

**R.116937.001, Nanoose Transmitter Remediation Project
Nanoose, BC**

Drawings

Drawing No.	Drawing Title
626268-601	Site Location
626268-602	Wide Area Site Plan
626268-603	Analytical Results for Soil – Federal Standards
626268-604	Analytical Results for Soil – Provincial Standards
626268-605	Analytical Results for Groundwater – Federal Standards
626268-606	Proposed Extent of Remedial Excavation
626268-607	Proposed Site Restoration



LEGEND

★ Site Location

NOTES

1. Original in colour.
2. Numerical scale reflects full-size print. Print scaling will distort this scale, however scale bar will remain accurate.
3. Intended for illustration purposes, accuracy has not been verified for construction or navigation purposes.



SNC • LAVALIN

CLIENT NAME:
Public Services and Procurement Canada

PROJECT LOCATION:
Nanoose TX
Nanoose Bay, BC

Site Location



BY: PB

DATE: 2016/03/28

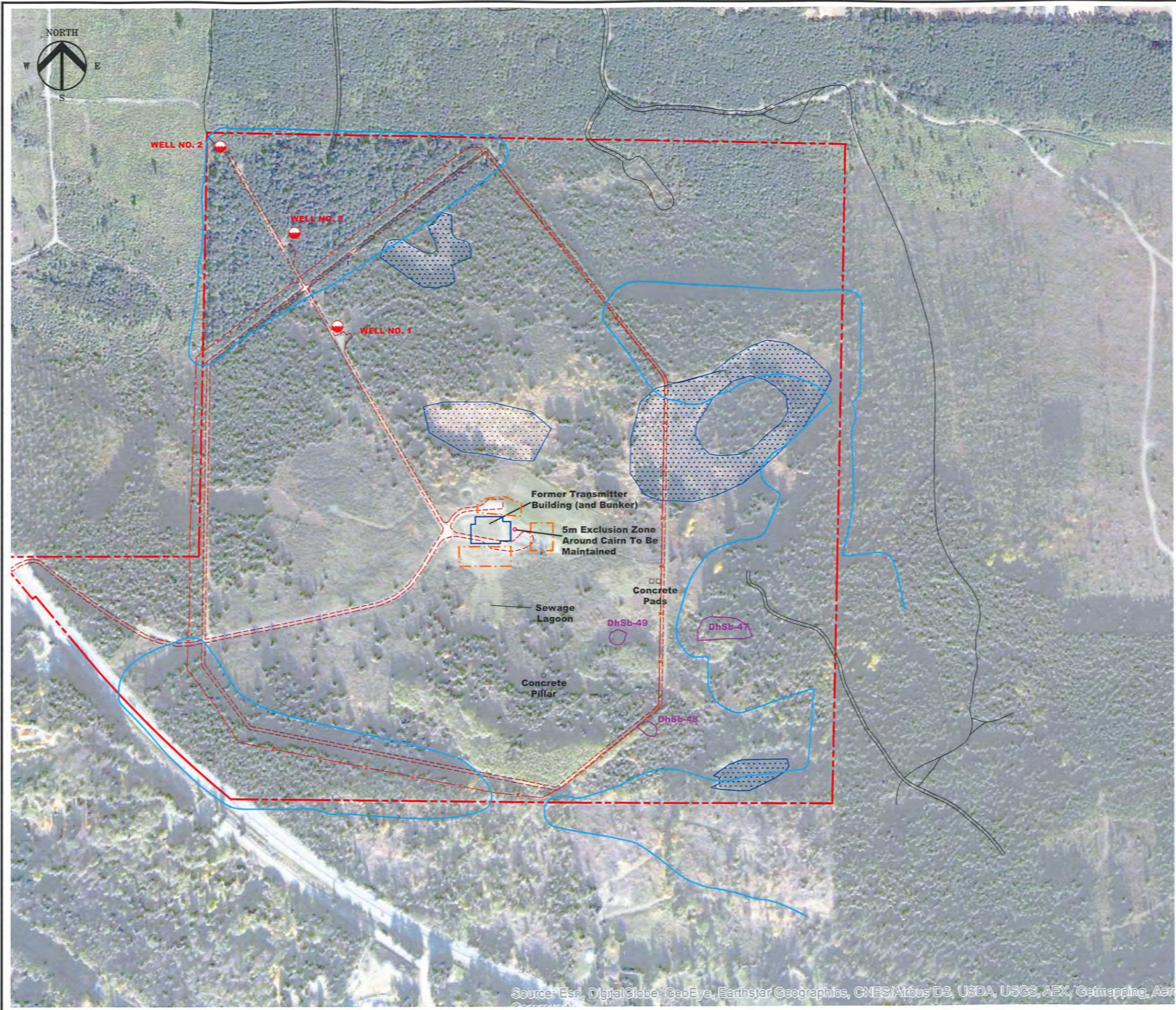
REF No:

