October 26, 2021
Cardno 03144702.W04

Mr. Erik Gerking
The Port of Everett
Director of Environmental Programs

Cardno

309 South Cloverdale Street
Unit A13
Seattle, WA 98108
USA

Phone +1 800 499 8950

www.cardno.com

SUBJECT **Conditional Point of Compliance Groundwater Well Installation Work Plan**
ExxonMobil ADC
2717/2731 Federal Avenue
Everett, Washington

Mr. Gerking:

At request of ExxonMobil Environmental and Property Solutions, on behalf of ExxonMobil Oil Corporation (ExxonMobil) and American Distribution Company (ADC), Cardno has prepared the enclosed *Conditional Point of Compliance Groundwater Well Installation Work Plan*, dated October 26, 2021 for the subject site.

Please contact Mr. Bobby Thompson, Cardno Project Manager for this site, at 206 510 5855, or Ms. Jennifer C. Sedlachek, ExxonMobil Project Manager for this site, at 469 913 3672 with any questions.

Sincerely,

Cameron Penner-Ash
Assistant Project Manager
Cardno
Direct Line +1 503 869 1196
Email: cameron.penner-ash@cardno.com

Bobby Thompson
Project Manager
Cardno
Direct Line +1 206 510 5855
Email: robert.thompson@cardno.com

ENCLOSURE
Cardno's *Conditional Point of Compliance Groundwater Well Installation Work Plan*, dated October 26, 2021

cc: w/ enclosure

Mr. Steve Miller, American Distribution Company *(Email)*
Mr. Jason Cook, Washington State Department of Ecology *(Email)*
Ms. Sandra Caldwell, Washington State Department of Ecology *(Email)*
Ms. Jennifer Sedlachek, ExxonMobil Environmental and Property Solutions Company *(Project folder)*

Conditional Point of Compliance Groundwater Well Installation Work Plan

ExxonMobil ADC
2717/2731 Federal Avenue
Everett, Washington

Cardno 03144702.W04

Prepared for
ExxonMobil Environmental and Property Solutions

October 26, 2021

Cardno®

Conditional Point of Compliance Groundwater Well Installation Work Plan

ExxonMobil ADC
2717/2731 Federal Avenue
Everett, Washington

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Bobby Thompson
Project Manager
Cardno
Direct Line +1 206 510 5855
Email: robert.thompson@cardno.com

Keri Chappell, L.G. 2719
Project Geologist
Cardno
Direct Line +1 707 766 2011
Email: keri.chappell@cardno.com

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1 Introduction

At request of ExxonMobil Environmental and Property Solutions, on behalf of ExxonMobil Oil Corporation (ExxonMobil) and American Distribution Company (ADC), Cardno prepared the following work plan.

Proposed scope of work:

- Advance one soil boring with completion of the boring as a groundwater monitoring well to serve as an additional conditional point of compliance (CPOC). This additional point will be used to complete the long-term monitoring goals of the remedial action selected in Wood's *Site characterization/focused feasibility study report,* dated June, 11, 2021 (Wood, 2021).
- Develop the newly-installed groundwater monitoring well.
- Survey lateral site features and wellhead elevations of the newly-installed groundwater monitoring well.
- Collect soil samples at approximately 2.5-foot intervals to further define contaminants of potential concern at the Site.
- Add the newly-installed monitoring well to the existing routine, semi-annual groundwater sampling event.

2 Background

The ExxonMobil ADC site is located at 2717/2731 Federal Avenue, Everett, Snohomish County, Washington, adjacent to the Port of Everett (Plate 1). The site consists of three tax parcels (00437161900101, 00437161900100, and 00437161901000). The northern parcels are owned by ADC, and the southern parcel is owned by ExxonMobil. The property was historically operated as a bulk petroleum storage, transfer, and distribution facility (Plate 2). In the early 1900s, the historical shoreline was located approximately along present day Federal Avenue. As development continued, the shoreline was extended westward until it reached its current extent in 1973 (Wood, 2021).

3 Proposed Groundwater Monitoring Well Installation

Cardno will perform the proposed field work in accordance with this work plan, Cardno's standard field protocol (Appendix A), and under the supervision of a licensed geologist.

3.1 Pre-Field Activities

Prior to conducting field activities, Cardno will coordinate access with the Port of Everett and a state-licensed driller will obtain a Washington start card from the Washington State Department of Ecology. Underground Service Alert will be notified at least 48 hours prior to the onset of field activities and the property owners will be notified in accordance with the access agreement. Cardno personnel will visit the site to check for obstructions and mark the proposed location. Cardno will contract a private utility locating service to locate utilities on and off the site. If subsurface structures are detected during the locate, the location of the proposed boring may be revised based on the information collected in the field.

