WASHINGTON STATE DEPARTMENT OF ECOLOGY

INITIAL INVESTIGATION FIELD REPORT

Check this box if you have attached any documents to this form (using the paperclip icon on the left).

ERTS #(s):
Parcel #(s):
County:
FSID #:
CSID #:
UST #:

667016
3223059132, 3223059270
King
51421131
14336

SITE INFORMATION

Site Name (Name over door):	Site Address (including City, State and Zip):	<u>Phone</u>
Macs One Hour Cleaners	10825 SE 176th St (SE Petrovitsky Rd) Renton, WA 98055	<u>Email</u>
Site Contact, Title, Business: Robert Roe Environmental Associates, Inc.	Site Contact Address (including City, State and Zip): 1380 112th Ave NE, Ste 300 Bellevue, WA 98004	Phone (425) 455-9025 Email rroe@environmentalassocates.com
Site Owner, Title, Business:	Site Owner Address (including City, State and Zip):	<u>Phone</u>
Tri West Benson c/o Radford & Co	10423 Main St, # 4 Bellevue, WA 98004	Email
Site Owner Contact, Title, Business:	Site Owner Contact Address (including City, State and Zip):	<u>Phone</u>
Colin Radford Tri Western Syndicated Investments Inc.	10423 Main St, # 4 Bellevue, WA 98004	Email c.radford@comcast.net
Previous Site Owner(s):	Additional Info (for any Site Information Item):	
Alternate Site Name(s):	ENL to Mr. Colin Radford E-cc to Robert Roe	

<u> </u>	origitude (Decimal De	grees <i>)</i>	122.193003		
INSPECTION INFO	RMATION	N		Please check this be photos, in an existin	ox if there is relevant insignifications grant site.	pection information, such as data or
Inspection Conduc Yes \(\square\) No	cted?	Date/Time	:	Entry Notice:	Announced	Unannounced
Photographs taken	n? Yes		No 🔲	Note: Attach photographs	s or upload to PIMS	
Samples collected	? Yes		No 🔲	Note: Attach record with	media, location, dep	oth, etc.

RECOMMENDATION

No Further Action (Check appropriate box below):	LIST on Confirmed and Suspected Contaminated Sites List:
Release or threatened release does not pose a threat	Containinated Sites List.
No release or threatened release	
Refer to program/agency (Name:)	
Independent Cleanup Action Completed (contamination removed)	

COMPLAINT (Brief Summary of ERTS Complaint):

Latitude (Decimal Degrees):

A plume of PCE-impacted ground water with concentrations exceeding MTCA Method A extends to the west-southwest underlying northern portions of the adjacent Bayview property (parcel no. 3223059120). A dry cleaner on the property appears to be the most likely source of the release.

CURRENT SITE STATUS (Brief Summary of why Site is recommended for Listing or NFA):

Site characterization and remediation activities have been conducted; however PCE concentrations in ground water exceed the MTCA Method A cleanup level by one to two orders of magnitude. Recommendation: List on Confirmed and Suspected Contaminated Sites (CSCS) List.

Investigator: Heather Vick	Date Submitted: 11/1/2017
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Description (If site visit made, please be sure to include the following: site observations, site features and cover, chronology of events, sources/past practices likely responsible for contamination, presence of water supply wells and other potential exposure pathways, etc.):

The property, which is 0.27 acre in size, was developed with an 1,800-square foot masonry (northern) building constructed in 1962 and a 2,160-square foot masonry (southern) building constructed in 1969. Mac's One Hour Cleaners is currently located in the northern building.

Terracon advanced soil borings (TC-B1 through TC-B4) in 2009; Ecology does not have a copy of Terracon's report but has requested it from Environmental Associates.

In January 2010, four monitoring wells (MW-1 through MW-3) were installed in three of the four Terracon soil boring locations. A fourth well (MW-4) was installed in the northeast corner of the propety. Two soil samples were collected from each monitoring well boring and analyzed for volatile organic compounds (VOCs).

