

**WASHINGTON STATE DEPARTMENT OF ECOLOGY
NORTHWEST REGIONAL OFFICE**

TO: Robert Warren, TCP NWRO Section Manager
THROUGH: Ching-Pi Wang, TCP NWRO Uplands Unit Supervisor *CPW*
FROM: Maura S O'Brien, PG/HG #869 Professional Geologist and Site Manager *MSO*
SUBJECT: Touchstone NLU LLC PPCD Closure Briefing Package
DATE: June 30, 2015

Ecology Recommends Closing Touchstone NLU PPCD

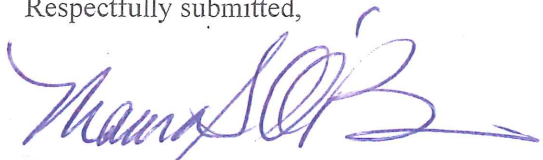
Touchstone NLU LLC Completed Prospective Purchaser Consent Decree and Successfully Cleaned up Metro Lake Union Site North Yard aka North Site aka North Edge

The Touchstone NLU LLC North Edge Site has completed cleanup action at the former Metro North Yard, approximately one-half of the King County Department of Transportation Metro Lake Union also called Metro Transit Facilities North and former Chevron Petroleum Terminal #100-1327 in Seattle, Washington. The two sites have the same cleanup (CL Id 1275) and facility site identification number (FS Id 2217). The North Edge Site is located at 3301 Densmore Avenue North and the Metro Site is listed at 1602 N Northlake Place and west of Gasworks Park shown in Figure 1.

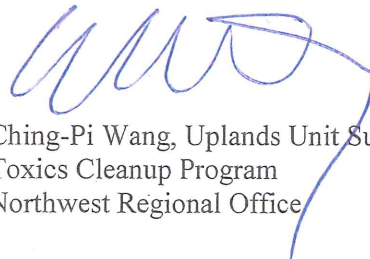
Touchstone NLU entered a Prospective Purchaser Consent Decree in 2007, purchased the property in 2009 and completed the PPCD and Cleanup Action in March 2015. The Touchstone Remediation Action Report prepared by Associated Earth Sciences, Inc. (AESI 3/20/15) summarizes the North Yard cleanup action and soil compliance testing results.

We believe Touchstone NLU LLC has met the requirements of the 2007 Perspective Purchaser Consent Decree for the former Metro North Yard Site in Seattle. Touchstone has met the MTCA Method A cleanup levels for soils for unrestrictive use throughout the North Edge Site. We recommend closing this PPCD after public outreach and required 30-day public comment period, after filing of the proposed restrictive covenant for North Edge Site restricting groundwater use, and closure of Touchstone NLU-Ecology Fiscal account. This recommendation follows review by Assistant Attorney General Dori Jaffe on April 23, 2015 and conference with Robert Warren, TCP NWRO Section Manager on May 15, 2015.

Respectfully submitted,



Maura S. O'Brien, PG/HG #869, Site Manager
Professional Geologist/Hydrogeologist
Toxics Cleanup Program
Northwest Regional Office



Ching-Pi Wang, Uplands Unit Supervisor
Toxics Cleanup Program
Northwest Regional Office

Enclosure – Site Manager Briefing Package with Checklist

The Touchstone North Edge Site Briefing Package and Legal Agreements

The Touchstone North Edge Site is under two consent decrees:

- KCDT Metro Transit/Chevron Terminal #100-1327 Consent Decree #99-2-08651-1SEA.
- Touchstone Prospective Purchaser Consent Decree #07-2-23870-1SEA.

The Metro/Chevron Consent Decree, signed in 1999, included the entire site – North Yard, South Yard and public Right-of-Way between the two parcels for both soils and groundwater. The Metro/Chevron CD required soils to be remediated to industrial cleanup levels, and groundwater to be remediated to protect surface water. Groundwater was determined not potable due to low yield. The Metro Site carries a Restrictive Covenant for both groundwater and soils. It is important to point out, that the adjacent Lake Union sediments were specifically excluded from the Metro/Chevron CD and were to be addressed under a separate legal agreement in the future.

