



Periodic Review

Pasco School Dist 1 Pasco H S
1108 North 10th Avenue
Pasco, Washington 99301

Facility Site ID No. 14758414
Cleanup Site ID No. 353

Completed by:
Washington State Department of Ecology
Eastern Regional Office
Toxics Cleanup Program

August 2014

1.0 INTRODUCTION.....	1
2.0 SUMMARY OF SITE CONDITIONS.....	2
2.1 Site History	2
2.2 Site Investigations and Remedial Actions	2
2.3 Institutional Controls	3
3.0 PERIODIC REVIEW	5
3.1 Effectiveness of completed cleanup actions	5
3.1.1 Soil	5
3.1.2 Groundwater	5
3.1.3 Institutional Controls	5
3.1.4 Summary	5
3.2 New scientific information for individual hazardous substances for mixtures present at the Site	5
3.3 New applicable state and federal laws for hazardous substances present at the Site	6
3.4 Current and projected Site use	6
3.5 Availability and practicability of higher preference technologies	6
3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels	6
4.0 CONCLUSIONS	7
4.1 Next review	7
5.0 REFERENCES.....	8
6.0 APPENDICIES	9
6.1 Vicinity Map	10
6.2 Site Plan	11
6.3 Environmental Covenant	12
6.4 Photo log	17

1.0 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 Dist 1 High School site (Site). Cleanup at this Site was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC).

Cleanup activities at this Site were completed under the Voluntary Cleanup Program (VCP). The VCP project number was EA0150. The cleanup actions resulted in residual concentrations of total petroleum hydrocarbons (TPH) in soil that exceed MTCA Method A cleanup levels established under WAC 173-340-740(2). As a result of residual contamination, institutional controls were implemented for the Site to be eligible for a No Further Action (NFA) determination. WAC 173-340-420(2) requires Ecology conduct a periodic review of a site every five years under the following conditions:

1. Whenever Ecology conducts a cleanup action.
2. Whenever Ecology approves a cleanup action under an order, agreed order or consent decree.
3. Or, as resources permit, whenever Ecology issues a no further action opinion
4. And one of the following conditions exists:
 - (a) Institutional controls or financial assurance are required as part of the cleanup.
 - (b) Where the cleanup level is based on a practical quantitation limit.
 - (c) Where, in Ecology's judgment, modifications to the default equations or assumptions using site-specific information would significantly increase the concentration of hazardous substances remaining at the site after cleanup or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to assure long-term protection of human health and the environment.

When evaluating whether human health and the environment are being protected, the factors Ecology shall consider include [WAC 173-340-420(4)]:

- (a) The effectiveness of ongoing or completed cleanup actions.
- (b) New scientific information for individual hazardous substances of mixtures present at the Site.
- (c) New applicable state and federal laws for hazardous substances present at the Site.
- (d) Current and projected Site use.
- (e) Availability and practicability of higher preference technologies.
- (f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

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

2.0 SUMMARY OF SITE CONDITIONS

2.1 Site History

The Pasco High School site is located at 1108 North 10th Avenue, Pasco, Washington, in Franklin County. The school was constructed in the early 1950s. The campus consists of numerous permanent and temporary structures located in a mostly residential area.

A heating oil underground storage tank (UST) was located on the Site under an asphalt parking lot. The UST was used to supply two boilers that provided heat to the various school buildings via underground steam pipes. The boilers were located 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 available as Appendix 6.1 and a Site plan is available as Appendix 6.2.

2.2 Site Investigations and 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 ten soil samples were collected from the contaminated soil stockpile and from the limits of the excavation. Sample S10 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.

Groundwater samples collected from each of the 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 microgram per liter (ug/l), below the cleanup level of 500 ug/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 ug/l, respectively. These concentrations exceeded laboratory detection limits, but not the MTCA Method A cleanup level for groundwater of 500 ug/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.

2.3 Institutional Controls

Limited amounts of petroleum hydrocarbon contaminated soils remain in the area of the former UST. Since the extent of the contamination was limited, Site structures risked damage by additional excavation, and there was no apparent threat to groundwater, no additional remedial action was taken. It was determined the Site would be eligible for an NFA determination if institutional controls were implemented in the form of an environmental covenant (Covenant). The Covenant was recorded for the Site on September 16, 2008, and an NFA determination was issued.

The restrictions implemented in the Covenant are listed below.

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 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 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 available as Appendix 6.3.

3.0 PERIODIC REVIEW

3.1 Effectiveness of completed cleanup actions

3.1.1 Soil

Based upon the Site visit conducted on May 1, 2014, the building and concrete surface cover at the Site continue to eliminate direct exposure pathways (ingestion, contact) to contaminated soils. The asphalt appears in satisfactory condition and no repair, maintenance or contingency actions have been required. The Site remains occupied by the Pasco High School. The area above contaminated soils is occupied by a concrete courtyard and building foundations. A photo log is available as Appendix 6.4.

