

BI-WEEKLY STATUS REPORT

Cobble Hill Landfill Closure

PROJECT # : PRJ18074	File #: 18074- BWR-71
REPORT #: 73	Date: July 30, 2020
SHA REPRESENTATIVES: Dr. Tony Sperling, P.Eng. Scott Garthwaite Carly Wolfe, EIT	Owner: Cobble Hill Holdings Ltd. Contractor: Allterra Construction Ltd.

Semi Monthly Reporting Requirements SPO MO1701

Per SPO MO1701 Section 4:

Commencing in the month that closure activities commence pursuant to the approved Updated Final Closure Plan, the Named Parties must submit semi-monthly status reports, certified by a Qualified Professional. The reports must include the status of closure activities, inspection results, quality control and testing results, photographs which support/document the quality control and testing results, inspection reports and other supporting documents as needed to fully document all stages and components of the closure activities.

Per Condition 10 of June 26, 2019 Letter Re: Second Amended Spill Prevention Order MO1701, dated June 29, 2017 – Final Closure Plan:

Identification of any deviations from the quality management plan and the construction activities work plan and implementation schedule referenced in conditions 3 and 4 of this approval; The results of inspections, repairs, quality controls and testing, in accordance with the quality management plan referenced in condition 5 of this approval; The planned activities (and associated timing) for the next reporting cycle; and The environmental monitoring program laboratory reports and tabulated results (Quarterly Only-Submitted quarterly, reviewed annually by others). Copies of all soil relocation documentation as required in condition 7 of this approval.

Status reports must be submitted by the 15th and 30th of each month (or the next business day thereafter if the 15th or 30th of the month is not a business day) until closure activities have been completed. Submissions must be made electronically to the following email inbox:
EnvironmentalCompliance@gov.bc.ca.

1. Status of Closure Activities

- Activities related to QMP “Construction Activities” occurred this reporting cycle.
- Placement of 50 mm thick sand layer on PEA occurred this period.
- Deployment of 12 oz. non-woven geotextile over sand layer on PEA occurred this period.
- Placement of 200 mm thick drainage gravel layer over 12 oz. geotextile on PEA occurred this period.
- Deployment of 8 oz. non-woven geotextile over gravel drainage layer on PEA occurred this period.
- Placement and compaction of common fill soil stabilizing wedge at toe of PEA occurred this reporting period.
- Growing medium importation occurred this reporting period. Source site is 2251 Bear Mountain Parkway.
- Cutting of geomembrane on PEA crest occurred this reporting period.
- Relocating of waste soil from SMA to PEA crest occurred this reporting period.
- Welding and repairing of geomembrane on PEA crest occurred this reporting period.
- Testing of newly installed geomembrane on PEA occurred this reporting period.

2. Inspection Results

- Permanent Encapsulation Area (PEA): Liner was cut open and a liner extension was installed. Liner damage was repaired and was tested and appears to be in good condition.
- Soil Management Area (SMA): All waste soil has been removed from the SMA and the area is clean and appears to be in good condition.
- Cut-off ditch upland of PEA: All works are in good condition, ditch still performing well.
- Pictures detailing inspection results are shown at the end of this report.

3. Results of Inspections, Repairs, Quality Controls and Testing, in Accordance with the Quality Management Plan

- See attached site inspection reports.
- Western Tank & Lining quality assurance/quality control (QA/QC) package will be included in subsequent bi-weekly report when completed.

4. Identification of Any Deviations from the Quality Management Plan and the Construction Activities Work Plan and Implementation Schedule

<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD	Notes:
<input checked="" type="checkbox"/> DEVIATIONS OCCURRED THIS REPORTING PERIOD	<p>Instead of installing draitube, it was elected to proceed with the approved sand, geotextile, and drainage gravel layers on the crest of the PEA.</p> <p>It was noted during site inspection on July 28, 2020 that the slopes of the crest of the PEA were built steeper than the designed 3H:1V as Alterra was trying to accommodate all of the waste soil within the crest area of the PEA. SHA has discussed design solution to address steep side slopes with Alterra, which will be finalized and included in subsequent bi-weekly report.</p>

5. The Planned Activities (and associated timing) for the Next Reporting Cycle

- Placement of 50 mm thick sand layer on PEA is to continue into the subsequent reporting cycle.
- Deployment of 12 oz. geotextile over sand layer on PEA is to continue into the subsequent reporting cycle.
- Placement of drainage gravel over 12 oz. geotextile layer on PEA is to continue into the subsequent reporting cycle.
- Placement of 8 oz. geotextile layer over drainage gravel layer on PEA is to continue into the subsequent reporting cycle.
- Placement and compaction of common fill soil stabilizing wedge is to continue into the subsequent reporting cycle.
- Placement of growing medium is to occur in subsequent reporting cycle.

6. Environmental Monitoring Program Laboratory Reports and Tabulated Results

- Water quality sampling at SW-1 occurred this reporting period. Analytical results will be attached to subsequent bi-weekly report when they are complete.

7. Copies of All Soil Relocation Documentation

- Origin site land use was assessed via Technical Guidance 10 on Contaminated Sites. Soil quality was confirmed per letters of assurance provided by CSAP to BC ENV.

8. Leachate Volumes Over Reporting Period

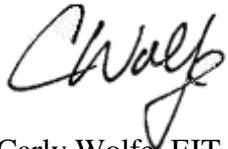
- Total Leachate Collected: 6.91 m³
- Total Leachate Stored: 46.34 m³

- Total Leachate Transferred: 0 m³

9. Pictures

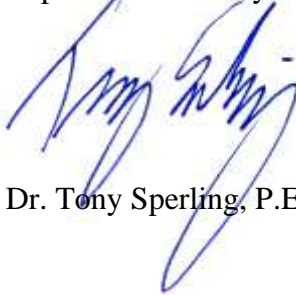
Please refer to attached daily site inspection reports.

