TABLES

Table A: Detailed Historical Geotechnical Investigations in Tailings Pond Footprints

Company	Year	Drill Methodology	Field Tests	Geotechnical Instrumentation	Laboratory Tests	Comments
Golder	1976	Becker Hammer (Open-ended Pipe)	• BPT - Open-ended pipe	• Standpipe Piezometers (4)	• Particle Size Distribution • Maximum and Minimum Densities • Consolidated Drained Triaxial • Direct Shear • Constant Head Permeability	• TP1 and TP2 Geotechnical Investigation - 4 boreholes • TP1 to TP5 Geotechnical Investigation - 16 boreholes • Strength testing was conducted on tailings
Golder	1977	Becker Hammer (Open-ended Pipe)	• Falling Head	• Standpipe Piezometers (20)	• Particle Size Distribution	• Hydrogeological Investigation - 24 boreholes
Golder	1982	Air Rotary	• None	• Monitoring Wells (5) • Pumping Wells (2) • Standpipe Piezometers (2)	• Particle Size Distribution	• Hydrogeological Investigation - 9 boreholes
EBA	2005	Odex Tricone	• SPT (1 borehole) • DCPT (1 borehole)	• None	• None	• TP5 Geotechnical Investigation - 2 boreholes
EBA	2007	Komatsu PC400 Excavator	• None	• None	• Moisture Contents • Particle Size Distribution	• Ski Hill Borrow Site Investigation - 6 testpits
EBA	2007	Becker Hammer (Open and Closed-ended Pipe)	• SPT (1 borehole) • BPT (1 borehole)	• Standpipe Piezometers (1) • Vibrating Wire Piezometers (6)	• Moisture Contents • Particle Size Distribution	• TP4 Geotechnical Investigation - 14 boreholes
EBA	2007	Air Rotary & Odex Tricone	• None	• Vibrating Wire Piezometers (5) • Inclinometers (6)	• None	• TP4 Instrumentation Program - 7 boreholes
EBA	2009	Odex Tricone	• None	• Standpipe Piezometers (8)	• None	• Groundwater Monitoring Well Installations - 8 boreholes
Knight Piesold	2010	Sonic	• SPT (5 boreholes) • SCPT (9 boreholes)	• Standpipe Piezometers (5) • Vibrating Wire Piezometers (4)	• Particle Size Distribution • Hydrometer • Atterberg Limits • Consolidated Undrained Triaxial (1)	• TP3 and TP4 Geotechnical Investigation - 9 boreholes • Triaxial conducted on sample from DH10-01 (18.3 m to 18.6 m depth) - ϕ' = 44°, C' = 52.5 kPa
Knight Piesold	2011	Sonic	• SPT (14 boreholes) • SCPT (10 boreholes)	• Standpipe Piezometers (6) • Inclinometers (8)	• Particle Size Distribution • Atterberg Limits • Consolidated Undrained Triaxial (1)	• TP3 and TP4 Geotechnical Investigation - 14 boreholes • Triaxial conducted on sample from GH11-03 (50.3 m to 50.9 m depth) - ϕ' = 31.3°, C' = 14.3 kPa (Section C-C)
Tetra Tech EBA	2011	Sonic	• SPT (5 boreholes)	• Standpipe Piezometers (9)	• Moisture Contents • Particle Size Distribution • Hydrometer • Atterberg Limits • Specific Gravity	• TP1 and TP2 Geotechnical Investigation - 11 boreholes
Knight Piesold	2012	Sonic	• SPT (5 boreholes) • SCPT (5 boreholes) • Falling Head	• Standpipe Piezometers (4) • Inclinometers (2)	• Unknown	• EP1 (Exfiltration Pond 1) Geotechnical Investigation - 6 boreholes
Tetra Tech EBA	2012	Sonic	• SPT (14 boreholes) • SCPT (5 boreholes) • Falling Head	• Standpipe Piezometers (18) • Vibrating Wire Piezometers (13) • Inclinometer (1)	• Moisture Contents • Particle Size Distribution	• EP1 (Exfiltration Pond 1) and TP5 Geotechnical Investigation - EP1 (4 boreholes) - TP5 (16 boreholes)
Tetra Tech EBA	2012	Sonic & Hitachi 270 Excavator	• SPT (15 boreholes) • SCPT (5 boreholes) • DST (4 boreholes) • Falling Head	• Monitoring Wells (10) • Nested Standpipe Piezometers (8)	• Moisture Contents • Particle Size Distribution • Atterberg Limits	• TSF6 (Tailings Storage Facility 6) Geotechnical Investigation - 18 boreholes - 4 testpits
Tetra Tech EBA	2013	Sonic	• LPT (11 boreholes) • DST (6 boreholes)	• Standpipe Piezometers (6)	• Particle Size Distribution • Atterberg Limits	• TSF4B, TSF6, and TSF7 Geotechnical Investigation - TSF4B (2 boreholes) - TSF6 (4 boreholes) - TSF7 (5 boreholes)
SRK	2016	Becker Hammer (Open and Closed-ended Pipe)	• SPT and LPT • SCPT (6 boreholes) • DST (12 boreholes) • BPT (12 boreholes)	• Standpipe Piezometers (2)	• Moisture Contents • Particle Size Distribution • Specific Gravity • Maximum and Minimum Void Ratio • Bender Element Shear Wave Velocity • Cyclic Direct Simple Shear (Stress Controlled Cyclic and Post-Cyclic Static) • Consolidated Undrained Triaxial • One-dimensional Consolidation	• TP1 to TP5 Geotechnical Investigation - 12 boreholes (12 open and closed-ended pipe each) - TP1 (2 boreholes) - TP2 (1 borehole) - TP3 (5 boreholes) - TP4 (3 boreholes) - TP5 (1 borehole)
Tetra Tech	2019	Becker Hammer (Closed-ended Pipe) & Sonic	• SPT (11 boreholes) • iBPT (33 boreholes)	• Monitoring Wells (5) • Vibrating Wire Piezometers (12)	• Moisture Contents • Particle Size Distribution • Hydrometer • Geochemical Characterization Tests	• TP1 to TSF6 Geotechnical Investigation - 33 iBPT and 11 sonic boreholes - TP1 (5 iBPTs and 1 sonic borehole) - TP2 (5 iBPTs and 3 sonic boreholes) - TP3 (12 iBPTs and 2 sonic boreholes) - TP4 (8 iBPTs and 3 sonic boreholes) - TP5 (2 iBPTs and 1 sonic borehole) - TSF6 (1 iBPT and 1 sonic borehole)

Table B: Compiled Borehole Details

Borehole ID	Geotechnical Investigation Program	Date	Drilling Method	Northing (m)	Easting (m)	Elevation (m)	Depth (m)	Location	Well	Standpipe	Piezometer	Inclinometer	SPT	LPT	DCPT	SCPT	DST	BPT	Falling Head	Comments
BH04	Golder 1976a	1976-04-20	Becker (open)	6,870,090	541,299	1128.1	14.3	TP3		X								X		Drilled into top of TP3 dam. Perched water table at 12-13', but main head is 42'. Natural ground at 3663.16'; coordinates adjusted based on borehole logs. Original coordinates were from 2012 NATC spreadsheet and appear to be incorrect
BH05	Golder 1976a	1976-04-20	Becker (open)	6,870,307	541,198	1127.2	16.8	TP3		X								X		Drilled into top of TP3 dam. Natural ground at 3655.47'; coordinates adjusted based on borehole logs. Original coordinates were from 2012 NATC spreadsheet and appear to be incorrect
BH06	Golder 1976a	1976-04-20	Becker (open)	6,870,409	541,101	1128.7	16.8	TP3		X								X		Drilled into top of TP3 dam. Natural ground at 3658';coordinates adjusted based on borehole logs. Original coordinates were from 2012 NATC spreadsheet and appear to be incorrect
BH07	Golder 1976a	1976-04-21	Becker (open)	6,870,432	541,114	1119.7	11.6	TP3		X								X		Drilled into top of TP3 dam. Natural ground at 3656.47'; coordinates adjusted based on borehole logs. Original coordinates were from 2012 NATC spreadsheet and appear to be incorrect
BH22	Golder 1976a	1976-04-24	Becker (open)	6,870,396	541,004	1128.7	19.2	TP3		X								X		Natural ground at 3650.12, BH location shifted to match aerial photo
BH01	Golder 1976b	1976-04-19	Becker (open)	6,871,156	540,320		16.8	TP1/2		X								X		BH location adjusted from original drawings based on sketch overlay with air photos
BH02	Golder 1976b	1976-04-19	Becker (open)	6,871,077	540,401		16.8	TP1/2		X								X		BH location adjusted from original drawings based on sketch overlay with air photos
BH03	Golder 1976b	1976-04-19	Becker (open)	6,870,983	540,422		14.6	TP1/2		X								X		BH location adjusted from original drawings based on sketch overlay with air photos
BH23	Golder 1976b	1976-04-25	Becker (open)	6,871,168	540,327		16.8	TP1/2		X								X		BH location adjusted from original drawings based on sketch overlay with air photos
BH08	Golder 1976c	1976-04-21	Becker (open)	6,869,245	542,548	1126.4	11.9	Flat River										X		North side of Flat River
BH09	Golder 1976c	1976-04-21	Becker (open)	6,869,463	542,359	1123.6	14.3	Flat River										X		North side of Flat River
BH10	Golder 1976c	1976-04-22	Becker (open)	6,869,647	542,227	1109.8	10.2	Flat River										X		North side of Flat River
BH11	Golder 1976c	1976-04-22	Becker (open)	6,869,835	542,020	1109.6	8.2	Flat River										X		North side of Flat River
BH12	Golder 1976c	1976-04-22	Becker (open)	6,870,173	541,922	1109.1	11.9	Flat River										X		North side of Flat River
BH13	Golder 1976c	1976-04-22	Becker (open)	6,870,134	542,022	1117.4	4.6	Flat River										X		North side of Flat River
BH13A	Golder 1976c	1976-04-22	Becker (open)	6,870,141	542,013	1117.4	8.5	Flat River										X		North side of Flat River
BH14	Golder 1976c	1976-04-23	Becker (open)	6,870,101	541,365	1114.8	19.2	TP3 East										X		Proposed tailings expansion east of TP3, near airstrip
BH15	Golder 1976c	1976-04-23	Becker (open)	6,869,972	541,490	1112.8	19.2	TP3 East										X		Proposed tailings expansion east of TP3, near airstrip
BH16	Golder 1976c	1976-04-23	Becker (open)	6,869,845	541,616	1111.2	19.2	TP3 East										X		Proposed tailings expansion east of TP3, near airstrip
BH17	Golder 1976c	1976-04-23	Becker (open)	6,869,716	541,743	1109.1	19.2	TP3 East										X		Proposed tailings expansion east of TP3, near airstrip. Locations adjusted from original drawing based on sit plan overlay
BH18	Golder 1976c	1976-04-24	Becker (open)	6,869,640	541,623	1107.8	19.2	TP3 East										X		Proposed tailings expansion east of TP3, near airstrip. Locations adjusted from original drawing based on sit plan overlay
BH19	Golder 1976c	1976-04-24	Becker (open)	6,870,512	540,832	1119.7	19.2	TP4										X		
BH20	Golder 1976c	1976-04-24	Becker (open)	6,870,519	540,929	1119.8	16.8	TP4										X		TP5 background info collation
BH20A	Golder 1976c	1976-04-24	Becker (open)	6,870,511	540,936	1120.1	4.6	TP4										X		TP5 background info collation
BH21	Golder 1976c	1976-04-25	Becker (open)	6,870,436	541,055	1124.9	14.3	TP4										X		Dry
BH31	Golder 1977a	1977-07-30	Becker (open)	6,871,363	540,019	1114.9	16.9	West of TP1		X										Destroyed 1977. Log in 1977 hydrology report
BH32	Golder 1977a	1977-07-31	Becker (open)	6,869,920	541,304	1118.6	21.6	TP5 East										X		TP5 background info collation
BH33	Golder 1977a	1977-08-01	Becker (open)	6,869,690	541,324	1139.7	30.5	TP5 East										X		TP5 background info collation
BH34	Golder 1977a	1977-08-01	Becker (open)	6,869,771	541,166	1140.4	28.8	TP5 East		X								X		Dry well
BH35	Golder 1977a	1977-08-02	Becker (open)	-	-	1109.3	26.2			X								X		Coordinates Uncertain
BH36	Golder 1977a	1977-08-07	Becker (open)	6,869,987	541,018	1125.2	30.8	TP5		X										Nested piezometer
BH37	Golder 1977a	1977-08-23	Becker (open)	6,869,974	541,230	1115.0	24.4	TP5		X								X		Nested piezometer
BH38	Golder 1977a	1977-08-14	Becker (open)	6,870,139	541,304	1105.3	31.1	TP3		X										Nested piezometer
BH39	Golder 1977a	1977-08-15	Becker (open)	6,870,428	541,070	1130.1	29.0	TP3/4		X										Nested piezometer
BH40	Golder 1977a	1977-08-16	Becker (open)	6,870,299	541,001	1129.5	25.9	TP3/4		X										
BH41	Golder 1977a	1977-08-06	Becker (open)	6,870,620	540,738	1124.3	18.3	TP4 West		X										
BH42	Golder 1977a	1977-08-16	Becker (open)	6,870,518	540,946	1113.6	28.3	TP4		X										Nested piezometer
BH43	Golder 1977a	1977-08-06	Becker (open)	6,870,530	541,055	1107.8	18.3	TP4 Toe		X										Nested piezometer
BH44	Golder 1977a	1977-08-25	Becker (open)	6,870,458	541,150	1106.4	27.4	TP3 Toe		X										Nested piezometer
BH45	Golder 1977a	1977-08-07	Becker (open)	6,870,403	541,255	1106.3	18.3	Downgrade of TP3												
BH46	Golder 1977a	1977-08-17	Becker (open)	6,870,300	541,362	1106.1	18.9	Downgrade of TP3		X										Nested piezometer
BH47	Golder 1977a	1977-08-14	Becker (open)	6,870,104	541,343	1112.5	24.4	TP3		X								X		
BH48	Golder 1977a	1977-08-21	Becker (open)	6,869,968	541,512	1110.4	28.7	Airstrip		X										Nested piezometer
BH50	Golder 1977a	1977-08-10	Becker (open)	6,870,598	540,842	1115.4	30.5	TP4												
BH51	Golder 1977a	1977-08-11	Becker (open)	6,870,504	540,983	1113.8	23.8	TP4		X										
BH52	Golder 1977a	1977-08-11	Becker (open)	6,871,098	540,344	1124.9	18.6	TP1		X										Nested piezometer
BH53	Golder 1977a	1977-08-09	Becker (open)	6,871,001	540,473	1110.4	9.5	TP2		X										
BH54	Golder 1977a	1977-08-12	Becker (open)	6,870,415	541,134	1118.6	24.4	TP3												Suggested permafrost at base of hole
BH55	Golder 1977a	1977-08-09	Becker (open)	6,870,606	541,151	1110.3	18.3	Downgrade of TP4		X										Suggested permafrost at base of hole
BH101	Golder 1982	1982-07-20	Air Rotary	-	-	1146.7	28.7			X										
BH102	Golder 1982	1982-07-21	Air Rotary	-	-	1128.1	14.6			X										
MW_1	Golder 1982	1982-07-16	Air Rotary	6,871,031	540,469	1109.1														install date estimated
MW_2	Golder 1982	1982-07-16	Air Rotary	6,870,306	541,352	1106.0	21			X										Nested piezometer
MW_3	Golder 1982	1982-07-17	Air Rotary	6,870,102	541,330	1113.3	44.2			X										Nested piezometer
MW_4	Golder 1982	1982-07-18	Air Rotary	6,870,002	541,303	-	54.3			`										Well collapsed during install. Replaced with MW6?
MW_5	Golder 1982	1982-07-17	Air Rotary	6,870,401	541,253	1107.0	27.4			X										Nested piezometer

