

December 19, 2024

VIA EMAIL

Max Luick
Maine Department of Environmental Protection
17 State House Station
Augusta, ME 04333-0017

Subject: Third Quarter 2024 Short-Term Comprehensive Monitoring Plan Data Report
Orrington Remediation Site, Orrington, Maine

Dear Max:

The results from monitoring conducted in the third quarter of 2024 at the Orrington Remediation Site (Site) are provided in this letter report. Samples of groundwater, surface water, and sediment were obtained according to the following plans and documents:

- February 24, 2017 Short-Term Comprehensive Monitoring Plan (CMP);
- October 18, 2019 Former Landfill 1 Area Baseline Water Quality Monitoring data transmittal, with comments provided by Maine Department of Environmental Protection (MEDEP) in a memorandum dated November 22, 2019 and approved on March 5, 2020; and
- February 19, 2021 Landfills 3-5 Area Water Quality Monitoring data transmittal, including summary of Landfills 3-5 GWES performance and vicinity monitoring as approved by MEDEP by letter on December 22, 2020.

Sampling in the third quarter of 2024 was conducted to satisfy the following monitoring programs:

- Final groundwater extraction system (GWES), including monitoring of extraction wells in the Landfill 1 GWES and Landfills 3-5 GWES;
- Landfill 5;
- Short-Term Remediation;
- Site Perimeter;
- Former Landfill 1 Vicinity; and
- Landfills 3-5 Vicinity.

Sampling locations included in third quarter 2024 monitoring are shown on Figure 1.

Sampling was conducted during the weeks of July 8, August 12, and September 9, 2024. Samples were sent via courier to Alpha Analytical Laboratory (Alpha) of Westborough, Massachusetts for analysis of parameters according to the Short-Term CMP and associated plans and described further in the sections below.

LABORATORY ANALYSIS AND DATA VALIDATION

Data from samples obtained by Sevee & Maher Engineers, Inc. (SME) during third quarter 2024 monitoring were reported in ten sample delivery groups. Analytical results were quantified to the laboratory's method detection limit (MDL). Concentrations detected between the MDL and the laboratory's reporting limit (RL) were qualified by Alpha as estimated (J) values. According to the MEDEP-approved Data Validation Protocol dated January 29, 2018, final laboratory analytical reports and electronic data deliverables (EDDs) containing unvalidated data were submitted to MEDEP on July 31, August 28, and October 7, 2024.

Joint sampling events with Geosyntec were conducted for monitoring points that overlap between the Short-Term CMP and the chloropicrin remediation performance monitoring program. Geosyntec representatives obtained samples for laboratory analysis of chloropicrin from wells monitored as part of the Landfill 1 GWES and Short-term Remediation (Plant Area) monitoring programs; these data were submitted to MEDEP by Geosyntec.

MEDEP coordinated validation of laboratory analytical data with TechLaw, who performed Tier 2 validation of analytical data generated by Alpha for 151 samples submitted by SME and joint samples submitted by Geosyntec, including 14 duplicate samples and field quality control samples (trip and field blanks). The analyses were performed on sediment, surface water, and groundwater samples. Minor data qualification was required for 70 of the 1,638 analytical results reported (i.e., individual records of data from field and field quality control samples). Two (2) results were rejected, representing non-detect chloropicrin results from one sediment sample and the associated field duplicate, rejected due to no Matrix Spike recovery. Rationale for data qualification actions is provided in summary reports furnished to MEDEP and Mallinckrodt by TechLaw. Validated data are usable for project objectives.

Field data sheets from third quarter 2024 monitoring are provided in Attachment 1, organized by (1) month of monitoring, (2) sample medium, and (3) sample location. Data summary reports for third quarter monitoring are provided in Attachment 2. Plots of concentration over time are provided in Attachment 3 for several wells in various Short-Term CMP monitoring programs. Graphs are provided for concentrations of mercury, chloropicrin, and carbon tetrachloride.

1.0 LANDFILL 1 GWES MONITORING

1.1 Operations and Maintenance

Landfill 1 GWES operation during the third quarter of 2024 consisted of pumping from EW-5 through EW-12 at approximately 3.8 gallons per minute (gpm) per well. Plots of pumping rate as recorded by the extraction well flowmeters are provided in Attachment 4 and the flow rates recorded are provided in Attachment 5.

There were no interruptions to the Landfill 1 GWES operation during the third quarter, with the exception of an approximately one-hour interruption on July 10 for some programming updates. The GWES operated in stable fashion according to design, with average flow rates from all wells of 3.77 gpm for the third quarter 2024.