Report prepared by:



Carly Wolfe, EIT

Report Reviewed by:



Dr. Tony Sperling, P.Eng.



July 30, 2020

Note: Report prepared by Sperling Hansen Associates Inc. If those in attendance have additions or objections to these notes, they should report back to Sperling Hansen Associates (SHA) within 3 days of receipt, otherwise, these notes will be considered a complete and accurate permanent record of this reporting period.

Attachments:

Cobble Hill Landfill Site Inspection Report 2020-07-15
Cobble Hill Landfill Site Inspection Report 2020-07-16
Cobble Hill Landfill Site Inspection Report 2020-07-17
Cobble Hill Landfill Site Inspection Report 2020-07-20
Cobble Hill Landfill Site Inspection Report 2020-07-21
Cobble Hill Landfill Site Inspection Report 2020-07-22
Cobble Hill Landfill Site Inspection Report 2020-07-23
Cobble Hill Landfill Site Inspection Report 2020-07-24
Cobble Hill Landfill Site Inspection Report 2020-07-25
Cobble Hill Landfill Site Inspection Report 2020-07-26
Cobble Hill Landfill Site Inspection Report 2020-07-27
Cobble Hill Landfill Site Inspection Report 2020-07-28

SITE INSPECTION REPORT

Cobble Hill Landfill Closure

PROJECT # : 2307

IEL REPRESENTATIVE:

Joel Clarkston, Grad Tech.

Date: July 15 2020

Time: 8:10AM – 3:10PM

Owner:

Cobble Hill Holdings Ltd.

Weather

Morning: Sun, Clear Skies

Contractor:

Allterra Construction Ltd

Afternoon: Sun, Clear Skies

Construction Activities:

Islander Engineering Ltd (IEL) performed a site inspection on July 15 2020 at the Cobble Hill Landfill (Landfill) to assess the site construction progress and the implementation of the Closure Plan design. This report summarizes the Landfill site inspection findings and concludes by identifying action items, if applicable.



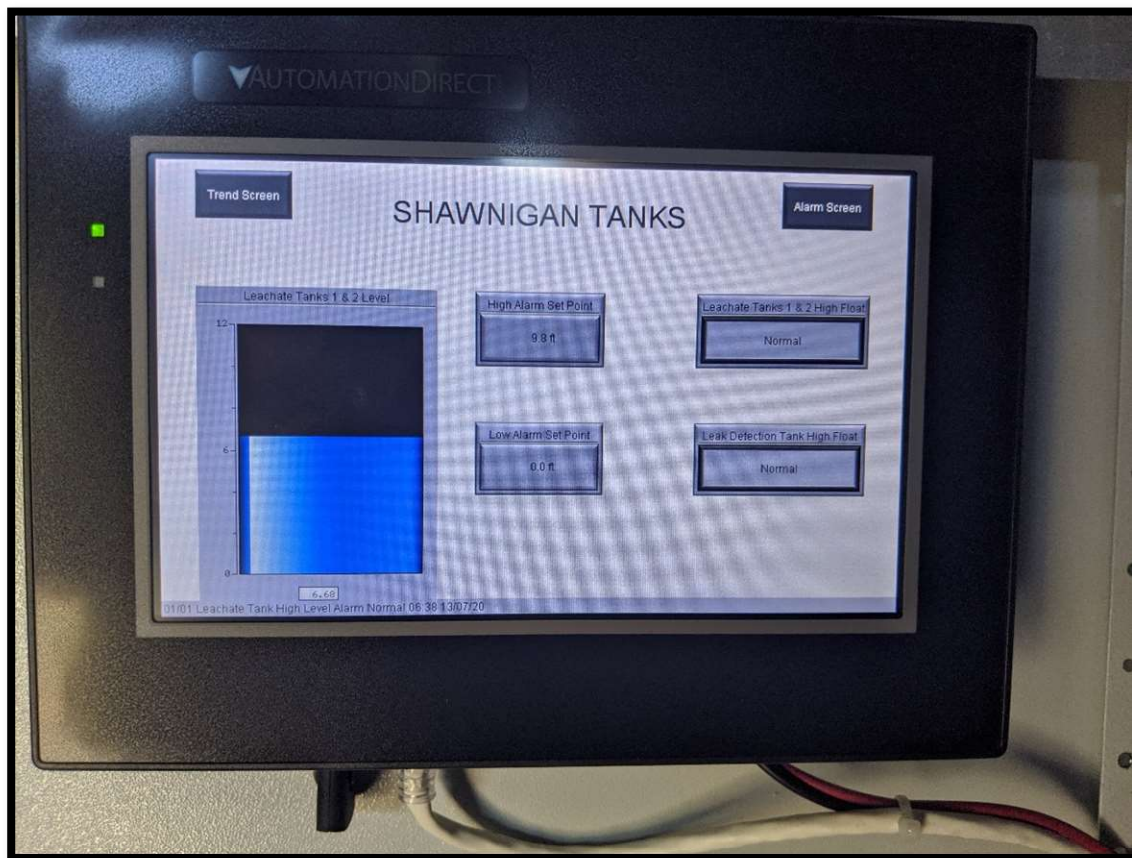
Picture # 1: Looking west towards the east side of the PEA prior to relocating previously stockpiled material around on site.



Picture # 2: View of the contractor relocating previously stockpiled material from the northern side near the Leachate Facility.



Picture # 3: View of the contractor continuing to move material previously stockpiled near the Leachate Facility. Previously stockpiled material was relocated closer to the northeast corner of the PEA throughout the day.



Picture # 4: Leachate levels = 6.68 ft.

Report prepared by:



Joel Clarkston, Grad Tech.
Islander Engineering Ltd.

SITE INSPECTION REPORT

Cobble Hill Landfill Closure

PROJECT # : 2307

IEL REPRESENTATIVE:

Rahim Gaidhar, GIT

Date: July 16, 2020

Time: 8:30AM – 4:00PM

Owner:

Cobble Hill Holdings Ltd.