3.2 Groundwater Monitoring Well Installation

The proposed soil boring (MW-A9) will be cleared with a combination of hand tools and soft digging methods to a depth ranging from 4 to 8 feet bgs (or to the bottom of any subsurface structure, whichever is deeper) to

avoid damage to subsurface utilities (Plate 3). The proposed soil boring will be advanced using a hollow-stem auger drill rig to a depth of approximately 15 feet bgs. The final depth of the boring will be determined at the time of drilling based on field observations and field screening using a PID. Soil samples will be collected for laboratory analysis at approximately 2.5-foot intervals using a split-spoon sampling device. Additionally, collected samples will be used for geologic logging purposes.

A 2-inch PVC well casing will be installed in the borehole. The well will be screened with 0.010-inch slots and #2/12 silica filter pack sand from approximately 5 to 15 feet bgs. The final screened interval and construction details of the well will be determined at the time of installation based on field observations.

3.3 Groundwater Monitoring Well Development

After 48 hours following the installation of the cement cap or before placement of the bentonite seal, Cardno will develop the newly-installed well using a surge block and over-purging with a downwell pump. The well will be purged until the turbidity of groundwater had stabilized to +/-10% for three consecutive readings of 3-minute intervals.

3.4 Groundwater Monitoring and Sampling

Following well development and during Cardno's subsequent semi-annual groundwater monitoring event at the ExxonMobil ADC Site, Cardno will monitor and sample the newly-installed groundwater monitoring well. All groundwater monitoring and sampling activities will be conducted in accordance with Cardno's standard field protocol (Appendix A).

3.5 Laboratory Analysis

Soil and groundwater samples will be preserved for analysis by Eurofins Calscience, Inc., a state-certified laboratory in Garden Grove, California.

Soil and groundwater samples will be analyzed for:

- TPHg in accordance with Ecology Method NWTPH-Gx.
- TPHd and TPHmo in accordance with Ecology Method NWTPH-DX, and silica gel cleanup.
- BTEX, MTBE, and 1-Methylnapthalene in accordance with EPA Method 8260C.
- PAHs in accordance with EPA Method 8270C with selective ion monitoring (SIM).

3.6 Waste Management

The soil and decontamination water generated during drilling activities will be temporarily stored on the ExxonMobil owned parcel in DOT-approved 55-gallon drums. Soil and decontamination water will be transported by a licensed contractor to a disposal facility for treatment or disposal following profiling and characterization. The disposal facility will be selected from ExxonMobil's Approved Waste Sites List. Waste documentation for soil and water will be included in the final report.

3.7 Runoff Management and Pollution Prevention

Spill kits will be made available during drilling activities to prevent water runoff or the release of contaminated soil from the borehole.

3.8 Report

After the completion of the proposed field activities, a report summarizing field and laboratory procedures, boring log, and laboratory analytical results will be prepared. The Port of Everett will receive a report within 60 days of receiving laboratory results for the boring advanced on their property. The report will be signed and stamped by a State of Washington licensed geologist.

4 Contact Information

> The responsible party contact is Ms. Jennifer C. Sedlachek, ExxonMobil Environmental and Property Solutions Company, 4096 Piedmont Avenue, #194, Oakland, California, 94611.

> The consultant contact is Mr. Bobby Thompson, Cardno, 309 South Cloverdale Street, Unit A13, Seattle, Washington 98108.

> The agency contact is Mr. Jason Cook, Washington State Department of Ecology, Toxics Cleanup Program, P.O. Box 47600, Olympia, Washington 98504.

5 Limitations

For documents cited that were not generated by Cardno, the data taken from those documents is used “as is” and is assumed to be accurate. Cardno does not guarantee the accuracy of this data and makes no warranties for the referenced work performed nor the inferences or conclusions stated in these documents.

