State of Oregon
Department of Environmental Quality Memorandum

Date: August 29, 2025

To: FILE

Through: Don Hanson, Lead worker

From: Sarah Kingery
Western Region

Subject: Prairie Road LLC, LUST #20-16-1598; Staff Memorandum in support of a conditional No Further Action determination

This document presents the basis for the Oregon Department of Environmental Quality's (DEQ's) recommended conditional No Further Action (NFA) determination for the Prairie Road LLC, in Eugene. As discussed in this report, contaminant concentrations in soil, groundwater and soil vapor are below acceptable risk levels under the conditions of the NFA.

The proposed conditional NFA determination meets the requirements of Oregon Administrative Rules Chapter 340, Division 122, Sections 0205 to 0360 and ORS 465.200 through 465.455.

The proposal is based on information documented in the administrative record for this site. A list of key documents from the administrative record is presented at the end of this report.

1. BACKGROUND

Site location.
The site's location can be described as follows:
- Address: 2690 Prairie Road, Eugene, Lane County, Oregon.
- Latitude 44º6'8.50" north, longitude 123º9'47.67" west
- Tax lot 800, Township 17 south, Range 04 west, Section 10

Site setting.
The site is a 3.23-acre parcel within the City of Eugene Urban Growth Boundary. It is bordered to the north by Irving Road and to the east by Prairie Road. This parcel is zoned Light-Medium industrial use. A railroad line and a drainage ditch are located adjacent to the south property boundary. The parcels bordering the west and south property boundaries are both zoned Light-Medium industrial use. The surface of the lot is paved, and structures include a warehouse, an office, aboveground storage tanks for petroleum products, and canopies over fuel dispensers for retail and cardlock use.

Physical setting.

The site is relatively flat and is at an elevation of 385 feet above mean sea level. Based on borings drilled on site, the subsurface consists of clayey silt, sandy silt, silty clay, and sand from 0-15 feet below ground surface. Varying amounts of gravel is also present within the finer grained material. Groundwater depth at the site varies seasonally from 1.82 - 12.59 feet below the measured point of the monitoring well. The groundwater flow direction on the sites varies, in the southern portion of the site it flows northwest and in the north section of the parcel the flow direction is to the south-southeast. A drainage ditch is located adjacent to the southern property boundary.

Site history.
The site was residential use until 1961. In 1962, the Eugene Farmers Co-op began operation on the site. The Eugene Farmers Co-op was a fuel and fertilizer distribution facility and was in operation until 2001. From 2001 to the present day, the site has been occupied by the Jerry Brown Company, with business activities including cardlock fueling, retail fueling, bulk oil warehouse storage, and office space for administration.

2. BENEFICIAL LAND AND WATER USE DETERMINATIONS

Land use.
The site is zoned light-medium industrial and there is no anticipated change to this zoning in the future. The properties within a ¼ mile radius of the site are zoned light-medium or heavy industrial. The closest residential zoning is located 0.23 miles east of the site, however there are properties north of the site that appear to be being used as residences, on Irving Road and Federal Lane.

Groundwater use.
The site has no current beneficial groundwater use. Water is provided to the site and surrounding properties by the Eugene Water and Electric Board (EWEB). EWEB sources the water that they supply from the McKensie River located 3.5 miles to the northeast of the site. Partner Engineering and Science, Inc. (Partner) conducted a beneficial water use survey in 2020. Five wells were identified within a 1/4-mile radius of the site at distances ranging from 280 feet to 750 feet. Wells identified in the survey were located up or cross gradient of the site.

Surface water use.
There is a drainage/stormwater ditch adjacent to the south property boundary of the site. Based on information from the Preliminary Ecological Scoping Assessment (Partner May 27, 2022) the drainage ditch flows west to a network of ditches flowing north. Surface water on the site is manage through storm drains along Irving Road (north side of property) and the ditch on the south side of the property. Both the stormwater pipes and the ditch are connected to additional stormwater ditches that flow to the north as shown on City of Eugene stormwater maps (see Partner Risk-based Evaluation Report).

