	H5001-P	1548	Direct Transmission

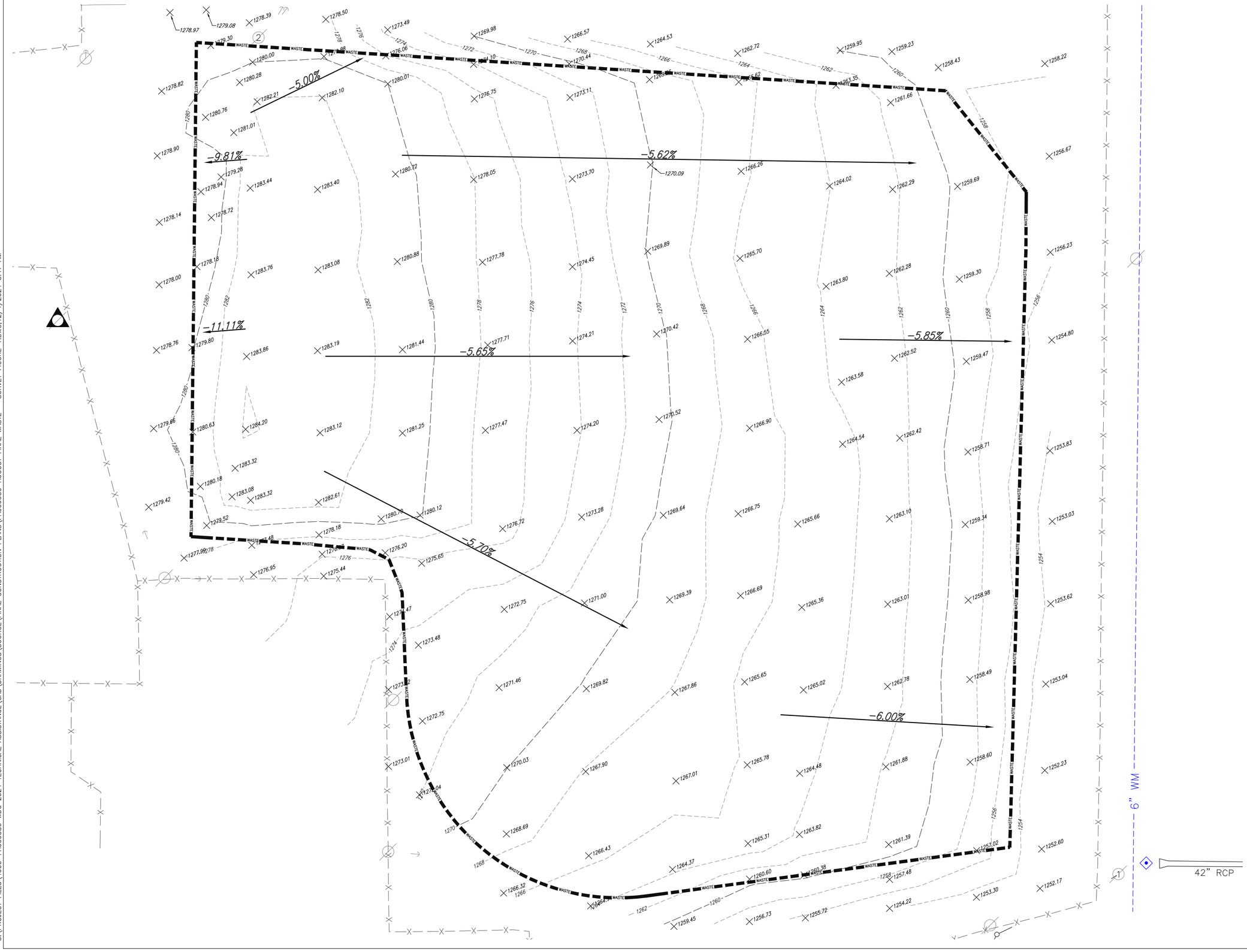
Approved:
Andy Eisinger

TEAM Services * 717 S.E. 6th St. * Des Moines, IA 50309
ph: 515-282-8818 * fx: 515-282-8741 * email: staff@teamservices.com