1.2 Water Level Elevations

Water level elevations in extraction wells and nearby monitoring points are recorded hourly by data logging pressure transducers. Pressure transducer graphs for third quarter 2024 from individual monitoring points are provided in Attachment 4 and transducer data are provided in Attachment 5. To remove the effects of tidal variations on groundwater levels, a three- or four-day time period is selected for review and mapping. This selected period represents a time during which water level fluctuations in the Penobscot River are relatively limited (based on transducer data from piezometer locations). The average water level elevation over that identified period is calculated for each monitoring location and considered to represent the tidal-corrected water level elevation. The average water levels recorded over the three-day period of July 29 to 31, 2024 are shown on Figure 2.

Based on average water level elevations and observed drawdown at the extraction wells, the inferred hydraulic capture of groundwater extends beyond the extent of the GWES extraction wells.

1.3 Laboratory Analytical Data

Routine monitoring of extraction wells is conducted for analysis of total mercury and chloropicrin on a quarterly basis, and volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) for which there are established Media Protection Standards (MPS) on an annual basis. Quarterly monitoring of the Landfill 1 GWES influent at the GWTP continues in accordance with the Short-Term CMP. Landfill 1 GWES monitoring parameters are provided in Table 1.

TABLE 1

LANDFILL 1 GWES MONITORING PROGRAM

Monitoring Locations	Monitoring Frequency	Sample Parameters	Sampling Date
Extraction Wells and Landfill 1 GWES Effluent	Quarterly	Total mercury, chloropicrin,	September 10, 2024
	Annually (first quarter)	MPS VOCs, MPS SVOCs	N/A
GWTP Influent	Quarterly	Total mercury, chloropicrin, MPS VOCs, chloride, alkalinity, iron, manganese, sodium	September 10, 2024

Analytical results from third quarter sampling indicate that mercury and chloropicrin concentrations are within the range of historical detections for Landfill 1 GWES wells and generally consistent with recent monitoring. Summary plots of mercury, chloropicrin, and carbon tetrachloride over time for the Landfill 1 GWES extraction wells are provided in Attachment 3.

2.0 LANDFILLS 3-5 GWES

2.1 Operations and Maintenance

Operation of the Landfills 3-5 GWES began in March 2021 with water level elevation set points as noted in Table 2.

TABLE 2

LANDFILLS 3-5 OPERATION INFORMATION

Extraction Well	Top of Fracture (approx. elev. ft NAVD 88)	Operation Set Points (ft NAVD 88)	
		Pump On	Pump Off
EW-14	-3	10	0
EW-15	-16	5	-10
EW-16	-28	0	-15

During each pumping cycle, the individual extraction well pumps run at 4 gpm. Extracted groundwater from each pump is discharged to a holding tank in the Landfills 3-5 control building. The holding tank is discharged to the GWTP via force main. The discharge pump runs at a flow rate of approximately 2.6 gpm between operational set points for water level in the holding tank.

The site experienced a power outage on July 12, 2024. The backup generator was not operating in automatic mode at the time, while waiting for some planned maintenance. The treatment plan operator started the generator in manual mode and power was resumed. The motor-actuated valve for EW-15 experienced some damage associated with the outage and power surge, and the extraction pump at this location remained off-line from approximately 11:00 a.m. on July 12 to 9:00 a.m. on July 17, 2024. At that time, the EW-15 pump was re-started with the damaged motor-actuated valve removed; EW-15 continued operating in stable fashion through the end of the third quarter, and the valve was replaced during the fourth quarter.

With the exception of the interruption in operation of EW-15 noted above, the Landfills 3-5 GWES operated according to plan during the third quarter of 2024.

2.2 Water Level Elevations

Water level elevations in extraction wells and nearby monitoring points are recorded hourly by data logging pressure transducers. Pressure transducer graphs for third quarter 2024 from individual monitoring points are provided in Attachment 6 and transducer data are provided in Attachment 7. Water level elevations in the vicinity of the Landfills 3-5 GWES are shown on Figure 3, along with interpreted water level elevation contours.

2.3 Laboratory Analytical Data

Samples for third quarter monitoring were obtained on September 12, 2024 and submitted for laboratory analysis of total mercury, chloropicrin, MPS VOCs, and MPS SVOCs.

Detected concentrations of chloropicrin were greater than MPS in the three Landfills 3-5 area extraction wells during third quarter monitoring. Other parameters were detected at all three extraction wells at concentrations greater than the laboratory reporting limit and less than MPS, and within the historical range of detections. Data from third quarter monitoring of Landfills 3-5 GWES extraction wells and the Landfills 3-5 effluent are included in Attachment 2, and concentration plots for extraction wells are included in Attachment 3.

3.0 LANDFILL 5 MONITORING

A summary of the Landfill 5 monitoring program is provided in Table 3. Landfill 5 Assessment and Detection monitoring was conducted according to the Short-Term CMP during the week of September 9, 2024.