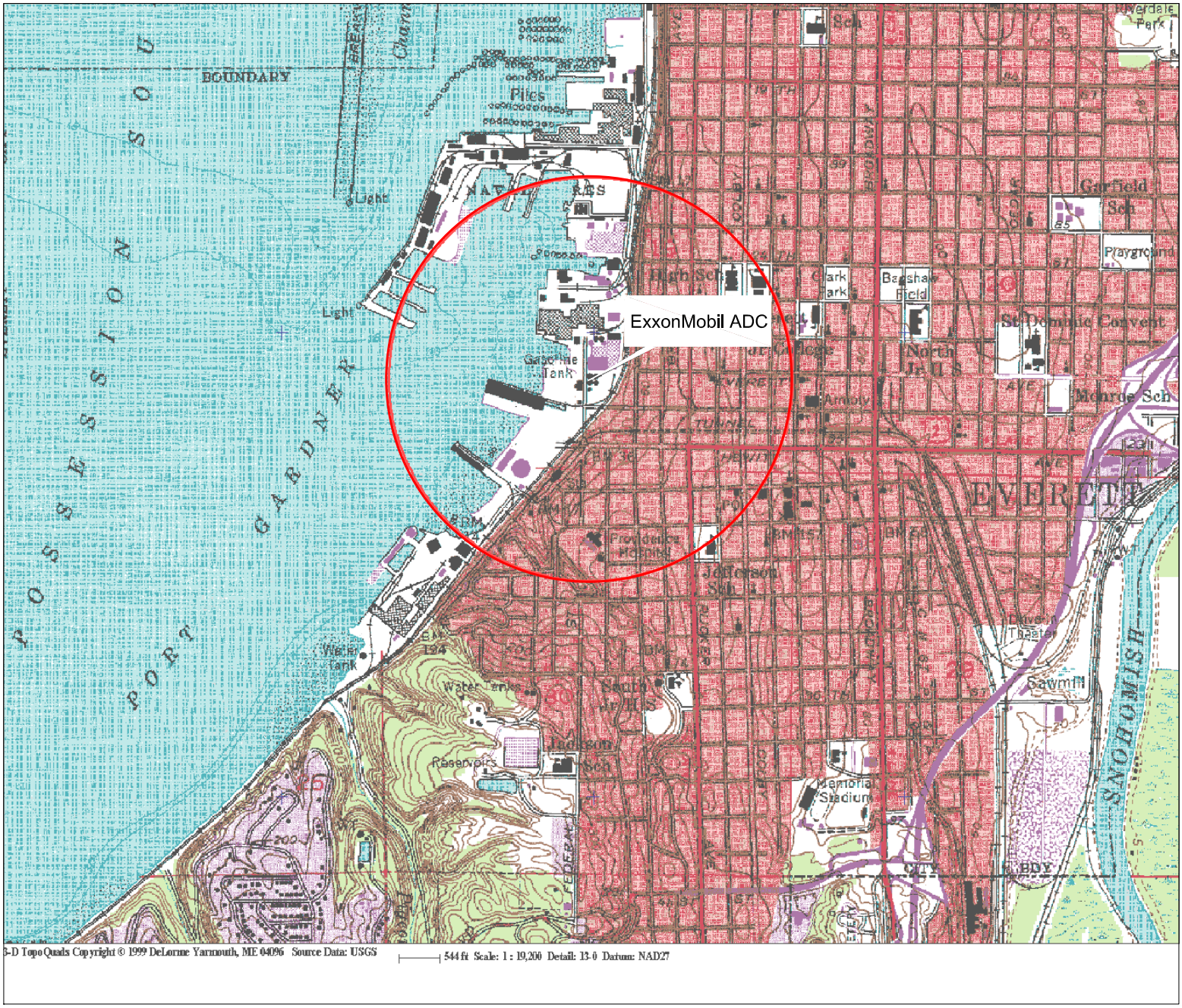
This report and the work performed have been undertaken in good faith, with due diligence and with the expertise, experience, capability and specialized knowledge necessary to perform the work in a good and workmanlike manner and within all accepted standards pertaining to providers of environmental services in Washington at the time of investigation. No soil engineering or geotechnical references are implied or should be inferred. The evaluation of the geologic conditions at the site for this investigation is made from a limited number of data points. Subsurface conditions may vary away from these data points.

6 References

Wood Environment & Infrastructure Solutions, Inc. (Wood). June 11, 2021. *Site characterization/focused feasibility study report*, ExxonMobil/ADC Property, Ecology Site ID 2728, Everett, Washington.