Of the eight soil samples collected from the monitoring well borings, three contained detectable PCE with one sample in MW2 at a concentration of 0.43 milligrams per kilogram (mg/kg) exceeding the Method A cleanup level (0.05 mg/kg) collected at 14 to 15 feet below ground surface (bgs).

Ground water on the site occurs as a perched zone on top of Vashon glacial till. Ground water occurs at depths of 5 to 6 feet bgs. The ground water flow direction was determined to be to the west, northwest and southwest. Ground water samples collected from the four monitoring wells contained tetrachloroethylene (PCE) as high as 1,500 micrograms per liter (ug/L) and trichloroethylene (TCE) up to 1.7 ug/L. No other VOCs were detected in the ground water samples.

In April, 2010, five additional monitoring wells (MW-5 through MW-9) were installed at depths of 13 to 15 feet bgs. Sampling of the additional 5 wells indicated a PCE plume that was not delineated.

In October 2011, a trench was excavated to remove the western sanitary sewer alignment which was replaced with an infiltration gallery installed for direct application of bio-remediation enhancing compounds. An initial application of hydrogen releasing compound to treat PCE-impacted soil and ground water was applied to the trench source.

Documents reviewed:

Environmental Associates, 2010. Preliminary Site Exploration, Mac's One Hour Cleaners. February 5.

Environmental Associates, 2010. Supplemental Site Exploration, Mac's One Hour Cleaners. June 2.

Environmental Associates, 2011. Supplemental Monitoring Well Installation, Mac's One Hour Cleaners. January 26.

Environmental Associates, 2011. Independent Cleanup Action Remediation Trench Construction, Mac's One Hour Cleaners. December 29.

Environmental Associates, 2011. First Quarter Groundwater Monitoring, Mac's One Hour Cleaners. December 30.

Environmental Associates, 2012. Fourth Quarter Groundwater Monitoring, Mac's One Hour Cleaners. December 28.

Environmental Associates, 2013. First Quarter 2013 Groundwater Monitoring, Mac's One Hour Cleaners. March 11.

Environmental Associates, 2013. Third Quarter 2013 Groundwater Monitoring, Mac's One Hour Cleaners. August 19.

Environmental Associates, 2016. March 2015 Groundwater Monitoring, Mac's One Hour Cleaners. April 1.

Environmental Associates, 2016. September 2015 Groundwater Monitoring, Mac's One Hour Cleaners. October 6.

Environmental Associates, 2016. April 2016 Groundwater Monitoring, Mac's One Hour Cleaners. July 6.

Environmental Associates, 2016. October 2016 Groundwater Monitoring, Mac's One Hour Cleaners. November 22.