TABLE 3

LANDFILL 5 MONITORING PROGRAMS

Program	Frequency	Monitoring Wells	Sample Parameters
Detection Monitoring	Semiannual (Quarters 1 and 3) ²	B-304-B1/O1 ¹ B-306-B3 ¹ B-307-B1/B2 B-307-O1 ¹	Total organic halogens, total organic carbon, pH, specific conductance, temperature, iron, manganese, sodium, mercury, chloride, sulfate, phenols
Assessment Monitoring	Quarterly	B-303-B1/B2/B3/O1 ⁽¹⁾ B-306-B1/B2	VOCs, mercury (unfiltered), pH, specific conductance
<p><u>Notes:</u></p> <p>¹ Monitoring wells B-304-O1, B-306-B3, B-307-O1, and B-303-O1 have historically either been dry or yielded an insufficient quantity of groundwater to obtain a groundwater sample.</p> <p>² Quarters 1 and 3 represent January through March and July through September, respectively.</p>			

Laboratory analytical results are generally consistent with recent monitoring results. All detected concentrations were below MPS where applicable.

4.0 SHORT-TERM REMEDIATION MONITORING

Mallinckrodt began remediation monitoring according to the Short-Term CMP in February 2017. Remediation monitoring according to several area monitoring programs has been completed, as reported in previous data transmittal reports. Monitoring according to the Plant Area Remediation Monitoring Program continues, with a final sample date to be determined according to the schedule of remediation for the Plant Area. A summary of the Plant Area Monitoring Program is provided in Table 4.

TABLE 4

PLANT AREA SHORT-TERM REMEDIATION MONITORING PROGRAM

Media	Locations	Parameters	Frequency	Final Sample Date
Groundwater	B-315-O1/O2/B1, B-316-O1/B1, B-327-O1, MW-403-O1/O2/B1, MW-509-B1, MW-510-O1, MW-701-O1/B1/B2	Total Mercury, Chloropicrin, MPS VOCs, MPS SVOCs	Quarterly	To Be Determined
Surface Water	SW15-6, SW15-7	Total Mercury, Carbon Tetrachloride, Chloroform	Monthly	
Sediment	SD15-7, SD15-8	Total Mercury, Chloropicrin	Monthly	
Water Level	B-315-O1/O2/B1, B-316-O1/B1, B-327-O1, MW-403-O1/O2/B1, MW-503-O1/B1, MW-509-B1, MW-701-O1/O2/B1/B2, MW-702-O1/B1/B2	N/A	Quarterly	

Remediation monitoring in the vicinity of the Plant Area was conducted during the weeks of July 8, August 12, and September 9, 2024. Sampling was conducted in general accordance with the Short-Term CMP and with previous monitoring rounds.

4.1 Groundwater

Where parameters were detected in groundwater above laboratory reporting limits, they were below MPS and generally within or near the historical range of detections with the following exceptions:

- B-316-B1: Acetone, 1,1-dichloroethene, and trichloroethene were detected at concentrations above MPS and within the range of historical detections;
- B-316-O1: Mercury and chloropicrin were detected at concentrations above MPS and within the range of historical detections; and
- B-327-O1: Mercury was detected at a concentration above MPS and within the range of historical detections.

Groundwater from these monitoring wells is captured by the Landfill 1 GWES.

4.2 Surface Water

No MPS VOCs were detected above laboratory reporting limits in Plant Area surface water samples during third quarter monitoring. Mercury was detected above the laboratory reporting limit and above MPS at surface water monitoring location SW15-7 during September monitoring; mercury was not detected above laboratory reporting limits in other surface water samples at this location and all third quarter samples from SW15-6.

4.3 Sediment

Sediment sampling was conducted at locations SD15-7 and SD15-8 during third quarter monitoring. A shallow sample (“A” depth) was obtained from each location where sediment accumulation was observed. Where there was sufficient thickness of sediment, a deeper (“B” depth) sample was obtained according to the Short-Term CMP. Sample depths are provided in the data summary table in Attachment 2.

Consistent with previous monitoring, chloropicrin was not detected above laboratory reporting limits in any sediment samples obtained in the third quarter. Mercury sampling results from SD15-7 and SD15-8 were below MPS and consistent with previous sampling results.

5.0 SITE PERIMETER MONITORING

A summary of the Site Perimeter Monitoring Program is provided in Table 5. Site Perimeter monitoring was conducted during the week of September 9, 2024. Sampling was conducted according to the Short-Term CMP and with recent monitoring rounds.

TABLE 5

SITE PERIMETER MONITORING PROGRAM

Monitoring Locations	Site Area	Sample Parameters
P-13-B1/B2	Landfill 3	Total mercury, chloropicrin, MPS VOCs, chloride
MW-704-O1/O2	Landfill 2	Total mercury, chloride
MW-511-B1/B2	South of Plant Area	Total mercury, chloride
B-321-B1/B2	South of Plant Area	Total mercury, chloride
B-320-O1/B1	Landfill 1	Total mercury, chloropicrin, chloride, MPS SVOCs

Third quarter laboratory analytical results for the Site Perimeter Monitoring Program are generally consistent with recent monitoring results. Detected concentrations were below MPS, with the exception of chloropicrin detected in B-320-B1 and P-13-B1 greater than MPS and within the historical range of detected concentrations. Groundwater from the vicinity of B-320-B1 is within the inferred capture zone for the Landfill 1 GWES. Groundwater from the vicinity of P-13-B1 is within the inferred capture zone for the Landfills 3-5 GWES.