The Touchstone PPCD, signed in 2007, required cleanup action for soils only within the North Yard property boundary. The Touchstone chemicals of concern (COC) are petroleum gasoline, diesel and oil, petroleum related substances benzene, carcinogenic Poly-Aromatic Hydrocarbons (cPAHs), and naphthalene. Touchstone PPCD required more stringent cleanup levels using MTCA Method A cleanup levels for unrestricted use, while Metro/Chevron is using MTCA industrial cleanup levels. *See Table 1.*

The King County Metro Transit former Chevron Petroleum Bulk Terminal Consent Decree

The Metro Lake Union, former Chevron Terminal #100-1327 Site entered the consent decree in 1999 and the Site cleanup action was divided into two phases and two units.

Phase 1/unit addressed the above ground petroleum storage tank farm (AST) shallow soils and demolition of the ASTs by Metro. The AST shallow soils showed elevated concentration of metals from sandblast grit and paint chips. The soils were excavated for off-site approved disposal, and Metro completed Phase 1 cleanup tasks in 2000 and soils were successfully cleaned-up to MTCA industrial level.

Phase 2/unit addressed the deeper soils of the lower area of the North Yard, public right-of-way and South Yard and groundwater for the entire Site by Metro and Chevron. Phase 2 has employed five cleanup methods to remediate petroleum contaminated soils and groundwater from 2000-2015:

- Bioremediation using hydrogen peroxide injection for treatment of petroleum substances.
- Enhanced [petroleum] Fluid Recovery also called vacuum extraction to remove petroleum.
- Bio-sparge Installation and Operation to treat and remove petroleum substances in soil and groundwater.
- Petroleum Excavation at MW-8 location in South Yard.
- Monitored Natural Attenuation lower area of North Yard, right-of-way, and South Yard.

In February 2015 Ecology published the Periodic Review Final Report for the Metro/Chevron Site including the Touchstone North Edge Site. The report concluded that the entire Site is in compliance with MTCA requirements, and next periodic review is 2019.

Currently, Metro/Chevron continues to conduct groundwater compliance monitoring. All chemicals of concern are below cleanup level with the exception of arsenic (BTEX, naphthalenes, cPAHs, dissolved lead). Recent arsenic concentrations vary from non-detect to 13 ug/L and cleanup level is MTCA Method B for surface water protection at 0.0982 ug/L (ppb). Metro/Chevron stated they plan to propose a CD

amendment to change the arsenic cleanup level to MTCA Method A at 5 ug/L (state background level). Current monitoring results show all ten groundwater compliance wells are above Method B level, and three wells are above Method A arsenic cleanup level. These results are listed in Arcadis Figures 2 and 3 (November 2014).

The Touchstone NLU PPCD Cleanup Actions

Touchstone has completed their cleanup tasks required in the PPCD and Cleanup Action Plan. The work to be performed defined in the PPCD are:

1. Excavate petroleum impacted soils within the boundaries of the property and dispose and/or treat these soils off-site.
2. Conduct excavation bottom and internal sidewall soil monitoring to confirm that MTCA Method A soil cleanup standards (unrestricted use) have been achieved within the property boundary.
3. Any soil contamination outside the boundaries of the Touchstone property and any groundwater contamination throughout the Touchstone Site remain the responsibility of Metro and Chevron under the 1999 CD.
4. Review proposed Revised Restrictive Covenant (PPCD Exhibit E) with Ecology and record approved Revised Restrictive Covenant.
5. Conduct public outreach with 30-day comment period to propose closing the PPCD.
6. Review and close the Ecology Fiscal Touchstone NLU account.
7. Request Assistant Attorney General to file PPCD dismissal at King County Superior Court.

Touchstone has implemented the PPCD and CAP with pre-testing soils, hot spot removal of LNAPL, excavation of petroleum contaminated soils with off-site treatment and/or disposal, and post soil testing to confirm all petroleum soils have been removed from within the Touchstone Site. Soil bottom and internal sidewall testing results show all petroleum contaminated soils have been successfully removed from the Touchstone Site. The remaining soils have achieved MTCA Method A cleanup level for unrestricted use. Excavation and post soil testing were completed on January 27, 2015 and report dated 3/20/15.