7 Acronym List

µg/L	Micrograms per liter
µg/m^3	Micrograms per cubic meter
µs	Microsiemens
1,2-DCA	1,2-dichloroethane
acfm	Actual cubic feet per minute
AS	Air sparge
AST	Aboveground storage tank
bgs	Below ground surface
BTEX	Benzene, toluene, ethylbenzene, and total xylenes
cfm	Cubic feet per minute
COC	Chain-of-Custody
CPT	Cone Penetration (Penetrometer) Test
DIPE	Di-isopropyl ether
DO	Dissolved oxygen
DOT	Department of Transportation
DPE	Dual-phase extraction
DTW	Depth to water
EDB	1,2-dibromoethane
EPA	Environmental Protection Agency
ESL	Environmental screening level
ETBE	Ethyl tertiary butyl ether
FID	Flame-ionization detector
fpm	Feet per minute
GAC	Granular activated carbon
gpd	Gallons per day
gpm	Gallons per minute
GWPTS	Groundwater pump and treat system
HIT	High-intensity targeted
HVOC	Halogenated volatile organic compound
J	Estimated value between MDL and PQL (RL)
LEL	Lower explosive limit
LPC	Liquid-phase carbon
LRP	Liquid-ring pump
LUFT	Leaking underground fuel tank
LUST	Leaking underground storage tank
MCL	Maximum contaminant level
MDL	Method detection limit
mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
mg/m^3	Milligrams per cubic meter
MPE	Multi-phase extraction
MRL	Method reporting limit
msl	Mean sea level
MTBE	Methyl tertiary butyl ether
MTCA	Model Toxics Control Act
NAI	Natural attenuation indicators
NAPL	Non-aqueous phase liquid
NEPA	National Environmental Policy Act
NGVD	National Geodetic Vertical Datum
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
ORP	Oxidation-reduction potential
OSHA	Occupational Safety and Health Administration
OVA	Organic vapor analyzer
P&ID	Process and Instrumentation Diagram
PAH	Polycyclic aromatic (or polyaromatic) hydrocarbon
PCB	Polychlorinated biphenyl
PCE	Tetrachloroethene or perchloroethylene
PID	Photo-ionization detector
PLC	Programmable logic control
POTW	Publicly-owned treatment works
ppmv	Parts per million by volume
PQL	Practical quantitation limit
psi	Pounds per square inch
PVC	Polyvinyl chloride
QA/QC	Quality assurance/quality control
RBSL	Risk-based screening levels
RCRA	Resource Conservation and Recovery Act
RL	Reporting limit
scfm	Standard cubic feet per minute
SSTL	Site-specific target level
STLC	Soluble threshold limit concentration
SVE	Soil vapor extraction
SVOC	Semi-volatile organic compound
TAME	Tertiary amyl methyl ether
TBA	Tertiary butyl alcohol
TCE	Trichloroethene
TOC	Top of well casing elevation; datum is msl
TOG	Total oil and grease
TPH	Total petroleum hydrocarbons
TPHd	Total petroleum hydrocarbons as diesel
TPHg	Total petroleum hydrocarbons as gasoline
TPHmo	Total petroleum hydrocarbons as motor oil
TPHs	Total petroleum hydrocarbons as stoddard solvent
TRPH	Total recoverable petroleum hydrocarbons
UCL	Upper confidence level
USCS	Unified Soil Classification System
USGS	United States Geologic Survey
UST	Underground storage tank
VCP	Voluntary Cleanup Program
VOC	Volatile organic compound
VPC	Vapor-phase carbon