6.0 FORMER LANDFILL 1 VICINITY MONITORING

Monitoring for the Former Landfill 1 Vicinity Monitoring Program was conducted during the week of September 12, 2024. A summary of the monitoring program is provided in Table 6.

TABLE 6

FORMER LANDFILL 1 VICINITY MONITORING PROGRAM

Monitoring Locations	Monitoring Frequency	Sample Parameters
MW-401-O1, MW-402-O1, MW-801-O1, MW-802-O1, MW-803-O1, PZ14-09	Quarterly, December 2019 through December 2020	Total mercury, chloropicrin, MPS VOCs, MPS SVOCs
MW-401-O1, MW-402-O1, MW-801-O1, MW-802-O1, MW-803-O1, PZ14-09	Quarterly, beginning in the first quarter of 2021	Total mercury, chloropicrin
	Semiannually, beginning in the first quarter of 2021	MPS VOCs, MPS SVOCs

The following summary observations of laboratory analytical results from third quarter monitoring are generally consistent with recent quarterly monitoring:

- Mercury concentrations exceeded MPS at Former Landfill 1 vicinity monitoring locations MW-401-O1, MW-402-O1, MW-801-O1, MW-802-O1, and PZ14-09.
- Chloropicrin exceeded MPS in MW-402-O1 and was within the range of past detections. Chloropicrin was not detected above the laboratory reporting limits at other monitoring locations.
- Trichloroethene was detected at a concentration above MPS and within the historical range of detections at MW-801-O1. Other VOCs were detected above laboratory reporting limits and less than MPS at this and other monitoring locations.

Concentration plots for selected Former Landfill 1 vicinity monitoring wells are included in Attachment 3. Groundwater from this area is captured by the Landfill 1 GWES.

7.0 LANDFILLS 3-5 VICINITY MONITORING

Monitoring at locations in the vicinity of the Landfills 3-5 GWES was conducted during the week of September 9, 2024. A summary of the monitoring program is provided in Table 7.

TABLE 7

LANDFILLS 3-5 VICINITY MONITORING PROGRAM

Monitoring Locations	Monitoring Frequency	Sample Parameters
P-13-B1, PZ-720-B1, PZ-721-B1, PZ-722-B1, PZ-723-B1, PZ-724-B1	Quarterly beginning March 2021	Total mercury, chloropicrin, MPS VOCs, MPS SVOCs

Concentrations of mercury, chloropicrin, and MPS VOCs were detected at concentrations within the historical range of detections and less than MPS, except for chloropicrin detected greater than MPS at monitoring location P-13-B1. Concentration plots for selected Landfills 3-5 vicinity monitoring points are included in Attachment 3.

8.0 CLOSING

The fourth quarter 2024 sampling event was conducted during the week of December 9, 2024. The schedule was communicated to MEDEP.

If you have any questions concerning the third quarter 2024 monitoring programs conducted as part of the Short-Term CMP, please do not hesitate to contact Dave Kelley or me.

Very truly yours,

SEVEE & MAHER ENGINEERS, INC.