Weather

Morning: Sun

Contractor:

Allterra Construction Ltd

Afternoon: Sun

Construction Activities:

Islander Engineering Ltd (IEL) performed a site inspection on July 16, 2020 at the Cobble Hill Landfill (Landfill) to assess the site construction progress and the implementation of the Closure Plan design. This report summarizes the Landfill site inspection findings and concludes by identifying action items.



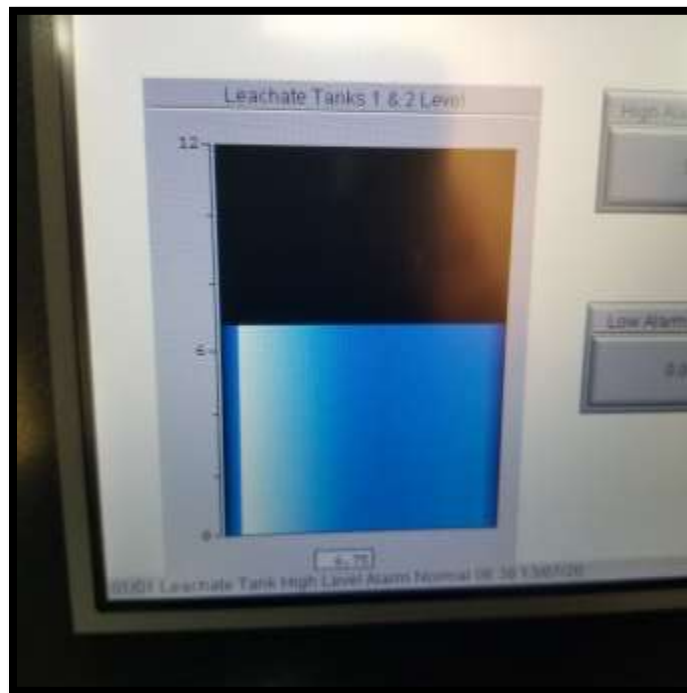
Picture # 1: Stockpile Location - South Stockpile



Picture # 2: Site – Looking Southwest



Picture # 3: Site – Looking West



Picture # 4: Leachate Level – 6.75ft per Tank

SITE INSPECTION REPORT

Cobble Hill Landfill Closure

PROJECT # : 2307

IEL REPRESENTATIVE:

Rahim Gaidhar, GIT

Date: July 17, 2020

Time: 8:30AM – 4:00PM

Owner:

Cobble Hill Holdings Ltd.

Weather

Morning: Sun

Contractor:

Allterra Construction Ltd

Afternoon: Sun

Construction Activities:

Islander Engineering Ltd (IEL) performed a site inspection on July 17, 2020 at the Cobble Hill Landfill (Landfill) to assess the site construction progress and the implementation of the Closure Plan design. This report summarizes the Landfill site inspection findings and concludes by identifying action items.



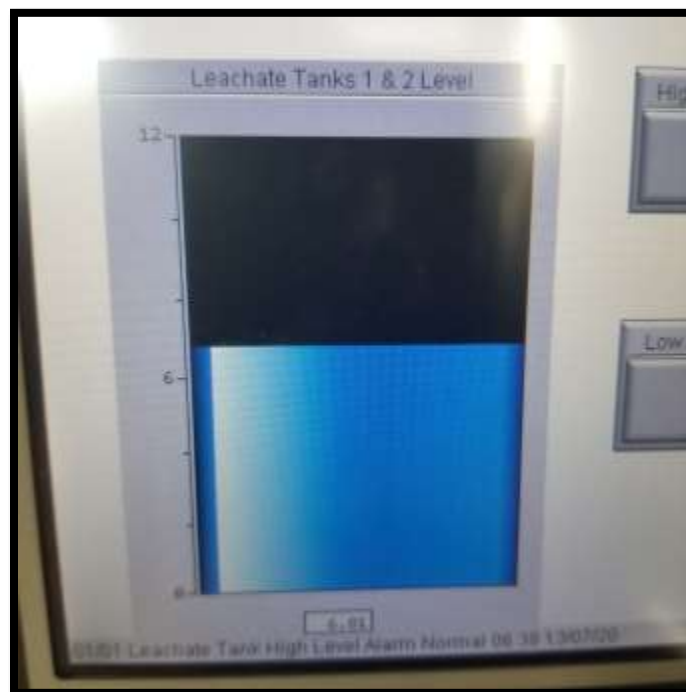
Picture # 1: Stockpile Location – East PEA Toe



Picture # 2: Soil Movement from the East Stockpile



Picture # 3: Soil Placement on the East Stockpile Toe



Picture # 4: Leachate Level – 6.81ft per Tank

SITE INSPECTION REPORT

Cobble Hill Landfill Closure

PROJECT # : 2307

IEL REPRESENTATIVE:

Joel Clarkston, Grad Tech.

Date: July 20 2020

Time: 8:10AM – 5:10PM

Owner:

Cobble Hill Holdings Ltd.

Weather

Morning: Sun, Clear Skies

Contractor:

Allterra Construction Ltd

Afternoon: Sun, Clear Skies

Construction Activities:

Islander Engineering Ltd (IEL) performed a site inspection on July 20 2020 at the Cobble Hill Landfill (Landfill) to assess the site construction progress and the implementation of the Closure Plan design. This report summarizes the Landfill site inspection findings and concludes by identifying action items, if applicable.



Picture # 1: Contractor began using quads to initially peel back the PEA membrane. The membrane was cut along three sides and peeled back in a single piece.



Picture # 2: Once the liner was within reach, an excavator was used to peel back the remaining portion of liner. The edge of the liner was sandwiched between two pieces of 4x4 and pinched together using the excavator thumb and bucket. The excavator then walked back until enough of the PEA had been exposed.



Picture # 3: Looking north across the exposed portion of the PEA.