REV: 0

CHK'D: CS

SCALE: 1:55,000

626268-601



LEGEND

- - - - - PROPERTY BOUNDARY
- - - - - PAVED ROAD
- - - - - GRAVEL ROAD
- x - x - FENCE
- - - - - FORMER STRUCTURE (LOCATION APPROXIMATE)
- WETLAND
- ARCHAEOLOGICAL SITES
- DRINKING WATER WELL
- APPROXIMATE EXTENTS OF EXCAVATION
- POTENTIAL CONTRACTOR EQUIPMENT LAYDOWN AREA AND STOCKPILE LOCATIONS



NOTES

1. ORIGINAL DRAWING IN COLOUR.
2. LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED PRIOR TO INTRUSIVE WORK. NOT ALL UTILITIES MAY BE SHOWN.

REFERENCE DRAWINGS

DWG. NO.	DATE	DESCRIPTION
FIGURE 2	2004-03	KEYSTONE ENVIRONMENTAL
61323-1	2018-02-08	JE ANDERSON & ASSOCIATES

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK
2	2021-10-20	ISSUED TO CLIENT	PRT	IM
1	2021-07-12	ISSUED TO CLIENT	PRT	IM
0	2020-07-20	ISSUED TO CLIENT	AJK	IM



CLIENT NAME:
PUBLIC SERVICES AND
PROCUREMENT CANADA

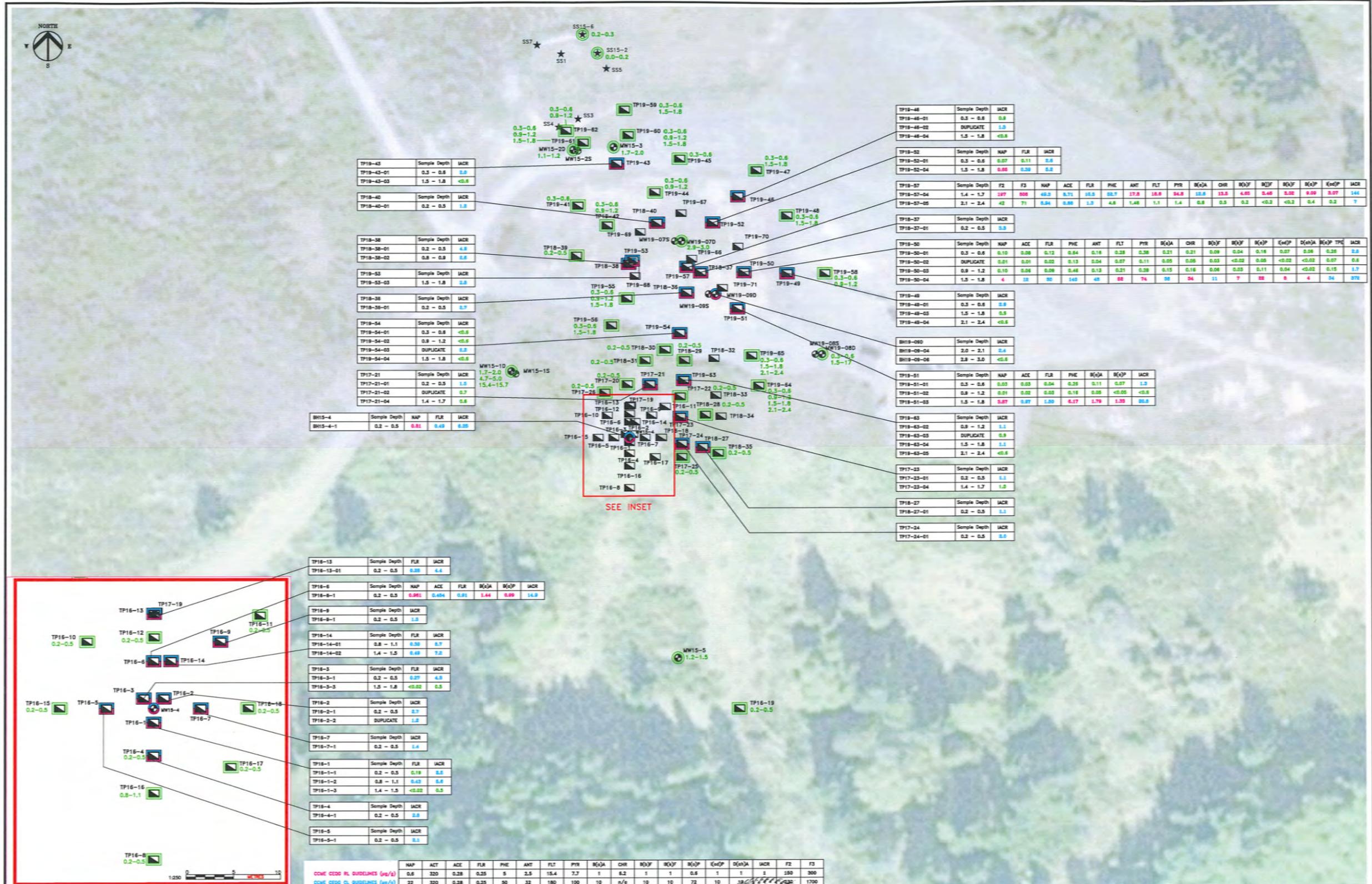
PROJECT LOCATION:
NANOOSE TX,
NANOOSE BAY, BC