Lisa J. Jacob, L.G.
Principal/Senior Geologist

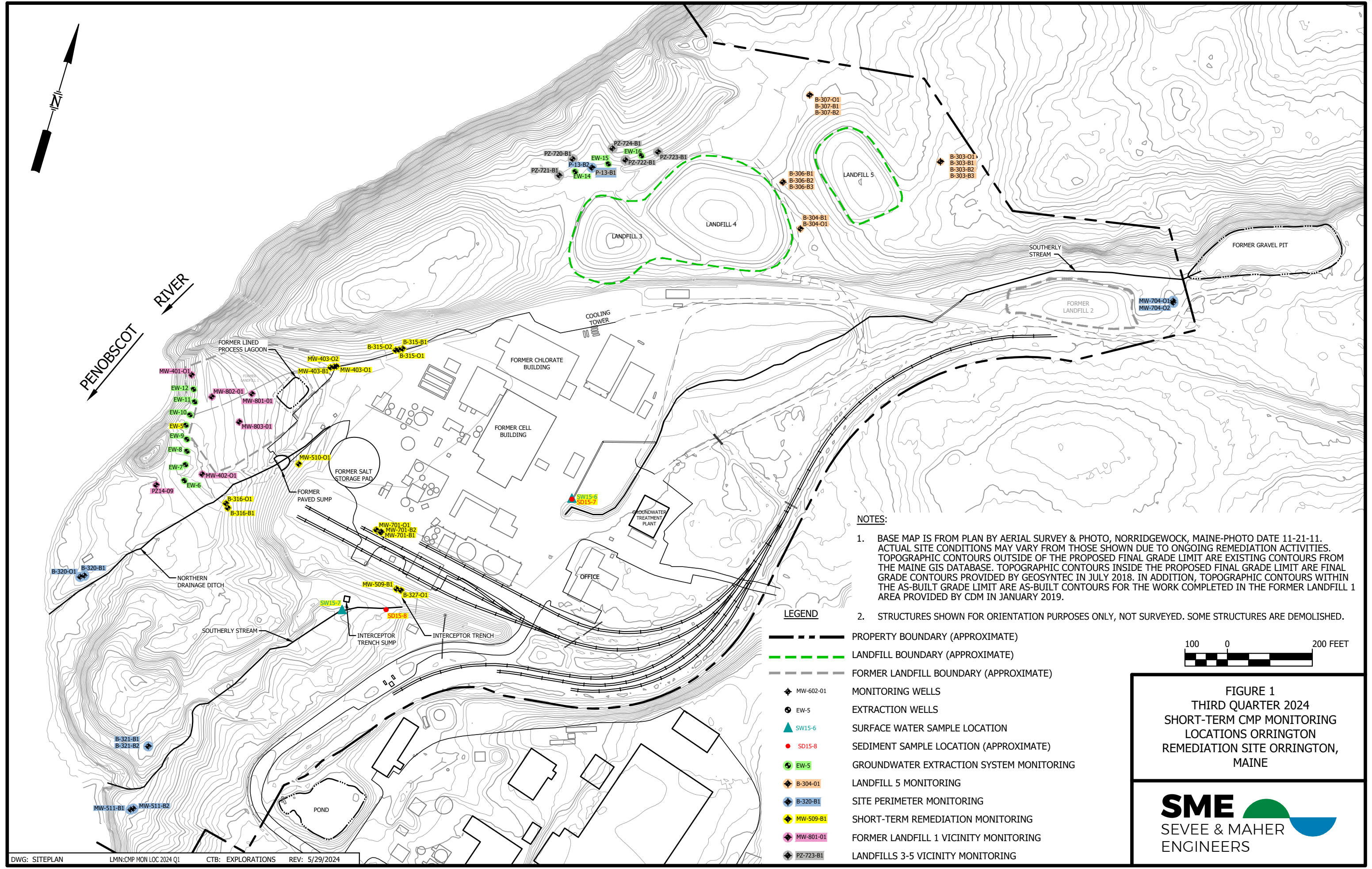
Attachments:

- Figure 1 – Third Quarter 2024 Short-Term CMP Monitoring Locations
- Figure 2 – Landfill 1 Average Groundwater Elevations
- Figure 3 – Landfills 3-5 Interpreted Pumping Bedrock Groundwater Potentiometric Surface
- Attachment 1 – Field Sheets
- Attachment 2 – Data Summary Reports
- Attachment 3 – Concentration Plots
- Attachment 4 – Landfill 1 GWES Flow Meter and Transducer Graphs
- Attachment 5 – Landfill 1 GWES Transducer and Flow Meter Data (Excel Format)
- Attachment 6 – Landfills 3-5 GWES Daily Flow and Transducer Graphs
- Attachment 7 – Landfills 3-5 GWES Daily Flow and Transducer Data (Excel Format)

cc: Dave Kelley, Mallinckrodt US LLC (via email)
Chris Evans, MEDEP (via email)
Orrington Public Library (hard copy only)

FIGURES

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NOTES:

1. BASE MAP IS FROM PLAN BY AERIAL SURVEY & PHOTO, NORRIDGEWOCK, MAINE-PHOTO DATE 11-21-11. ACTUAL SITE CONDITIONS MAY VARY FROM THOSE SHOWN DUE TO ONGOING REMEDIATION ACTIVITIES. TOPOGRAPHIC CONTOURS OUTSIDE OF THE PROPOSED FINAL GRADE LIMIT ARE EXISTING CONTOURS FROM THE MAINE GIS DATABASE. TOPOGRAPHIC CONTOURS INSIDE THE PROPOSED FINAL GRADE LIMIT ARE FINAL GRADE CONTOURS PROVIDED BY GEOSYNTEC IN JULY 2018. IN ADDITION, TOPOGRAPHIC CONTOURS WITHIN THE AS-BUILT GRADE LIMIT ARE AS-BUILT CONTOURS FOR THE WORK COMPLETED IN THE FORMER LANDFILL 1 AREA PROVIDED BY CDM IN JANUARY 2019.
2. STRUCTURES SHOWN FOR ORIENTATION PURPOSES ONLY, NOT SURVEYED. SOME STRUCTURES ARE DEMOLISHED.