Touchstone consultant Associated Earth Sciences, Inc. submitted a Remediation Action Report (AESI 3/20/15) for Ecology review and approval. The report documents that all soils within the Touchstone property boundary have achieved Method A cleanup levels. Note, exterior sidewall sample results are outside of the Touchstone property boundary and are not part of Touchstone's compliance testing [and are the responsibility of Metro/Chevron]. The report confirms that the Touchstone North Edge Site has satisfied all cleanup actions under the 2007 PPCD. These results are listed on AESI Table 3 and Figure 3.

Current cleanup status is that Touchstone has completed tasks 1, 2 and 3 listed above and attorneys are reviewing task 4. Ecology has begun task 5 for public outreach and comment period scheduled for July 17 through August 17, 2015 for Ecology's proposal to close the Touchstone 2007 PPCD. Ecology is scheduled to complete tasks 4 through 7 during July - November 2015.

Restrictive Covenants

As required under the 1999 CD, Metro/Chevron was required to record a Restricted Covenant (RC) for the entire Site (North Yard, South Yard and Right-of-Way) for both soils and groundwater using industrial soil cleanup levels and not potable groundwater status using groundwater cleanup levels to protect surface water (Method B).

In the Touchstone's 2007 PPCD, Touchstone negotiated a proposed revised RC for the North Yard, and to be reviewed and filed after Touchstone completed their PPCD. The proposed revised RC is to restrict groundwater use and to remove the covenant for soils. The PPCD Exhibit E is a draft Revised Restrictive Covenant negotiated at the time of the PPCD. Since the soils have been remediated to MTCA Method A unrestricted use, there is no longer a need for a Restricted Covenant for soils on the Touchstone North Edge property.

The underlying groundwater cleanup action is the responsibility of Metro/Chevron and specified in their CD. The groundwater cleanup levels are set to protect surface water, as aquifer testing showed low yield. Groundwater is not usable for drinking water, therefore, groundwater use is restricted and a Restrictive Covenant is required to restrict groundwater use at the Touchstone property and Metro/Chevron Site.

The groundwater Restrictive Covenant will continue even after Metro/Chevron achieves their groundwater cleanup levels due to the restrictions on groundwater use at the Site. Metro and Chevron continue groundwater compliance monitoring for both the North and South Yards for two years, then to be re-evaluated by Ecology. With the Restrictive Covenant, Metro/Chevron is required to complete a periodic review each five years, and the next review is scheduled for 2019.

List of Figures, Tables and Appendices in Order of Occurrence

Figure 1. Touchstone NLU Site and Metro/Chevron Site Map and Surrounding Area, Seattle, WA.

Table 1. Maximum Soil Concentrations and List of Chemicals of Concern [for North Yard] with [Metro/Chevron]Site Specific Cleanup Level in column 3 and Touchstone NLU MTCA Method A Cleanup Level in column 4 and all listings are in mg/kg or ppm.

Touchstone NLU LLC 2007 PPCD with Exhibit B Cleanup Action Plan, Exhibit E Proposed Revised Restrictive Covenant -see Ecology webpage: <https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=1275>