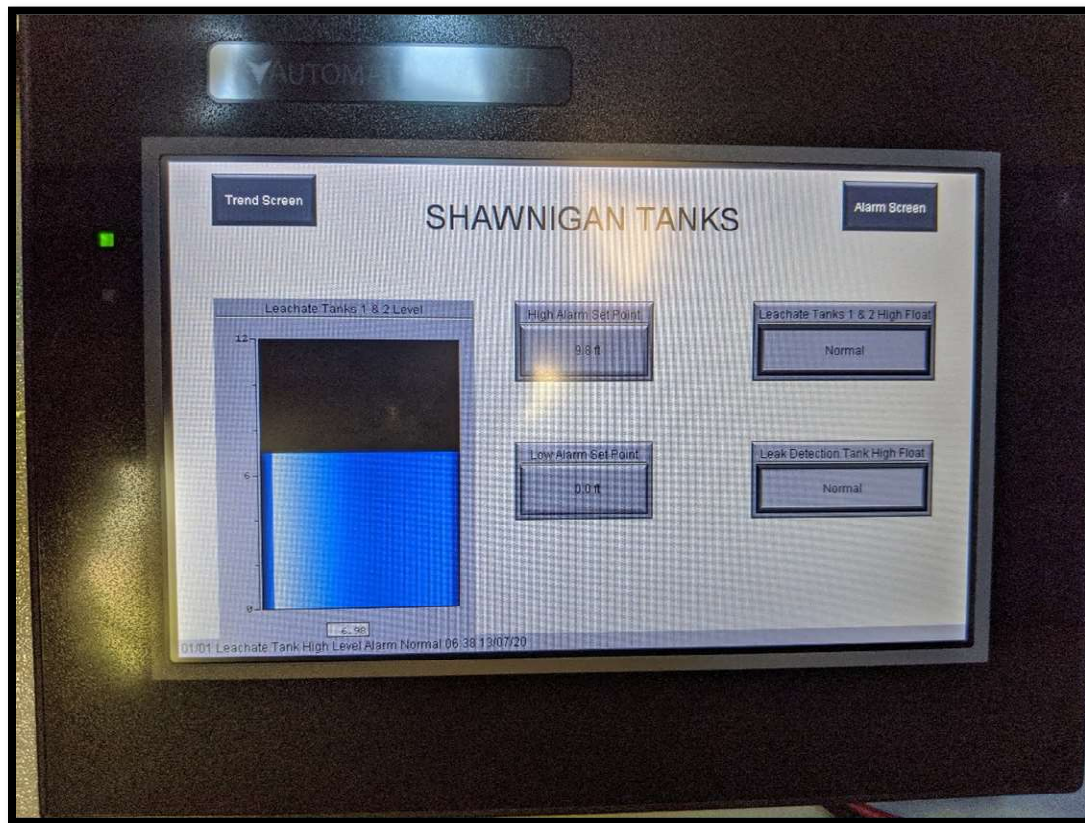
Picture # 4: Looking west across the exposed portion of the PEA towards the excavator used to peel back the liner.



Picture #5: Sand bedding and road plates were used to create a bridge for hauling onto the exposed portion of the PEA.



Picture #6: Previously stored on-site contaminated material was transferred to the exposed portion of the PEA. Hauling of the on-site contaminated material occurred throughout the day.



Picture # 7: Leachate levels = 6.98 ft.

Report prepared by:



Joel Clarkston, Grad Tech.
Islander Engineering Ltd.



SITE INSPECTION REPORT

Cobble Hill Landfill Closure

PROJECT # : PRJ18074

File #: 18074

SHA REPRESENTATIVE:

Date: July 21, 2020

Carly Wolfe, EIT

Time: 7:00AM – 4:00 PM

Owner:

Cobble Hill Holdings Ltd.

Weather

Morning: Sun

Contractor:

Allterra Construction Ltd

Afternoon: Sun

Construction Activities:

Sperling Hansen Associates (SHA) performed a site inspection on Tuesday July 21, 2020 at the Cobble Hill Landfill (Landfill) to assess the site construction progress and the implementation of the Closure Plan design. This report summarizes the Landfill site inspection findings.



Picture # 1: Alterra loading rock trucks with waste soils from the soil management area (SMA) to relocate to crest of permanent encapsulation area (PEA).



Picture # 2: Alterra dumping waste soils on crest of PEA.



Picture # 3: Ramp at south side of PEA to access crest of PEA.



Picture # 4: Allterra spreading waste soils on crest of PEA.



Picture #5: Allterra grading waste soils on crest of PEA.



Picture #6: Allterra grading waste soils on crest of PEA.



Picture #7: Waste soils completely removed from SMA.



Picture #8: Leachate tank reading 7.05 ft.

Report prepared by:



Carly Wolfe, EIT.

Note: Report prepared by Sperling Hansen Associates Inc. If those in attendance have additions or objections to these notes, they should report back to Sperling Hansen Associates (SHA) within 3 days of receipt, otherwise, these notes will be considered a complete and accurate permanent record of this day.

Enclosure: Nil



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- Landfill Engineering
- Solid Waste Planning
- Environmental Monitoring
- Landfill Fire Control

SITE INSPECTION REPORT

Cobble Hill Landfill Closure

PROJECT # : PRJ18074

File #: 18074

SHA REPRESENTATIVE:

Date: July 22, 2020

Carly Wolfe, EIT

Time: 7:45AM – 4:00 PM

Owner:

Cobble Hill Holdings Ltd.

Weather

Morning: Sun

Contractor:

Allterra Construction Ltd

Afternoon: Sun

Construction Activities:

Sperling Hansen Associates (SHA) performed a site inspection on Wednesday July 22, 2020 at the Cobble Hill Landfill (Landfill) to assess the site construction progress and the implementation of the Closure Plan design. This report summarizes the Landfill site inspection findings.