LEGEND

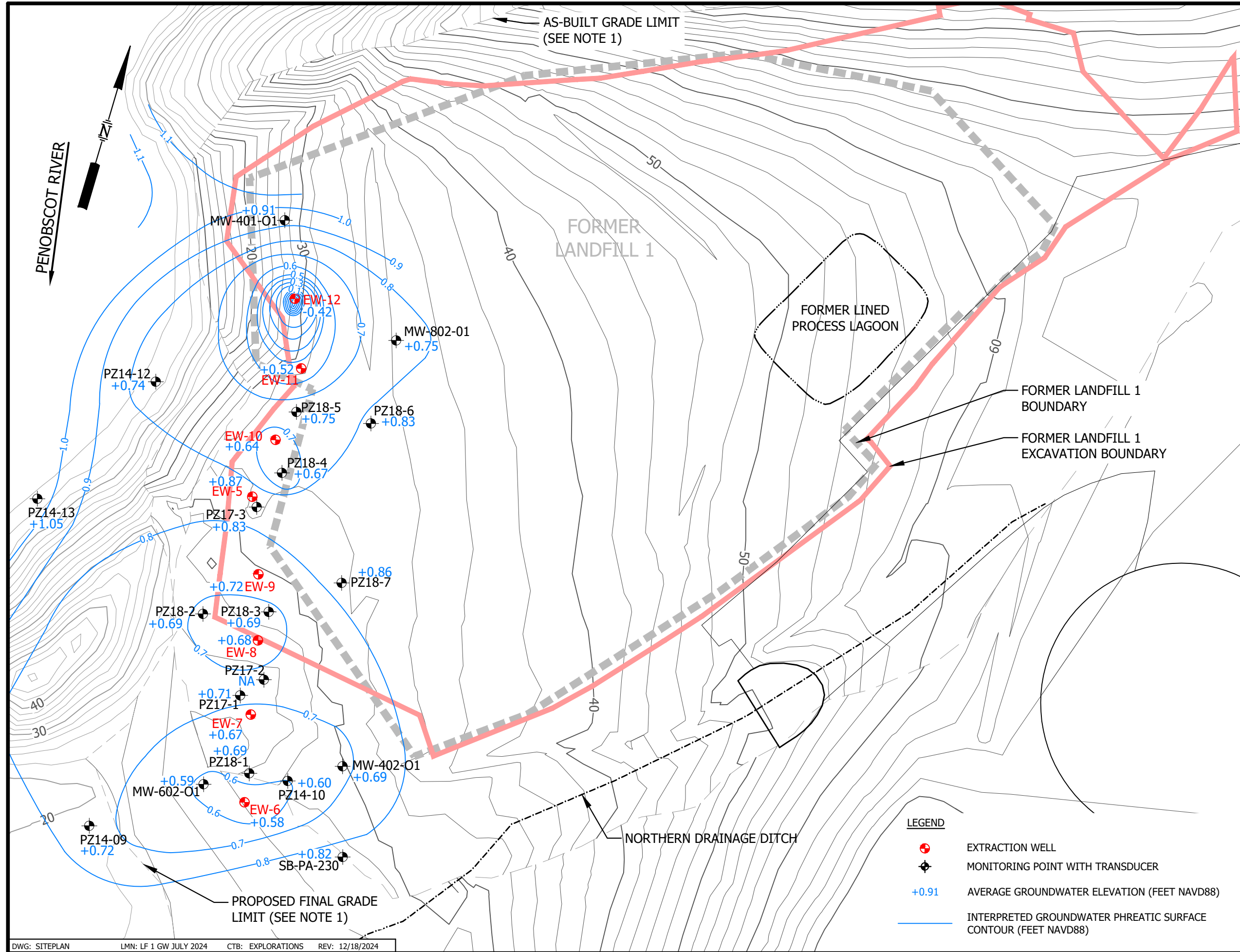
- PROPERTY BOUNDARY (APPROXIMATE)
- LANDFILL BOUNDARY (APPROXIMATE)
- FORMER LANDFILL BOUNDARY (APPROXIMATE)
- MW-602-01 MONITORING WELLS
- EW-5 EXTRACTION WELLS
- SW15-6 SURFACE WATER SAMPLE LOCATION
- SD15-8 SEDIMENT SAMPLE LOCATION (APPROXIMATE)
- EW-5 GROUNDWATER EXTRACTION SYSTEM MONITORING
- B-304-01 LANDFILL 5 MONITORING
- B-320-B1 SITE PERIMETER MONITORING
- MW-509-B1 SHORT-TERM REMEDIATION MONITORING
- MW-801-01 FORMER LANDFILL 1 VICINITY MONITORING
- PZ-723-B1 LANDFILLS 3-5 VICINITY MONITORING



