



Second Periodic Review Pasco School Dist 1 Pasco HS

**1108 North 10th Avenue, Pasco, Franklin County
Facility Site ID 14758414, Cleanup Site ID 353**

Toxics Cleanup Program, Eastern Region

Washington State Department of Ecology
Spokane, Washington

October 2022

Document Information

This document is available on the Department of Ecology's [Pasco School District 1 Pasco HS cleanup site page](#).¹

Related Information

- Cleanup site ID: 353
- Facility site ID: 14758414

Contact Information

Toxics Cleanup Program

Eastern Regional Office
Ted Uecker, Site Manager
4601 N. Monroe St.
Spokane, WA 99205
Phone: 509-342-5564

Website: [Washington State Department of Ecology](#)²

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¹ <https://apps.ecology.wa.gov/cleanupsearch/site/353>

² <https://ecology.wa.gov/About-us/Who-we-are/Our-Programs/Toxics-Cleanup>

³ <https://ecology.wa.gov/About-us/Accountability-transparency/Our-website/Accessibility>

Department of Ecology's Regional Offices

Map of Counties Served



Southwest Region 360-407-6300	Northwest Region 206-594-0000	Central Region 509-575-2490	Eastern Region 509-329-3400
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Region	Counties served	Mailing Address	Phone
Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	PO Box 47775 Olympia, WA 98504	360-407-6300
Northwest	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	PO Box 330316 Shoreline, WA 98133	206-594-0000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 W Alder St Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 N Monroe Spokane, WA 99205	509-329-3400
Headquarters	Across Washington	PO Box 46700 Olympia, WA 98504	360-407-6000

Table of Contents

Introduction.....	5
Summary of Site Conditions	5
Site history	5
Remedial actions.....	5
Cleanup levels and points of compliance.....	6
Groundwater monitoring.....	6
Environmental Covenant	7
Periodic Review	8
Effectiveness of completed cleanup actions.....	8
New scientific information for individual hazardous substances or mixtures present at the Site	9
New applicable state and federal laws for hazardous substances present at the Site.....	9
Current and projected Site and resource uses	9
Availability and practicability of more permanent remedies	9
Availability of improved analytical techniques to evaluate compliance with cleanup levels.....	9
Conclusions.....	9
Next review	10
References.....	11
Appendix A. Vicinity Map.....	12
Appendix B. Site Plan	13
Appendix C. Photo Log.....	14
Photo 1: Pasco High School – from the east	14
Photo 2: Courtyard and excavation area – from the south	14
Photo 3: Courtyard and excavation area – from the north	15
Photo 4: Courtyard and former monitoring well – from the north	15

Introduction

This document is a review by the Washington State Department of Ecology (Ecology) of post-cleanup site conditions and monitoring data to assure human health and the environment are being protected at the Pasco School District 1 Pasco High School (HS) site (Site). Site cleanup was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC). This is the second periodic review conducted for this Site. Ecology completed the first periodic review in August 2014. This periodic review evaluates September 2015 through October 2022.

Cleanup activities at this Site were completed under the Voluntary Cleanup Program (VCP). Following cleanup, residual concentrations of total petroleum hydrocarbons (TPH) remained that exceeded MTCA Method A cleanup levels for soil established under WAC 173-340-740(2). Ecology determined that institutional controls in the form of an environmental covenant would be required for the site to be eligible for a no further action (NFA) determination if contamination was to remain on-site. WAC 173-340-420(2) requires Ecology to conduct a periodic review of a site every five years when contamination remains after cleanup is complete.

Ecology shall publish a notice of all periodic reviews in the *Site Register* and provide an opportunity for public comment.

Summary of Site Conditions

Site history

The site is occupied by Pasco High School and was constructed in the early 1950s. The campus consists of numerous permanent and temporary structures in a mostly residential area.

A heating oil underground storage tank (UST) was at the Site under an asphalt parking lot. The UST supplied two boilers that provided heat to the various school buildings via underground steam pipes. The boilers were in a stand-alone boiler room that was supplied by the UST located on the west side of the boiler building. Several additions have taken place at the school, including a large addition and renovation in 1993. The boilers were removed in 1993 and use of the associated UST was stopped.