Table B: Compiled Borehole Details

Borehole ID	Geotechnical Investigation Program	Date	Drilling Method	Northing (m)	Easting (m)	Elevation (m)	Depth (m)	Location	Well	Standpipe	Piezometer	Inclinometer	SPT	LPT	DCPT	SCPT	DST	BPT	Falling Head	Comments
MW_6	Golder 1982	1982-07-17	Air Rotary	6,869,976	541,263	1117.2														install date estimated
PW_1	Golder 1982	1982-07-22	Air Rotary	-	-	1108.8	16.8													Pumping well. Reported in EBA 2001
PW_2	Golder 1982	?	?	?	?															
1200185-BH01	EBA 2005	1985-12-05	Odex Tricone	6,869,936	541,127	1126.4	24.4	TP5												
1200185-bh02	EBA 2005	1985-12-13	Odex Tricone	6,869,933	541,126	1126.3	14.8	TP5					X		X					5 SPTs throughout borehole; 6 DCPTs throughout borehole.
TP3-07-MW01	EBA 2007	2007-04-12	Becker (open)	6,870,091	541,356	1113.4	15.2		X											
TP3-07-MW01A	EBA 2007	2007-04-12	Becker (open)	6,870,091	541,358	1113.4	10.7		X											
TP3-07-MW02	EBA 2007	2007-04-12	Becker (open)	6,869,969	541,327	1118.2	21.9		X											
TP3-07-MW02A	EBA 2007	2007-04-12	Becker (open)	6,869,968	541,327	1118.2	15.8		X											
TP3-07-MW03	EBA 2007	2007-04-12	Becker (open)	6,870,191	541,375	1110.3	11.0		X											
TP4-07-BH01	EBA 2007	2007-04-06	Becker (open)	6,870,473	540,992	1124.4	24.4			X										Vibrating Wire - VW6310
TP4-07-BH02	EBA 2007	2007-04-06	Becker (open)	6,870,507	540,940	1123.6	24.4			X										VW6309
TP4-07-BH03	EBA 2007	2007-04-07	Becker (open)	6,870,554	540,878	1123.3	24.4			X										VW6307
TP4-07-BH04	EBA 2007	2007-04-08	Becker (open)	6,870,526	540,979	1112.4	13.4			X										VW6308
TP4-07-BH05	EBA 2007	2007-04-08	Becker (open)	6,870,578	540,928	1112.2	13.4			X										VW6306
TP4-07-BH06	EBA 2007	2007-04-07	Becker (open)	6,870,535	540,775	1123.6	24.4			X										VW6304
TP4-07-BH07	EBA 2007	2007-04-07	Becker (open)	6,870,564	540,797	1123.1	22.9			X										Slotted standpipe
TP4-07-BH08	EBA 2007	2007-04-09	Becker (open)	6,870,506	540,771	1131.2	21.8	TP4 Embankment					X							2 SPTs at bottom of borehole
TP4-07-BH09	EBA 2007	2007-04-11	Becker (open)	6,870,343	540,872	1138.5	10.7													Refusal on probable bedrock
TP4-07-BH10	EBA 2007	2007-04-08	Becker (open)	6,870,439	540,800	1132.1	15.8													
TP4-07-BH11	EBA 2007	2007-04-09	Becker (open)	6,870,477	540,728	1135.9	14.5													Refusal on probable bedrock
TP4-07-BH12	EBA 2007	2007-04-09	Becker (open)	6,870,330	540,882	1139.1	10.5													Refusal on probable bedrock
TP4-07-BH13	EBA 2007	2007-04-11	Becker (open)	6,870,344	540,923	1128.5	14.9													Refusal on probable bedrock
TP4-07-BH14	EBA 2007	2007-04-13	Becker (open)	6,870,574	540,928	1112.3	33.5	TP4 Embankment										X		BPT reached to the end of hole; No bounce chamber pressures recorded.
TP4-07-MW01	EBA 2007	2007-04-12	Becker (open)	6,870,580	540,991	1108.8	20.4		X											
TP6-07-BA1	EBA 2007	2007-04-01	Excavator	6,871,255	540,523	1127.3	-													Skihill borrow investigation
TP5-07-MW01	EBA 2007	2007-04-12	Becker (open)	6,869,956	541,216	1124.1	20.4		X											
TP5-BH01	?	?	?	?	?															
TP5-BH02	?	?	?	?	?															
TP5-BH03	?	?	?	?	?															
TP5-BH04	?	?	?	?	?															
SI-01A	EBA 2007 (SI)	2007-12-06	Odex	6,870,572	540,845	1130.8	47.5													
SI-01	EBA 2007 (SI)	2007-12-11	Odex	6,870,598	540,842	1116.2	26.2			X		X								PVC casing installed for VWP - installation status unknown
SI-02	EBA 2007 (SI)	2007-12-09	Odex	6,870,571	540,882	1131.1	47.2			X		X								Vibrating Wire - VW7593
SI-03	EBA 2007 (SI)	2007-11-23	Odex	6,870,555	540,911	1131.5	48.0			X		X								Vibrating Wire - VW7594
SI-04	EBA 2007 (SI)	2007-11-20	Odex	6,870,530	540,950	1131.4	48.0			X		X								Vibrating Wire - VW7595
SI-05	EBA 2007 (SI)	2007-11-17	Odex	6,870,508	540,979	1131.5	49.5			X		X								Vibrating Wire - VW7596
SI-06	EBA 2007 (SI)	2007-11-14	Odex	6,870,484	541,010	1131.4	47.9			X		X								Vibrating Wire - VW7597
S-09-01	EBA 2009	2009-07-04	tricone/core	6,871,182	540,391	1110.4	5.2		X											
S-09-02	EBA 2009	2009-07-05	tricone/core	6,871,060	540,496	1109.8	4.9		X											
S-09-03	EBA 2009	2009-07-06	tricone/core	6,871,372	539,959	1116.3	10.7		X											
S-09-04	EBA 2009	2009-07-07	tricone/core	6,870,087	541,356	1113.4	11.0		X											
S-09-05	EBA 2009	2009-07-08	tricone/core	6,869,937	541,344	1117.8	22.9		X											
S-09-06	EBA 2009	2009-07-10	tricone/core	6,869,934	541,191	1129.8	23.2		X											
S-09-07	EBA 2009	2009-08-20	tricone/core	6,869,944	541,257	1123.0	22.9		X											
S-09-08	EBA 2009	2009-08-20	tricone/core	6,869,883	541,601	1109.4	10.7		X											
DH10-01	KP 2010	2010-09-30	Sonic	6,870,520	540,783	1134.1	30.5	TP4 Crest		X			X							14 SPTs throughout borehole; VW7591
DH10-02	KP 2010	2010-10-02	Sonic	6,870,423	541,009	1135.1	30.5	TP4 Crest		X			X							12 SPTs throughout borehole; VW7590, 7599
DH10-03	KP 2010	2010-10-07	Sonic	6,870,502	541,063	1108.2	26.2	TP4 Toe		X			X							12 SPTs throughout borehole; standpipe piezometer
DH10-04	KP 2010	2010-10-06	Sonic	6,870,565	540,980	1109.2	22.9	TP4 Toe		X			X							14 SPTs throughout borehole; standpipe piezometer
DH10-05	KP 2010	2010-10-05	Sonic	6,870,608	540,902	1112.2	23.2	TP4 Toe		X			X							15 SPTs throughout borehole; standpipe piezometer
DH10-06	KP 2010	2010-10-13	Sonic	6,870,385	541,074	1145.1	35.1													Geochemical and assay testing only
DH10-07	KP 2010	2010-10-12	Sonic	6,870,096	541,270	1146.0	35.1			X										Geochemical and assay testing only; standpipe peizometer
DH10-08	KP 2010	2010-10-10	Sonic	6,870,133	541,062	1146.0	10.7													Geochemical and assay testing only
DH10-09	KP 2010	2010-10-11	Sonic	6,870,034	541,172	1146.0	32.0			X										Geochemical and assay testing only; standpipe peizometer
SCPT10-01	KP 2010	2010-10-10	SCPT	6,870,521	540,785		16.2	TP4 Crest								X				Pushed from 2.9 m to 16.2 m (appears to be within tailings profile).
SCPT10-02	KP 2010	2010-10-08	SCPT	6,870,430	541,011		16.3	TP4 Crest								X				Pushed from 3.1 m to 16.2 m (appears to be within tailings profile).
SCPT10-03	KP 2010	2010-10-09	SCPT	6,870,472	540,954	1135.1	20.3	TP4 Crest								X				Pushed from 3.6 m to 20.3 m; Appears to reach approximately 4 m below original ground.
SCPT10-04	KP 2010	2010-10-09	SCPT	6,870,513	540,900	1135.1	19.9	TP4 Crest								X				Pushed from 3.2 m to 19.9 m; Appears to reach approximately 5 m below original ground.
SCPT10-05	KP 2010	2010-10-10	SCPT	6,870,500	540,790		4.5	TP4 Crest								X				Pushed from 3.1 m to 4.5 m.
SCPT10-06	KP 2010	2010-10-13	SCPT	6,870,390	541,074		32.1	TP3 Crest								X				Pushed from 1.3 m to 3.5 m; 6.8 m to 32.0 m; Appears to hit refusal near original ground.
SCPT10-07	KP 2010	2010-10-12	SCPT	6,870,091	541,271		33.4	TP3 Crest								X				Pushed from 1.6 m to 33.4 m; Appears to reach approximately 5 m below original ground.
SCPT10-08	KP 2010	2010-10-10	SCPT	6,870,145	541,066		9.8	TP3 Crest								X				Pushed from 1.5 m to 9.8 m.
SCPT10-09	KP 2010	2010-10-11	SCPT	6,870,051	541,139		31.0	TP3 Crest								X				Pushed from 1.9 m to 31.0 m; Appears to reach approximately 7 m below original ground.