Picture # 1: Allterra deploying 12 oz. geotextile on crest of PEA



Picture # 2: Allterra deploying 12 oz. geotextile on crest of PEA.



Picture # 3: Alterra removing road crossing from south side of PEA.



Picture # 4: 12 oz. geotextile deployed on crest of PEA (looking west).



Picture # 5: 12 oz. geotextile deployed on crest of PEA (looking east). The geotextile was tucked under the existing geomembrane by 0.5 m.



Picture # 6: Alterra pulling geomembrane back over crest of PEA.



Picture #7: Geomembrane pulled back over crest of PEA.



Picture #8: Gap between geomembrane after pulling back over crest of PEA.



Picture #9: Example of damage to geomembrane from pulling over crest of PEA. Damages were identified for repair.



Picture #10: Leachate tank reading 7.11 ft.

Report prepared by:



Carly Wolfe, EIT.

Note: Report prepared by Sperling Hansen Associates Inc. If those in attendance have additions or objections to these notes, they should report back to Sperling Hansen Associates (SHA) within 3 days of receipt, otherwise, these notes will be considered a complete and accurate permanent record of this day.

Enclosure: Nil



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- Landfill Fire Control

SITE INSPECTION REPORT

Cobble Hill Landfill Closure

PROJECT # : PRJ18074

File #: 18074- SIR#3

SHA REPRESENTATIVE:

Date: July 23, 2020

Carly Wolfe, EIT

Time: 7:00AM – 4:30 PM

Owner:

Cobble Hill Holdings Ltd.

Weather

Morning: Sun

Contractor:

Allterra Construction Ltd

Afternoon: Sun

Construction Activities:

Sperling Hansen Associates (SHA) performed a site inspection on Thursday July 23, 2020 at the Cobble Hill Landfill (Landfill) to assess the site construction progress and the implementation of the Closure Plan design. This report summarizes the Landfill site inspection findings.



Picture # 1: 40 mil. LLDPE geomembrane on site used for patching and repairs of geomembrane on PEA.



Picture # 2: Geomembrane patches placed on PEA crest.



Picture # 3: Geomembrane patches placed on PEA crest.



Picture # 4: Strip requiring patching on east side of PEA.



Picture # 5: Western Tank & Lining (WTL) qualifying wedge welder by welding test strips.



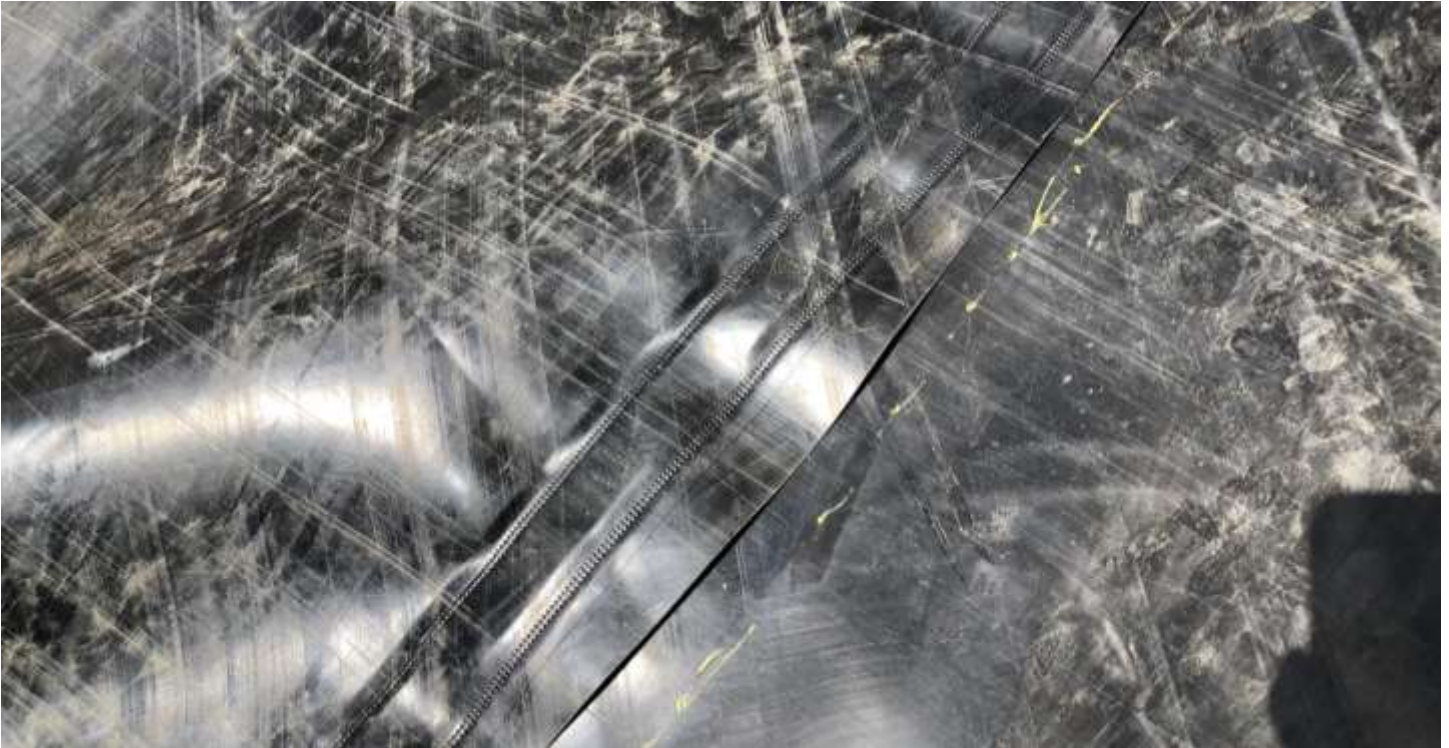
Picture # 6: WTL using tensiometer to conduct peel and shear tests on wedge weld test strips. A total of five peel tests and 2 shear tests were performed on the wedge weld.