A vicinity map is in Appendix A, and a Site plan is in Appendix B.

Remedial actions

The UST was removed from the Site in June 2006. The tank had an estimated capacity of 15,000 gallons. During excavation, visible soil contamination was observed along the north end of the tank, beginning at a depth of 3 to 4 feet below ground surface (bgs). Excavation continued to a depth of 25 feet on the north end of the tank basin once the tank was removed. Contamination was still visible in the gravel below the fill.

A total of 10 soil samples were collected from the contaminated soil stockpile and from the limits of the excavation. Sample S-10 was collected from the visibly contaminated material at the north end of the excavation at 25 feet bgs. It contained heavy oil-range petroleum hydrocarbons (TPH-O) at a concentration of 35,000 milligrams per kilogram (mg/kg), exceeding MTCA Method A cleanup level of 2,000 mg/kg. The samples collected from the stockpile also contained TPH-O and diesel-range petroleum hydrocarbons (TPH-D) at maximum concentrations of 28,000 and 19,000, respectively, exceeding MTCA Method A cleanup levels.

After soil samples were collected from the excavation, the tank basin was backfilled with approximately 300 cubic yards of clean fill.

A limited remedial investigation was conducted in August 2006. Five borings (B-1 through B-5) were installed at the Site to evaluate the extent of the contamination. Boring depths ranged from 45 to 49 feet bgs. Groundwater was encountered at approximately 43 feet bgs. Two soil samples and a water sample were collected from each boring. Selected soil and groundwater samples were analyzed for diesel and heavy-oil-range hydrocarbons, naphthalenes, polycyclic aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs).

Results for soil sample S-1 taken from boring B-1 (located at the north end of the former UST) indicated a maximum concentration of 1,400 mg/kg for diesel and 780 mg/kg for heavy-oil-range organics at a depth of 30 – 31.5 feet bgs. The benzo(a)pyrene concentration from S-1 was 1.5 mg/kg, exceeding the cleanup level 0.1 mg/kg.

Cleanup levels and points of compliance

WAC 173-340-704 states MTCA Method A may be used to establish cleanup levels at sites that have few hazardous substances, are undergoing a routine cleanup action, and where numerical standards are available for all indicator hazardous substances in the media for which the Method A cleanup level is being used.

MTCA Method A cleanup levels for unrestricted land use were determined to be appropriate for contaminants at this Site. The cleanup actions conducted at the Site were determined to be routine, few hazardous substances were found at the Site, and numerical standards were available in the MTCA Method A table for each hazardous substance.

For soil, the point of compliance is the area where the soil cleanup levels shall be attained. For soil cleanup levels based on the protection of groundwater, as they are for this Site, the point of compliance is established as soils throughout the Site.

Groundwater monitoring

Groundwater samples collected from each of the remedial investigation borings were analyzed for diesel, heavy oil, naphthalenes, and PAHs. Diesel was detected in the groundwater sample from boring B-5 at a concentration of 160 micrograms per liter ($\mu\text{g}/\text{l}$), below the cleanup level of 500 $\mu\text{g}/\text{l}$. All other results were non-detect.

Because one groundwater sample exceeded the method detection limit for diesel, additional groundwater monitoring was required. An additional downgradient monitoring well was installed, and four consecutive quarters of groundwater samples were collected from all wells.

In May 2007, groundwater samples from wells MW-2 and MW-3 had concentrations of diesel-range hydrocarbons of 140 and 160 µg/l, respectively. These concentrations exceeded laboratory detection limits, but not the MTCA Method A cleanup level for groundwater of 500 µg/l for diesel and heavy oil. As a result of the detections in MW-2 and MW-3, three additional quarters of groundwater sampling were conducted. Groundwater sampling was conducted in August 2007, December 2007, and March 2008. Analytical results from all three quarters following the May 2007 sampling event were below laboratory detection limits.