FIGURE 1
THIRD QUARTER 2024
SHORT-TERM CMP MONITORING
LOCATIONS ORRINGTON
REMEDATION SITE ORRINGTON,
MAINE



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- NOTES:**
1. BASE MAP IS FROM PLAN BY AERIAL SURVEY & PHOTO, NORRIDGEWOCK, MAINE-PHOTO DATE 11-21-11. ACTUAL SITE CONDITIONS MAY VARY FROM THOSE SHOWN DUE TO ONGOING REMEDIATION ACTIVITIES. TOPOGRAPHIC CONTOURS OUTSIDE OF THE PROPOSED FINAL GRADE LIMIT ARE EXISTING CONTOURS FROM THE MAINE GIS DATABASE. TOPOGRAPHIC CONTOURS INSIDE THE PROPOSED FINAL GRADE LIMIT ARE FINAL GRADE CONTOURS PROVIDED BY GEOSYNTEC IN JULY 2018. IN ADDITION, TOPOGRAPHIC CONTOURS WITHIN THE AS-BUILT GRADE LIMIT ARE AS-BUILT CONTOURS FOR THE WORK COMPLETED IN THE FORMER LANDFILL 1 AREA PROVIDED BY CDM IN JANUARY 2019.
 2. WATER LEVEL ELEVATIONS REPRESENT AN AVERAGE CONDITION FROM JULY 29, 2024 THROUGH JULY 31, 2024 IN ORDER TO ACCOUNT FOR TIDAL EFFECTS.
 3. WATER LEVEL ELEVATIONS WERE RECORDED DURING EXTRACTION FROM FINAL EXTRACTION WELLS AT APPROXIMATELY 3.7 TO 3.8 GALLONS PER MINUTE (GPM) EACH FROM EW-5 THROUGH EW-12 (30.2 GPM COLLECTIVELY).

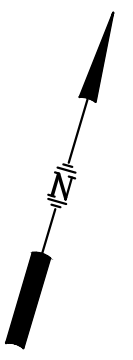


FIGURE 2
LANDFILL 1
 AVERAGE GROUNDWATER ELEVATIONS
 ORRINGTON REMEDIATION SITE
 ORRINGTON, MAINE

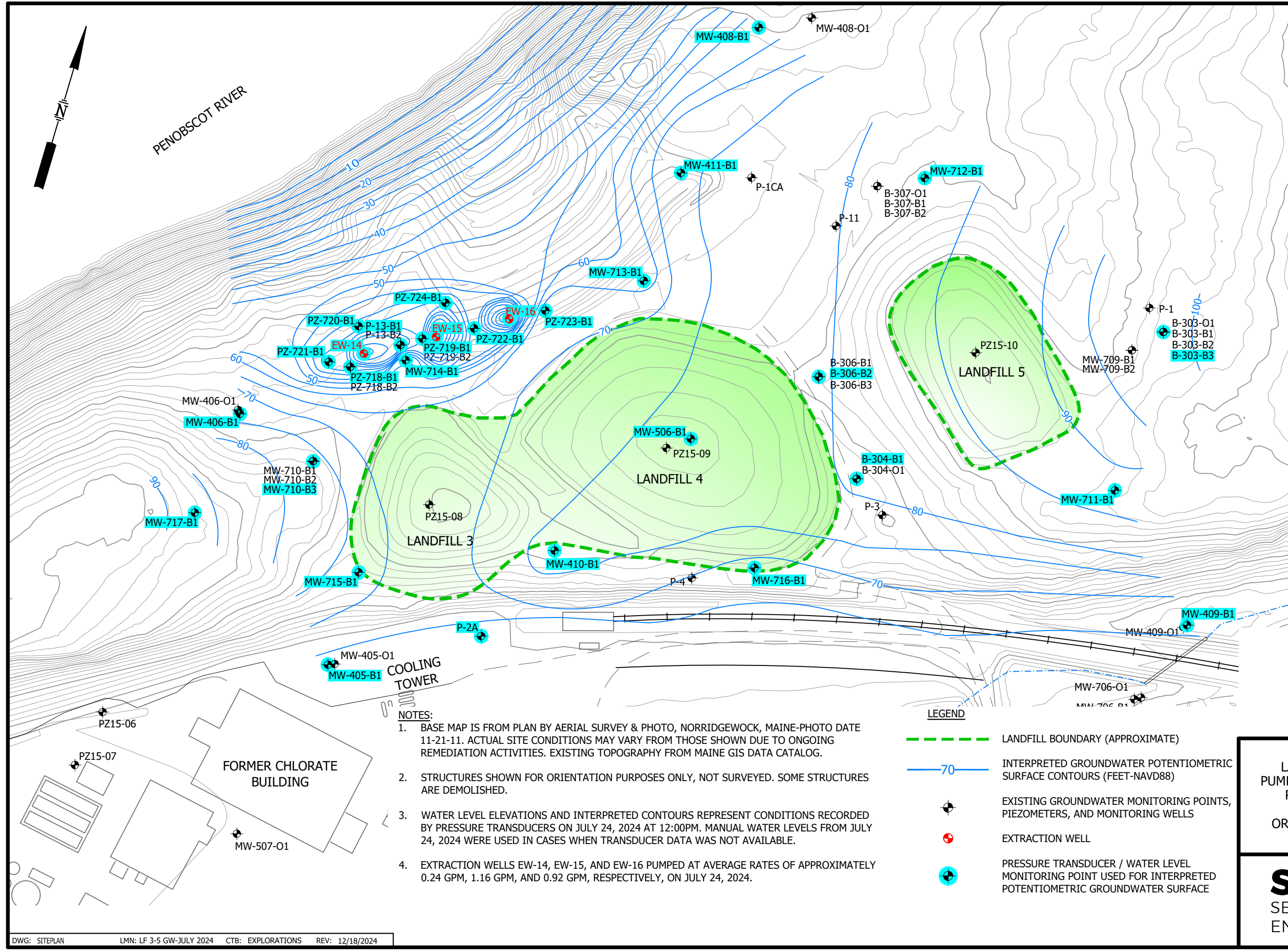
- LEGEND**
- EXTRACTION WELL
 - MONITORING POINT WITH TRANSDUCER
 - + AVERAGE GROUNDWATER ELEVATION (FEET NAVD88)
 - INTERPRETED GROUNDWATER PHREATIC SURFACE CONTOUR (FEET NAVD88)