APPENDIX C

Construction Progress Survey Exhibits

S:\PROJECT FILES\4000-PA009580 WDC 2024 TECHNICAL ASSISTANCE\CAD\DRAWINGS\SOURCE\FINAL CONSTRUCTION PLANS\PA009580-AUGUST FINAL WASTE - SURVEY FIGURE 1.DWG,12/4/2024 8:47 AM



LEGEND

- AS-BUILT PRIMARY CONTOUR 08/2024
- AS-BUILT SECONDARY CONTOUR 08/2024
- 100.00 SPOT ELEVATIONS 08/2024
- WASTE APPROXIMATE LANDFILL BOUNDARY
- EXISTING FENCE
- EXISTING UTILITY POLE AND GUY WIRE
- 6" WM EXISTING WATER MAIN

NOTE 1: SURVEY DATA IS FROM GARDEN & ASSOCIATES LTD. SURVEY DATED AUGUST 23, 2024

REVISION	DATE	DESCRIPTION

LICENSED PROFESSIONAL ENGINEER
ROBERT ROACH
P27705
IOWA

GRAPHIC SCALE 1"=30'
0 30' 60' 90'

FINAL CONSTRUCTION AS BUILT DRAWING - FINAL LANDFILL WASTE CONTOURS BEFORE CLOSURE

WDC ACQUISITION FACILITY
CRESTON, IOWA

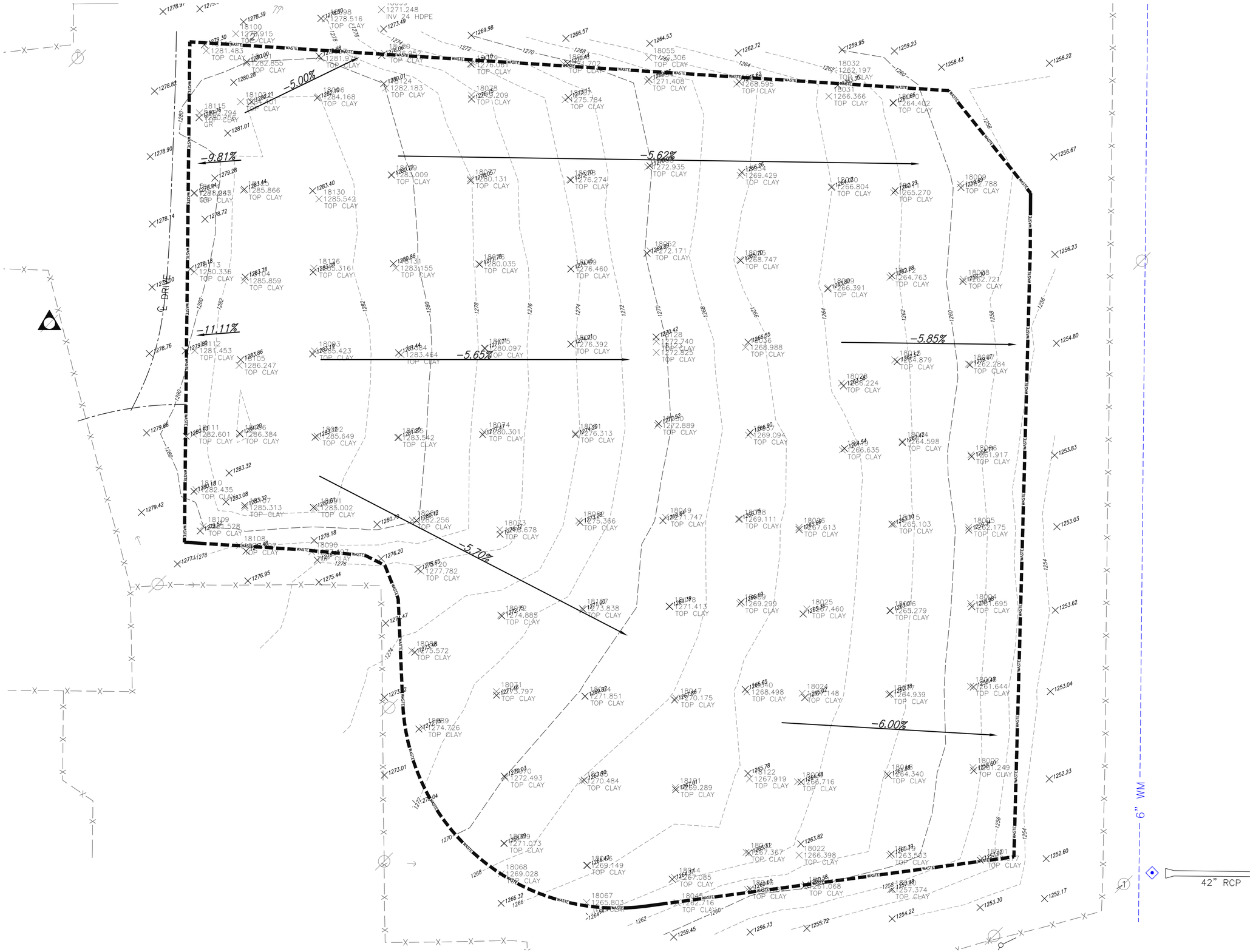
PREPARED FOR
WDC ACQUISITION LLC
1746 COMMERCE RD
CRESTON, IOWA 50801