Table B: Compiled Borehole Details

Borehole ID	Geotechnical Investigation Program	Date	Drilling Method	Northing (m)	Easting (m)	Elevation (m)	Depth (m)	Location	Well	Standpipe	Piezometer	Inclinometer	SPT	LPT	DCPT	SCPT	DST	BPT	Falling Head	Comments
TH10-01	KP 2010	2010-10-14	Sonic	6,870,532	540,907	1139.0	6.1													
TH10-02	KP 2010	2010-10-14	Sonic	6,870,521	540,792	1139.0	6.1													
GH11-01	KP 2011	2011-07-02	Sonic	6,870,277	541,177	1147.0	60.4	TP3 Crest					X							19 SPTs throughout borehole.
GH11-02	KP 2011	2011-07-06	Sonic	6,870,456	541,015	1136.3	45.7	TP4 Crest							X					12 SPTs throughout borehole.
GH11-03	KP 2011	2011-07-10	Sonic	6,870,549	540,886	1133.9	65.5	TP4 Crest					X							13 SPTs throughout borehole.
GH11-04	KP 2011	2011-07-14	Sonic	6,870,510	540,946	1136.6	56.4	TP4 Crest					X							4 SPTs throughout borehole.
GH11-05	KP 2011	2011-07-17	Sonic	6,870,594	540,936	1112.8	32.0	TP4 Toe					X							8 SPTs throughout borehole.
GH11-06	KP 2011	2011-07-19	Sonic	6,870,528	541,033	1110.4	32.0	TP4 Toe	X				X							7 SPTs throughout borehole.
GH11-07	KP 2011	2011-07-20	Sonic	6,870,607	540,880	1114.7	48.8	TP4 Toe					X							11 SPTs throughout borehole.
GH11-08	KP 2011	2011-07-23	Sonic	6,870,450	541,143	1108.3	25.0	TP3 Toe					X							3 SPTs throughout borehole.
GH11-09	KP 2011	2011-07-24	Sonic	6,870,230	541,337	1108.8	30.5	TP3 Toe					X							8 SPTs throughout borehole.
GH11-10	KP 2011	2011-07-26	Sonic	6,870,382	541,074	1147.0	53.3	TP3 Crest	X				X							7 SPTs throughout borehole.
GH11-11	KP 2011	2011-07-27	Sonic	6,870,165	541,269	1145.4	69.5	TP3 Crest					X							14 SPTs throughout borehole.
GH11-12	KP 2011	2011-07-30	Sonic	6,870,053	541,252	1145.7	64.0	TP3 Crest					X							20 SPTs throughout borehole.
GH11-13	KP 2011	2011-08-02	Sonic	6,870,050	541,339	1115.9	30.5	TP3	X				X							18 SPTs throughout borehole.
GH11-14	KP 2011	2011-08-03	Sonic	6,870,341	541,238	1109.8	27.4	TP3 Toe	X				X							15 SPTs throughout borehole.
SCPT11-02	KP 2011	2011-07-07	Sonic	6,870,458	541,017		33.2	TP4 Crest								X				Pushed from 18.9 m to 21 m, 32.6 m to 33.2 m, Appears to reach below original ground.
SCPT11-03	KP 2011	2011-07-07	Sonic	6,870,549	540,890		57.8	TP4 Crest								X				Pushed from 26.5 m to 32.0 m, 32.6 m to 32.8 m, 37.5 m to 57.6 m, Appears to reach below original ground.
SCPT11-04	KP 2011	2011-07-15	Sonic	6,870,511	540,949		45.6	TP4 Crest								X				Pushed from 27.1 m to 46.3 m; Appears to reach approximately 19 m below original ground.
SCPT11-05	KP 2011	2011-07-17	Sonic	6,870,592	540,936		21.4	TP4 Toe								X				Pushed from 2.1 m to 9.8 m; 11.6 m to 19.2 m; 20.7 m to 21.6 mà
SCPT11-06	KP 2011	2011-07-19	Sonic	6,870,525	541,034		29.3	TP4 Toe								X				Pushed from 5.2 m to 7.3 m; 13.1 m to 29.6 m
SCPT11-07	KP 2011	2011-07-20	Sonic	6,870,609	540,882		30.7	TP4 Toe								X				Pushed from 3.7 m to 8.8 m; 25.3 m to 31.1 m
SCPT11-08	KP 2011	2011-07-23	Sonic	6,870,451	541,144		17.5	TP3 Toe								X				Pushed from 2.1 m to 13.1 m; 14.6 m to 17.7 m; Appears to reach below original ground.
SCPT11-09	KP 2011	2011-07-24	Sonic	6,870,229	541,336		10.7	TP3 Toe								X				Pushed from 2.1 m to 8.2 m; 10.1 m to 11.0 m; Appears to reach approximately 9 m below original ground.
SCPT11-10	KP 2011	2011-07-26	Sonic	6,870,384	541,076		49.0	TP3 Crest								X				Pushed from 1.5 m to 32.3 m (appears to be within tailings profile); from 48.5 m to 49.7 m (appears to be within original ground).
SCPT11-11	KP 2011	2011-07-28	Sonic	6,870,163	541,270		64.8	TP3 Crest								X				Pushed from 1.8 m to 34.1 m (appears to be within tailings profile); 62.8 m to 65.9 m (appears to be within original ground)
TC11-01	EBA 2011	2011-08-08	Sonic	6,871,078	540,301	1128.9	20.0		X											Monitoring well installed in native till below Tailings Pond 1. Log elvations refer to top of casing
TC11-02	EBA 2011	2011-08-08	Sonic	6,871,016	540,310	1125.7	17.0	TP2	X				X							One SPT of tailings (N=23); Monitoring well installed in native till below Tailings Pond 2.
TC11-03	EBA 2011	2011-08-09	Sonic	6,871,057	540,415	1125.1	16.8	TP2 Crest	X				X							One SPT near surface (N=42); Monitoring well installed in native till at the top of the down-gradient dam at Tailings Pond 2.
TC11-04	EBA 2011	2011-08-09	Sonic	6,871,123	540,347		16.8	TP1 Crest					X							One SPT of tailings (N=13); No monitoring well installed as during drilling it was determined the location was not within the down-gradient dam of Tailings Pond 1.
TC11-05	EBA 2011	2011-08-10	Sonic	6,871,065	540,277	1129.2	16.8		X											Monitoring well installed in native till at the up-gradient berm at Tailings Pond 1.
TC11-07	EBA 2011	2011-08-10	Sonic	6,871,176	540,323	1124.5	16.8	TP1 Embankment	X				X							One SPT near surface (N=33); Monitoring well installed in native till at the down-gradient dam for Tailings Pond 1. Located on bench below the top of Tailings Pond 1.
TC11-08	EBA 2011	2011-08-11	Sonic	6,870,981	540,338	1128.3	20.4		X											Monitoring well installed in native till at the up-gradient berm for Tailings Pond 2. Located adjacent to access road.
TC11-09	EBA 2011	2011-08-12	Sonic	6,871,032	540,394	1124.7	21.3		X											Monitoring well installed in native till below Tailings Pond 2.
TC11-10	EBA 2011	2011-08-13	Sonic	6,871,107	540,312	1134.6	22.9	TP1 Crest	X				X							One SPT near surface (N=50); Monitoring well installed in native till below Tailings Pond 1.
TC11-11	EBA 2011	2011-08-13	Sonic	6,871,071	540,405	1124.9	19.8		X											Monitoring well installed in native till at the top of the down-gradient dam at Tailings Pond 2. This well was installed because there was very little water in TC11-3.
GH12-A	EBA 2012	2012-02-18	Sonic	6,870,536	540,742	1131.4							X							Completed by KP
GH12-B	EBA 2012	2012-02-23	Sonic	6,870,557	540,779	1129.6										X			X	Completed by KP
GH12-C	EBA 2012	2012-03-21	Sonic	6,870,588	540,708	1132.3	41.16	TP4					X							17 SPTs throughout borehole.
GH12-D	EBA 2012	2012-03-23	Sonic	6,870,653	540,687	1133.8	36.59	TP4					X							13 SPTs throughout borehole.
GH12-E	EBA 2012	2012-02-25	Sonic	6,870,596	540,743	1122.9										X			X	Completed by KP
GH12-F	EBA 2012	2012-02-27	Sonic	6,870,601	540,829	1116.8										X			X	Completed by KP
GH12-G	EBA 2012	2012-03-01	Sonic	6,870,643	540,779	1117.1										X			X	Completed by KP
GH12-H	EBA 2012	2012-03-03	Sonic	6,870,681	540,748	1114.6										X			X	Completed by KP
GH12-I	EBA 2012	2012-03-19	Sonic	6,870,718	540,697	1114.3	27.44	EP1					X			X			X	12 SPTs throughout borehole.
GH12-J	EBA 2012	2012-09-18	Sonic	6,870,720	540,775	1113.4	38.11	EP1					X							14 SPTs throughout borehole.
GH12-L	EBA 2012	2012-03-29	Sonic	6,869,892	541,065	1141.8	39.94	TP5 South Embankment					X						X	11 SPTs throughout borehole.
GH12-M	EBA 2012	2012-03-26	Sonic	6,869,913	541,100	1141.5		TP5 South Embankment					X						X	16 SPTs throughout borehole.
GH12-N	EBA 2012	2012-03-15	Sonic	6,869,948	541,126	1141.5		TP5 South Embankment					X			X				SCPT pushed from 1.5 m to 2.8 m; Doesn't appear to reach original ground (based on SRK's TP5 cross-section).
GH12-NA	EBA 2012	2012-03-15	Sonic	6,869,948	541,122	1141.8										X				
GH12-O	EBA 2012	2012-04-10	Sonic	6,869,908	541,140	1135.7	53.30	TP5 Toe					X							2 SPTs throughout borehole.
GH12-P	EBA 2012	2012-03-17	Sonic	6,869,940	541,162	1136.6	42.68	TP5 Toe					X			X				SCPT pushed from 13.7 m to 15.2 m (40 to 50 ft); Appears to reach below original ground (based on SRK's TP5 cross-section).
GH12-Q	EBA 2012	2012-03-07	Sonic				67.07	TP3 Crest (Southwest)					X			X				SCPT pushed from 5.5 m to 21.6 m (18 to 71 ft); Appears to reach approximately 4 m below original ground.
GH12-R	EBA 2012	2012-03-31	Sonic				62.50	TP3 Crest (Southwest)					X						X	16 SPTs throughout borehole.
GH12-S	EBA 2012	2012-04-02	Sonic	6,870,065	541,109	1146.0														