Environmental Covenant

Ecology determined the Site would be eligible for an NFA determination if institutional controls were used to document the remaining contamination and protect the remedial actions. In 2008, institutional controls in the form of an environmental covenant (Covenant) were recorded for the Site. Ecology sent an NFA letter to the property owner and changed the Site status to reflect an NFA determination.

The Covenant imposes the following limitations:

1. A portion of the Property contains Petroleum Hydrocarbon contaminated soil located between the existing G wing Activity Center and the existing A wing Vocational Shop Center. The entire area is beneath the newly constructed (2008) student mall/cafeteria, known as H wing. The Owner shall not alter, modify, or remove the existing structure in any manner that may result in the release or exposure to the environment of that contaminated soil or create a new exposure pathway without prior written approval from Ecology.
2. Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.
3. Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property as part of the Remedial Action, or create a new exposure pathway, is prohibited without prior written approval from Ecology.
4. The Owner of the property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action.
5. The Owner must restrict leases to uses and activities consistent with the Covenant and notify all lessees of the restrictions on the use of the Property.
6. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Covenant. Ecology may approve any inconsistent use only after public notice and comment.

7. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Action; to take samples, to inspect remedial actions conducted at the property, to determine compliance with this Covenant, and to inspect records that are related to the Remedial Action.
8. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

A copy of the Covenant is in Appendix C.

Periodic Review

Effectiveness of completed cleanup actions

During the Site visit Ecology conducted on October 6, 2022, there were no indications that the integrity of the remedial action has been compromised. There was no evidence of Site excavation or visual indications of disturbance within the Site boundary. The Site remains occupied by the Pasco High School. The area above the contaminated soils is occupied by a concrete courtyard and building foundations and is surrounded by residential properties. A photo log is in Appendix C.

Direct contact

Cleanup actions were intended to eliminate human exposure to contaminated soils at the Site. Exposure pathways to contaminated soils (ingestion, direct contact) were reduced by remedial excavation and protective Site surfaces including asphalt, building foundations, roadways, and landscaped areas.

Protection of groundwater

Soils with TPH and PAHs at concentrations exceeding MTCA Method A cleanup levels remain at the Site; however, the majority of the contaminated soil source material has been removed. Groundwater monitoring was conducted for four consecutive quarters through March 2008. Contamination was not detected at concentrations exceeding MTCA Method A cleanup levels. No data suggests that contaminated groundwater remains at the Site; therefore, groundwater does not pose a threat to human health or the environment.

Institutional controls

Institutional controls in the form of a Covenant were implemented at the Site in 2008. The Covenant remains active and discoverable through the Franklin County Auditor's Office. There is no evidence a new instrument has been recorded that limits the effectiveness or applicability of the Covenant. This Covenant prohibits activities that may result in the release of contaminants contained as part of the cleanup without Ecology's approval and prohibits any

use of the property that is inconsistent with the Covenant. This Covenant serves to assure the long-term integrity of the surface cover and the remedial action.

Summary

Soils with TPH and PAHs at concentrations exceeding the MTCA Method A cleanup level are still present at the Site. However, the structures and concrete or asphalt surfaces prevent human exposure to this contamination by ingestion and direct contact with soils. The Covenant for the property will ensure the integrity of the caps will be protected through property use restrictions.

New scientific information for individual hazardous substances or mixtures present at the Site

There is no new relevant scientific information for the hazardous substances remaining at the Site.

New applicable state and federal laws for hazardous substances present at the Site

There are no new applicable or relevant state or federal laws for hazardous substances remaining at the Site.

Current and projected Site and resource uses

The Site is used for commercial purposes. There have been no changes in current or projected future Site or resource uses. The current Site use is not likely to have a negative impact on the protectiveness of the remedy.

Availability and practicability of more permanent remedies

The remedy implemented included containing hazardous substances, and it continues to be protective of human health and the environment. While more permanent remedies may be available, they are still not practicable at this Site.

Availability of improved analytical techniques to evaluate compliance with cleanup levels

The analytical methods used at the time of the remedial action were capable of detection below MTCA Method A cleanup levels, which are the most stringent. The presence of improved analytical techniques would not affect decisions or recommendations made for the Site.