TITLE: WIDE AREA SITE PLAN

DRN BY: PES	SCALE: 1:6000	DATE: 2020-03-11	DWG No: REV: 2
CHK'D: CS	PLOT: 20211020.1139	CADFILE: 626268R13	626268-602

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aer



LEGEND

- SUBJECT PROPERTY LIMITS
- - - LOT BOUNDARY
- ⊕ BOREHOLE
- ⊙ TEST PIT
- CONCENTRATIONS ARE LESS OR EQUAL TO THE APPLICABLE GUIDELINES
- CONCENTRATIONS ARE GREATER THAN THE APPLICABLE COME CEGG CL GUIDELINES
- CONCENTRATIONS ARE GREATER THAN THE APPLICABLE COME CEGG RL GUIDELINES

0 5 10 METERS

LOCATION

BH15-4	Sample Depth	NAP	FLR	IACR
BH15-4-1	0.2 - 0.5	0.01	0.01	0.01

ANALYTICAL SOIL RESULTS

TP16-13	Sample Depth	FLR	IACR
TP16-13-01	0.2 - 0.5	0.08	4.4

COME CEGG RL GUIDELINES (µg/g)

NAP	ACT	ACE	FLR	PHE	ANT	FLT	PHY	B(a)A	CHR	B(b)F	B(a)P	IACR	F2	F3
0.6	320	0.28	0.25	5	2.5	15.4	7.7	1	0.2	1	1	1	150	300

COME CEGG CL GUIDELINES (µg/g)

NAP	ACT	ACE	FLR	PHE	ANT	FLT	PHY	B(a)A	CHR	B(b)F	B(a)P	IACR	F2	F3
22	320	0.28	0.25	50	32	180	100	10	10	10	72	10	10	1700

NOTES

1. ORIGINAL DRAWING IN COLOUR.

2. EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED BY FIELD SURVEY. ALL UTILITIES MAY BE SHOWN.

PROFESSIONAL ENGINEER
 I. S. MACE
 #37011
 20/21

REFERENCE DRAWINGS

DWG. NO.	DATE	DESCRIPTION

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK
0	2020-07-20	ISSUED TO CLIENT	AJK	IM