Table B: Compiled Borehole Details

Borehole ID	Geotechnical Investigation Program	Date	Drilling Method	Northing (m)	Easting (m)	Elevation (m)	Depth (m)	Location	Well	Standpipe	Piezometer	Inclinometer	SPT	LPT	DCPT	SCPT	DST	BPT	Falling Head	Comments
GH12-T	EBA 2012	2012-03-09	Sonic	6,870,112	541,092	1146.6	59.45	TP3 Crest (Southwest)								X				SCPT pushed from 1.5 m to 29.6 m (5 to 97 ft); Appears to reach approximately 11 m below original ground.
GH12-U	EBA 2012	2012-03-12	Sonic	6,870,118	541,051	1146.0	44.21	TP3 Crest (Southwest)					X			X			X	SCPT pushed from 1.5 m to 7.6 m (5 to 25 ft); Appears to reach approximately 2 m below original ground.
GH12-V	EBA 2012	2012-04-04	Sonic	6,870,153	541,049	1146.0	53.35	TP3 Crest (Southwest)					X							3 SPTs throughout borehole.
GH12-W	EBA 2012	2012-04-05	Sonic	6,870,156	540,972	1147.9														
GH12-X	EBA 2012	2012-04-06	Sonic	6,870,171	540,954	1149.7	25.91	TP3 West Embankment					X							2 SPTs throughout borehole.
GH12-Y	EBA 2012	2012-04-07	Sonic	6,869,985	540,968	1145.7														
GH12-Z	EBA 2012	2012-04-08	Sonic	6,869,885	540,971	1146.6														
GH12-01	KP 2012	2012-02-17	Sonic	6,870,541	540,736	1145.4	35.06	EP1					X							14 SPTs throughout borehole.
GH12-02	KP 2012	2012-02-19	Sonic	6,870,548	540,797	1139.3	45.73	EP1					X			X				SCPT pushed from 6.1 m to 7.6 m (20 to 25 ft) 12.2 m to 12.5 m (40 to 41 ft); 18.3 m to 23.7 m (60 to 77.6 ft); Appears original ground starts at 10 m depth.
GH12-03	KP 2012	2012-02-23	Sonic	6,870,596	540,760	1139.3	35.06	EP1	X				X			X				SCPT pushed from 4.9 m to 24.4 m (16 to 80 ft); Appears to reach approximately 21 m below original ground.
GH12-04	KP 2012	2012-02-25	Sonic	6,870,600	540,827	1139.3	38.11	EP1	X				X			X				SCPT pushed from 11.3 m to 22.6 m (37 to 74 ft); Appears original ground starts at 7 m depth (Section J-J).
GH12-05	KP 2012	2012-02-28	Sonic	6,870,642	540,779	1117.1	44.21	EP1	X				X			X				SCPT pushed from 3.0 m to 9.5 m (10 to 31 ft); 10.7 m to 10.8 m (35 to 35.5 ft); 19.8 m to 23.6 m (65 to 77.5 ft); Appears to reach below original ground.
GH12-06	KP 2012	2012-03-01	Sonic	6,870,687	540,744	1108.8	30.49	EP1	X				X			X				SCPT pushed from 9.1 m to 28.7 m (30 to 94 ft); Appears to reach below original ground.
V15101062.200 BH01	EBA 2012	2012-08-18	Sonic	6,868,253	543,562	1102.0	38.10	TSF6					X			X				3 SPTs
V15101062.200 BH02	EBA 2012	2012-09-13	Sonic	6,867,878	453,768	1095.2	35.10	TSF6					X							3 SPTs
V15101062.200 BH04	EBA 2012	2012-08-15	Sonic	6,868,073	543,581	1097.6	38.10	TSF6					X							
V15101062.200 BH06	EBA 2012	2012-09-16	Sonic	6,868,213	543,455	1098.9	44.20	TSF6					X							
V15101062.200 BH07	EBA 2012	2012-09-04	Sonic	6,867,757	543,954	1111.0	51.80	TSF6					X							
V15101062.200 BH08	EBA 2012	2012-09-17	Sonic	6,868,366	543,435	1104.5	29.70	TSF6					X							
V15101062.200 BH10	EBA 2012	2012-09-15	Sonic	6,868,038	543,494	1097.8	35.50	TSF6					X							
V15101062.200 BH11	EBA 2012	2012-09-08	Sonic	6,867,806	543,728	1094.0	27.40	TSF6					X			X				
V15101062.200 BH13	EBA 2012	2012-09-17	Sonic	6,868,016	543,593	1097.3	29.00	TSF6	X				X							
V15101062.200 MW01	EBA 2012	2012-09-06	Sonic	6,867,628	544,033	1095.7	35.10	TSF6	X				X			X				2 wells installed: 1.2-4.3m; 18.3-21.3 m
V15101062.200 MW02	EBA 2012	2012-09-09	Sonic	6,867,739	543,861	1093.5	19.80	TSF6	X				X							2 wells installed: 1.2-4.3m; 12.4-15.5m
V15101062.200 MW03	EBA 2012	2012-09-10	Sonic	6,867,900	543,593	1096.2	32.00	TSF6	X				X							2 wells installed: 1.2 - 4.36 m; 15.2-18.3 m
V15101062.200 MW04	EBA 2012	2012-08-16	Sonic	6,868,291	543,349	1099.5	15.20	TSF6	X											2 wells installed: 3.1-6.1m; 10.6-137m
V15101062.200 MW05	EBA 2012	2012-09-11	Sonic	6,868,425	543,293	1100.5	53.30	TSF6	X				X			X				1 well 28.9-32.0m
V15101062.200 MW06	EBA 2012	2012-09-06	Sonic	6,867,720	544,007	1110.4	29.00	TSF6	X											2 wells installed: 15.5-18.5 m; 22.5-25.5m
V15101062.200 MW07	EBA 2012	2012-08-21	Sonic	6,868,048	543,765	1109.3	38.10	TSF6	X				X							2 wells installed: 8.2-11.3 m; 17.7-20.7m
V15101062.200 MW08	EBA 2012	2012-08-19	Sonic	6,868,442	543,555	1115.9	33.50	TSF6	X				X							2 wells installed: 18.3-21.3 m; 25.9-29m
V15101062.200 MW09	EBA 2012	2012-09-01	Sonic	6,868,150	543,414	1098.7	35.10	TSF6	X				X			X				2 wells installed: 1.5-4.6m; 10.1-13.1 m
V15101062.200 TP05	EBA 2012	2012-09-18	Excavator	6,868,191	543,706	1119.0	4.10	TSF6												
V15101062.200 TP06	EBA 2012	2012-09-07	Excavator	6,868,036	543,868	1130.2	4.90	TSF6												
V15101062.200 TP07	EBA 2012	2012-09-07	Excavator	6,868,150	543,651	1100.7	5.20	TSF6												
V15101062.200 TP08	EBA 2012	2012-09-18	Excavator	6,867,713	544,046	1103.2	2.50	TSF6												
GH13-01	EBA2013	2013-08-28	Sonic	6,870,788	540,523	1137.2	35.00	TSF7					X				X			
GH13-02	EBA2013	2013-08-29	Sonic	6,870,727	540,618	1134.8	31.10	TSF7					X				X			
GH13-03	EBA2013	2013-08-28	Sonic	6,870,747	540,480	1141.6	12.20	TSF7					X							
GH13-04	EBA2013	2013-08-28	Sonic	6,870,662	540,608	1135.3	12.20	TSF7					X							
GH13-05	EBA2013	2013-08-26	Sonic	6,870,525	540,525	1144.9	15.20	TSF7					X							
GH13-06	EBA2013	2013-08-29	Sonic	6,870,471	540,680	1145.1	13.70	TP4b	X				X				X			
GH13-08	EBA2013	2013-08-30	Sonic	6,870,233	540,839	1152.1	6.10	TP4b					X							
GH13-09	EBA2013	2013-08-31	Sonic	6,868,261	543,330	1098.6	33.50	TSF6	X				X				X			2 wells installed
GH13-10	EBA2013	2013-09-03	Sonic	6,867,931	543,839	1113.1	10.40	TSF6					X							
GH13-10B	EBA2013	2013-08-31	Sonic	6,867,927	543,844	1113.2	11.90	TSF6					X							
GH13-11	EBA2013	2013-08-31	Sonic	6,868,021	543,692	1097.0	42.60	TSF6	X				X				X			2 wells installed
MW13-01	EBA2013	2013-09-02	Sonic	6,870,370	540,646	1165.7	12.20	TP4b	X				X							2 wells installed; S4-27-18
MW13-02	EBA2013	2013-09-02	Sonic	6,870,738	540,269	1169.1	13.70	TSF7	X				X							2 wells installed
DH16-01	SRK 2016	2016-06-23	Becker	6,870,474	541,108	1108.5	26.52	TP3/TP4 Toe					X	X			X	X		All data reached to the end of hole.
DH16-02	SRK 2016	2016-06-16	Becker	6,870,389	541,192	1107.2	15.55	TP3 Toe		X			X	X			X	X		All data reached to the end of hole; Standpipe piezometer installed in open-ended borehole.
DH16-03	SRK 2016	2016-07-06	Becker	6,870,220	541,342	1109.9	24.08	TP3 Toe					X	X			X	X		All data reached to the end of hole.
DH16-04	SRK 2016	2016-06-21	Becker	6,870,182	541,261	1146.0	59.45	TP3 Crest					X	X			X	X		BPT hit refusal at approximately 35.37 m below ground surface (near original ground); All other data reached to the end of hole.
DH16-05	SRK 2016	2016-06-10	Becker	6,870,337	541,124	1145.0	52.43	TP3 Crest					X	X			X	X		All data reached to the end of hole.
DH16-06	SRK 2016	2016-06-15	Becker	6,870,524	541,038	1109.2	33.23	TP4 Toe					X	X			X	X		All data reached to the end of hole
DH16-07	SRK 2016	2016-06-13	Becker	6,870,613	540,893	1112.7	40.85	TP4 Toe					X	X			X	X		All data reached to the end of hole.
DH16-08	SRK 2016	2016-07-10	Becker	6,870,531	540,887	1143.0	51.51	TP4 Crest		X			X	X			X	X		BPT and DST hit refusal at 28.35 m below ground surface (near original ground); All other data (SPT and LPT) reached to the end of hole; Standpipe piezometer installed in open-ended borehole; No liquefaction assessment completed (SRK 2017)
DH16-09	SRK 2016	2016-07-08	Becker	6,869,875	541,107	1138.5	24.08	TP5 Toe					X	X			X	X		All data reached to the end of hole
DH16-10	SRK 2016	2016-07-13	Becker	6,871,126	540,330	1128.2	39.32	TP1 Crest					X	X			X	X		All data reached to the end of hole
DH16-11	SRK 2016	2016-07-11	Becker	6,871,156	540,367	1112.6	30.18	TP1 Toe					X	X			X	X		All data reached to the end of hole.

Table B: Compiled Borehole Details

Borehole ID	Geotechnical Investigation Program	Date	Drilling Method	Northing (m)	Easting (m)	Elevation (m)	Depth (m)	Location	Well	Standpipe	Piezometer	Inclinometer	SPT	LPT	DCPT	SCPT	DST	BPT	Falling Head	Comments
DH16-12	SRK 2016	2016-07-15	Becker	6,871,027	540,424	1124.7	41.76	TP2 Crest					X	X			X	X		DST hit refusal at approximately 23.0 m below ground surface (approximately 8 m below original ground); All other data reached to the end of hole.
SCPT16-01	SRK 2016	2016-07-17	SCPT	6,870,343	541,121	1145.4	31.70	TP3 Crest								X				Pushed from 0 m to 31.7 m; appears to hit refusal near original ground.
SCPT16-02	SRK 2016	2016-07-17	SCPT	6,870,281	541,170	1146.0	33.10	TP3 Crest								X				Pushed from 0 m to 33.1 m; appears to hit refusal near original ground.
SCPT16-03	SRK 2016	2016-07-18	SCPT	6,870,175	541,263	1146.3	34.50	TP3 Crest								X				Pushed from 0 m to 34.5 m; appears to hit refusal near original ground.
SCPT16-04	SRK 2016	2016-07-18	SCPT	6,869,924	541,080	1151.0	14.23	TP5 Crest								X				Pushed from 0 m to 14.2 m; appears to reach approximately 7 m below original ground (based on SRK's TP5 cross-section).
SCPT16-05	SRK 2016	2016-07-18	SCPT	6,871,026	540,422	1123.0	16.38	TP2 Crest								X				Pushed from 3.9 m to 16.4 m; appears to reach a few meters below original ground.
SCPT16-06	SRK 2016	2016-07-18	SCPT	6,871,132	540,332	1126.5	13.78	TP1 Crest								X				Pushed from 3.1 m to 13.8 m; appears to hit refusal near original ground.