APPROVED	RFD 11/18/2024
CHECKED	RJR 09/16/2024
DRAWN	DLJ 09/16/2024
PROJECT No.	PA009580

DRAWING NUMBER
FIGURE 1

Penn E&R
Environmental & Remediation, Inc.
100 RYAN COURT, SUITE 20
PITTSBURGH, PA 15205

S:\PROJECT FILES\4000-PA009580 WDC 2024 TECHNICAL ASSISTANCE\CAD\DRAWINGS\SOURCE\FINAL CONSTRUCTION PLANS\PA009580-AUGUST FINAL WASTE - SURVEY FIGURE 2.DWG,12/4/2024 8:46 AM



LEGEND

- AS-BUILT PRIMARY CONTOUR 08/2024
- AS-BUILT SECONDARY CONTOUR 08/2024
- SPOT ELEVATIONS 09/19/2024
- SPOT ELEVATIONS 08/23/2024
- APPROXIMATE LANDFILL BOUNDARY
- EXISTING FENCE
- EXISTING UTILITY POLE AND GUY WIRE
- EXISTING WATER MAIN

NOTE 1: SURVEY DATA IS FROM GARDEN & ASSOCIATES LTD. SURVEY DATED SEPTEMBER 19, 2024

REVISION	DATE	DESCRIPTION

LICENSED PROFESSIONAL ENGINEER
ROBERT ROACH
P27705
IOWA

GRAPHIC SCALE 1"=30'
0 30' 60' 90'