CLIENT NAME: PUBLIC SERVICES AND PROCUREMENT CANADA

PROJECT LOCATION: NANOOSE BAY, BC

TITLE: ANALYTICAL RESULTS FOR SOIL - FEDERAL STANDARDS

SCALE: 1:750

DATE: 2020-03-12

DWG No: 626268-603

REV: 0

DATE: 2020-07-20

ISSUED TO CLIENT

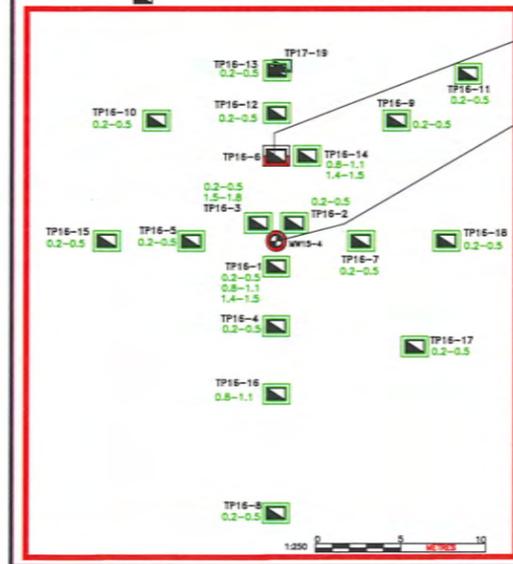
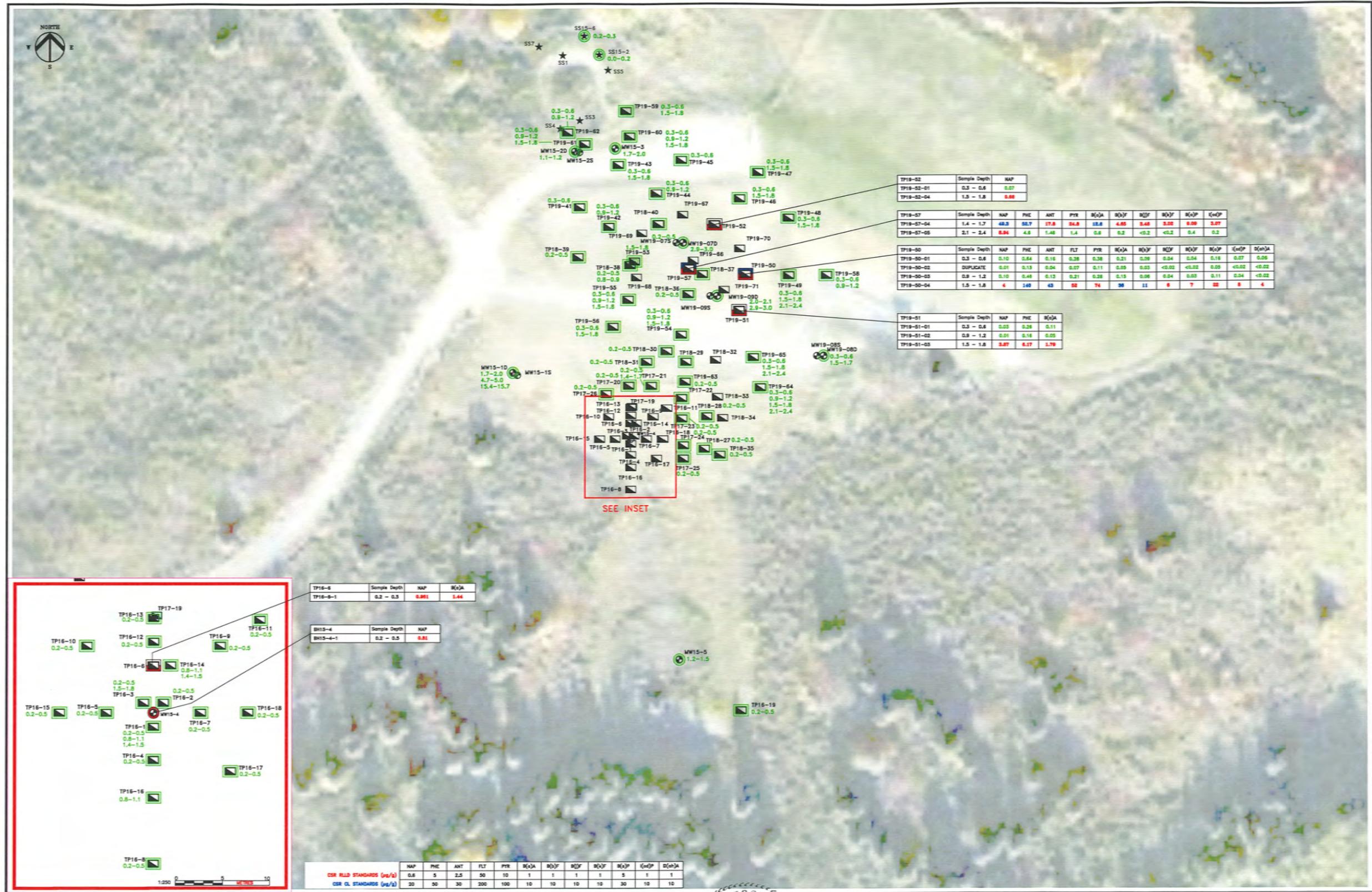
BY: CHK

CHKD: IM

DATE: 2020-07-20

FILE: 626268-603





Sample ID	Sample Depth	NAP	B(a)P
TP16-6	0.2 - 0.5	0.891	1.44
TP16-6-1	0.2 - 0.5	0.891	1.44

Sample ID	Sample Depth	NAP
BW15-4-1	0.2 - 0.5	0.81

Parameter	NAP	PHE	ANT	FLT	PHY	B(a)P	B(b)F	B(k)F	B(a)A	B(a)P	I(=OP)	D(=OP)
CSR RLD STANDARDS (µg/g)	0.6	5	2.5	50	10	1	1	1	1	5	1	1
CSR CL STANDARDS (µg/g)	30	30	30	200	100	10	10	10	10	30	10	10

LEGEND

- SUBJECT PROPERTY LIMITS
- LOT BOUNDARY
- BOROUGH
- TEST PIT
- CONCENTRATIONS ARE LESS OR EQUAL TO THE APPLICABLE GUIDELINES
- CONCENTRATIONS ARE GREATER THAN THE APPLICABLE CSR RLD STANDARDS
- CONCENTRATIONS ARE GREATER THAN THE APPLICABLE CSR CL STANDARDS