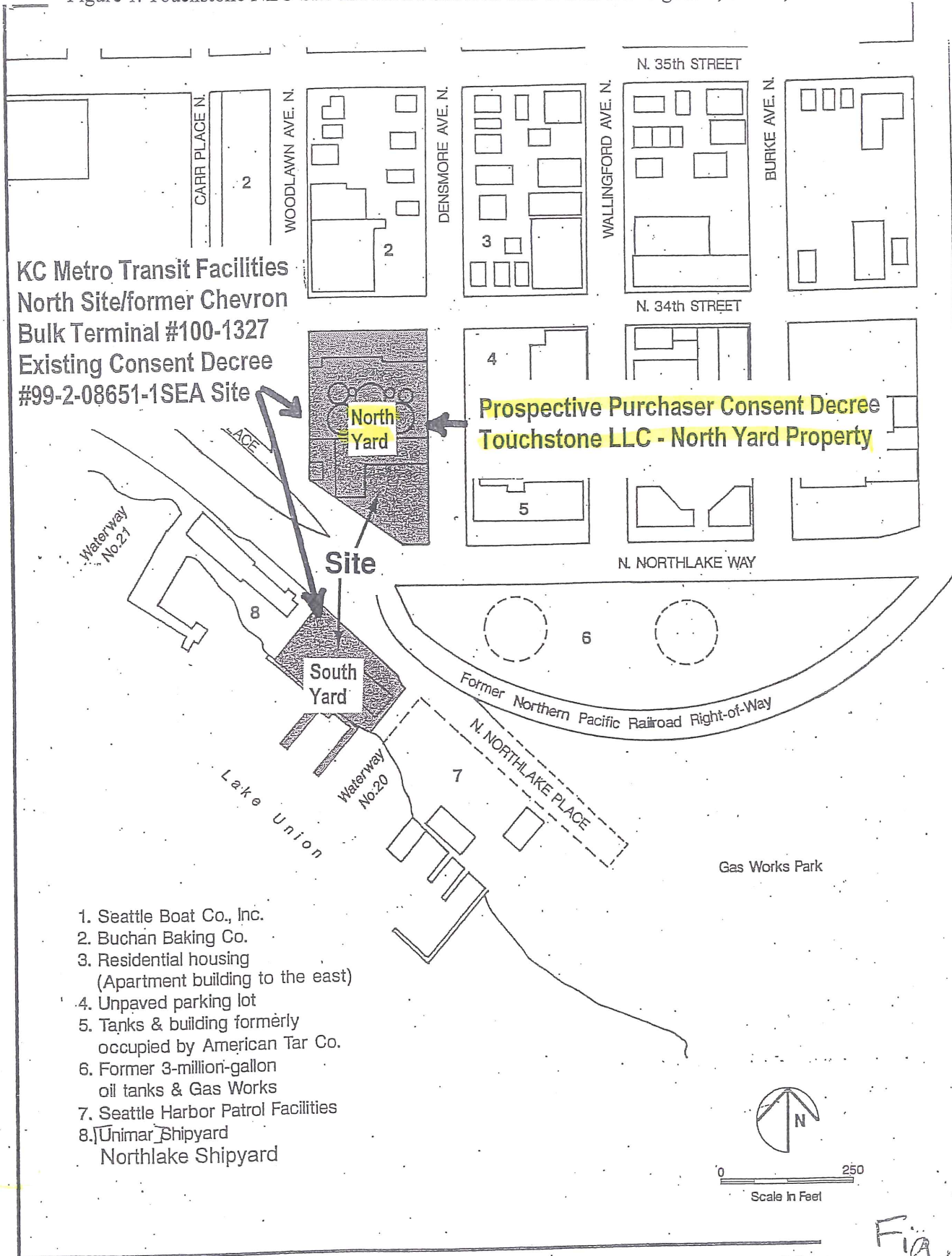
AESI Table 3. Summary of Analytical Results for NLU Confirmation Sample Results with Figure 3 Sidewall and Confirmation Sample Location Map (3/20/15).

Arcadis Figure 2. Groundwater Monitoring Report Potentiometric Map Metro Lake Union Groundwater Compliance Results for BTEX, naphthalene, arsenic and lead (6/10/14).

Arcadis Figure 3. Groundwater Monitoring Report Analytical Results for cPAHs Metro Lake Union Groundwater Compliance Results (6/10/14).

Metro Lake Union Facilities North Site Periodic Review Final Report (February 2015) –see Ecology webpage listed above.

Figure 1. Touchstone NLU Site and Metro/Chevron Site & Surrounding Area, Seattle, WA.