FINAL CONSTRUCTION AS BUILT DRAWING - TOP OF CLAY ELEVATIONS DURING CONSTRUCTION

WDC ACQUISITION FACILITY
CRESTON, IOWA

PREPARED FOR
WDC ACQUISITION LLC
1746 COMMERCE RD
CRESTON, IOWA 50801

APPROVED	RFD 11/18/2024
CHECKED	RJR 10/02/2024
DRAWN	JAG 10/02/2024
PROJECT No.	PA009580

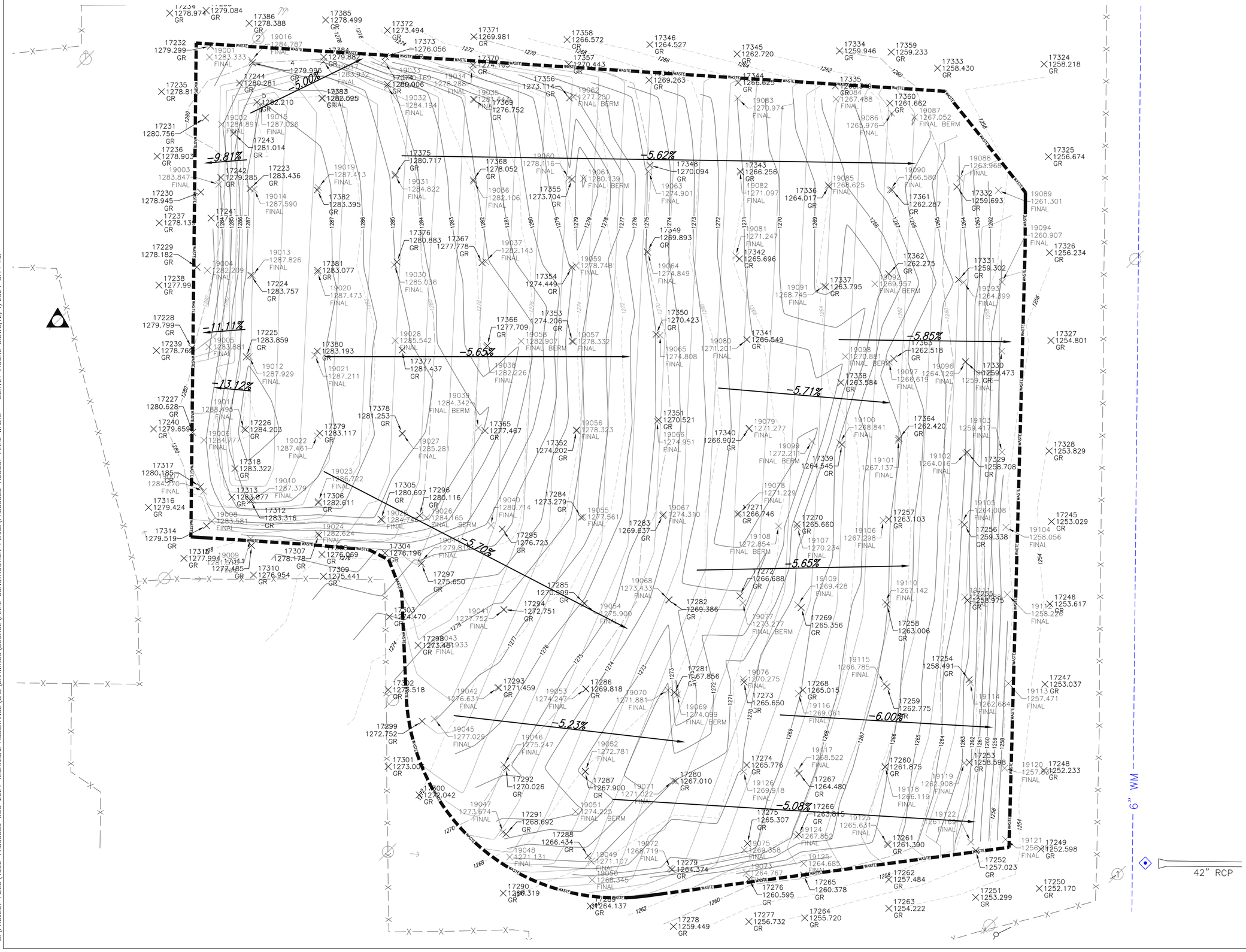
DRAWING NUMBER
FIGURE 2

Penn E&R
Environmental & Remediation, Inc.
100 RYAN COURT, SUITE 20
PITTSBURGH, PA 15205