0.2-0.5 SAMPLE DEPTHS

LOCATION

ANALYTICAL SOIL RESULTS

Sample ID	Sample Depth	NAP	PHE	B(a)P
TP18-01	1.5 - 1.8	0.2	8.17	1.8
TP18-01-1	1.5 - 1.8	0.2	8.17	1.8

DEPTH OF SAMPLE (m)

GREEN - CONCENTRATIONS ARE LESS OR EQUAL TO THE APPLICABLE STANDARDS

RED - CONCENTRATIONS ARE GREATER THAN THE APPLICABLE CSR RLD STANDARDS

BLUE - CONCENTRATIONS ARE GREATER THAN THE APPLICABLE CSR CL STANDARDS

PROFESSIONAL ENGINEER

I. S. MACE

37014

BRITISH COLUMBIA

Oct 20/21

NOTES

1. ORIGINAL DRAWING IN COLOUR.
2. LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED ON SITE. NOT ALL UTILITIES MAY BE SHOWN.

REFERENCE DRAWINGS

DWG. NO.	DATE	DESCRIPTION
-	-	-

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHKD.
0	2020-07-20	ISSUED TO CLIENT	AJK	BM
1	2020-07-20	ISSUED TO CLIENT	AJK	BM

CLIENT NAME: PUBLIC SERVICES AND PROCUREMENT CANADA

PROJECT LOCATION: NANOOSE TX, NANOOSE BAY, BC

TITLE: ANALYTICAL RESULTS FOR SOIL - PROVINCIAL STANDARDS

SCALE: 1:750

DATE: 2020-03-12

DWG NO: 626268-604

REV: 0





CONC'D GUIDELINES (µg/L)	Al	Fe	Mn	As	Cd	Cr	Cu	Li	NI	Se	Zn
CONC'D RL GUIDELINES (µg/L)	100	300	50	10	5	30	1000	n/a	n/a	<0.5	5000
CODE CDOG RL GUIDELINES (µg/L)	5-100	300	n/a	5	0.037-0.297	8.9	2-4	n/a	25-150	1	30
CODE CDOG CL GUIDELINES (µg/L)	5-100	300	n/a	5	0.037-0.297	8.9	2-4	n/a	25-150	1	30

MW15-05	Sample Date	PAR	Al	Fe	Mn	As	Cd	Cr	Cu	Li	NI	Se	Zn
MW15-05-190208	2018 02 08	7	<10	92	1.2	<0.01	<0.5	1.1	8.2	1.8	1.8	1.8	<2
MW15-05-190222	2019 02 22	4	<10	90	0.8	<0.01	<0.5	0.7	3.0	0.4	0.7	0.7	<2
MW15-05-190228	2019 02 28	2	<10	74	0.8	0.01	<0.5	0.5	2.5	<0.2	0.8	0.8	<2

MW15-02	Sample Date	PAR	Al	Fe	Mn	As	Cd	Cr	Cu	Li	NI	Se	Zn
MW15-02-190208	2018 02 08	3	<10	190	0.8	<0.01	<0.5	2.2	0.8	1.8	1.8	1.8	<2
MW15-02-190222	2018 02 22	8	<10	<1	1.0	0.02	1.5	0.8	1.2	0.3	0.7	0.7	<2
MW15-02-190228	2019 02 28	10	14	<1	2.8	<0.01	1.1	0.7	1.2	<0.2	<0.5	3	

MW15-25	Sample Date	PAR	Al	Fe	Mn	As	Cd	Cr	Cu	Li	NI	Se	Zn
MW15-25-190210/11	2015 02 10/11	<0.01	12	<10	980	0.2	0.1	<0.5	1.1	2.4	10.7	<0.5	2
MW15-25-190213	2016 01 13	-	2	<10	30	0.2	0.02	<0.5	0.8	1.1	1.4	<0.5	<2
MW15-25-171030	2017 10 30	-	808	84,100	1,770	19.2	<0.01	3.0	<0.2	8.2	86.8	<0.5	12
MW15-25-190208	2018 02 08	-	8	88,800	1,790	8.7	<0.01	<0.5	0.7	0.8	8.8	<0.5	3
MW15-25-190228	2019 02 28	-	3	88,800	1,800	8.8	<0.01	<0.5	<0.2	0.8	9.0	<0.5	<2
MW15-25-190222	2019 02 22	-	2	<10	8	<0.1	0.03	<0.5	0.6	0.8	2.3	<0.5	3
MW15-25-190228	2019 02 28	-	3	21	2	0.1	0.03	<0.5	0.4	0.5	2.1	<0.5	2