Table C: Compiled Instrumentation Data

Instrumentation ID	Assocated Borehole	Instrumentation	Northing	Easting	Ground Elevation	Date Installed	Installed By	Top of Casing Elev (m)	Well Depth from Top of Casing (m)	Screen / Pizeometer Depth from TOC (m)	Notes
GW1	-	Standpipe	6,870,537	541,325		pre 1977	?				
GW2	-	Standpipe	6,870,480	541,089		pre 1977	?				
GW3	-	Standpipe	6,870,186	541,411		pre 1977	?				
GW4	-	Standpipe	6,870,113	541,404		pre 1977	?				
GW5	-	Standpipe	6,869,914	541,601		pre 1977	?				
GW6	-	Standpipe	6,869,776	541,748		pre 1977	?				
BH1(W)	BH1	Well	6,871,156	540,320		??	Golder				
BH2(W)	BH2	Well	6,871,077	540,401		1976-04-19	Golder				
BH3(W)	BH3	Well	6,870,983	540,422		1976-04-19	Golder				
BH4(W)	BH4	Well	6,870,090	541,299		1976-04-19	Golder				
BH5(W)	BH5	Well	6,870,307	541,198		1976-04-20	Golder				
BH6(W)	BH6	Well	6,870,409	541,101		1976-04-20	Golder				
BH7(W)	BH7	Well	6,870,432	541,114		1976-04-20	Golder				
BH8(W)	BH8	Well	6,869,245	542,548		1976-04-21	Golder				
BH9(W)	BH9	Well	6,869,463	542,359		1976-04-21	Golder				
BH10(W)	BH10	Well	6,869,647	542,227		1976-04-21	Golder				
BH11(W)	BH11	Well	6,869,835	542,020		1976-04-22	Golder				
BH12(W)	BH12	Well	6,870,173	541,922		1976-04-22	Golder				
BH13(W)	BH13	Well	6,870,134	542,022		1976-04-22	Golder				
BH13a(W)	BH13a	Well	6,870,141	542,013		1976-04-22	Golder				
BH14(W)	BH14	Well	6,870,101	541,365		1976-04-23	Golder				
BH15(W)	BH15	Well	6,869,972	541,490		1976-04-23	Golder				
BH16(W)	BH16	Well	6,869,845	541,616		1976-04-23	Golder				
BH17(W)	BH17	Well	6,869,716	541,743		1976-04-23	Golder				
BH18(W)	BH18	Well	6,869,640	541,623		1976-04-24	Golder				
BH19(W)	BH19	Well	6,870,512	540,832		1976-04-24	Golder				
BH20(W)	BH20	Well	6,870,519	540,929		1976-04-24	Golder				
BH20a(W)	BH20a	Well	6,870,511	540,936		1976-04-24	Golder				
BH21(W)	BH21	Well	6,870,436	541,055		1976-04-25	Golder				
BH22(W)	BH22	Well	6,870,396	541,004		1976-04-24	Golder				
BH23(W)	BH23	Well	6,871,168	540,327		1976-04-25	Golder				
BH31(W)	BH31	Well	6,871,363	540,019		1977-07-30	Golder				
BH32(W)	BH32	Well	6,869,920	541,304		1977-07-31	Golder				
BH33(W)	BH33	Well	6,869,690	541,324		1977-08-01	Golder				
BH34(W)	BH34	Well	6,869,771	541,166		1977-08-01	Golder				
BH35(W)	BH35	Well	-	-		1977-08-02	Golder				
BH36(W)	BH36	Well	6,869,987	541,018		1977-08-07	Golder				
BH37(W)	BH37	Well	6,869,974	541,230		1977-08-23	Golder				
BH38(W)	BH38	Well	6,870,139	541,304		1977-08-14	Golder				
BH39(W)	BH39	Well	6,870,428	541,070		1977-08-15	Golder				
BH40(W)	BH40	Well	6,870,299	541,001		1977-08-16	Golder				
BH41(W)	BH41	Well	6,870,620	540,738		1977-08-06	Golder				
4-27-6(1)	BH42 (MW7)	Well	6,870,507	540,909	1113.60	1977-08-16	Golder				Nestd Well. Ground elevation from NATC summary (1997-2000). Adjusted for mine site transformation
4-27-7(1)	BH43 (MW8)	Well	6,870,530	541,055	1106.30	1977-08-06	Golder	1107.68			BH43 - nested Well (0-1.3m; 8.9-10.4m; 16.5-18.1m); 4-27-7 nomenclature predates 1991;
4-27-8(1)	BH44 (MW9)	Well	6,870,458	541,150	1106.40	1977-08-25	Golder	1107.84			BH44 - nested well (0-7m; 7-14.6m; 22.3-26.8m). Ground elevation from NATC summary (1997-2000). Adjusted for mine site transformation
4-27-8(2)	BH44 (MW9)	Well	6,870,458	541,150	1106.40	1977-08-25	Golder	1107.84			
4-27-8(3)	BH44 (MW9)	Well	6,870,458	541,150	1106.40	1977-08-25	Golder	1107.84			
4-27-8(4)	BH44 (MW9)	Well	6,870,458	541,150	1106.40	1977-08-25	Golder	1107.84			

Table C: Compiled Instrumentation Data

Instrumentation ID	Assocated Borehole	Instrumentation	Northing	Easting	Ground Elevation	Date Installed	Installed By	Top of Casing Elev (m)	Well Depth from Top of Casing (m)	Screen / Pizeometer Depth from TOC (m)	Notes
BH45	BH45	Well	6,870,403	541,255	1106.30	1977-08-07	Golder				
BH46	BH46	Well	6,870,300	541,362	1106.10	1977-08-17	Golder				
BH47	BH47	Well	6,870,104	541,343	1112.50	1977-08-14	Golder				
BH48	BH48	Well	6,869,968	541,512	1110.40	1977-08-21	Golder				
BH49	BH49	Well				??	Golder				
BH50	BH50	Well	6,870,598	540,842	1115.40	1977-08-10	Golder				
BH51	BH51	Well	6,870,504	540,983	1113.80	1977-08-11	Golder				
BH52	BH52	Well	6,871,098	540,344	1124.90	1977-08-11	Golder				
4-27-9	BH53	Well	6,871,001	540,483	1110.41	1977-08-09	Golder	1109.60			Ground elevation from BH log conversion; TOC elevation from current survey
BH54	BH54	Well	6,870,415	541,134	1118.60	1977-08-12	Golder				
BH55	BH55	Well	6,870,606	541,151	1110.29	1977-08-09	Golder				
BH56	BH56	Well	??	??	??	??	Golder				
BH65	BH65	Well	??	??	??	??	Golder				
4-27-1(1)	MW1 (near BH53)	Well	6,871,031	540,469	1109.08	1982	Golder	1110.178			Nested well (0-9.1m; 18.3-21.3m; 33.6-36.6m); Original TOC elevation tied to mine grid (1111.47 m)
4-27-1(2)	MW1 (near BH53)	Well	6,871,031	540,469	1109.08	1982	Golder	1110.178			Nested well (0-9.1m; 18.3-21.3m; 33.6-36.6m); Original TOC elevation tied to mine grid (1111.47 m)
4-27-1(3)	MW1 (near BH53)	Well	6,871,031	540,469	1109.08	1982	Golder	1110.178			Nested well (0-9.1m; 18.3-21.3m; 33.6-36.6m); Original TOC elevation tied to mine grid (1111.47 m)
4-27-2(1)	MW2	Well	6,870,306	541,352	1105.98	1982-07-16	Golder	1107.19			Nested well (0-2.7m; 8.8-11.8m; 18-24m); Original TOC elevation tied to mine grid (1108.34 m)
4-27-2(2)	MW2	Well	6,870,306	541,352	1105.98	1982-07-16	Golder	1107.19			
4-27-2(3)	MW2	Well	6,870,306	541,352	1105.98	1982-07-16	Golder	1107.19			
4-27-2(4)	MW2	Well	6,870,306	541,352	1105.98	1982-07-16	Golder	1107.19			
4-27-2(5)	MW2	Well	6,870,306	541,352	1105.98	1982-07-16	Golder	1107.19			
4-27-2(6)	MW2	Well	6,870,306	541,352	1105.98	1982-07-16	Golder	1107.19			
4-27-3	MW3	Well	6,870,102	541,330	1113.34	1982-07-17	Golder	1114.23			Original TOC elvation from mine grid (1115.73 m)
4-27-4(1)	MW5	Well	6,870,401	541,253	1106.95	1982-07-17	Golder	1108.03			Nested well (0-2.9m; 12.1-15.1m; 24.3-27.3m); Origina TOC elevation from mine grid (1109.29)
4-27-4(2)	MW5	Well	6,870,401	541,253	1106.95	1982-07-17	Golder	1108.03			
4-27-4(3)	MW5	Well	6,870,401	541,253	1106.95	1982-07-17	Golder	1108.03			
4-27-4(4)	MW5	Well	6,870,401	541,253	1106.95	1982-07-17	Golder	1108.03			
4-27-4(5)	MW5	Well	6,870,401	541,253	1106.95	1982-07-17	Golder	1108.03			
4-27-4(6)	MW5	Well	6,870,401	541,253	1106.95	1982-07-17	Golder	1108.03			
4-27-4(7)	MW5	Well	6,870,401	541,253	1106.95	1982-07-17	Golder	1108.03			
4-27-4(8)	MW5	Well	6,870,401	541,253	1106.95	1982-07-17	Golder	1108.03			
4-27-5	MW6	Well	6,869,976	541,263	1117.19	1982	Golder	1118.08			Origina TOC elev from mine grid. TOC estimated from site transformation. MW4 abandoned after if collapsed and replaced with MW6??
S4-28-1	PW1	Well	6,870,392	541,225	1107.36	1982	Golder	1107.63			Groundwater Pumping Well (PW1); shed floor elevation; TOC elevation from historical records
S4-28-2	PW2	Well	6,870,465	541,123	1107.30	1982	Golder				Groundwater Pumping Well (PW2); shed floor elevation
BH101	BH101	Standpipe	6,870,161	541,041	1144.10	1982-07-20	Golder	1145.4			Oriignal TOC from mine gride (1146.69)
BH102	BH102	Standpipe	6,870,045	541,016	1125.76	1982-07-21	Golder	1126.62			Oriignal TOC from mine gride (1128.12)
4-27-12	TP3-07-MW01	Well	6,870,092	541,357	1113.53	2007-04-12		1114.840			Two pipes in 4-27-12: The second TOP Elevation is 1114.854 m asl
4-27-12a	S-09-04	Well	6,870,086	541,356	1113.79	2009-07-07		1114.978			Found in EBA 2009 groundwater pumping contingency plan
4-27-13a	TP3-07-MW02	Well	6,869,967	541,327	1118.32	2007-04-12		1119.929			Found in EBA 2009 groundwater pumping contingency plan
4-27-13b	TP3-07-MW02a	Well	6,869,968	541,327	1118.32	2007-04-12		1119.707			
TP3-07-MW01A	TP3-07-MW01A	Well	6,870,091	541,358	1113.41	2007-04-12					
TP3-07-MW03	TP3-07-MW03	Well	6,870,191	541,375	1110.27	2007-04-12					
4-27-10	TP4-07-MW01	Well	6,870,581	540,992	1109.13	2007-04-12		1110.214			Ground shot 0.6 m O/S
4-27-11	TP5-07-MW01	Well	6,869,956	541,216	1124.27	2007-04-12		1125.69			Found in EBA 2009 groundwater pumping contingency plan