Aug 2024 top of waste	Sep 2024 top of clay	Difference (ft)	Difference (in)	Shortfall (in)
1279.3	1281.483	2.183	26.2	-2.2
1280	1282.855	2.855	34.3	-10.3
1279.88	1281.975	2.095	25.1	-1.1
1269.26	1271.408	2.148	25.8	-1.8
1263.35	1266.366	3.016	36.2	-12.2
1261.66	1264.402	2.742	32.9	-8.9
1280.28	1282.855	2.575	30.9	-6.9
1280.01	1282.183	2.173	26.1	-2.1
1276.75	1279.209	2.459	29.5	-5.5
1273.11	1275.784	2.674	32.1	-8.1
1261.66	1264.402	2.742	32.9	-8.9
1280.76	1282.794	2.034	24.4	-0.4
1282.21	1284.401	2.191	26.3	-2.3
1282.1	1284.168	2.068	24.8	-0.8
1276.75	1279.209	2.459	29.5	-5.5
1273.7	1276.274	2.574	30.9	-6.9
1270.09	1272.935	2.845	34.1	-10.1
1266.26	1269.429	3.169	38.0	-14.0
1264.02	1266.804	2.784	33.4	-9.4
1262.29	1265.270	2.980	35.8	-11.8
1259.69	1262.788	3.098	37.2	-13.2
1278.94	1281.267	2.327	27.9	-3.9
1283.44	1285.866	2.426	29.1	-5.1
1283.4	1285.542	2.142	25.7	-1.7
1280.72	1283.720	3.000	36.0	-12.0
1278.05	1280.131	2.081	25.0	-1.0
1273.7	1276.274	2.574	30.9	-6.9
1270.09	1272.935	2.845	34.1	-10.1
1266.26	1269.429	3.169	38.0	-14.0
1264.02	1266.804	2.784	33.4	-9.4
1262.29	1265.270	2.980	35.8	-11.8
1259.69	1262.788	3.098	37.2	-13.2
1278.72	1281.267	2.547	30.6	-6.6
1278.18	1280.336	2.156	25.9	-1.9
1283.76	1285.859	2.099	25.2	-1.2
1283.08	1285.316	2.236	26.8	-2.8
1280.88	1283.155	2.275	27.3	-3.3
1277.78	1280.035	2.255	27.1	-3.1
1274.45	1276.460	2.010	24.1	-0.1
1269.89	1272.171	2.281	27.4	-3.4
1265.7	1268.747	3.047	36.6	-12.6
1263.8	1266.391	2.591	31.1	-7.1
1262.28	1264.763	2.483	29.8	-5.8
1259.3	1262.721	3.421	41.1	-17.1
1283.86	1286.247	2.387	28.6	-4.6
1283.19	1285.423	2.233	26.8	-2.8

1281.44	1283.464	2.024	24.3	-0.3
1277.71	1280.097	2.387	28.6	-4.6
1274.21	1276.392	2.182	26.2	-2.2
1270.42	1272.740	2.320	27.8	-3.8
1266.55	1268.988	2.438	29.3	-5.3
1263.58	1266.224	2.644	31.7	-7.7
1262.52	1264.879	2.359	28.3	-4.3
1259.47	1262.284	2.814	33.8	-9.8
1284.2	1286.384	2.184	26.2	-2.2
1283.12	1285.649	2.529	30.3	-6.3
1281.25	1283.542	2.292	27.5	-3.5
1277.47	1280.301	2.831	34.0	-10.0
1274.2	1276.313	2.113	25.4	-1.4
1270.52	1272.889	2.369	28.4	-4.4
1266.9	1269.094	2.194	26.3	-2.3
1264.54	1266.635	2.095	25.1	-1.1
1262.42	1264.590	2.170	26.0	-2.0
1258.71	1261.917	3.207	38.5	-14.5
1280.18	1282.435	2.255	27.1	-3.1
1283.32	1285.313	1.993	23.9	0.1
1282.61	1285.002	2.392	28.7	-4.7
1280.12	1282.256	2.136	25.6	-1.6
1279.52	1281.528	2.008	24.1	-0.1
1276.72	1278.678	1.958	23.5	0.5
1273.28	1275.366	2.086	25.0	-1.0
1269.64	1271.747	2.107	25.3	-1.3
1266.75	1269.111	2.361	28.3	-4.3
1265.66	1267.613	1.953	23.4	0.6
1263.1	1265.103	2.003	24.0	0.0
1259.34	1262.175	2.835	34.0	-10.0
1275.65	1277.782	2.132	25.6	-1.6
1273.48	1275.572	2.092	25.1	-1.1
1272.75	1274.885	2.135	25.6	-1.6
1271.46	1273.838	2.378	28.5	-4.5
1269.82	1271.851	2.031	24.4	-0.4
1267.86	1270.175	2.315	27.8	-3.8
1265.65	1268.498	2.848	34.2	-10.2
1265.02	1267.148	2.128	25.5	-1.5
1262.78	1264.939	2.159	25.9	-1.9
1258.49	1261.644	3.154	37.8	-13.8
1270.03	1272.493	2.463	29.6	-5.6
1267.9	1270.484	2.584	31.0	-7.0
1267.01	1269.289	2.279	27.3	-3.3
1265.78	1267.919	2.139	25.7	-1.7
1264.48	1266.716	2.236	26.8	-2.8
1261.88	1264.34	2.460	29.5	-5.5
1258.6	1261.249	2.649	31.8	-7.8
1266.43	1269.149	2.719	32.6	-8.6
1264.37	1267.085	2.715	32.6	-8.6
1265.31	1267.367	2.057	24.7	-0.7
1263.82	1266.398	2.578	30.9	-6.9
1261.39	1263.503	2.113	25.4	-1.4