3.1.2 Groundwater

Groundwater monitoring was conducted for four consecutive quarters through March 2008. Contamination was not detected at concentrations exceeding MTCA Method A cleanup levels. Contaminated groundwater does not remain at the Site, and groundwater does not pose a threat to human health or the environment.

3.1.3 Institutional Controls

The Covenant for the Site was recorded and remains active. There is no evidence a new instrument has been recorded which limits the effectiveness or applicability of the Covenant. This Covenant prohibits activities that will 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 remedy and the Site surface cover.

3.1.4 Summary

Soils with TPH concentrations higher than MTCA Method A cleanup levels are still present at the Site. However, the structures and concrete 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 cap will be protected through property use restrictions.

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

There is no new relevant scientific information for the petroleum contaminants related to the Site.

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

Cleanup levels for TPH-D and TPH-O have not changed since remedial actions were conducted at the Site. Contamination remains at the Site above MTCA Method A cleanup levels and the cleanup action is still protective of human health and the environment.

3.4 Current and projected Site use

The Site is currently used for commercial purposes; it remains occupied by the Pasco High School. There have been no changes in current or projected future Site or resource uses.

3.5 Availability and practicability of higher preference technologies

The remedy implemented included containment of hazardous substances and it continues to be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at this Site.

3.6 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. The presence of improved analytical techniques would not affect decisions or recommendations made for the Site.

4.0 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 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 restrictions in the Covenant are being followed. No additional remedial actions are required by the property owner. It is the property owner's responsibility to continue to inspect the Site to assure the integrity of the cap is maintained.

4.1 Next Review

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

5.0 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.*

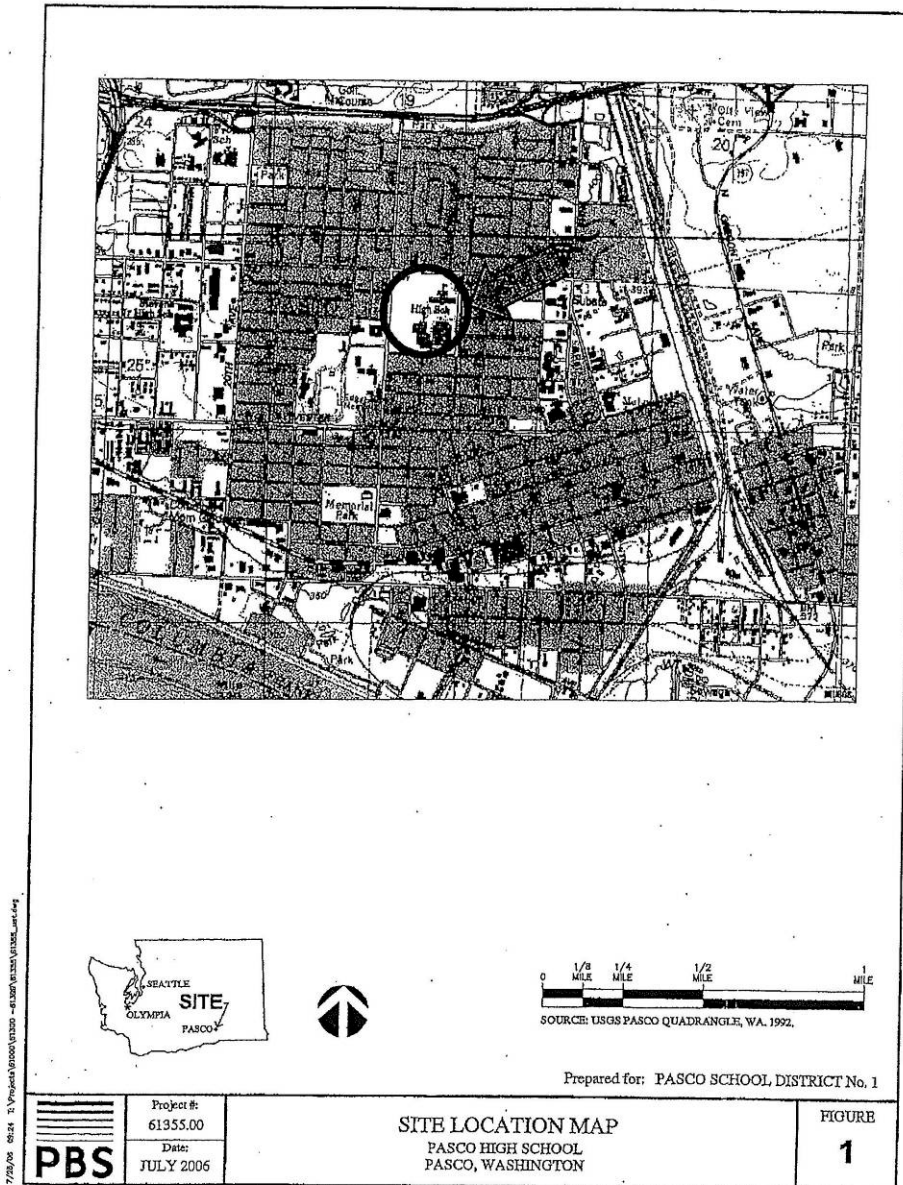
Ecology. *Restrictive Covenant. September 16, 2008.*