Table C: Compiled Instrumentation Data

Instrumentation ID	Assocated Borehole	Instrumentation	Northing	Easting	Ground Elevation	Date Installed	Installed By	Top of Casing Elev (m)	Well Depth from Top of Casing (m)	Screen / Pizeometer Depth from TOC (m)	Notes
SI-01A	SI-01A	Well	6,870,572	540,845	1,130.8	2007-12-06					
SI-01	SI-01	VWP	6,870,598	540,842	1,116.2	2007-12-11	EBA				
SI-02	SI-02	VWP	6,870,571	540,882	1,131.1	2007-12-09	EBA				
SI-03	SI-03	VWP	6,870,555	540,911	1,131.5	2007-11-23	EBA				
SI-04	SI-04	VWP	6,870,530	540,950	1,131.4	2007-11-20	EBA				
SI-05	SI-05	VWP	6,870,508	540,979	1,131.5	2007-11-17	EBA				
SI-06	SI-06	VWP	6,870,484	541,010	1,131.4	2007-11-14	EBA				
BH 85-3 (EMW1)	BH85	Well	6,871,006	540,079	1161.97	pre 2008	EBA	1162.96	5.04		Down-gradient from fuel storage tanks; EBA 2008 digitised from paper map
BH 85-4 (EMW2)	BH85	Well	6,871,022	540,071	1160.41	pre 2008	EBA	1161.18	8.95		Down-gradient from fuel storage tanks; EBA 2008 digitised from paper map
BRMW1	-	Well				2008	EBA				ref: 1740117.005
OLBMW1	-	Well	6,870,638	541,049	1106.63			1106.63	1.56		Standpipe broken off at ground level. Is possible to sample. No cap. No protective casing.
OLMW1	-	Well	6,870,610	541,074	1107.90			1109.36	4.64		
OLMW2	-	Well	6,870,576	541,080	1106.64			1107.48	3.12		
NLBMW1	-	Well	?	?	?						EBA 2008 report shows general position
NLMW1	-	Well	6,868,729	543,091	1102.65			1104.35	6.10		
NLMW2	-	Well	?	?	?						EBA 2008 report shows general position
NLMW3	-	Well	6,868,732	543,119	1102.45			1104.07	6.17		
12-MW05	-	Well	6,868,425	543,293	1100.57	2008-08-01	EBA	1101.57	32.74		Source: EBA 2008 ESA, install date estimated
RMW 1	-	Well	6,871,021	540,471	1109.78	2008-08-01	EBA	1110.65	4.61		Source: EBA 2008 ESA, install date estimated
RMW 2	-	Well	6,871,063	540,462	1108.99	2008-08-01	EBA	1110.99	4.64		Source: EBA 2008 ESA, install date estimated
RMW 3		Well	6,871,094	540,420	1110.38	2008-08-01	EBA	1111.33	3.24		Source: EBA 2008 ESA, install date estimated
RMW 4		Well	6,871,143	540,394	1110.64	2008-08-01	EBA	1111.58	4.65		Source: EBA 2008 ESA, install date estimated
RMW 5		Well	6,871,173	540,357	1111.81	2008-08-01	EBA	1113.49	4.65		Source: EBA 2008 ESA, install date estimated
RMW 6		Well	6,870,949	540,528	1109.63	2008-08-01	EBA	1109.63	-		Source: EBA 2008 ESA, install date estimated
RMW 7		Well	6,871,075	540,437	1110.70	2008-08-01	EBA	1111.43	4.64		Source: EBA 2008 ESA, install date estimated
RMW 8		Well	6,871,160	540,374	1110.66	2008-08-01	EBA	1111.53	2.36		Source: EBA 2008 ESA, install date estimated
RMW 9		Well	6,871,188	540,337	1111.97	2008-08-01	EBA	1113.50	4.64		Source: EBA 2008 ESA, install date estimated
RMW 10		Well	6,871,263	540,245	1113.70	2008-08-01	EBA	1114.71	4.10		Source: EBA 2008 ESA, install date estimated
RMW 11		Well	6,871,282	540,223	1113.11	2008-08-01	EBA	1114.38	3.06		Source: EBA 2008 ESA, install date estimated
RMW 12		Well	6,871,294	540,208	1113.49	2008-08-01	EBA	1115.44	6.16		Source: EBA 2008 ESA, install date estimated
RMW 13		Well	6,871,319	540,163	1113.75	2008-08-01	EBA	1115.02	4.63		Source: EBA 2008 ESA, install date estimated
RMW 14		Well	6,871,331	540,134	1113.60	2008-08-01	EBA	1115.05	4.63		Source: EBA 2008 ESA, install date estimated
TP 16 D-1		Well	6,871,215	540,276	1116.57	?		1117.67	4.64		source: 17401117.005; may by TP16-D
TP 16 D-2		Well	6,871,215	540,275	1116.57	?		1118.04	7.66		source: 17401117.005; may be TP16-DS
4-27-14	S-09-07	Well	6,869,943	541,257	1123.26	2009-08-20		1124.672			
4-27-14a	S-09-05	Well	6,869,936	541,344	1118.12	2009-07-08		1119.420			
4-27-15	S-09-08	Well	6,869,880	541,601	1109.53	2009-08-20		1110.749			
4-27-16	S-09-02	Well	6,871,065	540,503	1110.16	2009-07-05		1111.47	5.97		
4-27-17	S-09-03	Well	6,871,380	539,969	1116.68	2009-07-06		1118.07	12.27		
S-09-01	S-09-01	Well	6,869,797	541,804	1111.96	2009-08-01					
S-09-06	S-09-06	Well	6,870,577	540,541	1131.36	2009-08-01					
VW7591	DH10-01	Piezometer	6,870,520	540,783	1134.15	2010-10-01					
VW7590	DH10-02	Piezometer	6,870,423	541,009	1135.06	2010-10-03					
VW7598	DH10-04	Piezometer	6,870,565	540,980	1109.15	2010-10-04					
DH10-04(w)	DH10-04	Well	6,870,565	540,980	1109.15	2010-10-06	KP	1109.92	21.04		
DH10-05(w)	DH10-05	Well	6,870,608	540,902	1112.20	2010-10-05	KP	1112.86	24.13		
TC11-1		Well	6,871,078	540,301	1,128.9	2011-08-08	EBA	1129.70	20.85	15.85	
TC11-2		Well	6,871,016	540,310	1,125.7	2011-08-08	EBA	1126.49	17.82	15.52	
TC11-3		Well	6,871,057	540,415	1,125.1	2011-08-09	EBA	1125.92	17.63	16.03	
TC11-5		Well	6,871,065	540,277	1,129.2	2011-08-10	EBA	1129.98	17.62	16.02	
TC11-7		Well	6,871,176	540,323	1,124.5	2011-08-10	EBA	1,125.3	17.62	16.32	
TC11-8		Well	6,870,981	540,338	1,128.3	2011-08-11	EBA	1,129.2	21.24	21.04	

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Instrumentation ID	Assocated Borehole	Instrumentation	Northing	Easting	Ground Elevation	Date Installed	Installed By	Top of Casing Elev (m)	Well Depth from Top of Casing (m)	Screen / Pizeometer Depth from TOC (m)	Notes
TC11-9		Well	6,871,032	540,394	1,124.7	2011-08-12	EBA	1,125.3	21.91	21.31	
TC11-10		Well	6,871,107	540,312	1,134.6	2011-08-13	EBA	1,135.5	23.86	22.36	
TC11-11		Well	6,871,071	540,405	1,124.9	2011-08-13	EBA	1,125.8	20.74	20.74	
GH11-01	GH11-01	Well	6,870,277	541,177	1147.00	2011-07-02					
GH-11-05	GH-11-05	Well	6,870,595	540,940	1111.72	2011-07-17		1112.58	33.08		
GH-11-07	GH-11-07	Well	6,870,609	540,885	1113.29	2011-07-19		1113.87	49.12		
GH11-10	GH11-10	Well	6,870,382	541,074	1147.00	2011-07-26		1147.80	52.10		
GH11-11	GH11-11	Well	6,870,165	541,269	1145.40	2011-07-27					
GH11-12	GH11-12	Well	6,870,053	541,252	1145.70	2011-07-30	KP	1146.51			
GH12-A(S)	GH12-A	Inclinometer	6,870,536	540,742	1131.41	2012-02-18	EBA				
SI-13	GH12-B	Inclinometer	6,870,557	540,779	1129.58	2012-02-23	EBA	1130.45			
GH12-C(W)	GH12-C	Standpipe	6,870,588	540,708	1132.32	2012-03-21	EBA	1132.32			Surfave elev wiritten as 3720 ft
GH12-C(I)	GH12-C	Inclinometer	6,870,557	540,779	1129.58	2012-03-21	EBA				GW monitoring sheet notes inclinometer installed here
GH12-D(S)	GH-12D	Inclinometer	6,870,653	540,687	1133.84	2012-03-23	EBA	1134.74			Surfave elev wiritten as 3725 ft
GH12-E(W)	GH12-E	Standpipe	6,870,596	540,743	1122.90	2012-02-25	EBA	1123.47	23.27		
GH12-F(W)	GH12-F	Standpipe	6,870,601	540,829	1116.80	2012-02-27	EBA	1117.69	19.24		
GH12-G	GH12-G	Standpipe	6,870,643	540,779	1117.10	2012-03-01	EBA	1117.99	29.57		Standpipe Elev. From ESA. Ground Elevaiton from BH investigation
GH12-H	GH12-H	Standpipe	6,870,681	540,748	1114.60	2012-03-03	EBA	1115.34	14.20		
GH12-I(W)	GH12-I	Well	6,870,718	540,697	1114.34	2012-03-19	EBA	1114.34	22.97		Standpipe Elev. From ESA. Ground Elevaiton from BH investigation
GH12-J(W)	GH12-J	Well	6,870,720	540,775	1113.42	2012-09-18	EBA	1114.40	11.48		Standpipe Elev. From ESA. Ground Elevaiton from BH investigation
GH12-L(W)	GH12-L	Well	6,869,892	541,065	1141.77	2012-03-29	EBA	1141.77			
VW20924	GH12-L	Piezometer	6,869,892	541,065	1141.77	2012-03-29	EBA				
GH12-M(W)	GH12-M	Well	6,869,913	541,100	1141.46	2012-03-26	EBA	1141.77			TOC elevaiton suspect - same as GH12-L
VW20925	GH12-M	Piezometer	6,869,913	541,100	1141.46	2012-03-26	EBA				
GH12-NA(W)	GH12-NA	Well	6,869,948	541,122	1141.77	2012-03-15	EBA				
VW20926	GH12-NA	Piezometer	6,869,948	541,122	1141.77	2012-03-15	EBA				
GH12-O(W)	GH12-O	Well	6,869,908	541,140	1135.67	2012-04-10	EBA	1135.67			
	GH12-O	Piezometer	6,869,908	541,140	1135.67	2012-04-10					
GH12-P(W)	GH12-P	Well	6,869,940	541,162	1136.59	2012-03-17		1133.54			
	GH12-P	Piezometer	6,869,940	541,162	1136.59	2012-03-17					VWP Piezometer damaged during installaiton
GH12-Q(W)	GH12-Q	Well	6,860,907	541,264	1146.00	2012-03-07		1146.04			Destroyed during 2014 TP5 dam raise
VW20929	GH12-Q	Piezometer	6,860,907	541,264	1146.00	2012-03-07					
GH12-R(W)	GH12-R	Well	6,860,907	541,271	1145.70	2012-03-31		1145.73	55.30		
VW20930	GH12-R	Piezometer	6,860,907	541,271	1145.70	2012-03-31					
GH12-S(W)	GH12-S	Well	6,870,065	541,109	1146.04	2012-04-02		1146.04			Destroyed during 2014 TP5 dam raise
VW20931	GH12-S	Piezometer	6,870,065	541,109	1146.04	2012-04-02					
GH12-T(W)	GH12-T	Well	6,870,112	541,092	1146.65	2012-03-09		1146.65	36.98		Standpipe Elev. From ESA. Ground Elevaiton from BH investigation
VW20932	GH12-T	Piezometer	6,870,112	541,092	1146.65	2012-03-09					
VW20933	GH12-U	Piezometer	6,870,118	541,051	1146.04	2012-03-12					
GH12-V(W)	GH12-V	Well	6,870,153	541,049	1146.00	2012-04-04		1146.04	34.13		Standpipe Elev. From ESA. Ground Elevaiton from BH investigation
VW20934	GH12-V	Piezometer	6,870,153	541,049	1146.00	2012-04-04					
GH12-W(W)	GH12-W	Well	6,870,156	540,972	1147.86	2012-04-05		1147.86			
VW20935	GH12-W	Piezometer	6,870,156	540,972	1147.86	2012-04-05					
GH12-X(W)	GH12-X	Well	6,870,171	540,954	1149.69	2012-04-06		1149.69			
VW20936	GH12-X	Piezometer	6,870,171	540,954	1149.69	2012-04-06					
GH12-Y(W)	GH12-Y	Well	6,869,985	540,968	1145.73	2012-04-07					
GH12-Z(W)	GH12-Z	Well	6,869,885	540,971	1146.65	2012-04-08		1147.86			
GH12-MW01A	GH12-MW01	Well	6,867,628	544,033	1095.70	2012-09-06		1096.58	35.98	22.18	
GH12-MW01B	GH12-MW01	Piezometer	6,867,628	544,033	1095.70	2012-09-06		1096.58	35.98	5.18	
GH12-MW02A	GH12-MW02	Well	6,867,739	543,861	1093.50	2012-09-09		1094.41	20.71	5.21	
GH12-MW02B	GH12-MW02	Piezometer	6,867,739	543,861	1093.50	2012-09-09		1094.41	20.71	16.45	
GH12-MW03A	GH12-MW03	Well	6,867,900	543,593	1096.20	2012-09-10		1097.08	32.88	5.18	
GH12-MW03B	GH12-MW03	Piezometer	6,867,900	543,593	1096.20	2012-09-10		1097.08	32.88	19.18	
GH12-MW04A	GH12-MW04	Well	6,868,291	543,349	1099.50	2012-08-16		1100.26	15.96	6.86	

