



Second Periodic Review Hico Store 648

**1960 Northeast Terre View Drive, Pullman, WA 99163
Facility Site ID: 46584958, Cleanup Site ID: 6136**

Toxics Cleanup Program, Eastern Region

Washington State Department of Ecology
Spokane, Washington

September 2023

Document Information

This document is available on the Department of Ecology's [Hico Store 648](#) cleanup site page.¹

Related Information

- Facility Site ID: 46584958
- Cleanup Site ID: 6136

Contact Information

Toxics Cleanup Program

Eastern Regional Office
Ted Uecker, Site Manager
4601 N Monroe St
Spokane, WA 99205
Email: ted.uecker@ecy.wa.gov
Phone: 509-342-5564

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

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¹ <https://apps.ecology.wa.gov/cleanupsearch/site/6136>

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

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

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Introduction

The Washington State Department of Ecology (Ecology) reviewed post-cleanup site conditions and monitoring data to ensure human health and the environment are being protected at the Hico Store 648 cleanup 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 a periodic review in September 2017.

Cleanup activities at this Site were completed under the Voluntary Cleanup Program (VCP) under VCP No. EA0099. Residual concentrations of petroleum hydrocarbons that exceeded MTCA cleanup levels remain on the property. The MTCA cleanup levels for soil and groundwater are established under [WAC 173-340-740](https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-740)⁴ and [WAC 173-340-720](https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-720),⁵ respectively.

Ecology determined institutional controls in the form of an environmental covenant would be required as part of the cleanup action for the Site. [WAC 173-340-420\(2\)](https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-420(2))⁶ requires Ecology to conduct a periodic review of certain sites every five years. For this Site, a periodic review is required because the department issued a no further action (NFA) opinion at the site and institutional controls were required as part of the cleanup action.

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

- a) The effectiveness of ongoing or completed cleanup actions, including the effectiveness of engineered controls and institutional controls in limiting exposure to hazardous substances remaining at the site.
- b) New scientific information for individual hazardous substances or mixtures present at the site.
- c) New applicable state and federal laws for hazardous substances present at the site.
- d) Current and projected site and resource uses.
- e) The availability and practicability of more permanent remedies.
- f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

Ecology publishes a notice of all periodic reviews in the *Site Register* and provides an opportunity for public comment.

⁴ <https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-740>

⁵ <https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-720>

⁶ <https://app.leg.wa.gov/wac/default.aspx?cite=173-340-420>

Summary of Site Conditions

Site description and history

The Site is at the intersection of NE Terre View Drive and Merman Street and covers 0.7 acres. The Site is a convenience store and parking lot near multi-unit housing. Fuel is no longer distributed from the Site and all tanks, dispenser islands, and canopies have been removed. The former fuel distribution system consisted of two 10,000-gallon gasoline underground storage tanks (USTs), three gasoline fuel dispensers, and associated underground piping. A vicinity map is in Appendix A, and a Site plan is in Appendix B.

Site investigations

A Phase II Environmental Site Assessment was conducted in October 1989. Three soil borings were installed to 24 feet below ground surface (bgs). No groundwater was encountered in the borings. Soil samples were analyzed for total petroleum hydrocarbons (TPH), and all sample results were non-detect. Four additional soil borings were installed in September 2001 to approximately 40 feet bgs. Groundwater was encountered between 30 and 32 feet bgs. The four borings were completed as groundwater monitoring wells (MW-1 through MW-4). Another monitoring well (MW-5) was installed in September 2001. Soil samples were collected from the borings and were analyzed for gasoline, diesel, and heavy-oil range hydrocarbons. All results were below cleanup levels.

Cleanup actions

An UST and product-line tightness test was conducted in October 2001. The test results indicated the supreme-grade product line may have had a leak. The UST system was removed in August 2002. No obvious holes were noted in either tank; however, stained soil was observed beneath the USTs, at the northeast corner of the excavation, and around the fill ports of each UST. Only the soil sample collected from the north sidewall exceeded MTCA Method A cleanup levels for petroleum hydrocarbons at 841 milligrams per kilogram.