S:\PROJECT FILES\4000-PA009580 WDC 2024 TECHNICAL ASSISTANCE\CAD\DRAWINGS\SOURCE\FINAL CONSTRUCTION PLANS\PA009580-AUGUST FINAL WASTE - SURVEY FIGURE 3.DWG,12/4/2024 8:44 AM



LEGEND

- 100.00 GR — TOP OF WASTE SPOT ELEVATIONS 8/2024
- 100.00 FINAL — TOP OF CLOSED LANDFILL SPOT ELEVATIONS 10/2024
- WASTE — APPROXIMATE LANDFILL BOUNDARY
- EXISTING FENCE
- EXISTING UTILITY POLE AND GUY WIRE
- 6" WM — EXISTING WATER MAIN

NOTE 1: SURVEY DATA IS FROM GARDEN & ASSOCIATES LTD. SURVEY DATED OCTOBER 15, 2024

REVISION	DATE	DESCRIPTION

LICENSED PROFESSIONAL ENGINEER
ROBERT ROACH
P27705
IOWA

GRAPHIC SCALE 1"=30'
0 30' 60' 90'

FINAL CONSTRUCTION AS BUILT DRAWING - FINAL CLOSED LANDFILL CONTOURS AFTER CONSTRUCTION
WDC ACQUISITION FACILITY
CRESTON, IOWA

PREPARED FOR
WDC ACQUISITION LLC
1746 COMMERCE RD
CRESTON, IOWA 50801

APPROVED	RFD 11/18/2024
CHECKED	RJR 10/29/2024
DRAWN	JAG 10/29/2024
PROJECT No.	PA009580

DRAWING NUMBER
FIGURE 3

Penn E&R
Environmental & Remediation, Inc.
100 RYAN COURT, SUITE 20
PITTSBURGH, PA 15205

Aug-24 top of waste	24-Oct top of soil	Difference (ft)	Difference (in)	Shortfall (in)
1279.299	1283.333	4.034	48.4	-0.4
1279.995	1284.787	4.792	57.5	-9.5
1279.882	1283.932	4.050	48.6	-0.6
1276.056	1280.169	4.113	49.4	-1.4
1274.103	1278.288	4.185	50.2	-2.2
1266.625	1270.974	4.349	52.2	-4.2
1263.349	1267.488	4.139	49.7	-1.7
1261.662	1265.976	4.314	51.8	-3.8
1280.006	1284.194	4.188	50.3	-2.3
1276.752	1281.643	4.891	58.7	-10.7
1273.114	1277.2	4.086	49.0	-1.0
1261.66	1265.976	4.316	51.8	-3.8
1280.76	1284.891	4.131	49.6	-1.6
1282.095	1286.52	4.425	53.1	-5.1
1276.752	1281.643	4.891	58.7	-10.7
1273.704	1278.116	4.412	52.9	-4.9
1270.094	1274.901	4.807	57.7	-9.7
1266.256	1271.097	4.841	58.1	-10.1
1264.017	1268.625	4.608	55.3	-7.3
1262.287	1266.58	4.293	51.5	-3.5
1259.693	1263.968	4.275	51.3	-3.3
1278.945	1283.847	4.902	58.8	-10.8
1283.436	1287.590	4.154	49.8	-1.8
1283.395	1287.413	4.018	48.2	-0.2
1280.717	1284.822	4.105	49.3	-1.3
1278.052	1282.106	4.054	48.6	-0.6
1273.704	1278.116	4.412	52.9	-4.9
1270.094	1274.901	4.807	57.7	-9.7
1266.256	1271.097	4.841	58.1	-10.1
1264.017	1268.625	4.608	55.3	-7.3
1262.287	1266.580	4.293	51.5	-3.5
1259.693	1263.968	4.275	51.3	-3.3
1278.182	1282.209	4.027	48.3	-0.3
1283.757	1287.826	4.069	48.8	-0.8
1283.077	1287.473	4.396	52.8	-4.8
1280.883	1285.036	4.153	49.8	-1.8
1277.778	1282.143	4.365	52.4	-4.4
1274.449	1278.748	4.299	51.6	-3.6
1269.893	1274.849	4.956	59.5	-11.5
1265.696	1271.247	5.551	66.6	-18.6
1263.795	1268.745	4.950	59.4	-11.4
1262.275	1269.557	7.282	87.4	-39.4
1259.3	1264.399	5.099	61.2	-13.2
1283.859	1287.929	4.070	48.8	-0.8
1283.193	1287.211	4.018	48.2	-0.2