FN 0314470001

EXPLANATION

1/2-mile radius circle

N

APPROXIMATE SCALE

0 0.5 1 mile

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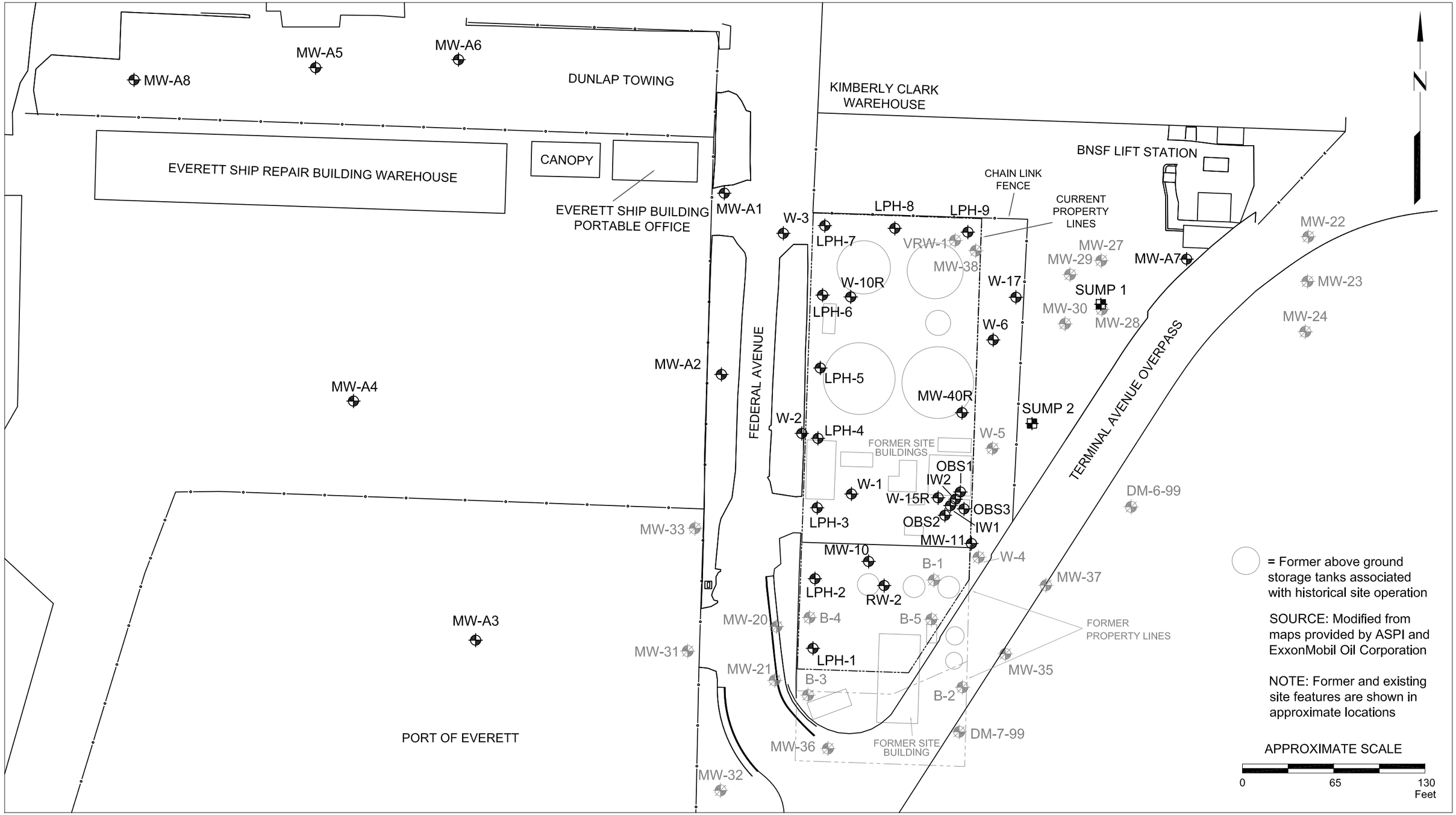
SITE LOCATION MAP