Groundwater monitoring

Groundwater samples were collected from the monitoring wells in August 2002 (MW-1, MW-3, MW-4, and MW-5; MW-2 was decommissioned). Samples were analyzed for benzene, toluene, ethylbenzene, xylenes, naphthalene (BTEXN), ethylene dibromide (EDB), 1,2-dichloroethane (EDC), and methyl tertbutyl ether (MTBE). Three additional monitoring wells (MW-9 through MW-11) were installed in 2002 with groundwater monitoring in January 2003, July 2003, and January 2005. Soil and groundwater sample results from these wells were all below detection limits. Dissolved concentrations of benzene, ethylbenzene, and xylenes exceeded cleanup levels in MW-1 (benzene only), MW-3 and MW-5.

Shallow groundwater at the Site was classified as non-potable since there was no exposure pathways into nearby waterways, the wells had low yield, and the perched water did not mix with the deeper aquifer. As the contamination did not pose a threat to potable water supplies, institutional controls were implemented in 2009 to restrict groundwater extraction from beneath the Site.

Cleanup standards

Cleanup standards include cleanup levels, the location where these cleanup levels must be met (point of compliance), and any other regulatory requirements that apply to the Site.

[WAC 173-340-704](https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-704)⁷ 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.

The point of compliance is the area where the cleanup levels must 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 (standard point of compliance).

⁷ <https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-704>

Environmental Covenant

Ecology determined that institutional controls would be required as part of the cleanup action to document the remaining contamination, protect the cleanup action, and protect human health and the environment. In 2009, institutional controls in the form of an [environmental covenant](#)⁸ (Covenant) were recorded for the Site. The Site status was changed in 2009 to reflect an [NFA determination](#).⁹

The restrictions implemented in the covenant are listed below.

1. No groundwater from the contaminated zone may be taken for any use from the Property. This zone includes all groundwater extracted from the upper 32 feet of the subsurface.
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.

⁸ <https://apps.ecology.wa.gov/cleanupsearch/document/83112>

⁹ <https://apps.ecology.wa.gov/cleanupsearch/document/71063>

Periodic Review

Effectiveness of completed cleanup actions

During the Site visit Ecology conducted on August 16, 2023, there were no indications that the integrity of the remedial action has been compromised. There was no evidence of undocumented Site excavation or disturbance activities, and no visual indications of disturbance of the Site surface. The Site continues to be occupied by a mini-mart and is surrounded by a mix of residential and commercial use properties. A photo log is in Appendix C.

Direct contact

The cleanup actions were intended to eliminate exposure to contaminated soils and groundwater at the Site. Exposure pathways to contaminated soils by ingestion and direct contact were reduced by remedial excavation and by the presence of protective Site surfaces, including asphalt, building foundations, and roadways. The protective Site surfaces appear to be in satisfactory condition, and no repair, maintenance, or contingency actions are required. However, Ecology recommends the protective Site surfaces be evaluated prior to the next periodic review.

Protection of groundwater

Groundwater with petroleum concentrations exceeding MTCA Method A cleanup levels may remain beneath the Site; however, the contaminated groundwater is limited to the shallow, perched aquifer and does not extend beyond the property boundaries. There is no risk of exposure to contaminated groundwater beneath the Site unless a new pathway is created by installing a new groundwater extraction well.

Institutional controls

Institutional controls in the form of a Covenant were implemented at the Site in 2009. The Covenant remains active and discoverable through the Whitman County Auditor's Office. Ecology found no evidence a new instrument has been recorded that 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 action and prohibits any use of the property that is inconsistent with the Covenant, unless approved by Ecology in advance. This Covenant ensures the long-term integrity of the cleanup action will be protected.

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 cleanup action.

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 cleanup 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.

Conclusions

- The cleanup actions completed at the Site appear to be protective of human health and the environment.
- Groundwater 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 is effective in protecting human health and the environment from exposure to hazardous substances and the integrity of the cleanup action.