1281.44	1285.542	4.102	49.2	-1.2
1277.709	1282.226	4.517	54.2	-6.2
1274.206	1278.332	4.126	49.5	-1.5
1270.423	1274.808	4.385	52.6	-4.6
1266.549	1271.201	4.652	55.8	-7.8
1263.584	1270.881	7.297	87.6	-39.6
1262.518	1266.619	4.101	49.2	-1.2
1259.473	1264.129	4.656	55.9	-7.9
1280.628	1284.777	4.149	49.8	-1.8
1284.203	1288.495	4.292	51.5	-3.5
1283.117	1287.461	4.344	52.1	-4.1
1281.253	1285.281	4.028	48.3	-0.3
1277.467	1284.342	6.875	82.5	-34.5
1274.202	1278.323	4.121	49.5	-1.5
1270.521	1274.951	4.430	53.2	-5.2
1266.902	1271.277	4.375	52.5	-4.5
1264.545	1268.841	4.296	51.6	-3.6
1262.42	1267.137	4.717	56.6	-8.6
1258.708	1264.016	5.308	63.7	-15.7
1280.185	1284.270	4.085	49.0	-1.0
1282.611	1286.722	4.111	49.3	-1.3
1280.116	1284.165	4.049	48.6	-0.6
1279.519	1283.581	4.062	48.7	-0.7
1276.723	1280.714	3.991	47.9	0.1
1273.279	1277.561	4.282	51.4	-3.4
1269.637	1274.310	4.673	56.1	-8.1
1266.746	1271.229	4.483	53.8	-5.8
1265.66	1270.234	4.574	54.9	-6.9
1263.103	1267.298	4.195	50.3	-2.3
1259.338	1264.008	4.670	56.0	-8.0
1277.485	1281.513	4.028	48.3	-0.3
1275.65	1279.819	4.169	50.0	-2.0
1273.481	1277.933	4.452	53.4	-5.4
1272.752	1277.029	4.277	51.3	-3.3
1271.459	1276.631	5.172	62.1	-14.1
1269.818	1274.247	4.429	53.1	-5.1
1267.856	1271.881	4.025	48.3	-0.3
1265.65	1270.275	4.625	55.5	-7.5
1265.015	1269.061	4.046	48.6	-0.6
1262.775	1266.785	4.010	48.1	-0.1
1258.491	1262.684	4.193	50.3	-2.3
1270.026	1275.247	5.221	62.7	-14.7
1267.9	1272.781	4.881	58.6	-10.6
1267.01	1271.022	4.012	48.1	-0.1
1265.776	1269.918	4.142	49.7	-1.7
1264.48	1268.522	4.042	48.5	-0.5
1261.875	1266.119	4.244	50.9	-2.9
1258.598	1262.908	4.310	51.7	-3.7
1268.692	1273.674	4.982	59.8	-11.8
1266.434	1271.107	4.673	56.1	-8.1
1264.374	1268.719	4.345	52.1	-4.1
1265.307	1269.358	4.051	48.6	-0.6
1263.815	1267.852	4.037	48.4	-0.4
1261.39	1265.631	4.241	50.9	-2.9
1257.023	1261.169	4.146	49.8	-1.8
1278.762	1283.881	5.119	61.4	-13.4
1279.519	1283.581	4.062	48.7	-0.7