ExxonMobil ADC
2717/2731 Federal Avenue
Everett, Washington

PROJECT NO.
031447

PLATE
1
CPA: 09/24/21



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GENERALIZED SITE PLAN

ExxonMobil ADC
2717/2731 Federal Avenue
Everett, Washington

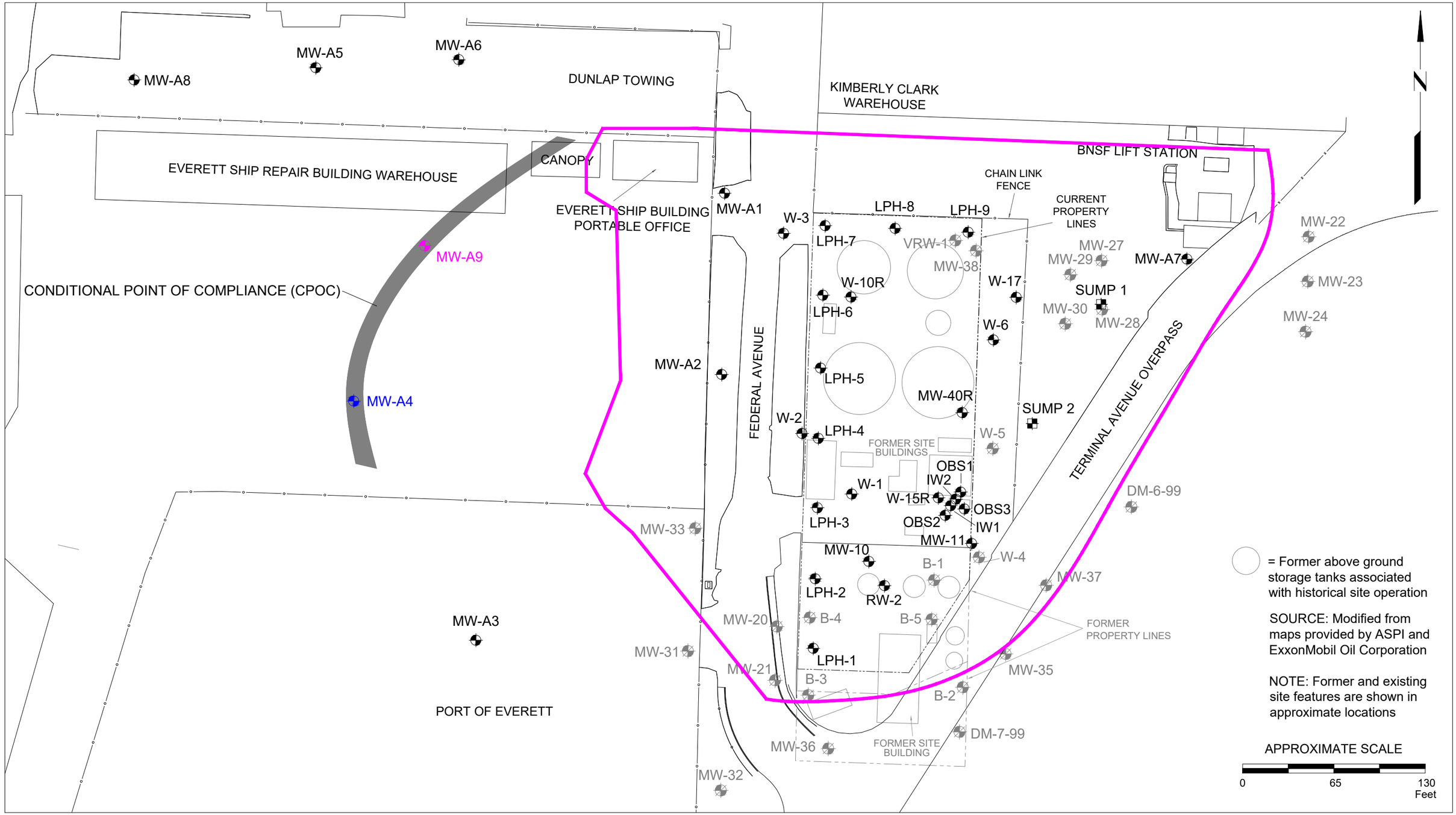
EXPLANATION

- MW-A8 — Groundwater Monitoring Well
- OBS1 — Observation Well
- SUMP 2 — Groundwater Sump
- MW-38 — Destroyed Groundwater Monitoring Well

PROJECT NO. 031447

PLATE 2

PEP: 07/16/21



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PROPOSED CONDITIONAL POINT OF COMPLIANCE WELL LOCATION MAP

ExxonMobil ADC
2717/2731 Federal Avenue
Everett, Washington

EXPLANATION

- MW-A8 — Groundwater Monitoring Well
- SUMP 2 — Groundwater Sump
- MW-38 — Destroyed Groundwater Monitoring Well
- OBS1 — Observation Well
- MW-A4 — Existing CPOC Well
- MW-A9 — Proposed New CPOC Well
- MTCA Site Boundary

PROJECT NO. 031447

PLATE 3

CPA: 10/25/21

ExxonMobil ADC

Cardno 03144702.W04

APPENDIX A
FIELD PROTOCOL

Cardno
Groundwater Sampling Field Protocol – Low-flow Sampling

The static water level and non-aqueous phase liquid (NAPL) level, if present, in each groundwater monitoring well that contained water and/or NAPL are measured with an interface probe accurate to the nearest 0.01 foot. To calculate groundwater elevations and evaluate groundwater gradient, depth to water (DTW) levels are subtracted from wellhead elevations.

Before water samples are collected from the groundwater monitoring wells, the wells are purged using a peristaltic or a down-well pump at rates not exceeding 1 liter per minute (L/min) until stabilization of the dissolved oxygen (DO), pH, conductivity, and temperature are obtained. Readings of these parameters are taken and recorded every three minutes while the water is purged, and DTW readings are collected every three minutes to ensure drawdown in the well is less than 0.33 feet. If drawdown occurs too quickly, the rate of withdrawal will be reduced.

Purging will continue until three consecutive readings indicate the following:

- Temperature has a change of less than ±1 degree Celsius
- Conductivity has a change of less than ±3%
- pH has a change of less than ±0.10
- DO has a change of less than ±10% in concentrations (or less than ± 0.3 milligram per liter (mg/L) DO, whichever occurs first)

These are indicators of stabilized conditions.