Based on this periodic review, Ecology has determined the requirements of the Covenant are being followed. We are not requiring the property owner to complete any additional cleanup actions. However, Ecology recommends that the protective Site surface be evaluated prior to the next periodic review. The property owner is responsible for continuing to inspect the Site to ensure the integrity of the cap is maintained.

Next review

Ecology will schedule the next review for the Site five years from the date of this periodic review. If additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years after those activities are completed.

References

Kleinfelder. *Groundwater Monitoring Report and MTCA Evaluation*. February 2005.

Ecology. "VCP Review." August 22, 2005.

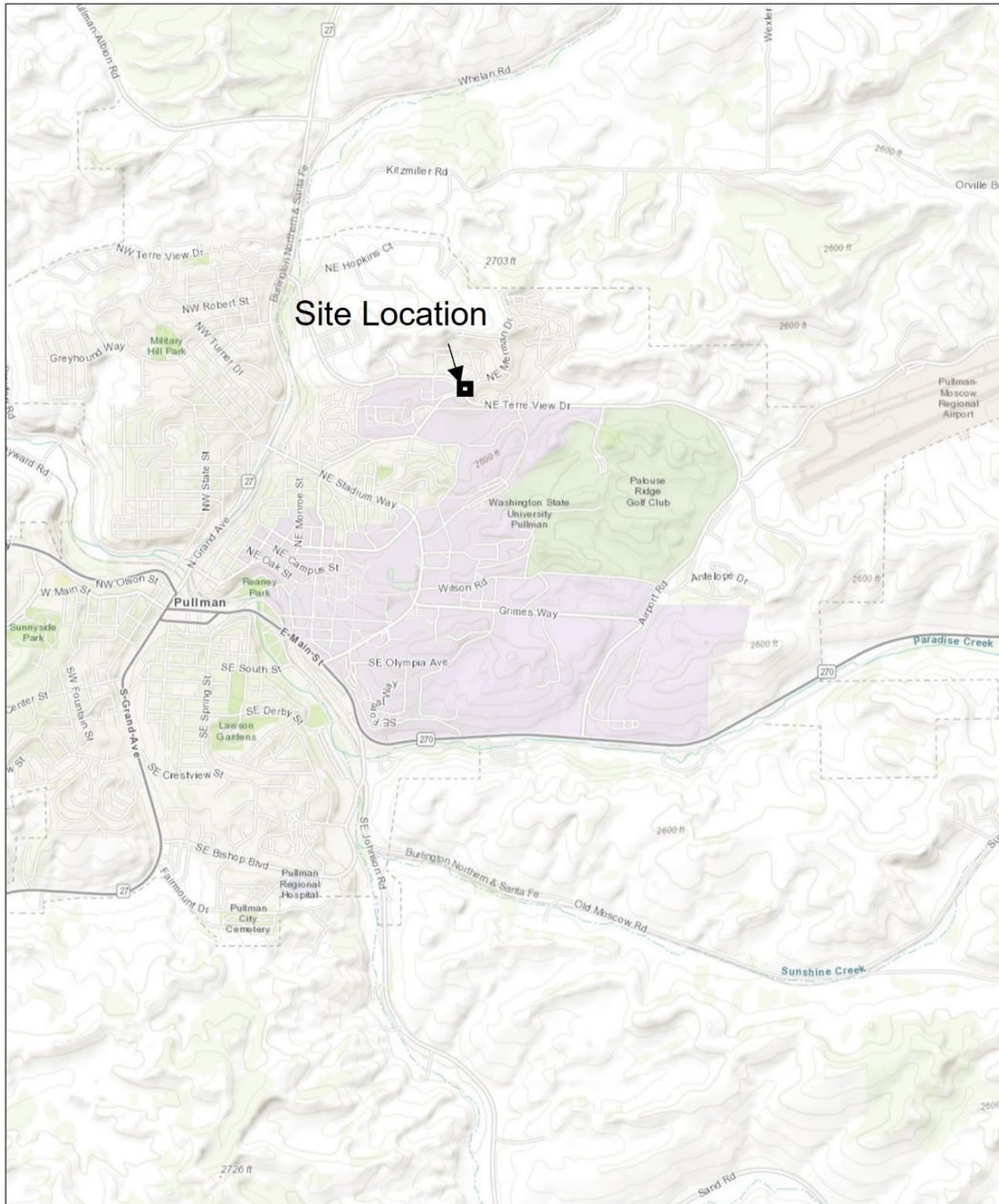
Ecology. *Environmental Covenant*. November 4, 2009.

