

February 8, 2018

Lanzce G. Douglass Construction, Inc.  
Attn: Lanzce Douglass  
1402 East Magnesium Road, Suite 202  
Spokane, Washington 99207

**Re: Limited Groundwater Investigation Results – VCP site #EA0336 and #EA0337; Sterling Property, 24-28 E Spokane Falls Blvd**

Dear Mr. Douglass;

Fulcrum was retained to complete a limited groundwater investigation at 230 North Division Street in Spokane, Washington (subject site). Fulcrum had previously completed a limited soil investigation and provided assistance in entering the site into the Voluntary Cleanup Program (EA0036, EA0037; Sterling Property, 24-28 E Spokane Falls Blvd). Consultation with the Washington State Department of Ecology (Ecology) suggested that removal of at least portions or areas of identified contaminated soils would likely be required as part of site redevelopment to ensure protection of groundwater resources if present in the near surface unconfined aquifer. In a letter to Ecology dated January 8<sup>th</sup>, 2018, Fulcrum proposed that a limited groundwater investigation be conducted to determine whether potable groundwater was present at the subject site. Ecology agreed that if such an investigation determined that potable groundwater did not exist on the subject site or, if present, that it was not contaminated by the constituents of concern (contaminants identified in the on-site soils) that it would be acceptable to manage undisturbed soils in place as part of planned redevelopment

**Scope of Work**

Fulcrum's scope of work was to conduct a limited groundwater investigation consisting of seven soil borings to investigate for the presence of potable groundwater (flow rate greater than 0.5 gallons per minute), and if present to conduct sampling and analysis to determine if contaminants of concern were present above applicable regulatory thresholds. Soil boring locations were selected in consultation with Ecology to represent up gradient, down gradient, and areas associated with the highest levels of known soil contamination. Environmental West Exploration was contracted independent of Fulcrum to complete drilling activities for this investigation.

The investigation was designed and overseen by Travis Trent, a Washington State Licensed Geologist/Hydrogeologist and Principal of Fulcrum with over 22 years of hydrogeologic investigation experience. Travis was assisted by Amanda Johnson, a Washington State Geologist-in-Training, and Scott Groat, an environmental technician, both with Fulcrum. See attachments for copy of relevant professional certifications.

## Field Activities and Observations

On January 25<sup>th</sup>, 2018, Fulcrum completed observation services during onsite drilling activities. A total of seven soil borings were completed to basalt bedrock. Observations made during the drilling found that site soils generally presented as dark brown to black silty-sandy gravels with some clay.

One boring was placed at the upgradient property boundary (BH-01), two were placed in the area of highest identified contamination (BH-02, BH-03), and the remaining four were placed to characterize the downgradient and central portions of the site. See attached Figure 1 for a presentation of boring locations. Following is a summary of individual soil boring location and depth:

- BH-01: Tax Parcel 35173.0604 southeast corner to a total depth of 6 ft bgs. No groundwater was observed at this location.
- BH-02: Tax Parcel 35173.0604 south central area at east perimeter to a total depth of 4.5 ft bgs. No groundwater was observed at this location.
- BH-03: Tax Parcel 35173.0604 central area to a total depth of 6 ft bgs. No groundwater was observed at this location.
- BH-04: Tax Parcel 35173.0603 northwest corner to a total depth of 15 ft bgs. No groundwater was observed at this location.
- BH-05: Tax Parcel 35173.0601 northwest corner to a total depth of 19 ft bgs. No groundwater was observed at this location.
- BH-06: Tax Parcel 35173.0601 southeast corner of parking lot near building to a total depth of 18 ft bgs. A small amount of water was observed at approximately 16 to 17 ft bgs. Observations made by Fulcrum, the Driller, and Ecology staff agreed that observed water was not present in an amount sufficient to support a potential flow rate in excess of 0.5 gpm and that it likely represented a small area of perched water in a topographically low area of the basalt bedrock.
- BH-07: Tax Parcel 35173.0601 central area to a total depth of 11 ft bgs. No groundwater was observed at this location. This boring was placed to assist in confirming that the bedrock depth in BH-06 represented a topographic low area.

## Discussion

Seven boreholes were drilled to bedrock across the site ranging in depth from 4.5 to 19 ft bgs. No to very little moisture was noted in any of the soils, with the exception of one location (BH-06) on the western parcel that appeared to have a small amount of water observed at approximately 16 to 17 ft bgs. The water was blown out and drilling work was stopped to allow the location to recharge for approximately 10 minutes. The water was again blown out totaling an amount visually estimated at less than 2-3 gallons. Travis Trent, Fulcrum's Senior Hydrogeologist, in consultation with Ecology staff and the Driller determined that conditions indicated a de minimis amount of perched water that would not exceed a potable flow rate of 0.5 gpm and placement of a well for further evaluation was determined to be unnecessary. An additional soil boring (BH-07) was placed equal distance between BH-06 and BH-05 confirming that the BH-06 represented a topographic low area in the basalt aquifer further supporting the determination that the encountered water represented a small amount of perched groundwater and not a potable aquifer.

## Conclusions

Based on the results of this investigation, it is Fulcrum's professional opinion that a potable groundwater source is not present in the near surface unconfined sediments at the subject site.

If you have any questions, please contact me at (509) 459-9220 or [ajohnson@efulcrum.net](mailto:ajohnson@efulcrum.net).

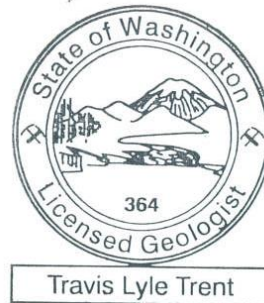
Sincerely,



Amanda S. Johnson, GIT  
Environmental Geologist



Travis Trent, PG, CIH  
Managing Principal



2 attachments

# STATE OF WASHINGTON

DEPARTMENT OF LICENSING – BUSINESS AND PROFESSIONS DIVISION

THIS CERTIFIES THAT THE PERSON OR BUSINESS NAMED BELOW IS AUTHORIZED AS A



**GEOLOGIST  
HYDROGEOLOGIST**

**TRAVIS LYLE TRENT  
FULCRUM ENVIRONMENTAL CONSULT.  
207 WEST BOONE AVENUE  
SPOKANE WA 99201**

**364**

License Number

**01/08/2002**

Issued Date

**06/06/2018**

Expiration Date

  
Pat Kohler, Director



East Spokane Falls Boulevard

North Division Street

BH-05 +  
TD: 19.0 ft bgs  
No groundwater encountered

TD: 11.0 ft bgs  
No groundwater encountered

BH-07 +

TD: 18.0 ft bgs  
non-potable  
groundwater  
encountered at  
16 to 18 ft bgs

BH-06 +

+ BH-04

TD: 15.0 ft bgs  
No groundwater  
encountered

TD: 6.0 ft bgs  
No groundwater  
encountered

+ BH-03

TD: 5.0 ft bgs  
No groundwater  
encountered

TD: 6.0 ft bgs  
No groundwater  
encountered

BH-01 +

35173.0601

35173.0602

35173.0603

35173.0604

East Main-Trent Alley

## LEGEND



Approximate site boundary



Boring location



Division between tax parcels

bgs - Below Ground Surface

TD - Total Depth



Figure 1: Groundwater Investigation Map, 230 North Division, Spokane, Washington



Fulcrum  
Environmental  
Consulting, Inc.

207 West Boone Avenue  
Spokane, Washington  
99201  
(509) 459-9220

Map By: Scott Groat

Project Number: 172172.01

Date Updated: 02/08/2018

Reviewed By: Travis Trent