CONTAMINANT GROUP	CONTAMINANT	TIOS	GROUNDWATER	SURFACE WATER	AIR	SEDIMENT	DESCRIPTION
	Phenolic Compounds						Compounds containing phenols (Examples: phenol; 4-methylphenol; 2-methylphenol)
	Non-Halogenated Solvents						Organic solvents, typically volatile or semi-volatile, not containing any halogens. To determine if a product has halogens, search HSDB (http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB) and look at the Chemical/Physical Properties, and Molecular Formula. If there is not a Cl, I, Br, F in the formula, it's not halogenated. (Examples: acetone, benzene, toluene, xylenes, methyl ethyl ketone, ethyl acetate, methanol, ethanol, isopropranol, formic acid, acetic acid, stoddard solvent, Naptha). Use this when TEX contaminants are present independently of gasoline.
Non-	Polynuclear Aromatic Hydrocarbons (PAH)						Hydrocarbons composed of two or more benzene rings.
Halogenated Organics	Tributyltin						The main active ingredients in biocides used to control a broad spectrum of organisms. Found in antifouling marine paint, antifungal action in textiles and industrial water systems. (Examples: Tributyltin; monobutyltin; dibutyltin)
	Methyl tertiary-butyl ether						MTBE is a volatile oxygen-containing organic compound that was formerly used as a gasoline additive to promote complete combustion and help reduce air pollution.
	Benzene						Benzene
	Other Non-Halogenated Organics						TEX
	Petroleum Diesel						Petroleum Diesel
	Petroleum Gasoline						Petroleum Gasoline
	Petroleum Other						Oil-range organics
	PBDE						Polybrominated di-phenyl ether
	Other Halogenated Organics						Other organic compounds with halogens (chlorine, fluorine, bromine, iodine). search HSDB (http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB) and look at the Chemical/Physical Properties, and Molecular Formula. If there is a Cl, I, Br, F in the formula, it is halogenated. (Examples: Hexachlorobutadiene; hexachlorobenzene; pentachlorophenol)
Halogenated	Halogenated solvents	С	С		S		PCE, chloroform, EDB, EDC, MTBE
Organics (see notes at bottom)	Polychlorinated Biphenyls (PCB)						Any of a family of industrial compounds produced by chlorination of biphenyl, noted primarily as an environmental pollutant that accumulates in animal tissue with resultant pathogenic and teratogenic effects
	Dioxin/dibenzofuran compounds (see notes at bottom)						A family of more than 70 compounds of chlorinated dioxins or furans. (Examples: Dioxin; Furan; Dioxin TEQ; PCDD; PCDF; TCDD; TCDF; OCDD; OCDF). Do not use for 'dibenzofuran', which is a non-chlorinated compound that is detected using the semivolatile organics analysis 8270
Metals	Metals - Other						Cr, Se, Ag, Ba, Cd
	Lead						Lead
	Mercury						Mercury
	Arsenic						Arsenic
Pesticides	Non-halogenated pesticides						Pesticides without halogens (Examples: parathion, malathion, diazinon, phosmet, carbaryl (sevin), fenoxycarb, aldicarb)
	Halogenated pesticides						Pesticides with halogens (Examples: DDT; DDE; Chlordane; Heptachlor; alpha-beta and delta BHC; Aldrin; Endosulfan, dieldrin, endrin)

CONTAMINANT GROUP	CONTAMINANT	SOIL	GROUNDWATER	SURFACE WATER	AIR	SEDIMENT	DESCRIPTION
	Radioactive Wastes						Wastes that emit more than background levels of radiation.
	Conventional Contaminants, Organic						Unspecified organic matter that imposes an oxygen demand during its decomposition (Example: Total Organic Carbon)
Other Contaminants	Conventional Contaminants, Inorganic						Non-metallic inorganic substances or indicator parameters that may indicate the existence of contamination if present at unusual levels (Examples: Sulfides, ammonia)
	Asbestos						All forms of Asbestos. Asbestos fibers have been used in products such as building materials, friction products and heat-resistant materials.
	Other Deleterious Substances						Other contaminants or substances that cause subtle or unexpected harm to sediments (Examples: Wood debris; garbage (e.g., dumped in sediments))
	Benthic Failures						Failures of the benthic analysis standards from the Sediment Management Standards.
	Bioassay Failures						For sediments, a failure to meet bioassay criteria from the Sediment Management Standards. For soils, a failure to meet TEE bioassay criteria for plant, animal or soil biota toxicity.
Reactive Wastes	Unexploded Ordinance						Weapons that failed to detonate or discarded shells containing volatile material.
	Other Reactive Wastes						Other Reactive Wastes (Examples: phosphorous, lithium metal, sodium metal)
	Corrosive Wastes						Corrosive wastes are acidic or alkaline (basic) wastes that can readily corrode or dissolve materials they come into contact with. Wastes that are highly corrosive as defined by the Dangerous Waste Regulation (WAC 173-303-090(6)). (Examples: Hydrochloric acid; sulfuric acid; caustic soda)

(fill in contaminant matrix below with appropriate status choice from the key below the table)