Table C: Compiled Instrumentation Data

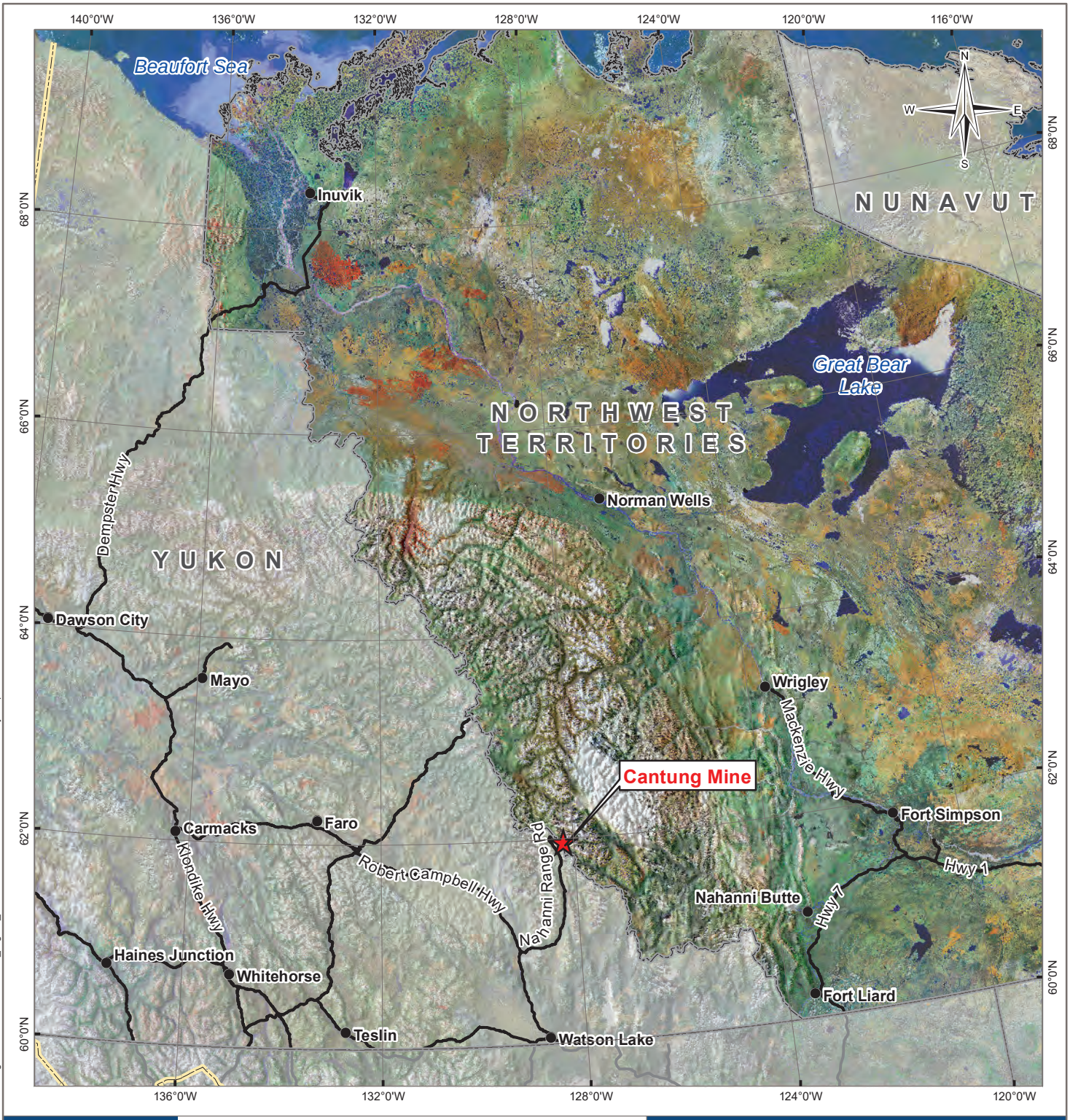
Instrumentation ID	Assocated Borehole	Instrumentation	Northing	Easting	Ground Elevation	Date Installed	Installed By	Top of Casing Elev (m)	Well Depth from Top of Casing (m)	Screen / Pizeometer Depth from TOC (m)	Notes
GH12-MW04B	GH12-MW04	Piezometer	6,868,291	543,349	1099.50	2012-08-16		1100.26	15.96	14.46	
GH12-MW05	GH12-MW05	Piezometer	6,868,425	543,293	1100.50	2012-09-11		1101.54	16.24	32.98	
GH12-MW06A	GH12-MW06A	Piezometer	6,867,720	544,007	1110.40	2012-09-06		1111.34	29.94	19.44	
GH12-MW06B	GH12-MW06B	Well	6,867,720	544,007	1110.40	2012-09-06		1111.34	29.94	26.44	
GH12-MW07A	GH12-MW07A	Well	6,868,048	543,765	1109.30	2012-08-21		1110.18	38.88	12.18	
GH12-MW07B	GH12-MW07B	Piezometer	6,868,048	543,765	1109.30	2012-08-21		1110.18	38.88	21.58	
GH12-MW08A	GH12-MW08A	Well	6,868,442	543,555	1115.90	2012-08-19		1116.84	34.44	22.24	
GH12-MW08B	GH12-MW08B	Piezometer	6,868,442	543,555	1115.90	2012-08-19		1116.84	34.44	29.94	
GH12-MW09A	GH12-MW09A	Well	6,868,150	543,414	1098.70	2012-09-01		1099.58	35.98	5.48	
GH12-MW09B	GH12-MW09B	Piezometer	6,868,150	543,414	1098.70	2012-09-01		1099.58	35.98	13.98	
4-27-18	MW13-01	Well	6,870,370	540,646	1165.70	2012-09-04			12.20*	12.20*	*From ground surface; Cannot find stickup value
4-27-19	GH13-01	Well	6,870,789	540,523	1137.20	2013-08-28		1138.385	35.00	33.80	
MW-13-02	MW-13-02	Well	6,870,738	540,269	1169.42	2013-09-02		1170.14	9.72	11.30	Unclear where TOC elev and stickup value came from
GH13-02	GH13-02	Well	6,870,727	540,618	1134.80	2013-08-29		1135.67	31.97	9.97	Unclear where TOC elev and stickup value came from
GH13-06(w)	GH13-06	Well	6,870,471	540,680	1145.10	2013-08-29	EBA 2013 (15)	1146.00	14.70	7.20	Unclear where TOC elev and stickup value came from
GH13-09A	GH13-09	Well	6,868,261	543,330	1098.60	2013-08-31			33.5*	27.1*	*From ground surface; Cannot find stickup value
GH13-09B	GH13-09	Well	6,868,261	543,330	1098.60	2013-08-31			33.5*	18.3*	*From ground surface; Cannot find stickup value
GH13-10	GH13-10	Well	6,867,931	543,839	1113.10	2013-09-03			10.4*		
GH13-11	GH13-11	Well	6,868,021	543,691	1097.00	2013-08-31		1097.93	14.71		
4-27-21	??		6,868,150	543,414	1098.77			1099.620			likely installed 2013 in TSF6
17BMW-01			6,870,736	540,271	1169.58	2017-09		1170.39	14.98		
17A1MW1			6,871,065	540,332	1127.43	2017-09		1128.12	23.18		
17A2MW3			6,870,597	541,163	1110.74	2017-09		1111.59	8.27		
17A2MW4			6,870,554	541,213	1108.33	2017-09		1109.21	6.63		
17A3MW1			6,868,766	543,029	1109.16	2017-09		1109.93	14.50		
17A4MW2			6,870,620	540,917	1112.02	2017-09		1112.83	9.65		
17A13MW1			6,871,111	539,905	1172.40	2017-09		1173.30	8.50		
17A13MW2			6,871,100	539,988	1164.93	2017-09		1165.84	14.51		
17A14MW1			6,871,037	540,216	1142.16	2017-09		1142.90	23.37		
17A16MW2			6,871,132	540,130	1144.84	2017-09		1145.56	20.59		
17A17MW2			6,871,042	539,890	1190.63	2017-09		1191.39	8.16		
17A23MW4			6,870,972	540,097	1162.86	2017-09		1163.68	9.82		
17A23MW5			6,870,994	540,131	1154.86	2017-09		1155.60	11.35		
17A32MW1			6,870,974	540,258	1139.94	2017-09		1139.78	12.63		
17A33MW1			6,871,030	540,033	1164.40	2017-09		1165.22	9.52		
17A33MW2			6,871,047	540,092	1153.31	2017-09		1154.04	11.14		

Table D: Historical Slope Stability Analyses - Summary of Material Properties

Materials	Knight Piesold (2012)				EBA (2012)				SRK (2017)				Tetra Tech (2020)			
	Unit Weight, γ (kN/m^3)	Effective Friction Angle, ϕ (°)	Effective Cohesion, c' (kPa)	S_{ur} / σ'_{vo}	Unit Weight, γ (kN/m^3)	Effective Friction Angle, ϕ (°)	Effective Cohesion, c' (kPa)	S_{ur} / σ'_{vo}	Unit Weight, γ (kN/m^3)	Effective Friction Angle, ϕ (°)	Effective Cohesion, c' (kPa)	S_{ur} / σ'_{vo}	Unit Weight, γ (kN/m^3)	Effective Friction Angle, ϕ (°)	Effective Cohesion, c' (kPa)	S_{ur} / σ'_{vo}
Alluvial Gravel Layers	-	-	-	-	-	-	-	-	18.5	38	0	-	-	-	-	-
Bedrock	Impenetrable Bedrock				Impenetrable Bedrock				Impenetrable Bedrock				Impenetrable Bedrock			
Colluvium	-	-	-	-	-	-	-	-	-	-	-	-	18.0	34	0	-
Colluvium (Liquefiable)	-	-	-	-	-	-	-	-	-	-	-	-	18.0	-	-	0.11
Dam Fill (Waste Rock)	22.0	40	0	-	22.0	40	0	-	20.0	39	0	-	20.0	39	0	-
Fluvial	-	-	-	-	-	-	-	-	-	-	-	-	18.0	34	0	-
Fluvial (Liquefiable)	-	-	-	-	-	-	-	-	-	-	-	-	18.0	-	-	0.06 - 0.11
Glacial Till	-	-	-	-	-	-	-	-	19.0	38	0	-	19.0	34	0	-
Glacial Till (Liquefiable)	-	-	-	-	-	-	-	-	-	-	-	-	19.0	-	-	0.09 - 0.11
Glaciofluvial	-	-	-	-	-	-	-	-	19.0	38	0	-	19.0	34	0	-
Glaciofluvial (Liquefiable)	-	-	-	-	-	-	-	-	19.0	-	-	0.07	19.0	-	-	0.06 - 0.11
Gravel, Shallow Layer (Liquefiable)	-	-	-	-	-	-	-	-	19.0	-	-	0.16	-	-	-	-
Original Embankment Material	20.6	34	0	-	20.6	34	0	-	-	-	-	-	-	-	-	-
Original Embankment Material with Industrial Waste	20.6	33	0	-	20.6	33	0	-	-	-	-	-	-	-	-	-
Sand and Gravel, Upper Layer	19.8	34	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Sand and Gravel, Upper Layer (Liquefiable)	19.0	30	0	0.08	-	-	-	-	19.0	-	-	0.10	-	-	-	-
Sand and Gravel, Lower Layer	21.2	37	0	-	20.6	37	0	-	-	-	-	-	-	-	-	-
Sand and Gravel, Lower Layer (Liquefiable)	19.0	33	0	0.09	19.8	33	0	0.07	-	-	-	-	-	-	-	-
Tailings	20.4	22	0	-	19.8	22	0	-	21.0	33	0	-	19.0	33	0	-
Tailings (Liquefiable)	19.8	-	-	0.09	19.8	-	-	0.08	-	-	-	-	-	-	-	-
300 mm Material	21.7	36	0	-	21.7	36	0	-	-	-	-	-	-	-	-	-
75 mm Filter Material	21.2	34	0	-	21.2	34	0	-	-	-	-	-	-	-	-	-

Notes:
1. S_{ur} / σ'_{vo} - Residual undrained shear strength ratio.
2. Knight Piesold (2012) and EBA (2012) used Idriss and Boulanger's (2008) method to estimate post-seismic strengths.
3. SRK (2017) used Olson and Stark (2002) method to estimate post-seismic strengths.
4. Liquefiable Materials:
   - Effective friction angles were used during static and pseudo-static analyses.
   - Residual undrained shear strength ratios were used during post-seismic analyses.