3. INVESTIGATION AND CLEANUP WORK

During a site investigation in 2016 petroleum hydrocarbons were detected in soil and groundwater, a release was reported to DEQ and the leaking underground storage tank (LUST) file 20-16-1598 was opened. A previous LUST file for this site (LUST #20-93-4051) was closed in October 2001.

Site investigations between 2016 and 2021 included 33 borings using direct push, hollow-stem auger, or hand-auger equipment. Borings were located around environmental areas of concern: fuel storage tanks, former fertilizer storage tanks, oil-water separator, fueling areas, and a railroad spur (Sample Location Map). Thirty soil samples were collected from the borings and analyzed for gasoline, diesel, and residual oil-range hydrocarbons by method NWTPH-Gx and NWTPH-Dx. Select samples were also analyzed for volatile organic compounds (VOCs) by EPA method 8260B and nitrate by EPA method 9056.

Sixteen groundwater grab samples were collected from borings B1-B16. Monitoring wells MW-1 through MW-7 were installed in 2017, and groundwater monitoring and sampling of the wells was conducted between 2017 and 2019. The monitoring well locations are shown on the Sample Location Map. Groundwater samples were analyzed for gasoline, diesel, and residual oil-range hydrocarbons by method NWTPH-Gx and NWTPH-Dx. Samples were also analyzed for benzene, toluene, ethylbenzene, total xylenes (BTEX) and fuel oxygenates by EPA method 8260B. Groundwater samples from B14, B15, and B16 (located near the former fertilizer ASTs) were analyzed for chlorinated herbicides by EPA Method 8151A and nitrate by EPA Method 9056A.

Soil vapor points (SV-1 through SV-7) were co-located with monitoring wells MW-1 through MW-7. Seven soil vapor samples were collected in 2017 and analyzed for VOCs by EPA method TO-17. Three sub-slab vapor samples (SS1, SS2, and SS4) were collected beneath the office building slab in 2021. These sub-slab vapor samples were analyzed for VOCs.

Nature and extent of contamination.
Constituents of interest (COI) at the site consist of petroleum hydrocarbons, associated constituents, and the herbicide dinoseb.

Soil
Gasoline and diesel-range hydrocarbons are present in the soil beneath the site, mostly at depths of 5 to11 feet. Concentrations of gasoline-range hydrocarbons were typically less than 1 mg/kg however concentrations were detected on the north side of the property at a maximum concentration of 340 milligrams per kilogram (mg/kg). The highest diesel concentration (2,520 mg/kg) was detected in a sample collected from MW-2 at 9 feet bgs east of the office building. A zone of shallow contamination (less than 3 feet in depth) was detected in soil along the rail spur on the south side of the property. TPH-Gx concentrations in this area were less than 1 mg/kg. TPH-Dx was detected at a concentration of 23.1 mg/kg. Benzene, acetone, and toluene were also detected in shallow samples collected in this area at concentrations less than 0.1 mg/kg.

Various VOCs were also detected across the site at concentrations less than 1 mg/kg except for sec-butylbenzene detected at a concentration of 1.25 mg/kg in soil from MW-2. One soil sample collected around the former fertilizer ASTs at a depth of 2 feet contained nitrate at a concentration of 7.37 mg/kg.

Soil contamination does not extend offsite with the exception of low levels of petroleum hydrocarbons in the ditch.

Groundwater

Concentrations of TPH-Gx in groundwater ranged from 32 micrograms per liter (µg/l) to 719 µg/l. Concentrations decreased over the monitoring period to non-detect in all wells except MW-2 where a concentration of 719 µg/l was detected in 2019. Concentrations of VOCs also decreased during this period. Benzene was detected in MW-6 at a concentration of 0.754 µg/l in 2019.

Concentrations of TPH-Dx ranged from 2,830 µg/l to 111 µg/l in the monitoring wells and were relatively stable over time. The highest concentrations were detected in MW-2, MW-6 and MW-7. Various PAHs were also detected in groundwater with the highest concentrations detected in MW-2 and MW-6 located in the center of the site. The PAHs 1-methylnaphthalene and 2-methylnaphthalene were found in the highest concentrations and decreased over time. Concentrations of 1-methylnaphthalene decreased from 52.5 µg/l to 36.1 µg/l between 2017 and 2019.

