



October 15, 2018

Dale Myers
Washington State Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452
425.649.4446

Re: Progress Report No. 7 – October 2018

4700 Brooklyn Ave (Chevron 90129)
Agreed Order No. 13815
Ecology PM – Dale Myers
Project No. 160092

Dear Dale:

Aspect Consulting, LLC (Aspect) is pleased to provide the seventh Progress Report on behalf of the potentially liable persons (PLPs), FH Brooklyn, LLC (FH Brooklyn) and Chevron Environmental Management Company (EMC), who are signatories to an Agreed Order (No. DE 13815, effective January 11, 2017) with the Washington State Department of Ecology (Ecology).

The Agreed Order requires that the PLPs submit quarterly progress reports (Section VII.D) to Ecology until satisfaction of the Agreed Order. The Progress Report No. 6 reporting period was extended through July 10, 2018, thus the reporting period for this Progress Report No. 7 is July 10 – October 1, 2018.

The Agreed Order also requires the PLPs to email status updates to Ecology on the 1st and 15th of each month during the implementation of the on-property Interim Action (Task 8, Exhibit B). Four Interim Action status updates were emailed to Ecology during this reporting period and are attached to this quarterly Progress Report.

Progress Made During the Reporting Period

- The Interim Action activities as described in the Final Interim Action Work Plan (IAWP) were completed on September 14, 2018:
 - All soil above MTCA Method A Cleanup Levels (CULs) on the FH Brooklyn Property was excavated and confirmed with confirmation samples per the confirmation monitoring plan defined in the Final IAWP.
 - Dewatering lowered the groundwater table and allowed removal of the three deeper locations (AB-02, AB-07, and AB-09) identified in the Final IAWP and collection of bottom confirmation samples from these local excavations.
 - Approximately 6,800 tons of contaminated soil above MTCA Method A CULs was exported and disposed off-site.



- Groundwater sampling was conducted at off-property monitoring wells on August 2, August 22, and August 31, 2018. Water levels were measured daily during continuous dewatering operations at these monitoring wells.
- Leidos and Chevron EMC are continuing to work with the respective property owners to obtain signed access agreements.

Sampling and Testing Reports Received

- Aspect collected approximately 125 soil compliance samples for performance and confirmation monitoring. Performance monitoring results were communicated with the Contractor when received for soil handling and will be reported in the Interim Action Report along with confirmation monitoring results.
- Aspect conducted three groundwater sampling events and draft preliminary results were reported to Ecology in a September 5, 2018 email (attached). Final analytical results will be reported in the Interim Action Report.

Summary of Deviations from approved Work Plans

- The excavations at the three deep locations (AB-02, AB-07, and AB-09) identified in the Final IAWP did not allow the collection of four sidewall samples because of sluffing and instability of soils within the deep excavation. Therefore, the maximum feasible number of sidewall samples were collected at each location and will be reported in the Interim Action Report.
- Two of the groundwater monitoring locations identified in Ecology's April 23, 2018 letter, MW-17 and MW-28, were dry due to dewatering operations. Therefore, Ecology was notified in a September 5, 2018 email (attached) that MW-18 was sampled as an alternative.

Changes in Key Personnel

- The Chevron EMC Project Manager has changed from Mark Horne to Eric Hetrick.

Activities Planned for the next Reporting Period

- Submittal of the Agency Review Draft Interim Action Report to Ecology by December 10, 2018.
- Continued monthly monitoring of off-property monitoring wells during dewatering operations as required by the Final IAWP and Ecology's April 23, 2018 letter.
- Leidos and Chevron EMC will continue to work with Safeway Inc. and UDPA 4701 LLC to obtain signed access agreements.
- Leidos and Chevron EMC will continue to work with the City of Seattle, FH Brooklyn, and Ecology to install monitoring wells MW-20 through MW-23.
- Continued RI field investigations including quarterly groundwater monitoring.

Washington State Department of Ecology
October 15, 2018

Project No. 160092

The next quarterly progress report will be submitted on or before January 15, 2019.

If you have any questions concerning this progress report, please contact me at 206-780-7746.