Conclusions

- The cleanup actions completed at the Site appear to be protective of human health and the environment.

- Soil cleanup levels have not been met at the Site; however, the cleanup action for the Site is determined to comply with cleanup standards under WAC 173-340-740(6)(f), since the long-term integrity of the containment system is ensured and the requirements for containment technologies have been met.
- The Covenant for the property is in place and will be effective in protecting public health and the environment from exposure to hazardous substances and protecting the integrity of the cleanup action.

Based on this periodic review, Ecology has determined the requirements of the Covenant are being followed. No additional remedial actions are required by the property owner. The property owner is responsible for continuing to inspect the Site to assure the integrity of the cap is maintained.

Next review

The next Site review will be scheduled five years from the date of this periodic review. In the event that additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years after those activities are complete.

References

PBS Engineering and Environmental. *Underground Storage Tank Decommissioning Site Assessment*. August 2006.

PBS Engineering and Environmental. *December 2007 Groundwater Monitoring Report*. January 22, 2008.

PBS Engineering and Environmental. *March 2008 Groundwater Monitoring Report*. April 29, 2008.

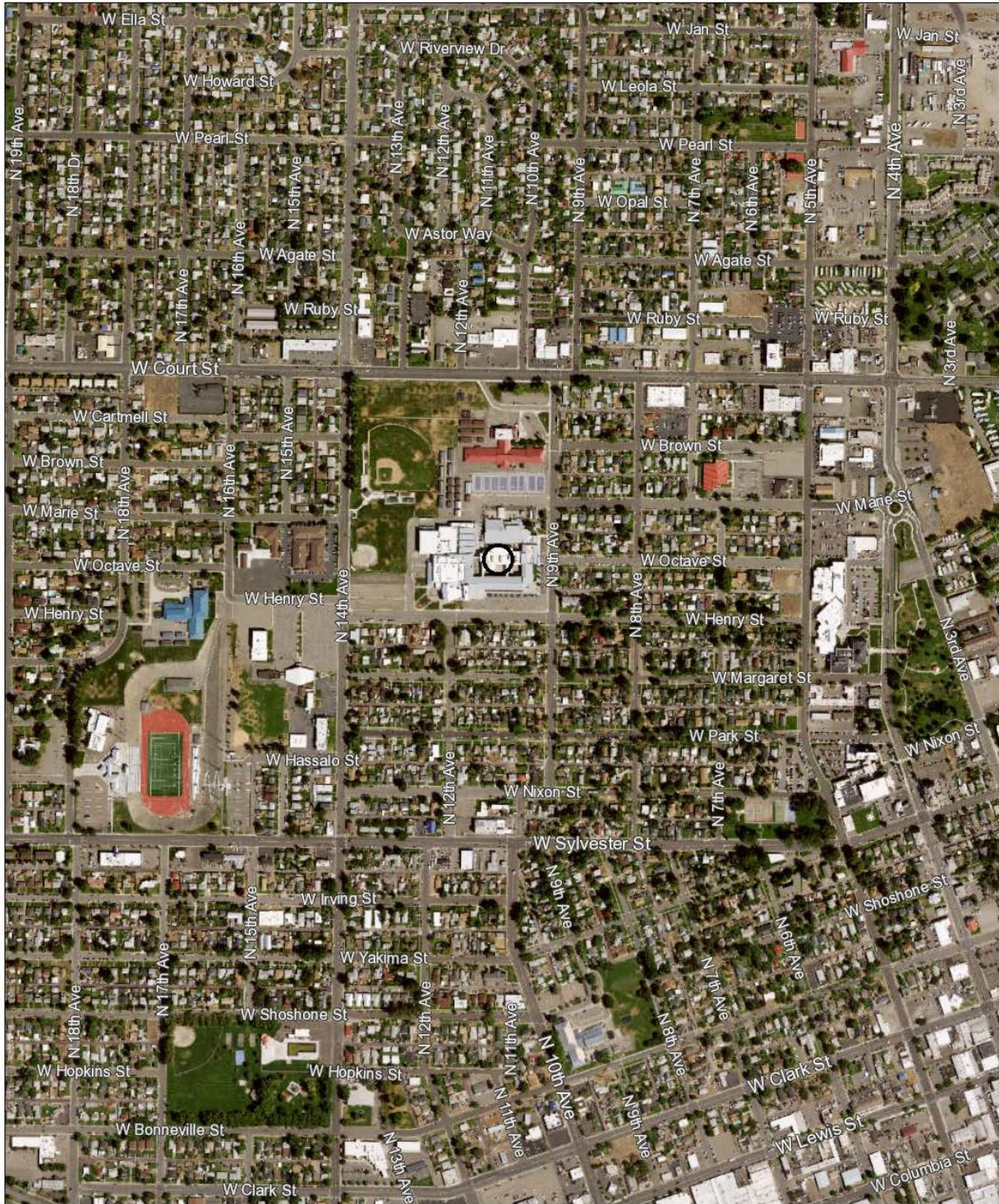
Ecology. *Restrictive Covenant*. September 16, 2008.