Ecology. "No Further Action Determination Letter." December 1, 2009.

Ecology. *Periodic Review*. September 2017.

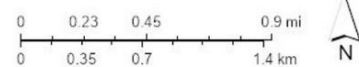
Ecology. Site Visit. August 16, 2023.

Appendix A. Vicinity Map



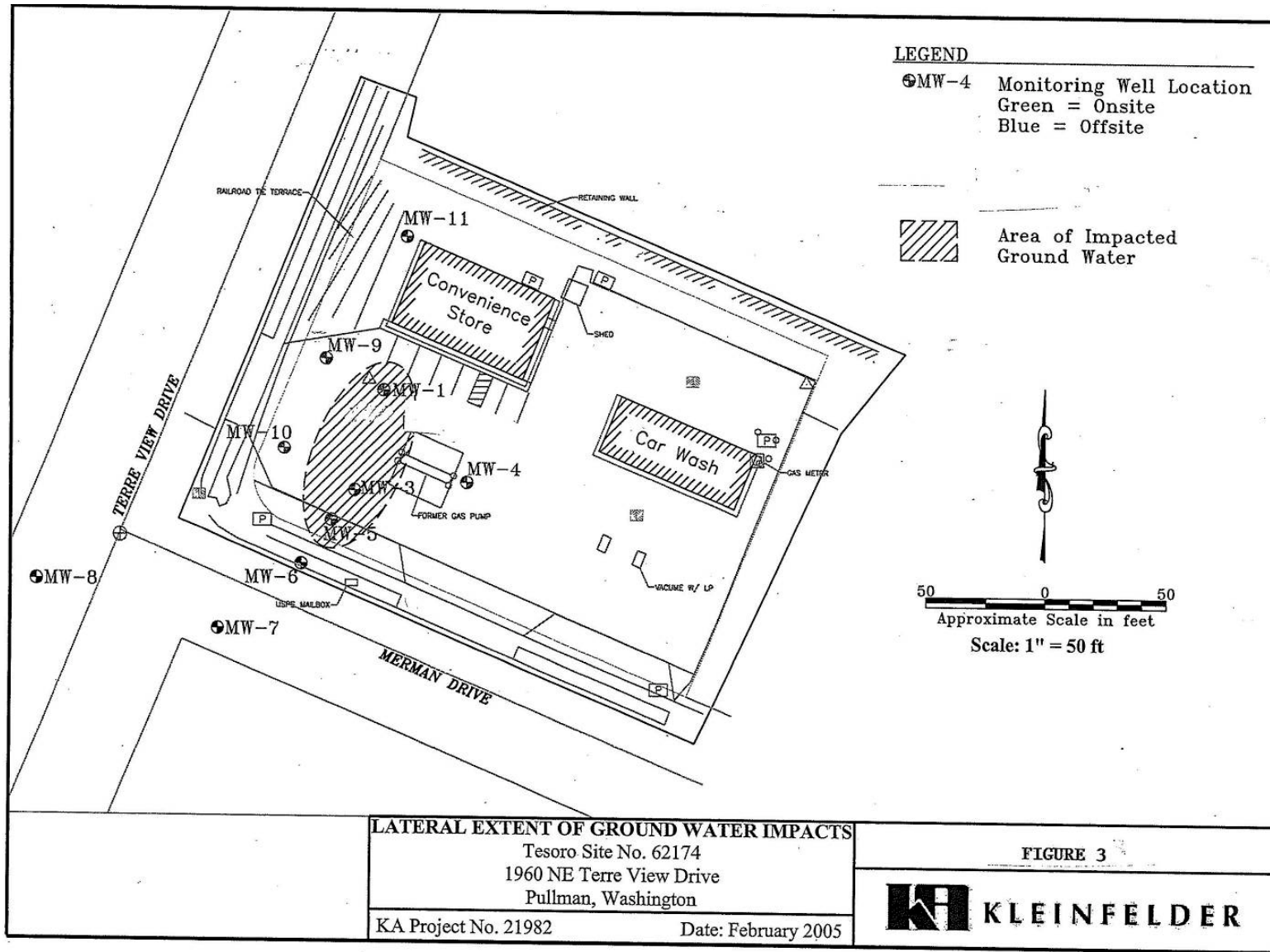
August 28, 2023

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Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Appendix