Once groundwater conditions have stabilized, groundwater samples are carefully collected in 40-milliliter (ml) glass vials, which are filled so as to produce a positive meniscus. Each vial is preserved with hydrochloric acid, sealed with a cap containing a Teflon® septum, and subsequently examined for air bubbles to avoid headspace, which would allow volatilization to occur. Additional samples may be collected in other sampling containers. The samples are promptly transported in iced storage in a thermally insulated ice chest, accompanied by chain of custody documentation, to a state-certified laboratory.

Cardno
Soil Boring and Well Installation
Field Protocol

Preliminary Activities

Prior to the onset of field activities at the site, Cardno obtains the appropriate permit(s) from the governing agency(s). Advance notification is made as required by the agency(s) prior to the start of work. Cardno marks the borehole locations and contacts the local one call utility locating service at least 48 hours prior to the start of work to mark buried utilities. Borehole locations may also be checked for buried utilities by a private geophysical surveyor. Prior to drilling, the borehole location is cleared in accordance with the client's procedures. Fieldwork is conducted under the advisement of a registered professional geologist and in accordance with an updated site-specific safety plan prepared for the project, which is available at the job site during field activities.

Drilling and Soil Sampling Procedures

Cardno contracts a licensed driller to advance the boring and collect soil samples. The specific drilling method (e.g., hollow-stem auger, direct push method, or sonic drilling), sampling method [e.g., core barrel or California-modified split spoon sampler (CMSSS)] and sampling depths are documented on the boring log and may be specified in a work plan. Soil samples are typically collected at the capillary fringe and at 5-foot intervals to the total depth of the boring. To determine the depth of the capillary fringe prior to drilling, the static groundwater level is measured with a water level indicator in the closest monitoring well to the boring location, if available.

The borehole is advanced to just above the desired sampling depth. For CMSSSs, the sampler is placed inside the auger and driven to a depth of 18 inches past the bit of the auger. The sampler is driven into the soil with a standard 140-pound hammer repeatedly dropped from a height of 30 inches onto the sampler. The number of blows required to drive the sampler each 6-inch increment is recorded on the boring log. For core samplers (e.g., direct push), the core is driven 18 inches using the rig apparatus.

Soil samples are preserved in the metal or plastic sleeve used with the CMSSS or core sampler, in glass jars or other manner required by the local regulatory agency (e.g., Environmental Protection Agency Method 5035). Sleeves are removed from the sample barrel, and the lowermost sample sleeve is immediately sealed with Teflon™ tape, capped and labeled. Samples are placed in a cooler chilled to 4º Celsius and transported to a state-certified laboratory. The samples are transferred under chain-of-custody (COC) protocol.

Field Screening Procedures

Cardno places the soil from the middle of the sampling interval into a plastic re-sealable bag. The bag is placed away from direct sunlight for approximately 20 minutes, after which the tip of a photo-ionization detector (PID) or similar device is inserted through the plastic bag to measure organic vapor concentrations in the headspace. The PID measurement is recorded on the boring log. At a minimum, the PID or other device is calibrated on a daily basis in accordance with manufacturer's specifications using a hexane or isobutylene standard. The calibration gas and concentration are recorded on a calibration log. Instruments such as the PID are useful for evaluating relative concentrations of volatilized hydrocarbons, but they do not measure the concentration of petroleum hydrocarbons in the soil matrix with the same precision as laboratory analysis. Cardno trained personnel describe the soil in the bag according to the Unified Soil Classification System and record the description on the boring log, which is included in the final report.

Air Monitoring Procedures

Cardno performs a field evaluation for volatile hydrocarbon concentrations in the breathing zone using a calibrated PID or lower explosive level meter.

Groundwater Sampling

A groundwater sample, if desired, is collected from the boring by using Hydropunch™ sampling technology or installing a well in the borehole. In the case of using Hydropunch™ technology, after collecting the capillary fringe soil sample, the boring is advanced to the top of the soil/groundwater interface and a sampling probe is pushed to approximately 2 feet below the top of the static water level. The probe is opened by partially withdrawing it and thereby exposing the screen. A new or decontaminated bailer is used to collect a water sample from the probe. The water sample is then emptied into laboratory-supplied containers constructed of the correct material and with the correct volume and preservative to comply with the proposed laboratory test. The container is slowly filled with the retrieved water sample until no headspace remains and then promptly sealed with a Teflon-lined cap, checked for the presence of bubbles, labeled, entered onto a COC record and placed in chilled storage at 4° Celsius. Laboratory-supplied trip blanks accompany the water samples as a quality assurance/quality control procedure. Equipment blanks may be collected as required. The samples are kept in chilled storage and transported under COC protocol to a client-approved, state-certified laboratory for analysis.