Nitrate was detected in the groundwater from borings B14-B16 at concentrations ranging from 742 to 13,200 µg/l. The chlorinated herbicide dinoseb was detected in B15 at a concentration of 5.94 µg/l. Other herbicides were not detected.

Groundwater contamination does not appear to extend offsite.

Soil Vapor

Low fraction TPH (gasoline), benzene, and other VOCs were detected in soil vapor samples from the site. Low fraction TPH was detected at a concentration of 9,290,000 micrograms per cubic meter (µg/m³) in SV-6 located in the center of the site. Benzene was detected at a concentration of 24.2 µg/m³. Low fraction TPH was not detected in sub-slab vapor samples collected beneath the office south of MW-6. Benzene was detected in sub-slab vapor samples at a maximum concentration of 0.648 µg/m³. Various other VOCs were detected at very low concentrations.

4. RISK EVALUATION

Conceptual site model.

Remaining sources of contamination at the site include soil, groundwater, and soil vapor. Potential pathways by which this contamination could reach human and ecological receptors are:

- Soil ingestion, dermal contact and inhalation for occupational, construction worker and excavation worker scenarios
- Volatilization to outdoor air
- Vapor intrusion into buildings
- Groundwater in excavations

The groundwater ingestion & inhalation from tapwater pathway is considered incomplete due to no beneficial groundwater use and drinking water supplied by EWEB.

To evaluate human and ecological exposure to residual chemical contamination requires an assessment of the type and extent of that exposure. This is based on current and reasonably likely future site use. DEQ publishes risk-based concentrations (RBCs) for contaminants commonly encountered, for different types of exposure scenarios. These RBCs are conservative estimates of protective levels of contaminants in soil, groundwater and air. Table 1 shows potential exposure pathways and receptors for this site. Based on this, applicable RBCs are identified and used for risk screening.

Table 1. Identification of applicable RBCs, based on pertinent pathways and receptors

	Pathway	Receptor	Is pathway complete?	Is RBC Exceeded?	Comments
Soil	Ingestion, Dermal Contact, and Inhalation	Residential and/or Urban Residential	No	N/A	
		Occupational	Yes	No	This pathway is complete on the southside of the property near the rail spur. Concentrations do not exceed the RBCs.
		Construction Worker	Yes	No	
		Excavation Worker	Yes	No	
	Volatilization to Outdoor Air	Residential and/or Urban residential	No	N/A	
		Occupational	Yes	No	
	Volatilization to Indoor Air	Residential	--	--	See Note 1
		Commercial	--	--	
	Leaching to Groundwater	Residential and/or Urban residential	No	N/A	Groundwater is not used for drinking. This pathway is therefore incomplete.
		Occupational	No	N/A	

Groundwater	Ingestion & Inhalation from Tap Water	Residential and/or Urban residential	No	N/A	Groundwater is not used for drinking. This pathway is therefore incomplete.
		Occupational	No	N/A	
	Volatilization to Outdoor air	Residential	No	N/A	
		Urban residential	No	N/A	
		Occupational	Yes	No	
	Vapor Intrusion into Buildings	Residential	No	N/A	
		Commercial	Yes	Yes	See Note 2
	Groundwater in Excavation	Construction & excavation worker	Yes	No	
Soil Vapor	Vapor Intrusion into Buildings	Commercial	Yes	No	See Note 2
Ecological	Surface water & Terrestrial (soil)	Aquatic and terrestrial receptors	Yes	No	Contaminants in shallow soil on the south side of the property are below the RBCs.

Notes: 1. DEQ no longer has soil RBCs for volatilization to indoor air.
2. Soil vapor beneath the onsite office building does not contain contaminants above the RBCs. There is one location in the center of the site where soil vapor contained concentrations above the RBCs.

Contaminant concentrations.