Picture # 7: Passed test strips.



Picture # 8: WTL performing wedge weld on geomembrane patch on PEA.



Picture # 9: Close up of wedge weld.



Picture # 10: Wrinkles in geomembrane at south side of PEA.



Picture # 11: The wrinkles in the geomembrane were cut so that the geomembrane could be welded such that the geomembrane would lie flat.



Picture # 12: WTL wedge welding previous wrinkle in geomembrane.



Picture # 13: Completed wedge weld.



Picture #14: Looking south at PEA



Picture # 15: Alterra relocated common fill to north side of PEA.



Picture #16: Looking southwest at site.



Picture #17: Leachate tank reading 7.17 ft.

Report prepared by:



Carly Wolfe, EIT.

Note: Report prepared by Sperling Hansen Associates Inc. If those in attendance have additions or objections to these notes, they should report back to Sperling Hansen Associates (SHA) within 3 days of receipt, otherwise, these notes will be considered a complete and accurate permanent record of this day.

Enclosure: Nil



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SITE INSPECTION REPORT

Cobble Hill Landfill Closure

PROJECT # : PRJ18074

File #: 18074

SHA REPRESENTATIVE:

Date: July 24, 2020

Carly Wolfe, EIT

Time: 7:00AM – 4:00 PM

Owner:

Cobble Hill Holdings Ltd.

Weather

Morning: Sun

Contractor:

Allterra Construction Ltd

Afternoon: Sun

Construction Activities:

Sperling Hansen Associates (SHA) performed a site inspection on Friday July 24, 2020 at the Cobble Hill Landfill (Landfill) to assess the site construction progress and the implementation of the Closure Plan design. This report summarizes the Landfill site inspection findings.



Picture # 1: WTL using tensiometer to test wedge weld.



Picture # 2: Examples of passed wedge weld test strips.



Picture # 3: WTL wedge welding geomembrane patch on crest of PEA.



Picture # 4: WTL wedge welding geomembrane patch on crest of PEA.



Picture # 5: Example of geomembrane damage requiring repair



Picture # 6: WTL installing patch on geomembrane.



Picture # 7: Alterra excavating and relocating on-site soils



Picture # 8: Alterra grading soils on north slope of PEA



Picture # 9: Leachate tank reading 7.23 ft.

Report prepared by:



Carly Wolfe, EIT.

Note: Report prepared by Sperling Hansen Associates Inc. If those in attendance have additions or objections to these notes, they should report back to Sperling Hansen Associates (SHA) within 3 days of receipt, otherwise, these notes will be considered a complete and accurate permanent record of this day.

Enclosure: Nil



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- Solid Waste Planning
- Environmental Monitoring
- Landfill Fire Control

SITE INSPECTION REPORT

Cobble Hill Landfill Closure

PROJECT # : PRJ18074

File #: 18074

SHA REPRESENTATIVE:

Date: July 25, 2020

Carly Wolfe, EIT

Time: 7:00AM – 4:00 PM

Owner:

Cobble Hill Holdings Ltd.

Weather

Morning: Sun

Contractor:

Allterra Construction Ltd

Afternoon: Sun

Construction Activities:

Sperling Hansen Associates (SHA) performed a site inspection on Saturday July 25, 2020 at the Cobble Hill Landfill (Landfill) to assess the site construction progress and the implementation of the Closure Plan design. This report summarizes the Landfill site inspection findings.



Picture # 1: Geomembrane used for patching geomembrane on PEA



Picture # 2: WTL qualifying wedge welder.



Picture # 3: Wedge weld samples passed.



Picture # 4: WTL qualifying extrusion welder.



Picture # 5: WTL using tensiometer to test extrusion weld samples.



Picture # 6: Example of failed extrusion weld. WTL re-qualified the extrusion welder and re-sampled.



Picture # 7: Example of passed extrusion weld sample.



Picture # 8: WTL wedge welding patch on north side of PEA crest.



Picture # 9: Geomembrane patch on west side of PEA crest.



Picture # 10: WTL cleaning geomembrane prior to wedge welding to ensure integrity of weld.



Picture # 11: WTL wedge welding patch on west side of PEA crest.



Picture # 12: WTL extrusion welding patch on southeast side of PEA crest.



Picture # 13: Example of extrusion weld patch on geomembrane.



Picture # 14: Leachate tank reading 7.30 ft.

Report prepared by:



Carly Wolfe, EIT.

Note: Report prepared by Sperling Hansen Associates Inc. If those in attendance have additions or objections to these notes, they should report back to Sperling Hansen Associates (SHA) within 3 days of receipt, otherwise, these notes will be considered a complete and accurate permanent record of this day.

Enclosure: Nil



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- Landfill Fire Control

SITE INSPECTION REPORT

Cobble Hill Landfill Closure

PROJECT # : PRJ18074

File #: 18074

SHA REPRESENTATIVE:

Date: July 26, 2020

Carly Wolfe, EIT

Time: 7:00AM – 4:00 PM

Owner:

Cobble Hill Holdings Ltd.

Weather

Morning: Sun

Contractor:

Allterra Construction Ltd

Afternoon: Sun

Construction Activities:

Sperling Hansen Associates (SHA) performed a site inspection on Sunday July 26, 2020 at the Cobble Hill Landfill (Landfill) to assess the site construction progress and the implementation of the Closure Plan design. This report summarizes the Landfill site inspection findings.



Picture # 1: WTL qualifying wedge welder.



Picture # 2: Extrusion weld test strip.



Picture # 3: WTL using tensiometer to test wedge weld and extrusion weld samples.



Picture # 4: Example of passed wedge weld and extrusion weld samples.



Picture # 5: Geomembrane patch on north crest of PEA.



Picture #6: Geomembrane patch on west crest of PEA.



Picture # 7 : WTL wedge welding geomembrane on west crest of PEA.



Picture # 8: WTL installing geomembrane patch on south crest of PEA.