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

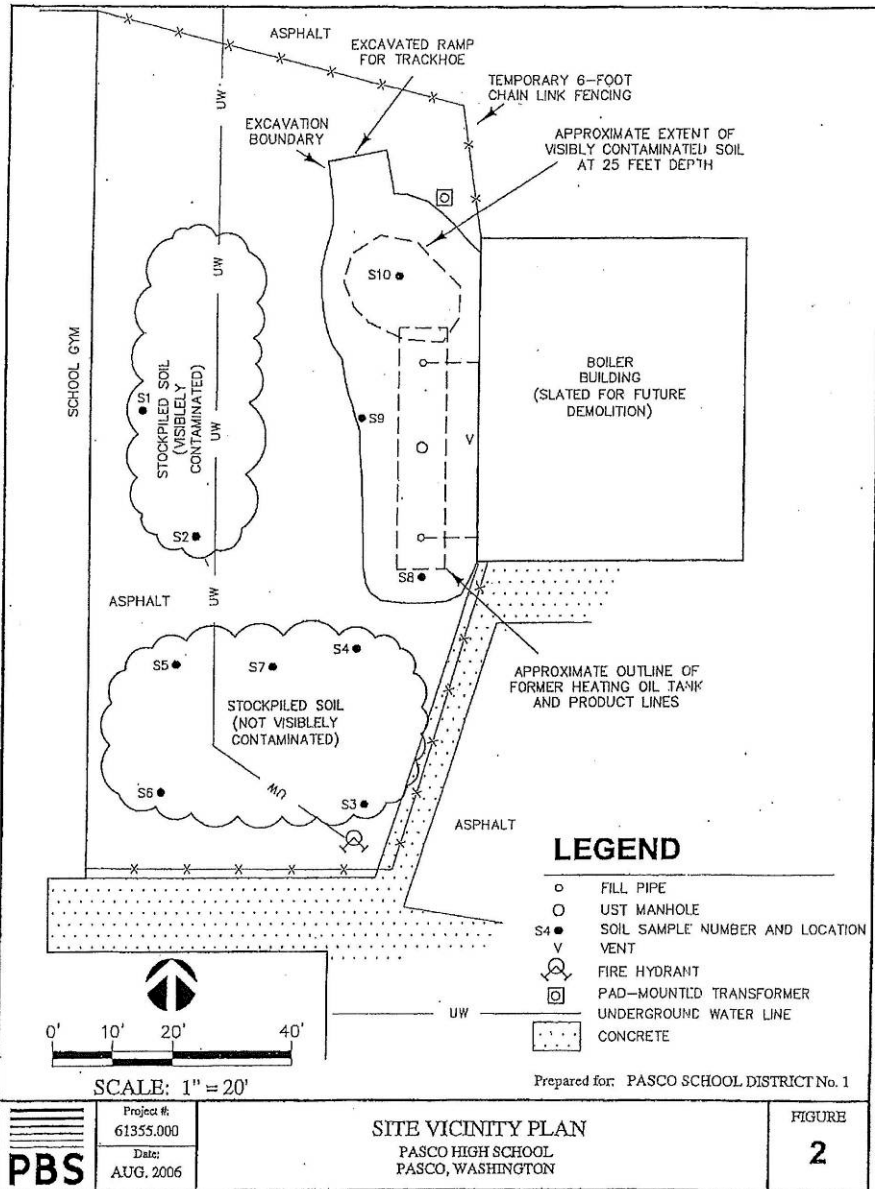
Ecology. *Site Visit. May 1, 2014.*

6.0 APPENDICIES

6.1 Vicinity Map



6.2 Site Plan



6.3 Environmental Covenant

RECEIVED
SEP 15 2008

CONSTRUCTION PROJECTS

Model Restrictive (Environmental) Covenant

After Recording Return to:
Patti Carter
Department of Ecology
4601 N. Monroe Street
Spokane, WA 99205