Applied Geotechnology Inc.
Geotechnical Engineering
Geology & Hydrogeology

Site & Surrounding Area Map

Metro/Facilities North
Seattle, Washington

JOB NUMBER
14,309.108

DRAWN
DFF

APPROVED

DATE
5 Nov. 93

REVISED

Fig.
1

Table 1
Maximum Concentrations of COC Detected in Soil and Cleanup Levels

Chemical	Maximum Detected Concentration (ppm) ⁽¹⁾	Site-Specific Cleanup Level ⁽²⁾ (ppm)	MTCA Cleanup Level ⁽³⁾ (ppm)
TPH ⁽⁴⁾ -Gasoline	6,700	4,520	30
TPH-Diesel	14,000	5,140	2,000
TPH-Oil	430	5,780	2,000
Benzene	9.9	4,530	0.03
Fluoranthene	ND	18	None
Naphthalene	0.24	18	5
Benzo(a)pyrene	ND	18	0.1
Chrysene	0.028	18	0.1
Dibenzo(a,h)anthracene	ND	18	0.1
Indeno(1,2,3-cd)pyrene	0.03	18	0.1
Benzo(k)fluoranthene	ND	18	0.1
Benzo(a)anthracene	ND	18	0.1
Benzo(b)fluoranthene	0.036	18	0.1

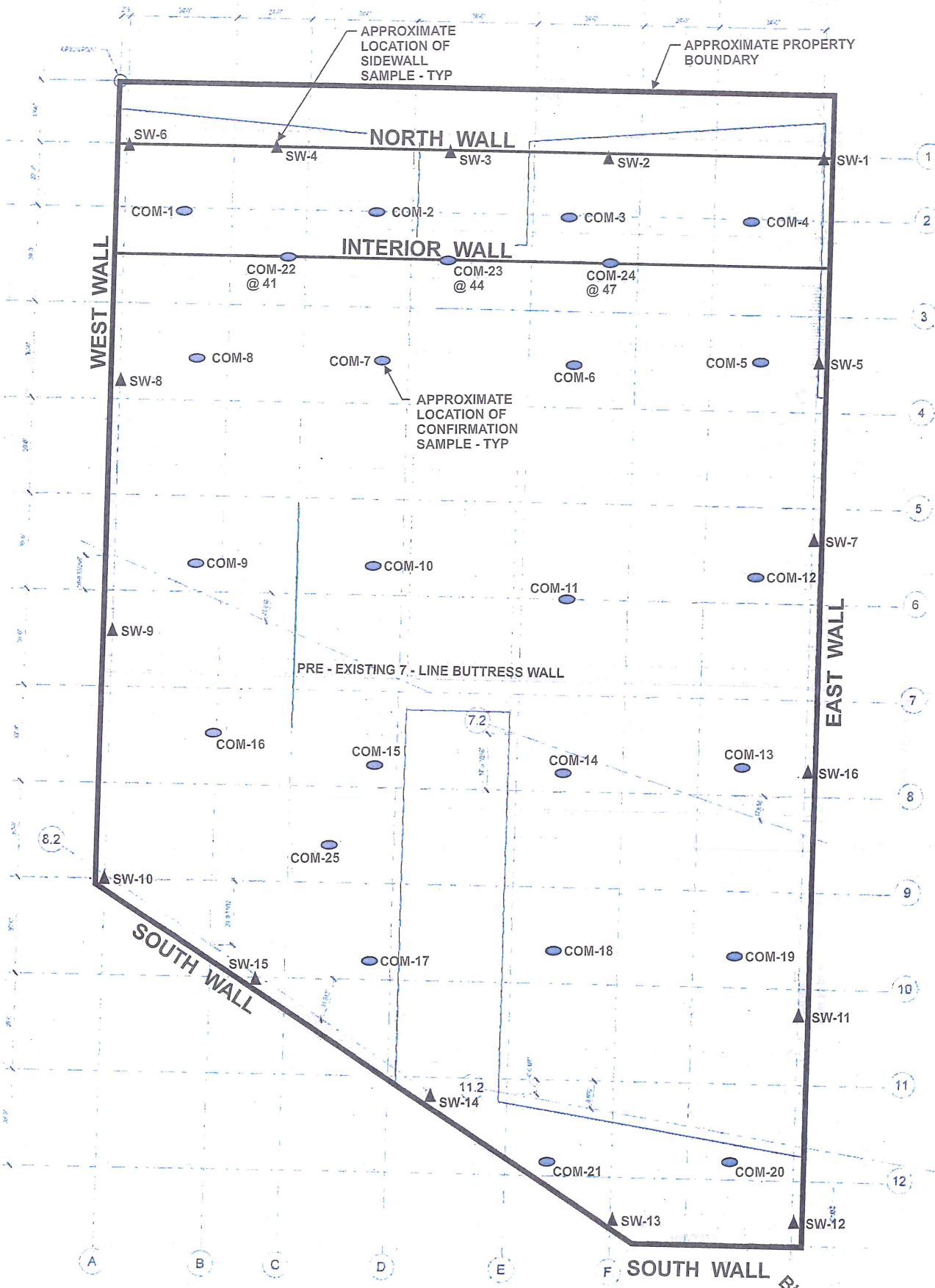
⁽¹⁾ppm = parts per million.