Ecology. "No Further Action Letter." September 29, 2008.

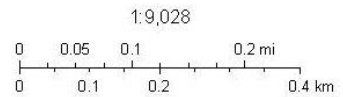
Ecology. *Periodic Review*. August 2014.

Ecology. Site Visit. October 6, 2020.

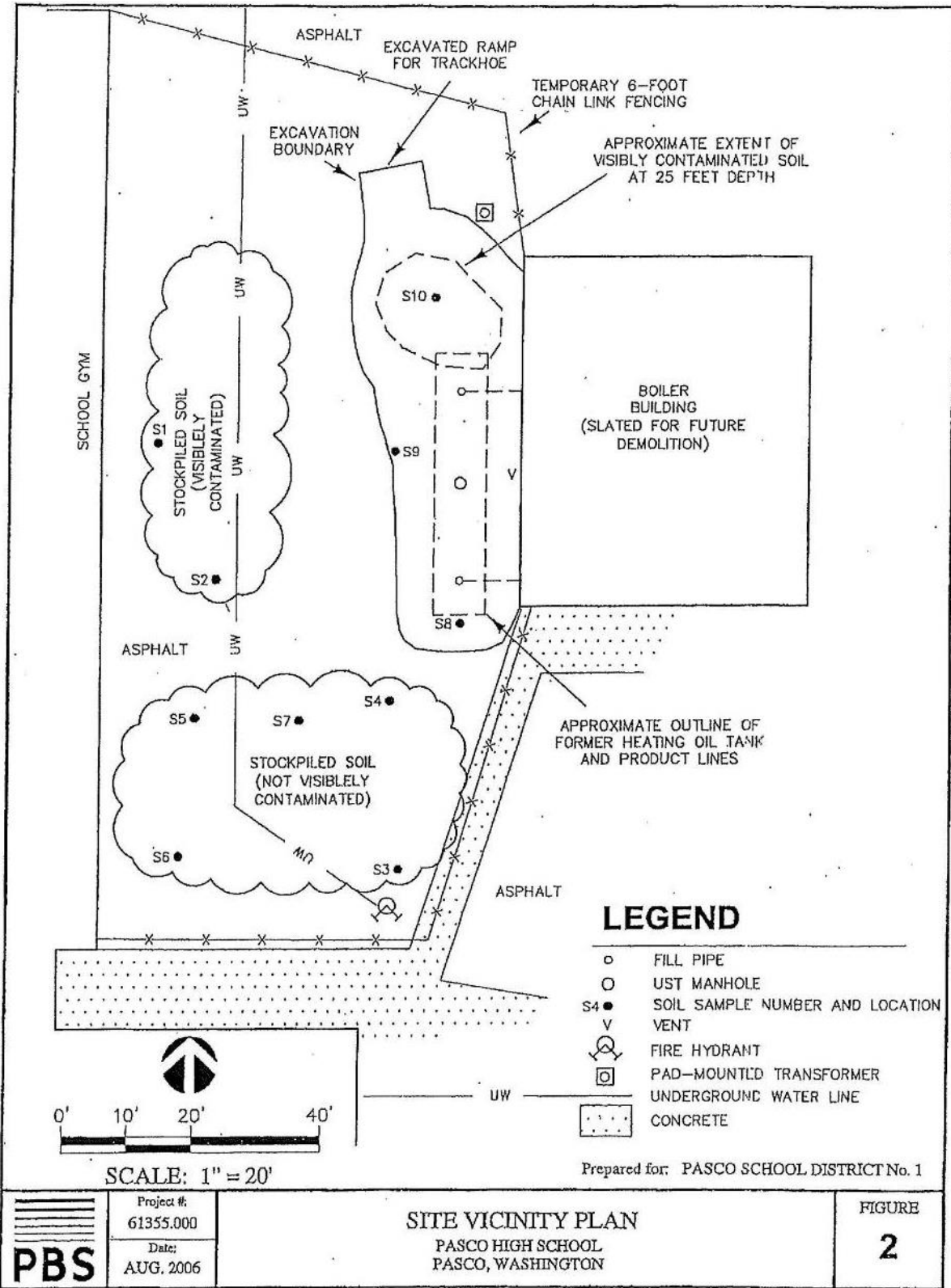
Appendix A. Vicinity Map



October 21, 2022



Appendix B. Site Plan