MW15-2D	Sample Date	PAR	Al	Fe	Mn	As	Cd	Cr	Cu	Li	NI	Se	Zn
MW15-2D-190210/11	2015 02 10/11	<0.01	8	<10	323	0.9	0.02	2.4	1.1	1.5	2.5	<0.5	<2
MW15-2D-190213	2016 01 13	-	<2	<10	<1	1.1	<0.01	1.1	0.8	0.8	0.2	<0.5	<2
MW15-2D-171030	2017 10 30	-	<2	<10	<1	1.2	0.03	1.2	<0.2	0.7	0.2	<0.5	<1
MW15-2D-190208	2018 02 08	-	8	14	<1	1.2	<0.01	1.0	0.5	0.7	0.2	<0.5	<2
MW15-2D-190222	2019 02 22	-	2	<10	<1	1.1	<0.01	1.0	0.7	0.8	0.3	<0.5	4
MW15-2D-190228	2019 02 28	-	<2	<10	<1	0.9	<0.01	0.8	0.8	0.8	0.3	<0.5	3
MW15-2D-190228	2019 02 28	-	<2	25	<1	1.1	0.02	0.9	0.3	0.5	<0.2	<0.5	4

MW15-3	Sample Date	PAR	Al	Fe	Mn	As	Cd	Cr	Cu	Li	NI	Se	Zn
MW15-3-190210/11	2015 02 10/11	<0.01	23	281	648	0.4	0.02	0.7	0.4	0.7	4.8	<0.5	<2
MW15-3-190212	2016 01 12	-	10	380	165	0.3	0.04	<0.5	0.7	<0.5	1.3	<0.5	<2
MW15-3-171026	2017 10 26	-	21	389	138	1.4	0.04	1.2	0.8	1.7	3.4	<0.5	2
MW15-3-190208	2018 02 08	-	8	8,800	235	1.2	<0.01	<0.5	1.2	<0.5	1.1	<0.5	<2
MW15-3-190222	2019 02 22	-	15	17	864	0.1	0.11	<0.5	0.7	<0.5	3.8	<0.5	8
MW15-3-190228	2019 02 28	-	17	21	5	0.1	0.02	<0.5	0.7	<0.5	0.3	<0.5	<2

MW19-075	Sample Date	PAR	Al	Fe	Mn	As	Cd	Cr	Cu	Li	NI	Se	Zn
MW19-075-190228/0301	2019 02 28/03 01	>0.01	879	17	<1	3.2	0.02	14.0	0.3	0.3	2.6	1.1	3

MW19-070	Sample Date	PAR	Al	Fe	Mn	As	Cd	Cr	Cu	Li	NI	Se	Zn
MW19-070-190301	2019 03 01	>0.01	6	48	1,490	2.2	0.03	<0.5	2.8	2.0	5.4	0.6	4
MW19-070-190301	2019 03 01	>0.01	6	30	1,420	2.1	0.04	<0.5	2.8	1.5	5.4	0.6	4

MW19-095	Sample Date	PAR	Al	Fe	Mn	As	Cd	Cr	Cu	Li	NI	Se	Zn
MW19-095-190228/0301	2019 02 28/03 01	>0.01	73	17	135	0.8	0.03	0.7	1.8	8.4	3.5	<0.5	114

MW19-080	Sample Date	PAR	Al	Fe	Mn	As	Cd	Cr	Cu	Li	NI	Se	Zn
MW19-080-190301	2019 03 01	<0.01	8	18	1,310	1.1	0.03	<0.5	1.3	1.8	4.8	0.5	5

MW15-1S	Sample Date	PAR	Al	Fe	Mn	As	Cd	Cr	Cu	Li	NI	Se	Zn
MW15-1S-190210/11	2015 02 10/11	<0.01	74	33	1,270	0.2	0.08	0.6	0.7	0.7	5.7	<0.5	2
MW15-1S-190210/11	2015 02 10/11	DUPLICATE	86	43	1,280	0.4	0.08	0.8	0.9	0.7	6.1	<0.5	3
MW15-1S-190212	2016 01 12	-	23	13	417	0.3	0.08	<0.5	1.7	<0.5	3.4	<0.5	<2
MW15-1S-190212	2016 01 12	DUPLICATE	30	16	413	0.3	0.08	<0.5	1.8	<0.5	3.4	<0.5	<2
MW15-1S-190208	2018 02 08	-	1,200	2,300	1,700	1.1	0.08	1.5	0.8	<0.5	3.5	<0.5	3
MW15-1S-190222	2019 02 22	-	188	854	1,200	0.8	0.08	0.9	4.8	<0.5	3.4	<0.5	2
MW15-1S-190301	2019 03 01	-	181	877	1,310	0.8	0.07	<0.5	3.8	<0.5	3.8	<0.5	2