Soil		
Potential Contaminant of Concern	**Maximum Concentration mg/kg (depth)**	**Are any applicable RBCs exceeded?**
Gasoline-range hydrocarbons	340 (5 ft)	Yes
Diesel-range hydrocarbons	2,520 (9 ft)	No
Residual oil-range hydrocarbons	143 (5 ft)	No
Benzene	0.18 (5 ft)	Yes
Toluene	5.1 (5 ft)	No
Ethylbenzene	2.7 (5 ft)	Yes
Xylenes	20 (5 ft)	No
Acetone	0.0331 (5 ft)	No
n-butylbenzene	0.104 (9 ft)	No
Sec-butylbenzene	1.25 (9 ft)	No
Tert-butylbenzene	0.0647 (9 ft)	No
Isopropylbenzene	0.0765 (9 ft)	No
MTBE	0.0774 (9 ft)	No
2-butanone (MEK)	0.0142 (8 ft)	No
Nitrate	7.37 (2 ft)	No

Groundwater		
Contaminant of Concern	**Maximum Concentration µg/l (well number)**	**Are any applicable RBCs exceeded?**
Gasoline-range hydrocarbons	920 (MW-2)	Yes
Diesel-range hydrocarbons	2,480 (MW-2)	Yes
Residual oil-range hydrocarbons	226 (MW-6)	No

Benzene	4.46 (MW-6)	No
Anthracene	0.0731 (MW-2)	No
Acenaphthene	2.08 (MW-2)	No
Fluorene	0.973 (MW-2)	No
MTBE	0.958 (MW-6)	No
Naphthalene	0.973 (MW-2)	No
Phenanthrene	1.90 (MW-2)	No
Pyrene	0.03559 (MW-2)	No
1-Methylnaphthalene	36.1 (MW-2)	No
2-Methylnaphthalene	27.1 (MW-2)	No
Nitrate	13,200 (B15)	EPA RSL not exceeded
Dinoseb	5.94 (B15)	EPA RSL not exceeded

Soil Vapor		
Contaminant of Concern	**Maximum Concentration µg/m³**	**Are any applicable RBCs exceeded?**
TPH Low Fraction	9,290,000	Yes
Acetone	206	No
Benzene	24.2	No

Human health risk.
Soil contamination remains beneath the site at depths typically ranging from 5 to 11 feet below ground surface. Shallow soil contamination also remains along the southern property near the railroad spur. Concentrations of various contaminants in soil exceed the leaching to groundwater RBCs however this pathway is incomplete because there are no beneficial uses of groundwater and drinking water is supplied by EWEB. Concentrations of contaminants in soil are below the RBCs for soil ingestion, dermal contact, and inhalation for all occupational, construction and excavation workers. This includes residual contaminants in shallow soil along the railroad spur.

Gasoline and diesel concentrations in groundwater beneath the site exceed the vapor intrusion RBCs for commercial receptors. However, only one soil vapor sample (MW-6/SV-6) had a concentration of low fraction TPH exceeding vapor intrusion RBCs. Low fraction TPH was not detected in soil vapor samples collected beneath the current office building making the vapor intrusion pathway into current buildings incomplete. Given the historic use and unlikely use change, soil vapor conditions are protective under the current site use. If structures are planned to be constructed north of the existing office in the future, then additional assessment or mitigation would be required to determine if vapor resistant construction would be needed to protect human health.

Concentrations of contaminants in groundwater are below the RBCs for Groundwater in excavations.

Ecological risk.
Partner prepared a preliminary ecological scoping assessment (May 27, 2022) for the site. The primary area of ecological concern is the drainage ditch located adjacent to the south property line. This area is less than 0.5 acre making the site eligible for an ecological risk size exclusion.

Depth to groundwater in the vicinity of the ditch (MW-7) was measured at depths of 5 to 12 feet bgs which is unlikely to contribute water to ditch flow. Groundwater flow at the site also flows towards the north away from the ditch. Groundwater samples collected in this area contained concentrations of diesel and oil-range hydrocarbons and PAHs. Concentrations of PAHs were below the ecological RBCs for freshwater. Average diesel concentrations had a hazard quotient of 1 and are expected to continue to decline due to natural attenuation. There were no critical habitats for threatened & endangered (T&E) within a ¼ mile of the site based on the United States Fish and Wildlife Service (USFWS) critical habitat map. Because of the size of the potential exposure area, low concentrations of contaminants and lack of T&E within a ¼ mile of the site there are no ecological exposure risks at the site.