Picture # 9: WTL extrusion welding geomembrane patch on south crest of PEA.



Picture # 10: Example of extrusion welded patch on geomembrane.

Report prepared by:



Carly Wolfe, EIT.

Note: Report prepared by Sperling Hansen Associates Inc. If those in attendance have additions or objections to these notes, they should report back to Sperling Hansen Associates (SHA) within 3 days of receipt, otherwise, these notes will be considered a complete and accurate permanent record of this day.

Enclosure: Nil



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- Environmental Monitoring
- Landfill Fire Control

SITE INSPECTION REPORT

Cobble Hill Landfill Closure

PROJECT # : PRJ18074

File #: 18074

SHA REPRESENTATIVE:

Date: July 27, 2020

Carly Wolfe, EIT

Time: 7:00AM – 4:00 PM

Owner:

Cobble Hill Holdings Ltd.

Weather

Morning: Sun

Contractor:

Allterra Construction Ltd

Afternoon: Sun

Construction Activities:

Sperling Hansen Associates (SHA) performed a site inspection on Monday July 27, 2020 at the Cobble Hill Landfill (Landfill) to assess the site construction progress and the implementation of the Closure Plan design. This report summarizes the Landfill site inspection findings.



Picture # 1: Extrusion weld test sample.



Picture # 2: WTL using tensiometer to test extrusion weld samples. A total of 5 peel tests and 2 shear tests were performed.



Picture # 3: Passed test samples.



Picture # 4: Examples of geomembrane damage marked for repair



Picture #5: Small repairs with extrusion welder on geomembrane liner.



Picture #6: WTL air testing wedge weld.



Picture #7: Example of air test results. Pressurized to 40 psi for 5 minutes. Passed.



Picture #8: WTL re-qualifying the extrusion welder in the afternoon due to high outdoor temperatures.



Picture #9: WTL performing extrusion weld.



Picture #10: Example of extrusion welded patch on geomembrane.



Picture #11: WTL performing vacuum box test on extrusion weld.



Picture # 12: Alterra using slinger to place 50mm thick sand layer on southwest crest of PEA. In some areas the sand was applied thicker than 50 mm so that it would not slide down the slopes of the ditch.



Picture # 13: Sand placed in ditch at northwest crest of PEA.



Picture # 14: Alterra deployed 12 oz. geotextile above sand layer at northwest crest ditch.



Picture # 15: Alterra placing 200 mm thick layer of drainage gravel in northwest crest ditch above 12 oz. geotextile.



Picture # 16: Drainage gravel placed in northwest crest ditch above 12 oz. geotextile.

Report prepared by:



Carly Wolfe, EIT.

Note: Report prepared by Sperling Hansen Associates Inc. If those in attendance have additions or objections to these notes, they should report back to Sperling Hansen Associates (SHA) within 3 days of receipt, otherwise, these notes will be considered a complete and accurate permanent record of this day.

Enclosure: Nil



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- Environmental Monitoring
- Landfill Fire Control

SITE INSPECTION REPORT

Cobble Hill Landfill Closure

PROJECT # : PRJ18074

File #: 18074

SHA REPRESENTATIVES:

Date: July 28, 2020

Carly Wolfe, EIT
Dr. Tony Sperling, P.Eng.

Time: 7:00AM – 4:00 PM

Owner:

Cobble Hill Holdings Ltd.

Weather

Morning: Sun

Contractor:

Allterra Construction Ltd

Afternoon: Sun

Construction Activities:

Sperling Hansen Associates (SHA) performed a site inspection on Tuesday July 28, 2020 at the Cobble Hill Landfill (Landfill) to assess the site construction progress and the implementation of the Closure Plan design. This report summarizes the Landfill site inspection findings and concludes by identifying action items.



Picture # 1: Looking northwest at crest of PEA.



Picture # 2: 50mm thick sand layer placed on east crest of PEA.



Picture # 3: Alterra deploying 12 oz. geotextile over sand layer on east crest of PEA.



Picture # 5: Alterra using slinger to place 200mm thick layer of drainage gravel over 12 oz. geotextile on east crest of PEA.