MW15-1D	Sample Date	PAR	Al	Fe	Mn	As	Cd	Cr	Cu	Li	NI	Se	Zn
MW15-1D-190211	2015 02 11	10	<10	303	1	0.01	<0.5	1.5	0.8	1.7	<0.5	<2	
MW15-1D-190222	2019 02 22	4	<10	47	1.0	0.02	1.3	1.3	0.7	0.8	<0.5	3	
MW15-1D-190301	2019 03 01	3	23	18	1.4	0.10	1.5	2.0	<0.5	0.4	<0.5	4	

MW15-4	Sample Date	PAR	Al	Fe	Mn	As	Cd	Cr	Cu	Li	NI	Se	Zn
MW15-4-190210/11	2015 02 10/11	<0.01	10	<10	304	0.2	0.08	<0.5	1.1	2.2	3.4	<0.5	3
MW15-4-190213	2016 01 13	-	<2	10	3	0.3	0.02	<0.5	0.8	1.8	1.3	<0.5	<2
MW15-4-190208	2018 02 08	-	3	<10	<1	0.3	<0.01	<0.5	0.6	1.2	0.7	<0.5	<2
MW15-4-190222	2019 02 22	-	4	<10	<1	0.3	0.11	<0.5	0.5	1.3	0.8	<0.5	2
MW15-4-190228	2019 02 28	-	<2	<10	<1	0.2	0.02	<0.5	0.4	1.6	0.6	<0.5	<2

MW15-5	Sample Date	PAR	Al	Fe	Mn	As	Cd	Cr	Cu	Li	NI	Se	Zn
MW15-5-190210/11	2015 02 10/11	<0.01	71	37	891	<0.1	0.07	<0.5	1.5	1.6	3	<0.5	9
MW15-5-190213	2016 01 13	-	84	10	3,250	0.3	0.16	0.9	6.0	0.8	4.8	<0.5	4
MW15-5-190208	2018 02 08	-	55	185	1,800	0.2	0.05	<0.5	2.0	<0.5	1.4	<0.5	7
MW15-5-190222	2019 02 22	-	19	73	305	0.2	0.08	<0.5	0.6	<0.5	1.1	<0.5	7
MW15-5-190301	2019 03 01	-	28	78	1,170	0.1	0.08	<0.5	1.7	<0.5	0.7	<0.5	5

LEGEND

--- SUBJECT PROPERTY LIMITS
 --- LOT BOUNDARY
 ○ MONITORING WELL
 ○ CONCENTRATIONS ARE LESS OR EQUAL TO THE APPLICABLE GUIDELINES
 ○ CONCENTRATIONS ARE GREATER THAN THE APPLICABLE CONDO GUIDELINES
 ○ CONCENTRATIONS ARE GREATER THAN THE APPLICABLE CODE CDOG RL GUIDELINES
 ○ CONCENTRATIONS ARE GREATER THAN THE APPLICABLE CONDO CL GUIDELINES

ANALYTICAL GROUNDWATER RESULTS

LOCATION	Sample Date	PAR	Al	Fe	Mn	As	Cd	Cr	Cu	Li	NI	Se	Zn
MW19-095	2019 02 28/03 01	>0.01	73	17	135	0.8	0.03	0.7	1.8	8.4	3.5	<0.5	114

DEPTH OF SAMPLE (m):
 BLUE - CONCENTRATIONS ARE GREATER THAN THE APPLICABLE CODE CDOG CL GUIDELINES
 MAGENTA - CONCENTRATIONS ARE GREATER THAN THE APPLICABLE CONDO GUIDELINES
 GREEN - CONCENTRATIONS ARE LESS THAN THE APPLICABLE STANDARDS