Status choices for contaminants	
Contaminant Status	Definition
B— Below Cleanup Levels (Confirmed)	The contaminant was tested and found to be below cleanup levels. (Generally, we would not enter each and every contaminant that was tested; for example if an SVOC analysis was done we would not enter each SVOC with a status of "below". We would use this for contaminants that were believed likely to be present but were found to be below standards when tested
S— Suspected	The contaminant is suspected to be present; based on some knowledge about the history of the site, knowledge of regional contaminants, or based on other contaminants known to be present
C— Confirmed Above Cleanup Levels	The contaminant is confirmed to be present above any cleanup level. For example—above MTCA method A, B, or C; above Sediment Quality Standards; or above a presumed site-specific cleanup level (such as human health criteria for a sediment contaminant).
RA— Remediated - Above	The contaminant was remediated, but remains on site above the cleanup standards (for example—capped area).
RB— Remediated - Below	The contaminant was remediated, and no area of the site contains this contaminant above cleanup standards (for example— complete removal of contaminated soils).

Halogenated chemicals and solvents: Any chemical compound with chloro, bromo, iodo or fluoro is halogenated; those with eight or fewer carbons are generally solvents (e.g. halogenated methane, ethane, propane, butane, pentane, hexane, heptane or octane) and may also be used for or registered as pesticides or fumigants. Most are dangerous wastes, either listed or categorical. Organic compounds with more carbons are almost always halogenated pesticides or a contaminant or derivative. Referral to the HSDB is recommended if you are unfamiliar with a chemical name or compound, as it contains useful information about synonyms, uses, trade names, waste codes, and other regulatory information about most toxic or potentially toxic chemicals.

Dibenzodioxins and dibenzofurans are normalized to a combined equivalent toxicity based on 2,3,7,8-tetrachloro-p-dibenzodioxin as set out in WAC 173-340-708(8)(d) and in the Evaluating the Toxicity and Assessing the Carcinogenic Risk of Environmental Mixtures using Toxicity Equivalency Factors Focus Sheet (https://fortress.wa.gov/ecy/clarc/FocusSheets/tef.pdf). Results may be reported as individual compounds and isomers (usually lab results), or as a toxic equivalency value (reports).

FOR ECOLOGY II REVIEWER USE ONI	_Y (For Listing Sites):
How did the Site come to be known:	✓ Site Discovery (received a report): 3/16/2011 (Date Report Received) □ ERTS Complaint □ Other (please explain):
Does an Early Notice Letter need to b If <i>No</i> , please explain why:	e sent: ⊠ Yes □ No
NAICS Code (if known): Otherwise, briefly explain how prope	rty is/was used (i.e., gas station, dry cleaner, paint shop, vacant land, etc.):
Site Unit(s) to be created (Unit Type): If multiple Units needed, please explair	
Cleanup Process Type (for the Unit):	 No Process ✓ Independent Action ✓ Voluntary Cleanup Program ☐ Ecology-supervised or conducted ☐ Federal-supervised or conducted
Site Status: Awaiting Cleanup Cleanup Started No Further Action Requ	☐ Construction Complete – Performance Monitoring ☐ Cleanup Complete – Active O&M/Monitoring uired
Site Manager (Default:): _	Northwest Region
Specific confirmed contaminants inclu	de: Facility/Site ID No. (if known):
PCE in Soil	Cleanup Site ID No. (if known):
in Groundwater	
in Other (specify n	natrix:)

COUNTY ASSESSOR INFO: Please attach to this report a copy of the tax parcel/ownership information for each parcel associated with the site, as well as a parcel map illustrating the parcel boundary and location.

Additional or Supplemental Information from Observations Page

Multiple ground water sampling rounds were conducted between 2011 and 2016 including quarterly monitoring. PCE concentrations in ground water in October 2016 exceeded the Method A cleanup level by one to two orders of magnitude. Additional ground water sampling rounds have been conducted, and Ecology has requested the recent ground water monitoring reports. Ecology records will be updated when those reports are submitted.