5. RECOMMENDATION

Based on sample results for soil, groundwater and soil vapor, acceptable risk levels are currently not exceeded for current use. However, construction of buildings north of the the current office building could be subject to vapor intrusion above DEQ's acceptable risk levels based on the soil vapor concentration detected at SV-6. Therefore, DEQ is recommending a conditional NFA. The condition is that an Easement and Equitable Servitudes (EES) be recorded on the property restricting building construction for human occupancy on the northern part of the site or requiring further VI assessment to demonstrate that VI should not be a concern. The conditional No Further Action determination should be recorded in DEQ's environmental data management system also known as Your DEQ Online (YDO) under project number 20-16-1598.

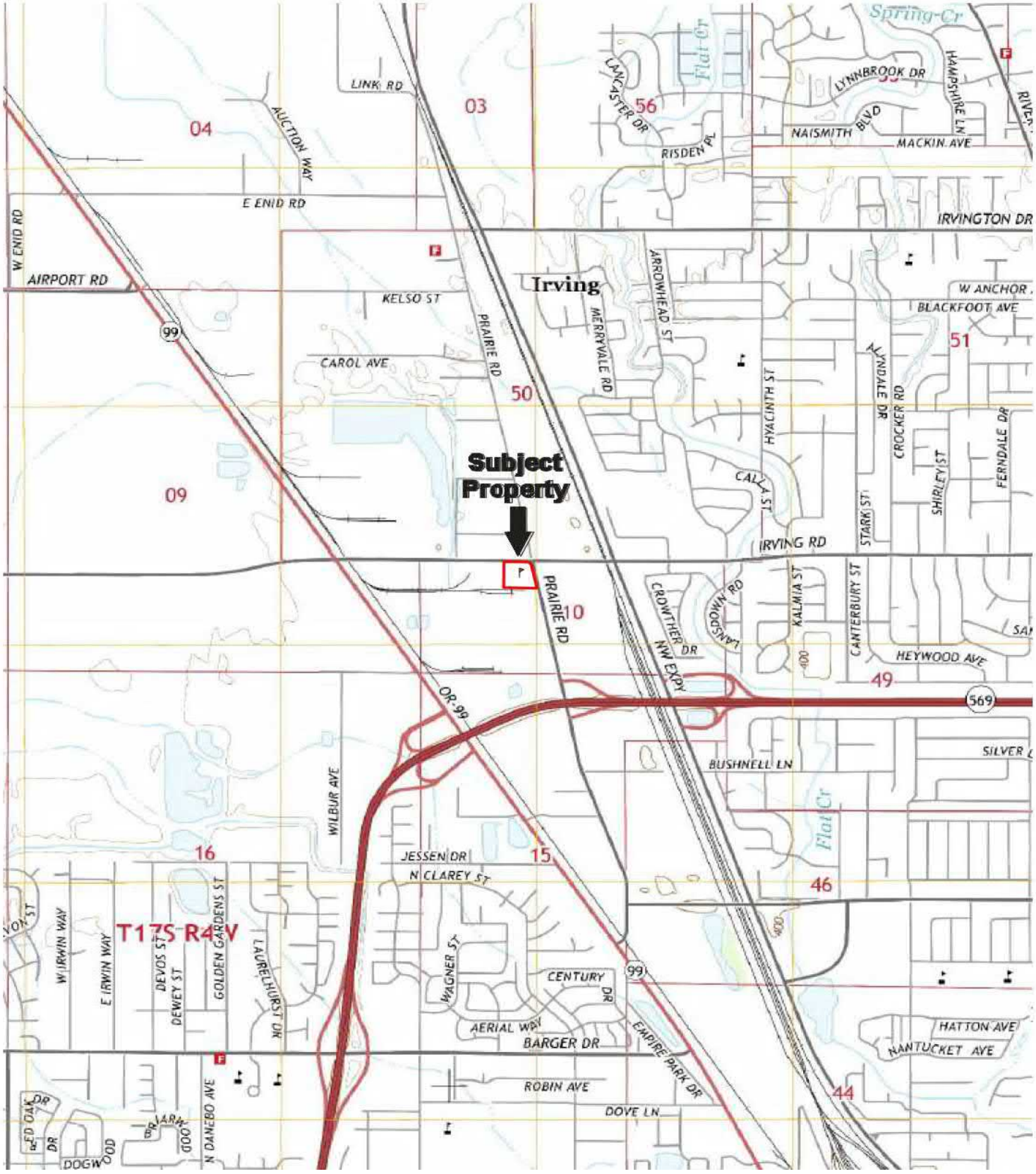
6. ADMINISTRATIVE RECORD

2020-02-06_20-16-1598 Risk-Based Evaluation Report
20161598 Phase I ESA Prairie Road, LLC, Eugene May 2016
20161598 Phase II Report - Prairie Road, LLC, Eugene July 2016
20161598 Phase II Report - Prairie Road, LLC, Eugene, Sept 2016
2022-05-27_20-16-1598_Ecological Assessment Report
20161598 MWR Prairie Rd LLC Eugene Sept 2018
20161598 MWR Prairie Rd LLC Eugene Jan 2019
20161598 MWR Prairie Rd LLC Eugene April 2019
20161598 MW Install Prairie Rd LLC Eugene Sept 2017

These documents are available through our online records management system. Additional documents are available in our paper files through a public records request.