Appendix C. Photo Log

Photo 1: Pasco High School – from the east



Photo 2: Courtyard and excavation area – from the south

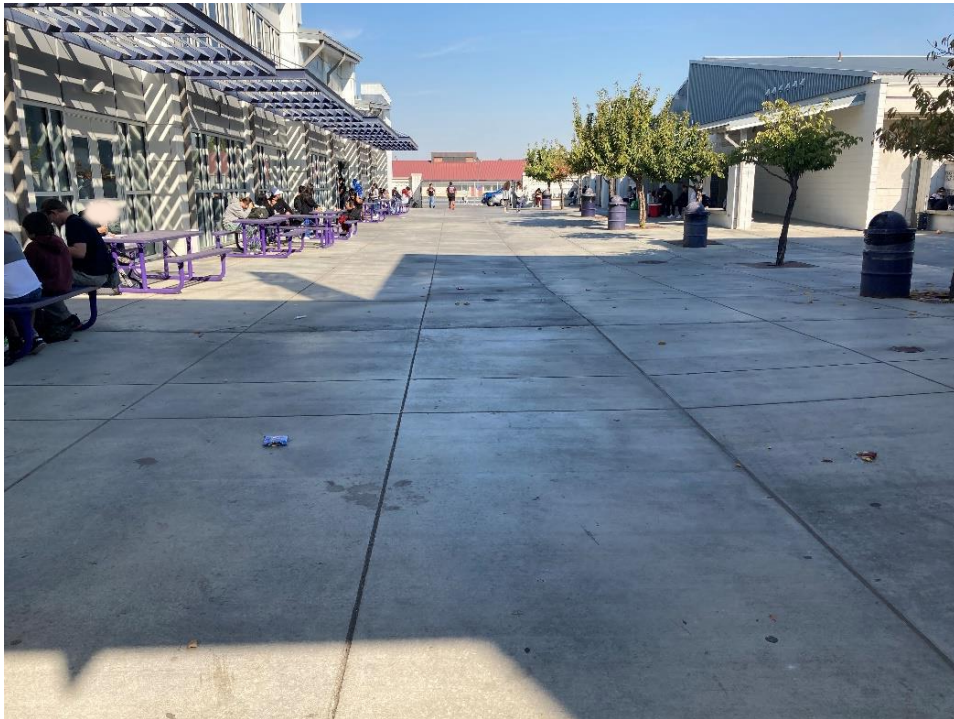


Photo 3: Courtyard and excavation area – from the north



Photo 4: Courtyard and former monitoring well – from the north