B. Site Plan



Appendix C. Photo Log

Photo 1: Hico Store 648 from the south

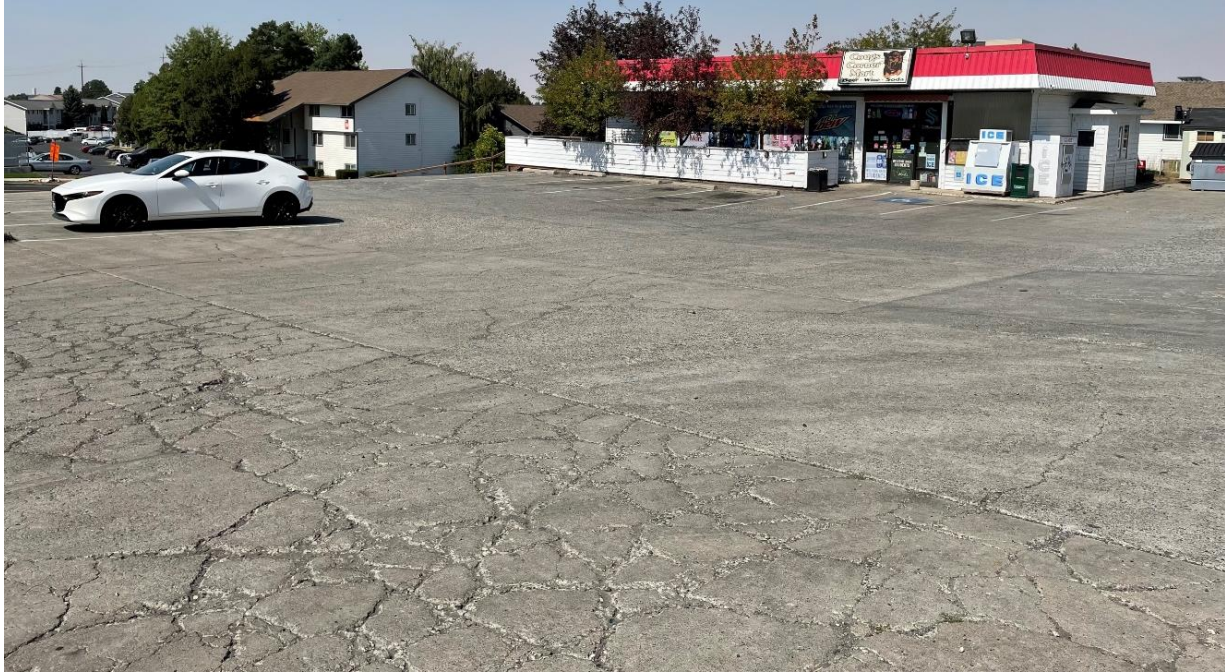


Photo 2: Former tank and dispenser location from the east



Photo 3: Former tank and dispenser location from the northeast



Photo 4: Former tank and dispenser location from the north