Sincerely,

Aspect consulting, LLC



Adam Griffin, PE
Senior Engineer
agriffin@aspectconsulting.com

Attachments: August 1, 2018 Interim Action Email Status Update
August 18, 2018 Interim Action Email Status Update
September 4, 2018 Interim Action Email Status Update
September 5, 2018 RE: Interim Action Email Status Update (Groundwater
monitoring frequency reduction request)
September 17, 2018 Interim Action Email Status Update

cc: Bob Warren, Ecology
Eran Fields, FH Brooklyn
Doug Hillman, Aspect
Eric Hetrick, CEMC
Ruth Otteman, Leidos

V:\160092 - 4700 Brooklyn Ave\Project Management\Progress Reports\2018\4700 Brooklyn Ave (Chevron 90129) Progress Rpt7_Oct 2018_20181015.docx

ATTACHMENTS

- **August 1, 2018 Interim Action Email Status Update**
- **August 18, 2018 Interim Action Email Status Update**
- **September 4, 2018 Interim Action Email Status Update**
- **September 5, 2018 RE: Interim Action Email Status Update (Groundwater monitoring frequency reduction request)**
- **September 17, 2018 Interim Action Email Status Update**

From: [Adam C. Griffin](#)
To: [Myers, Dale - TCP \(ECY\)](#)
Cc: [Eran Fields](#); [Doug Hillman](#); ["Horne, Mark \(MarkHorne\)"](#); ["Otteman, Ruth A."](#)
Bcc: ["William Joyce"](#)
Subject: 4700 Brooklyn Ave. (Chevron 90129) - Interim Action Email Status Update
Date: Wednesday, August 01, 2018 9:39:00 PM

Dale-

In addition to the Quarterly Progress Reports required by Section VII.D of the AO, the PLPs are required to email status updates to Ecology on the 1st and 15th of each month during implementation of the Interim Action. The last Quarterly Progress Report was submitted on July 16th and summarized activities through July 10th – this first Interim Action email status update summarizes activities completed since July 10th:

- The two USTs identified on 7/9 were permanently decommissioned on 7/12.
- Excavation and shoring wall activities continue and as of 8/1, the average excavation depth is approximately 14' and approximately 1,300 cubic yards of Contaminated soil above MTCA Method A CULs has been exported and disposed off-Site.
- The installation of well points for dewatering began on 7/31 and dewatering is anticipated to begin next week.
- The first groundwater monitoring event will occur on 8/2 (as a baseline for dewatering observations) as required by the Final IAWP and Ecology 4/23 letter to Chevron.

Please let us know if you have any questions or seek additional information,

Adam Griffin | Aspect Consulting LLC | Senior Engineer | Direct: 206.780.7746

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From: [Adam C. Griffin](#)
To: [Myers, Dale - TCP \(ECY\)](#)
Cc: [Eran Fields](#); [Doug Hillman](#); ["Horne, Mark \(MarkHorne\)"](#); ["Otteman, Ruth A."](#)
Bcc: ["William Joyce"](#)
Subject: 4700 Brooklyn Ave. (Chevron 90129) - Interim Action Email Status Update
Date: Thursday, August 16, 2018 6:59:00 AM

Dale-

In addition to the Quarterly Progress Reports required by Section VII.D of the AO, the PLPs are required to email status updates to Ecology on the 1st and 15th of each month during implementation of the Interim Action. We recognize this is being delivered on the 16th and apologize for any inconvenience. This second Interim Action email status update summarizes activities completed since August 1st:

- Excavation and shoring wall activities continue and as of 8/15, the average excavation elevation is approximately 198' or average depth of 17'.
- Approximately 2,300 cubic yards of Contaminated soil above MTCA Method A CULs has been exported and disposed off-Site.
- PID monitoring within the excavation and in areas of known petroleum contaminated soils have exceeded breathing zone thresholds and Level C PPE is being donned by workers during these times.
- Intermittent dewatering began on Friday, 8/10, to produce water for the pre-treatment and discharge batch demonstration, required by the Ecology CSWGP permit. The dewatering system has operated approximately daily for 3 hours for this purpose. Continuous dewatering operations is anticipated in the next couple of business days.
- The first groundwater monitoring event occurred on 8/2. Samples were not collected from monitoring wells MW-26 and MW-28, due to the presence of measurable LNAPL (0.1 and 0.06', respectively).
- The next groundwater sampling event is scheduled for next week on 8/22 after continuous dewatering begins. Groundwater samples will be collected from MW-26 and MW-28 using the method approved in the SAP/QAPP appendix of the Final IAWP.

Please let us know if you have any questions or seek additional information,

Adam Griffin | Aspect Consulting LLC | Senior Engineer | Direct: 206.780.7746

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To: [Myers, Dale - TCP \(ECY\)](#)
Cc: [Eran Fields](#); [Doug Hillman](#); "[Horne, Mark \(MarkHorne\)](#)"; "[Otteman, Ruth A.](#)"; "EHetrick@chevron.com"
Bcc: [William Joyce](#)
Subject: 4700 Brooklyn Ave. (Chevron 90129) - Interim Action Email Status Update
Date: Tuesday, September 04, 2018 8:48:00 PM

Dale-

In addition to the Quarterly Progress Reports required by Section VII.D of the AO, the PLPs are required to email status updates to Ecology on the 1st and 15th of each month during implementation of the Interim Action. Today is the first business day after the 1st. This third Interim Action email status update summarizes activities completed since August 16th:

- Excavation and shoring activities continue and as of 9/4, the average excavation elevation is approximately 195' or average depth of 20'.
- The deeper low concentration exceedances of benzene in soil targeted in the Final IAWP have been prohibited by steady-state groundwater elevations. The AB-02 location was completed today to 190.6' and above groundwater. Excavation of the other two locations are dependent on the feasibility of additional groundwater drawdown below the targeted elevations of 184' and 188'.
- Approximately 3,660 cubic yards of Contaminated soil above MTCA Method A CULs has been exported and disposed off-Site.
- The excavation has advanced beyond the bottom of smear zone and air monitoring results have improved dramatically. No Level C PPE has been required for workers over the last week
- The monitoring and batch demonstration required by the Ecology CSWGP permit is completed and the dewatering and pre-treatment system is currently operating in continuous mode at an estimated total flow rate of 25gpm at a steady-state drawdown. The system is being operated to induce drawdown locally to facilitate deeper excavations.
- Groundwater monitoring events have been conducted on 8/2, 8/22 (after continuous dewatering began), and 8/31. Groundwater samples during the 8/22 and the 8/31 were only collected from the MWs with deeper screened intervals – MW-18, MW-25, and MW-26. All other MWs are dry from dewatering operations. Water level monitoring is conducted daily as required by the Final IAWP.

Please let us know if you have any questions or seek additional information,

Adam Griffin | Aspect Consulting LLC | Senior Engineer | Direct: 206.780.7746

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Bcc: ["William Joyce"](#); [Fasih Khan](#)
Subject: RE: 4700 Brooklyn Ave. (Chevron 90129) - Interim Action Email Status Update
Date: Wednesday, September 05, 2018 4:16:00 PM
Attachments: [DRAFT Groundwater Analytical Results_090518.pdf](#)

Dale-

Aspect has performed weekly groundwater monitoring events at off-property monitoring wells during the Interim Action dewatering as required by the Final IAWP and Ecology's April 23rd, 2018 letter. Sampling events have been conducted on 8/2, 8/22 (beginning of dewatering and weekly monitoring), and 8/31. The attached presents available results up through the 8/22 event. Two of the locations identified for monitoring, MW-17 and MW-28 are dry, thus MW-18 has been sampled instead because it's screened deeper.

The dewatering system has reached a pseudo-steady state drawdown and this email formally requests Ecology's approval to reduce monitoring frequency from weekly to monthly. If approved, the next monitoring event would be performed the week of 9/24. Please let us know if you have any questions,

Adam Griffin | Senior Engineer | Direct: 206.780.7746 | Cell: 865.696.7658
Aspect Consulting LLC | 350 Madison Avenue N, Bainbridge Island, 98110 | www.aspectconsulting.com

Bainbridge Island - Seattle - Bellingham - Wenatchee - Yakima - Portland

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Bcc: ["William Joyce"](#)
Subject: 4700 Brooklyn Ave. (Chevron 90129) - Interim Action Email Status Update
Date: Monday, September 17, 2018 8:11:00 PM

Dale-

In addition to the Quarterly Progress Reports required by Section VII.D of the AO, the PLPs are required to email status updates to Ecology on the 1st and 15th of each month during implementation of the Interim Action. Today is the first business day after the 15th. This fourth Interim Action email status update summarizes activities completed since September 1st:

- The Interim Action activities as described in the Final Interim Action Work Plan was completed on 9/14, with receipt of preliminary results from the final confirmation samples.
- All soil above MTCA Method A CULs on the FH Brooklyn Property was excavated and confirmed with bottom confirmation samples per the confirmation monitoring plan defined in the Final IAWP.
 - Dewatering was able to lower the groundwater table to remove all soils above Method A CULs, including the three previously identified deep locations (AB-02, AB-07, and AB-09) and collection of bottom samples from these local excavations. The final excavations did not allow the collection of four sidewall samples at all three locations because of sluffing and instability, therefore the maximum feasible number of sidewall samples were collected at each location, and all results were below MTCA Method A CULs. I assume the IAWP monitoring plan does not have any specific procedure on this?
- Approximately 4,740 cubic yards of Contaminated soil above MTCA Method A CULs was exported and disposed off-Site.
- No groundwater samples were collected after the 8/31 event because wells were dry from dewatering and drawdown was steady-state. Aspect requested to reduce groundwater monitoring of the three deeper screened wells on 9/5 and Ecology formally approved on 9/17.
- The AO-required Agency Review Draft Interim Action Report will be submitted to Ecology 60 days after all final analytical data is received, which is expected by early next week.

This is the final Interim Action email status update. The next Quarterly Progress Report will be submitted by October 15th.

Please let us know if you have any questions or seek additional information,

Adam Griffin | Senior Engineer | Direct: 206.780.7746 | Cell: 865.696.7658
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