Backfilling of Soil Boring

If a well is not installed, the boring is backfilled from total depth to approximately 5 feet below ground surface (bgs) with either neat cement or bentonite grout using a tremie pipe. The boring is backfilled from 5 feet bgs to approximately 1 foot bgs with hydrated bentonite chips. The borehole is completed from 1 foot bgs to surface grade with material that best matches existing surface conditions and meets local agency requirements. Site-specific backfilling details are shown on the respective boring log.

Well Construction

A well (if constructed) is completed using materials documented on the boring log or specified in a work plan. The well is constructed with slotted casing across the desired groundwater sampling depth(s) and completed with blank casing to within 6 inches of surface grade. No further construction is conducted on temporary wells. For permanent wells, the annular space of the well is backfilled with Monterey sand from the total depth to approximately 2 feet above the top of the screened casing. A hydrated granular bentonite seal is placed on top of the sand filter pack. Grout may be placed on top of the bentonite seal to the desired depth using a tremie pipe. The well may be completed to surface grade with a 1-foot thick concrete pad. A traffic-rated well vault and locking cap for the well casing may be installed to protect against surface-water infiltration and unauthorized entry. Site-specific well construction details including type of well, well depth, casing diameter, slot size, length of screen interval and sand size are documented on the boring log or specified in the work plan.

Well Development and Sampling

If a permanent groundwater monitoring well is installed, the grout is allowed to cure a minimum of 48 hours before development. Cardno personnel or a contracted driller use a submersible pump or surge block to develop the newly installed well. Prior to development, the pump is decontaminated by allowing it to run and re-circulate while immersed in a non-phosphate solution followed by successive immersions in potable water and de-ionized water baths. The well is developed until sufficient well casing volumes are removed so that turbidity is within allowable limits and pH, conductivity and temperature levels stabilize in the purge water. The volume of groundwater extracted is recorded on a log.

Following development, groundwater within the well is allowed to recharge until at least 80% of the drawdown is recovered. A new or decontaminated bailer is slowly lowered past the air/water interface in the well, and a water sample is collected and checked for the presence of non-aqueous phase liquid, sheen or emulsions. The water sample is then emptied into laboratory-supplied containers as discussed above.

Surveying

If required, wells are surveyed by a licensed land surveyor relative to an established benchmark of known elevation above mean sea level to an accuracy of +/- 0.01 foot. The casing is notched or marked on one side to identify a consistent surveying and measuring point.

Decontamination Procedures

Cardno or the contracted driller decontaminates soil and water sampling equipment between each sampling event with a non-phosphate solution, followed by a minimum of two tap water rinses. De-ionized water may be used for the final rinse. Downhole drilling equipment is steam-cleaned prior to drilling the borehole and at completion of the borehole.

Waste Treatment and Soil Disposal

Soil cuttings generated from the drilling or sampling are stored on site in labeled, Department of Transportation-approved, 55-gallon drums or other appropriate storage container. The soil is removed from the site and transported under manifest to a client- and regulatory-approved facility for recycling or disposal. Decontamination fluids and purge water from well development and sampling activities, if conducted, are stored on site in labeled, regulatory-approved storage containers. Fluids are subsequently transported under manifest to a client- and regulatory-approved facility for disposal or treated with a permitted mobile or fixed-base carbon treatment system.

Cardno is an ASX-200 professional infrastructure and environmental services company, with expertise in the development and improvement of physical and social infrastructure for communities around the world. Cardno's team includes leading professionals who plan, design, manage, and deliver sustainable projects and community programs. Cardno is an international company listed on the Australian Securities Exchange [ASX:CDD].

Cardno Zero Harm

Cardno ZERO HARM EVERY JOB. EVERY DAY.

At Cardno, our primary concern is to develop and maintain safe and healthy conditions for anyone involved at our project worksites. We require full compliance with our Health and Safety Policy Manual and established work procedures and expect the same protocol from our subcontractors. We are committed to achieving our Zero Harm goal by continually improving our safety systems, education, and vigilance at the workplace and in the field. Safety is a Cardno core value and through strong leadership and active employee participation, we seek to implement and reinforce these leading actions on every job, every day.

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