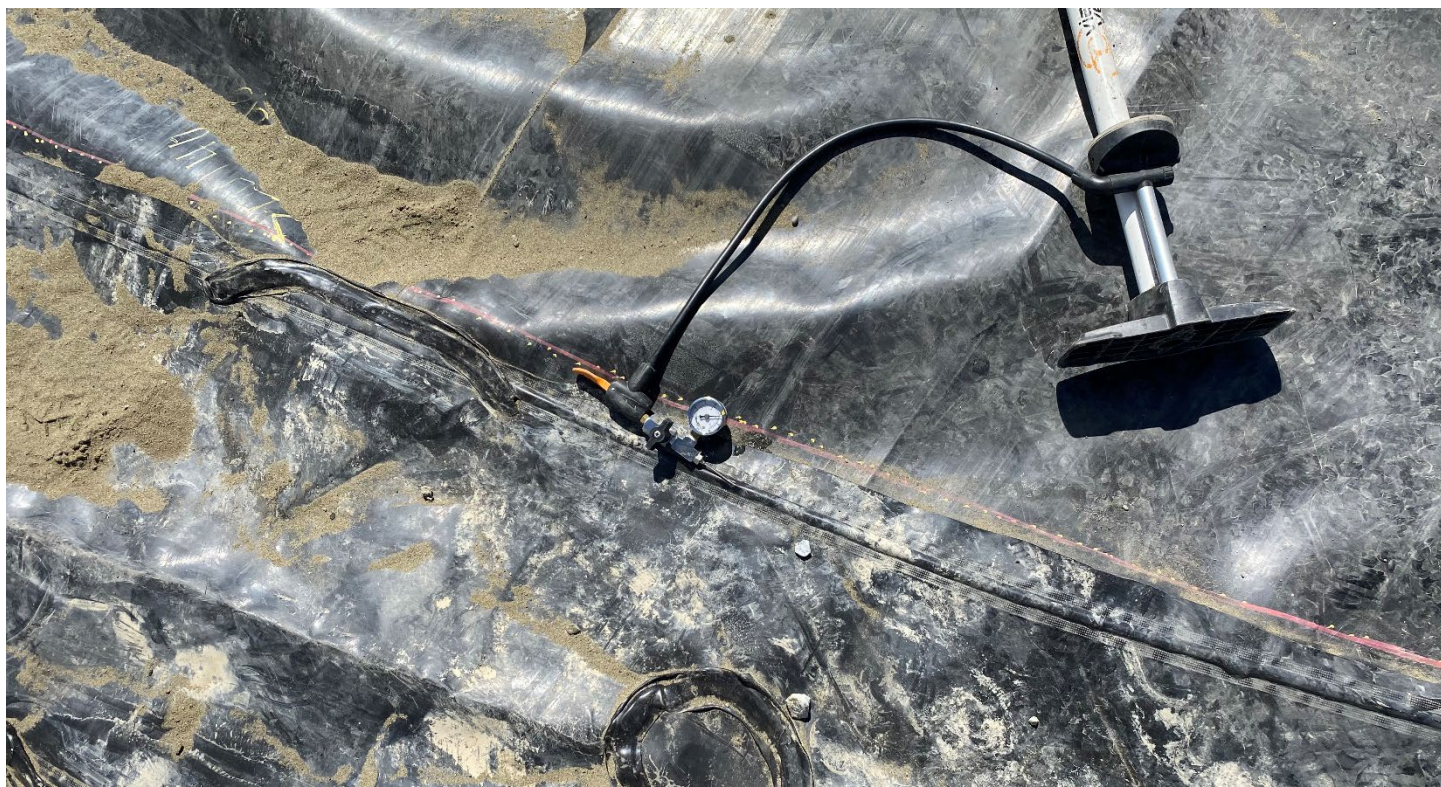




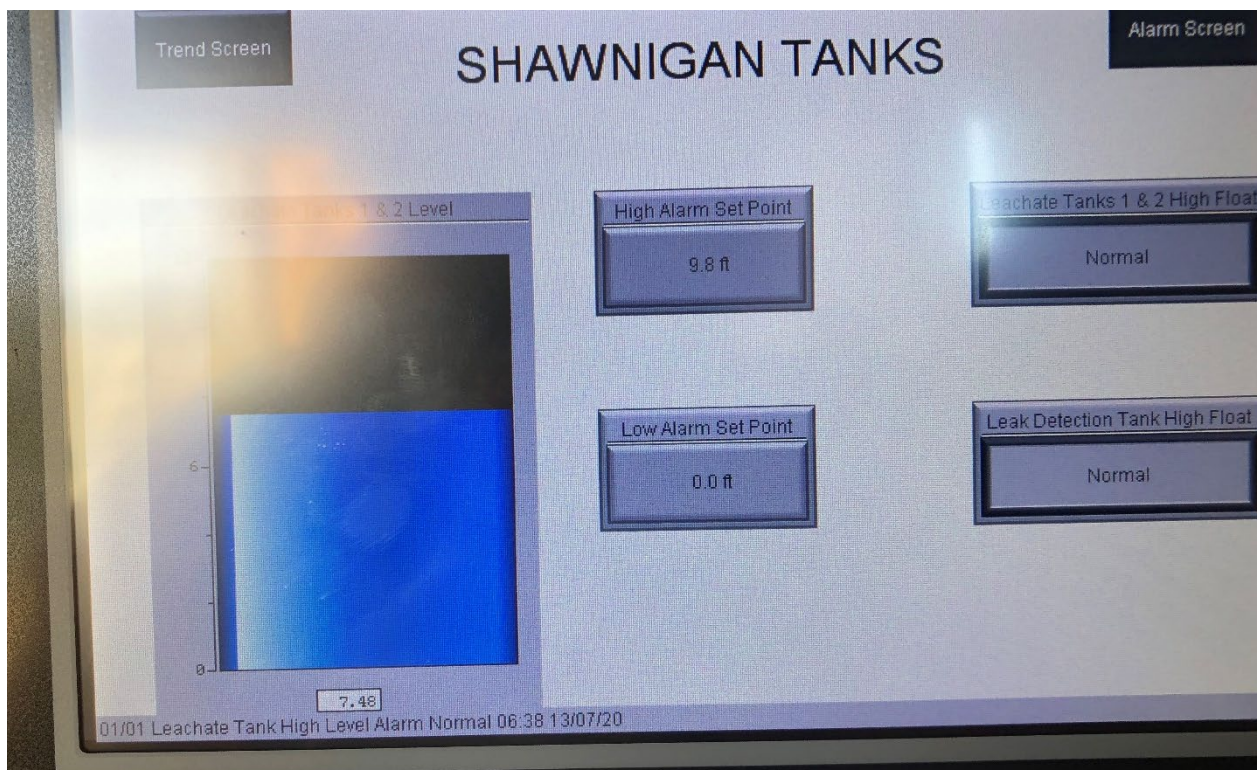
Picture # 6: WTL extrusion welding repair on geomembrane on crest of PEA.



Picture # 7: Extrusion welded repair on geomembrane.



Picture # 8: WTL air testing wedge weld.



Picture # 9: Leachate tank reading 7.48 ft.



Picture # 10: Upon inspection of slope angles at the west and southwest sides of the crest of the PEA, it was found that the slopes are steeper than 3H:1V. SHA to discuss with Alterra design solution.

Report prepared by:



Carly Wolfe, EIT.

Note: Report prepared by Sperling Hansen Associates Inc. If those in attendance have additions or objections to these notes, they should report back to Sperling Hansen Associates (SHA) within 3 days of receipt, otherwise, these notes will be considered a complete and accurate permanent record of this day.

Enclosure: Nil