PENOBSCOT RIVER



WELL IDENTIFICATION	GROUNDWATER POTENTIOMETRIC ELEVATION (FEET - NAVD88)
B-303-B3	97.78
B-304-B1	80.84
B-306-B2	79.46
EW-14	7.28
EW-15	-6.40
EW-16	-0.66
MW-405-B1	63.39
MW-406-B1	72.82
MW-408-B1	61.69
MW-409-B1	66.28
MW-410-B1	75.11
MW-411-B1	73.80
MW-506-B1	75.19
MW-710-B3	76.21
MW-711-B1	87.93
MW-712-B1	83.06
MW-713-B1	63.02
MW-714-B1	53.91
MW-715-B1	72.09
MW-716-B1	67.94
MW-717-B1	86.14
P-13-B1	21.43
P-13-B2	50.83
P-2A	63.62
PZ-718-B1	31.73
PZ-718-B2	34.44
PZ-719-B1	30.82
PZ-719-B2	41.08
PZ-720-B1	36.97
PZ-721-B1	31.94
PZ-722-B1	44.02
PZ-723-B1	66.82
PZ-724-B1	33.22



SOUTHERLY STREAM

NOTES:

1. BASE MAP IS FROM PLAN BY AERIAL SURVEY & PHOTO, NORRIDGEWOCK, MAINE-PHOTO DATE 11-21-11. ACTUAL SITE CONDITIONS MAY VARY FROM THOSE SHOWN DUE TO ONGOING REMEDIATION ACTIVITIES. EXISTING TOPOGRAPHY FROM MAINE GIS DATA CATALOG.
2. STRUCTURES SHOWN FOR ORIENTATION PURPOSES ONLY, NOT SURVEYED. SOME STRUCTURES ARE DEMOLISHED.
3. WATER LEVEL ELEVATIONS AND INTERPRETED CONTOURS REPRESENT CONDITIONS RECORDED BY PRESSURE TRANSDUCERS ON JULY 24, 2024 AT 12:00PM. MANUAL WATER LEVELS FROM JULY 24, 2024 WERE USED IN CASES WHEN TRANSDUCER DATA WAS NOT AVAILABLE.
4. EXTRACTION WELLS EW-14, EW-15, AND EW-16 PUMPED AT AVERAGE RATES OF APPROXIMATELY 0.24 GPM, 1.16 GPM, AND 0.92 GPM, RESPECTIVELY, ON JULY 24, 2024.

LEGEND

- LANDFILL BOUNDARY (APPROXIMATE)
- 70 INTERPRETED GROUNDWATER POTENTIOMETRIC SURFACE CONTOURS (FEET-NAVD88)
- EXISTING GROUNDWATER MONITORING POINTS, PIEZOMETERS, AND MONITORING WELLS
- EXTRACTION WELL
- PRESSURE TRANSDUCER / WATER LEVEL MONITORING POINT USED FOR INTERPRETED POTENTIOMETRIC GROUNDWATER SURFACE



FIGURE 3
LANDFILLS 3-5 INTERPRETED PUMPING BEDROCK GROUNDWATER POTENTIOMETRIC SURFACE LANDFILLS 3-5 AREA ORRINGTON REMEDIATION SITE ORRINGTON, MAINE



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