⁽²⁾As determined in the King County/Metro and Chevron Consent Decree.

⁽³⁾MTCA = Model Toxics Control Act. Method A for unrestricted site use.

⁽⁴⁾TPH = Total Petroleum Hydrocarbons.

Table 1. Maximum Soil Concentrations and List of Chemicals of Concern with [Metro/Chevron] Site Specific Cleanup Level (column 3) and Touchstone NLU MTCA Method A Cleanup Level (column 4) and all listed in mg/kg or ppm.



REFERENCE: PERKINS & WILL

NOTE: BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION.

SIDEWALL AND CONFIRMATION SAMPLE LOCATION MAP
 NORTH EDGE TECHNOLOGY CENTER
 SEATTLE, WASHINGTON

FIGURE 3

DATE 3/15

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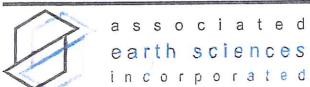


TABLE 3
Summary of Analytical Results for Confirmation Samples
Metro Lake Union North Yard Property
(North Edge Technology Center)

Confirmation Sample No.	Grid Line Location	Approx. Elevation (feet) ⁽¹⁾	Laboratory Results ⁽²⁾⁽³⁾									PAH ⁽⁴⁾
			TPH-G	TPH-D	TPH-Motor Oil	Benzene	Toluene	Ethylbenzene	Xylenes	PAH		
COM-1	A.5-2	33.5	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-2	C.6-2	34.5	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-3	E.3-2	34.5	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-4	G.3-2	34.5	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-5	G.4-3.7	13.7	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-6	E.4-3.7	13.7	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-7	C.7-3.7	13.7	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-8	A.7-3.7	13.7	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-9	A.7-5.7	13.7	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-10	C.7-5.7	13.7	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-11	E.4-6	13.7	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-12	G.4-5.7	13.7	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-13	G.4-7.7	13.7	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-14	E.4-7.8	13.5	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-15	C.8-7.8	13.5	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-16	B-7.5	13.7	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-17	C.8-9.8	13.5	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-18	E.4-9.7	13.5	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-19	G.4-9.7	13.7	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-20	G.4-11.8	13.7	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-21	E.4-11.8	13.7	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-22	B.7-2.5	21	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-23	D.3-2.5	21	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-24	E.8-2.5	21	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
COM-25	C.4-8.6	13.5	<2	<50	<250	<0.02	<0.02	<0.02	<0.02	<0.06	<0.06	<0.06
MTCA Method A Cleanup Level			100	2,000	2,000	0.03	7	6	9	9	0.1	

NOTES: (1) Elevation in feet above mean sea level based on site civil drawings (NAVD88)

(2) Results in milligrams per kilogram

(3) "<" = Less than specified laboratory detection limit

(4) No PAH analyte above specified laboratory reporting limit

LEGEND:

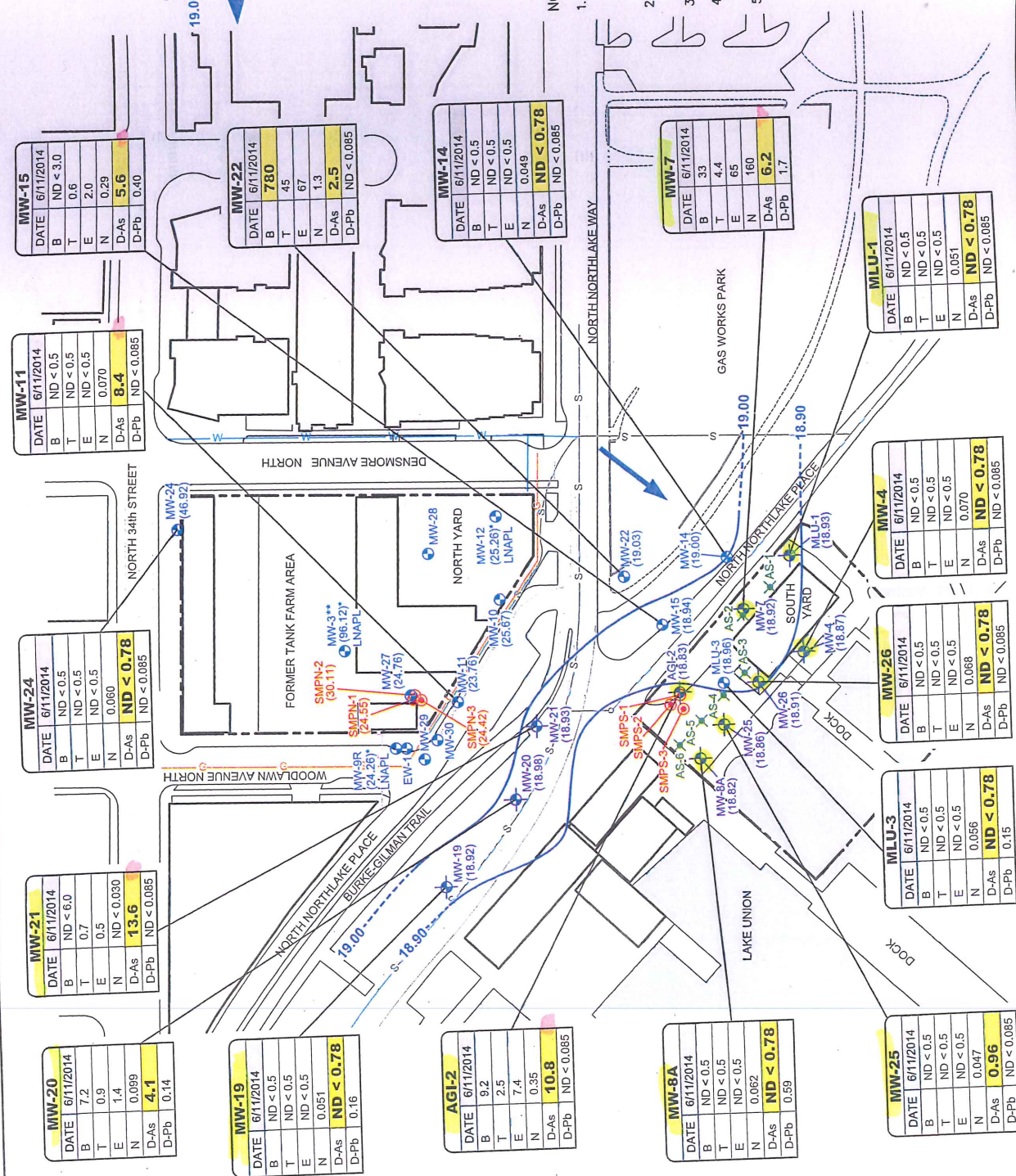
- GROUNDWATER MONITORING WELL
- BIOSPARGE INJECTION WELL
- COMPLIANCE MONITORING WELL
- SEPARATE-PHASE MONITORING POINT LOCATION
- CATCH BASIN

GROUNDWATER ELEVATION IN FEET ABOVE MSL
 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MSL (DASHED WHERE INFERRED)
 DIRECTION OF GROUNDWATER FLOW
 NOT DETECTED, VALUE SHOWN IS DETECTION LIMIT
 MEAN SEA LEVEL
 LNAPL
 LIGHT NON-AQUEOUS PHASE LIQUID
 NOT SAMPLED DUE TO THE PRESENCE OF LNAPL
 SURVEY DATA FROM PREVIOUS SURVEY AND INCONSISTENT WITH OTHER SITE SURVEY DATA