7. ATTACHMENTS

1. Vicinity map
2. Sample location map



NOTES:

USGS EUGENE WEST, OR QUADRANGLE
VERSION: 2014 CURRENT AS OF: 2014

TITLE: SITE VICINITY MAP			
FIGURE: 1	PREPARED BY: DM	DATE: OCTOBER 2019	PROJECT NUMBER: SM16-161197

ADDRESS:
2690 PRAIRIE ROAD
EUGENE, OREGON 97402

PARTNER
Engineering and Science, Inc.
2154 TORRANCE BOULEVARD, SUITE 200
TORRANCE, CALIFORNIA 90501

[COMMERCIAL PROPERTIES]

[COMMERCIAL PROPERTIES]

IRVING ROAD

MW-4/SV-4

MW-5/SV-5

B6

B13

B12

OIL-WATER SEPARATOR

B5

B14

B11

FUEL CANOPY/ AREA OF OIL STAINING

FORMER FERTILIZER ASTs

B4

B16

MW-3/SV-3

B15

FUEL ASTs

B3

B10

B2

B7

CANOPY/ OIL STAINING

OIL-WATER SEPARATOR

MW-6/SV-6

B9

B8

[COMMERCIAL PROPERTIES]

PRAIRIE ROAD

[COMMERCIAL PROPERTIES]

SS1

SS2

MW-2/SV-2

RAILCAR OFFLOADING AREA

SHOP

OFFICE

OFFICE

SS3

SS4

MW-1/SV-1

B1

MW-7/SV-7

HA-3

HA-2

HA-1

RAILWAY

SPRING CREEK

[COMMERCIAL PROPERTIES]

LEGEND:

- PROPERTY LINE
- FENCE
- PREVIOUS BORING LOCATIONS (JULY 2016)
- PREVIOUS STEP-OUT BORING LOCATIONS (SEPTEMBER 2016)
- MONITORING WELLS / SOIL VAPOR LOCATIONS (JULY 2017)
- HAND AUGER BORING LOCATIONS (JULY 2017)
- BORING LOCATIONS
- SUB-SLAB LOCATIONS

N

30' 0' 30' 60'

APPROXIMATE SCALE

TITLE:

SAMPLE LOCATION MAP

FIGURE:	PREPARED BY:	DATE:	PROJECT NUMBER:
3	AS	OCTOBER 2021	SM16-161197

ADDRESS:
2690 PRAIRIE ROAD
EUGENE, OREGON 97402

PARTNER
Engineering and Science, Inc.
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