NOTES

1. LOCATION OF EXISTING UTILITIES SHOULD BE CONFIRMED ON SITE. NO CALLS MAY BE SHOWN.

37011

BRITISH COLUMBIA ENGINEER

REFERENCE DRAWINGS

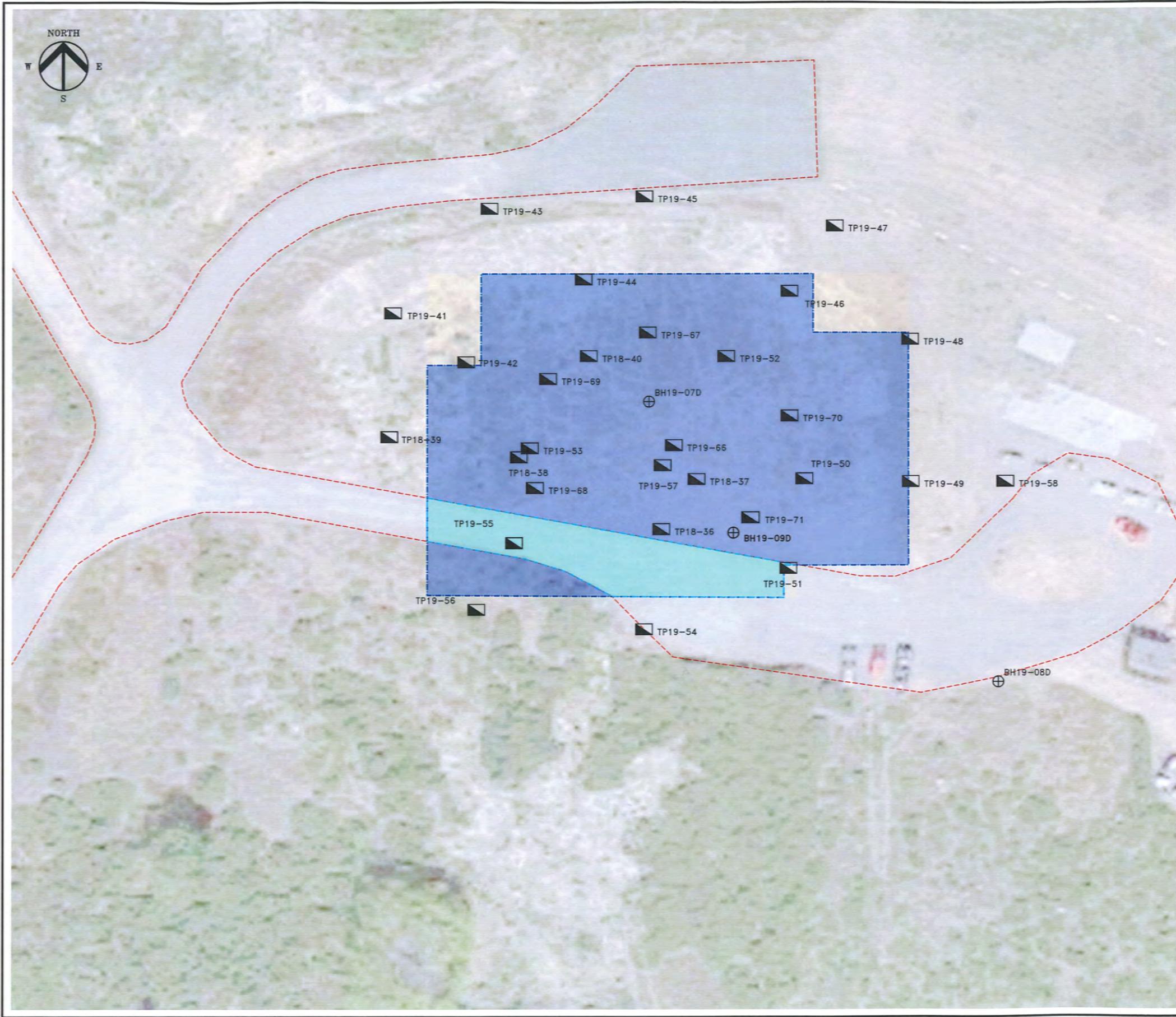
DWG. NO.	DATE	DESCRIPTION

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK

CLIENT NAME: PUBLIC SERVICES AND PROCUREMENT CANADA
 PROJECT LOCATION: NANOOSE TX, NANOOSE BAY, BC
 TITLE: ANALYTICAL RESULTS FOR GROUNDWATER - FEDERAL STANDARDS
 DWG No: 626268-605
 SCALE: 1:750
 DATE: 2020-03-12
 DWG No: REL: 0





LEGEND

- GRAVEL ROAD
- BOREHOLE
- TEST PIT
- BACKFILL COMPACTION 95% WITH 30cm TOPSOIL WITH NATIVE SEED MIX
- BACKFILL COMPACTION 95% WITH ROAD BASE AGGREGATE AT SURFACE



NOTES

1. ORIGINAL DRAWING IN COLOUR.
2. LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED PRIOR TO INTRUSIVE WORK. NOT ALL UTILITIES MAY BE SHOWN.

REFERENCE DRAWINGS

DWG. NO.	DATE	DESCRIPTION
61323-1	2018-02-08	GOOGLE AERIAL IMAGERY JE ANDERSON & ASSOCIATES

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK
1	2021-07-12	ISSUED TO CLIENT	PRT	IM
0	2020-07-20	ISSUED TO CLIENT	AJK	IM



CLIENT NAME: PUBLIC SERVICES AND PROCUREMENT CANADA
 PROJECT LOCATION: NANOOSE TX NANOOSE BAY, BC

PROPOSED SITE RESTORATION

DWN BY: PRT	SCALE: 1:600	DATE: 2020-03-11	DWG No: 626268-607	REV.: 1
CHK'D: IM	PLOT: 20210712.1417	CADFILE: 626268R13		