Zona G. Lenhart, Auditor, Franklin County, WA.
AFN # 1724674 Recorded 09/16/2008 at 10:51 AM
DocType: COV 5 Page(s) Filing Instrument \$46.00
Recorded at the request of: PASCO SCHOOL
DISTRICT

Environmental Covenant

Grantor: Pasco School District No. 1
Grantee: State of Washington, Department of Ecology
Legal: NE ¼, Section 30, Township 9 North, Range 30 East, Franklin County,
Washington.
Tax Parcel Nos.: 112-140-013
Cross Reference: N/A

Grantor, Pasco School District No. 1, hereby binds Grantor, its successors and assigns to the land use restrictions identified herein and grants such other rights under this environmental covenant (hereafter "Covenant") made this 26th day of August, 2008 in favor of the State of Washington Department of Ecology (Ecology). Ecology shall have full right of enforcement of the rights conveyed under this Covenant pursuant to the Model Toxics Control Act, RCW 70.105D.030(1)(g), and the Uniform Environmental Covenants Act, 2007 Wash. Laws ch. 104, sec. 12.

This Declaration of Covenant is made pursuant to RCW 70.105D.030(1)(f) and (g) and WAC 173-340-440 by Pasco School District No. 1, its successors and assigns, and the State of Washington Department of Ecology, its successors and assigns (hereafter "Ecology").

A remedial action (hereafter "Remedial Action") occurred at the property that is the subject of this Covenant. The Remedial Action conducted at the property is described in the following documents:

1. Underground Storage Tank Decommissioning / Site Assessment, 1108 N. 10th Avenue, Pasco, Washington: PBS Engineering and Environmental, August 2006.
2. Limited Remedial Investigation (RI), Pasco High School, 1108 N. 10th Avenue, Pasco, Washington: PBS Engineering and Environmental, January 2007.
3. May 2007 Groundwater Monitoring Report, Pasco High School, Pasco, Washington: PBS Engineering and Environmental, May 29, 2007.
4. September 2007 Groundwater Monitoring Report, Pasco High School, Pasco, Washington: PBS Engineering and Environmental, September 12, 2007.
5. December 2007 Groundwater Monitoring Report, Pasco High School, Pasco, Washington: PBS Engineering and Environmental, January 22, 2008.
6. March 2008 Groundwater Monitoring Report and Discussion of all Four Quarterly Groundwater Monitoring Results, Pasco High School, Pasco, Washington: PBS Engineering and Environmental, April 29, 2008.

These documents are on file at Ecology's Eastern Regional Office.

This Covenant is required because the Remedial Action resulted in residual concentrations of Petroleum Hydrocarbons which exceed the Model Toxics Control Act Method A Cleanup Levels for SOIL established under WAC 173-340-740.

The undersigned, Pasco School District, No. 1, is the fee owner of real property (hereafter "Property") in the County of Franklin, State of Washington, that is subject to this Covenant. The Property is legally described as: NE ¼, Section 30, Township 9 North, Range 30 East, Franklin County, Washington.

Pasco School District No. 1 makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, as provided by law and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Property (hereafter "Owner").

Section 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.

Section 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.

Section 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.

Section 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.

Section 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.

Section 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.

Section 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.

Section 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.



STATE OF Washington
COUNTY OF Franklin

On this 26 day of August, 2008, I certify that William V. Leggett & Sandra S. Hill personally appeared before me, acknowledged that he/she is the Board President & Superintendent of the corporation that executed the within and foregoing instrument, and signed said instrument by free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that he/she was authorized to execute said instrument for said corporation.

Jean A. Martin
Notary Public in and for the State of
Washington, residing at
Franklin Co.
My appointment
expires 12/1/2010

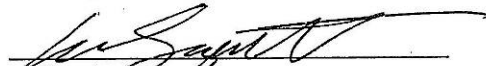
STATE OF _____
COUNTY OF _____

On this _____ day of _____, 20____, I certify that _____ personally appeared before me, acknowledged that he/she is the _____ of the corporation that executed the within and foregoing instrument, and signed said instrument by free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that he/she was authorized to execute said instrument for said corporation.

Notary Public in and for the State of
Washington, residing at

My appointment
expires _____

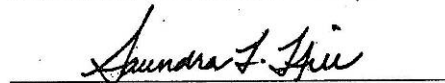
PASCO SCHOOL DISTRICT NO. 1



William V. Leggett
School Board President

Dated: 8-24-2008


PASCO SCHOOL DISTRICT NO. 1



Saundra L. Hill
Superintendent

Dated: 8-26-08

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY



Michael A. Hibbler
Section Manager, Toxics Cleanup Program

Dated: 9/8/08

6.4 Photo log

Photo 1: Pasco High School - from the south



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