DATE	6/11/2014	CLEANUP LEVELS
B		43 (µg/L)
T		48,500 (µg/L)
E		6,910 (µg/L)
N		9,660 (µg/L)
D-As		0.0982 (µg/L)
D-Pb		5 (µg/L)

NOTES:

- BASE MAP FROM A DRAWING BY SAIC TITLED "SITE MAP", DATED 09-14-07, @ A SCALE OF 1" = 60'. REVISED IN ACCORDANCE WITH A SURVEY DRAWING BY OTAK, CONDUCTED IN APRIL & MAY, 2011 AND OCTOBER 2014.
- BIOSPARGE INJECTION WELL, SMPs, MW-3, AND MW-24 LOCATIONS ARE APPROXIMATE.
- ALL GROUNDWATER ELEVATIONS ARE FROM JUNE 10, 2014.
- ND** = CONCENTRATION EXCEEDS THE REMEDIAL CLEANUP LEVEL.
- CLEANUP LEVELS REPORTED ARE SITE MTCA METHOD 8 SURFACE WATER CUL.



DATE	6/11/2014	CLEANUP LEVELS
B		ND < 3.0
T		0.6
E		2.0
N		0.29
D-As		5.6
D-Pb		0.40

DATE	6/11/2014	CLEANUP LEVELS
B		ND < 0.5
T		ND < 0.5
E		ND < 0.5
N		0.070
D-As		8.4
D-Pb		ND < 0.085

DATE	6/11/2014	CLEANUP LEVELS
B		ND < 0.5
T		ND < 0.5
E		ND < 0.5
N		0.060
D-As		ND < 0.78
D-Pb		ND < 0.085

DATE	6/11/2014	CLEANUP LEVELS
B		ND < 6.0
T		0.7
E		0.5
N		ND < 0.030
D-As		13.6
D-Pb		ND < 0.085

DATE	6/11/2014	CLEANUP LEVELS
B		7.2
T		0.9
E		1.4
N		0.099
D-As		4.1
D-Pb		0.14

DATE	6/11/2014	CLEANUP LEVELS
B		ND < 0.5
T		ND < 0.5
E		ND < 0.5
N		0.051
D-As		ND < 0.78
D-Pb		0.16

DATE	6/11/2014	CLEANUP LEVELS
B		9.2
T		2.5
E		7.4
N		0.35
D-As		10.8
D-Pb		ND < 0.085

DATE	6/11/2014	CLEANUP LEVELS
B		ND < 0.5
T		ND < 0.5
E		ND < 0.5
N		0.062
D-As		ND < 0.78
D-Pb		0.59

DATE	6/11/2014	CLEANUP LEVELS
B		ND < 0.5
T		ND < 0.5
E		ND < 0.5
N		0.047
D-As		0.96
D-Pb		ND < 0.085

DATE	6/11/2014	CLEANUP LEVELS
B		ND < 0.5
T		ND < 0.5
E		ND < 0.5
N		0.056
D-As		ND < 0.78
D-Pb		0.15

DATE	6/11/2014	CLEANUP LEVELS
B		ND < 0.5
T		ND < 0.5
E		ND < 0.5
N		0.068
D-As		ND < 0.78
D-Pb		ND < 0.085

DATE	6/11/2014	CLEANUP LEVELS
B		ND < 0.5
T		ND < 0.5
E		ND < 0.5
N		0.070
D-As		ND < 0.78
D-Pb		ND < 0.085

DATE	6/11/2014	CLEANUP LEVELS
B		ND < 0.5
T		ND < 0.5
E		ND < 0.5
N		0.051
D-As		ND < 0.78
D-Pb		ND < 0.085

FORMER CHEVRON BULK PLANT No. 100-1327
 FACILITIES NORTH / KING COUNTY (METRO)
 SEATTLE, WASHINGTON
GROUNDWATER MONITORING REPORT

POTENTIOMETRIC MAP WITH ANALYTICAL RESULTS
 JUNE 10 and 11, 2014