FIGURES



LEGEND

- Site Location
- Populated Place
- Major Road
- Provincial / Territorial Boundary
- International Border

NOTES
Base data source:
ESRI Data & Maps; Geomatics Yukon.

STATUS
ISSUED FOR USE

Geotechnical Assessment of Tailing Facilities, Cantung Mine, NT

Location of Cantung Mine

PROJECTION	DATUM	CLIENT
Yukon Albers	NAD83	NORTH AMERICAN TUNGSTEN CORPORATION LTD

Scale: 1:6,000,000
100 50 0 100
Kilometres

TETRA TECH

FILE NO.
WENW03039-03_Fig2-1_SiteLocation.mxd

OFFICE	DWN	CKD	APVD	REV
Tt-VANC	SL	BB	RG	0

DATE	PROJECT NO.
March 10, 2021	ENW.WENW03039-05

Figure 2-1

Q:\Vancouver\GIS\ENVIRONMENTAL\WENW\WENW03039-03\Maps\Geotech\Aug2020\WENW03039-03_Fig2-1_SiteLocation.mxd modified 2020-08-07 by stephanie.leusink

LEGEND

- Building
- Road
- Runway
- Bridge
- Watercourse

NOTES
Base data source:
Data provided by INAC (2013).
Drone imagery at the borrow pit, tailings ponds, and interceptor ditch collected in 2018.

STATUS
ISSUED FOR USE

Geotechnical Assessment of Tailing Facilities, Cantung Mine, NT

General Site Plan

PROJECTION	DATUM	CLIENT
UTM Zone 9	NAD83	NORTH AMERICAN TUNGSTEN CORPORATION LTD

Scale: 1:15,000
200 100 0 200
Metres

TETRA TECH

FILE NO.
WENW03039-03_Fig2-2_SitePlan.mxd

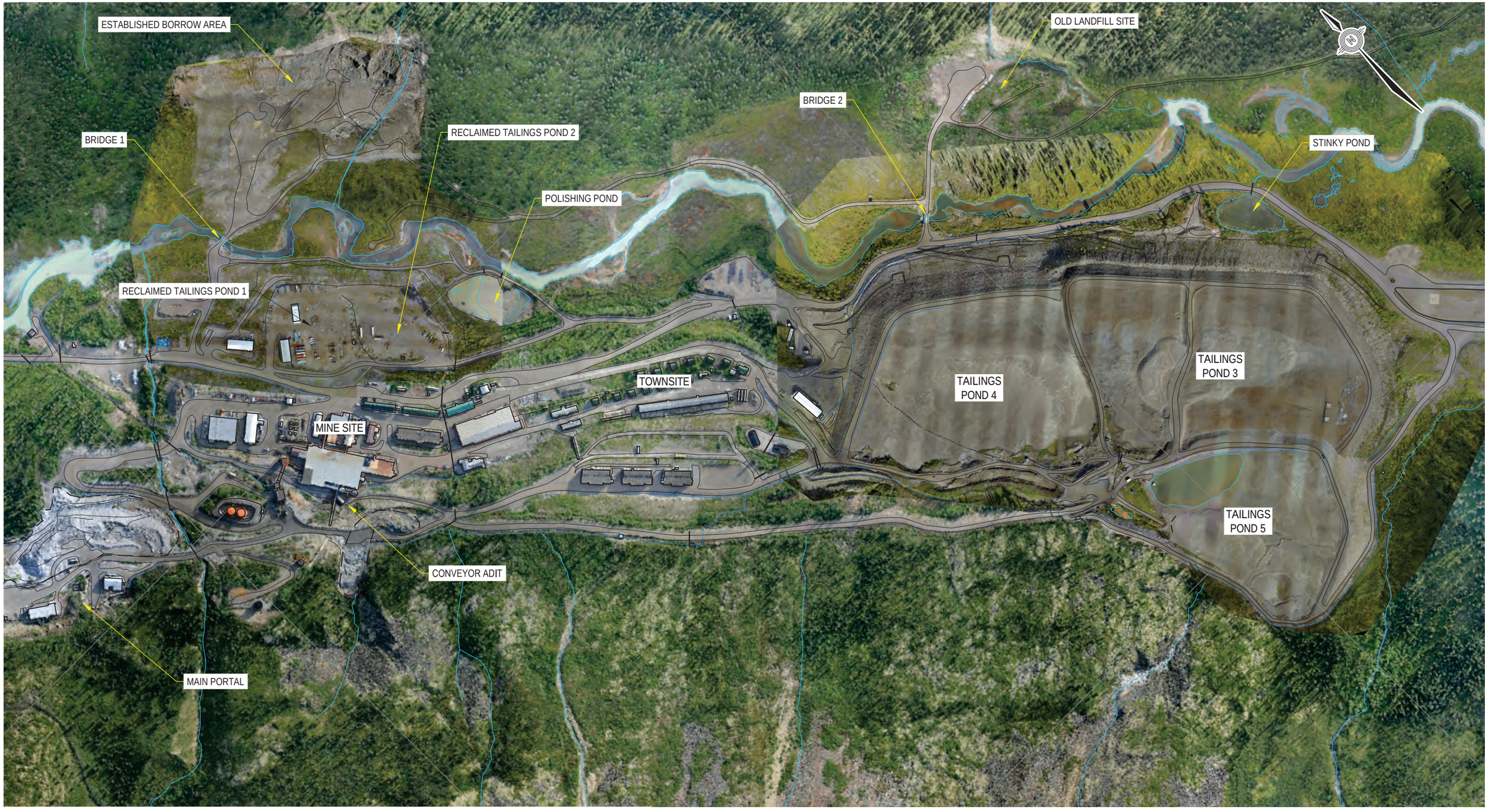
OFFICE	DWN	CKD	APVD	REV
Tt-VANC	SL	BB	RG	0

DATE
March 10, 2021

PROJECT NO.
ENW.WENW03039-05

Figure 2-2

Q:\Vancouver\GIS\ENVIRONMENTAL\WENW\WENW03039-03\Maps\GeotechAug2020\WENW03039-03_Fig2-2_SitePlan.mxd modified 2020-08-07 by stephanie.leusink



0 250m

Scale: 1:5,000 @ 11"x17"

NOTES:
1. HORIZONTAL DATUM/PROJECTION: UTM ZONE 9N, NAD83 (CSRS) (2010) - METERS
2. COMPOSTE 2013 and 2018 IMAGERY

STATUS
ISSUED FOR USE

CLIENT
NORTH AMERICAN TUNGSTEN CORPORATION LTD

TETRA TECH

GEOTECHNICAL ASSESSMENT OF TAILINGS FACILITES CANTUNG MINE, NT

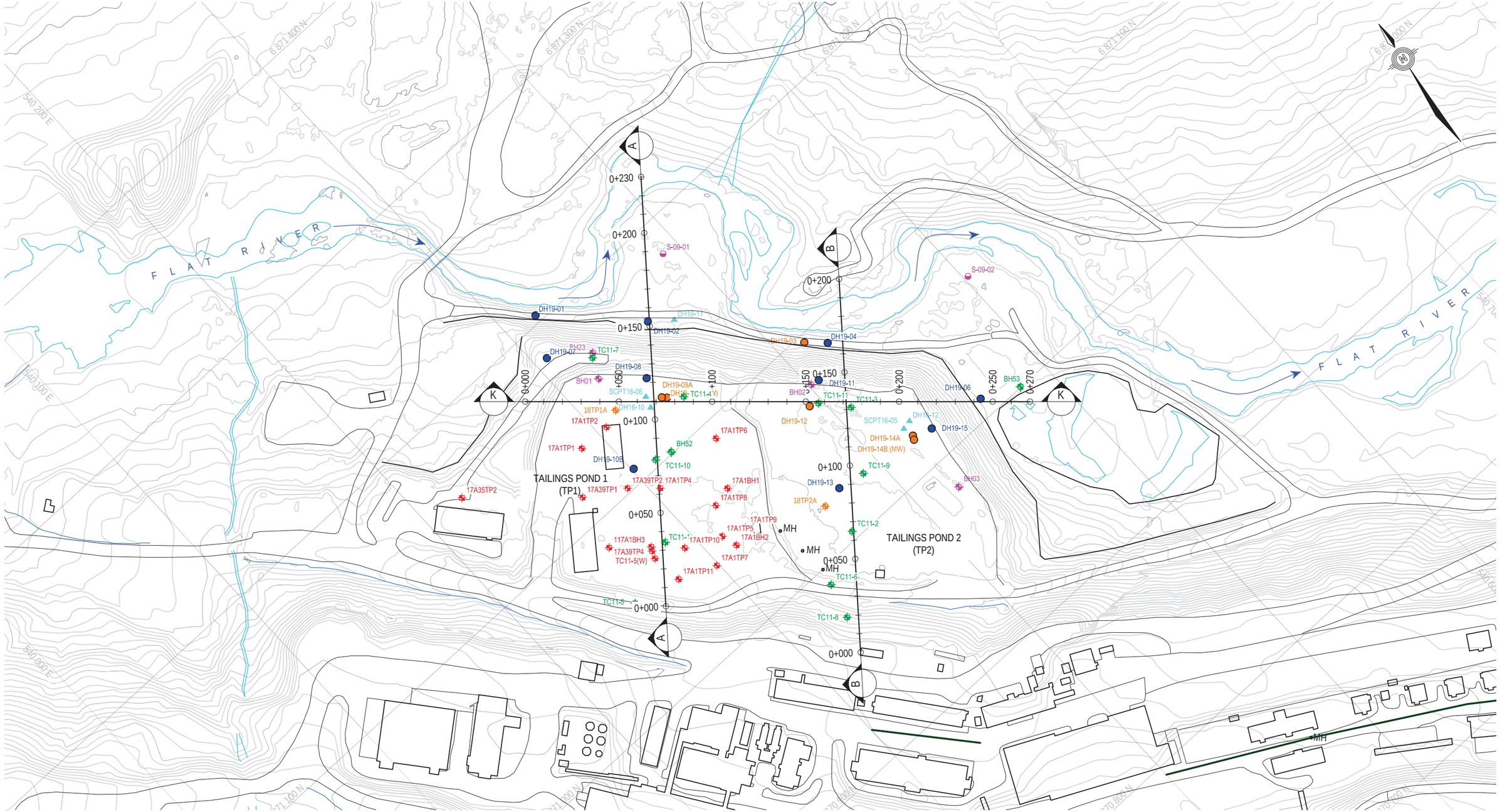
Mine Site and Town Site Overview

PROJECT NO.	DWN	CKD	REV
ENW.WENW03039-05	GDK	TP	0

OFFICE: EDMONTON
DATE: March 2021

Figure 2-3

C:\Users\gary.koop\Desktop\Cantung\CAD\2.0 Working Drawings\2020-08 Geotech\Figure 2-3 General Site Plan r1.dwg [FIGURE 2-3] October 23, 2020 - 1:47:41 pm (BY: KOOP, GARY)



LEGEND:

- 5 m MAJOR CONTOUR INTERVAL
- 1 m INTERMEDIATE CONTOUR INTERVAL
- GOLDER (1976)
- GOLDER (1977)
- GOLDER (1982)
- EBA (2005)
- EBA (2007 INSTRUMENTATION)
- EBA (2007)
- EBA (2009)
- KNIGHT PIESOLD (2010)
- KNIGHT PIESOLD (2011)
- KNIGHT PIESOLD (2012)
- TETRA TECH EBA (2011)
- SRK (2016)
- TETRA TECH (2017 ESA)
- TETRA TECH (2018 Testpit)
- TETRA TECH (2019 iBPT)
- TETRA TECH (2019 SONIC)

NOTES:

1. Horzontal Datum/Projection: UTM Zone 9N, NAD83 (CSRS) (2010) - Meters

STATUS
ISSUED FOR USE

0 100m

Scale: 1:2,000 @ 11"x17"

CLIENT

NORTH AMERICAN TUNGSTEN CORPORATION LTD

TETRA TECH

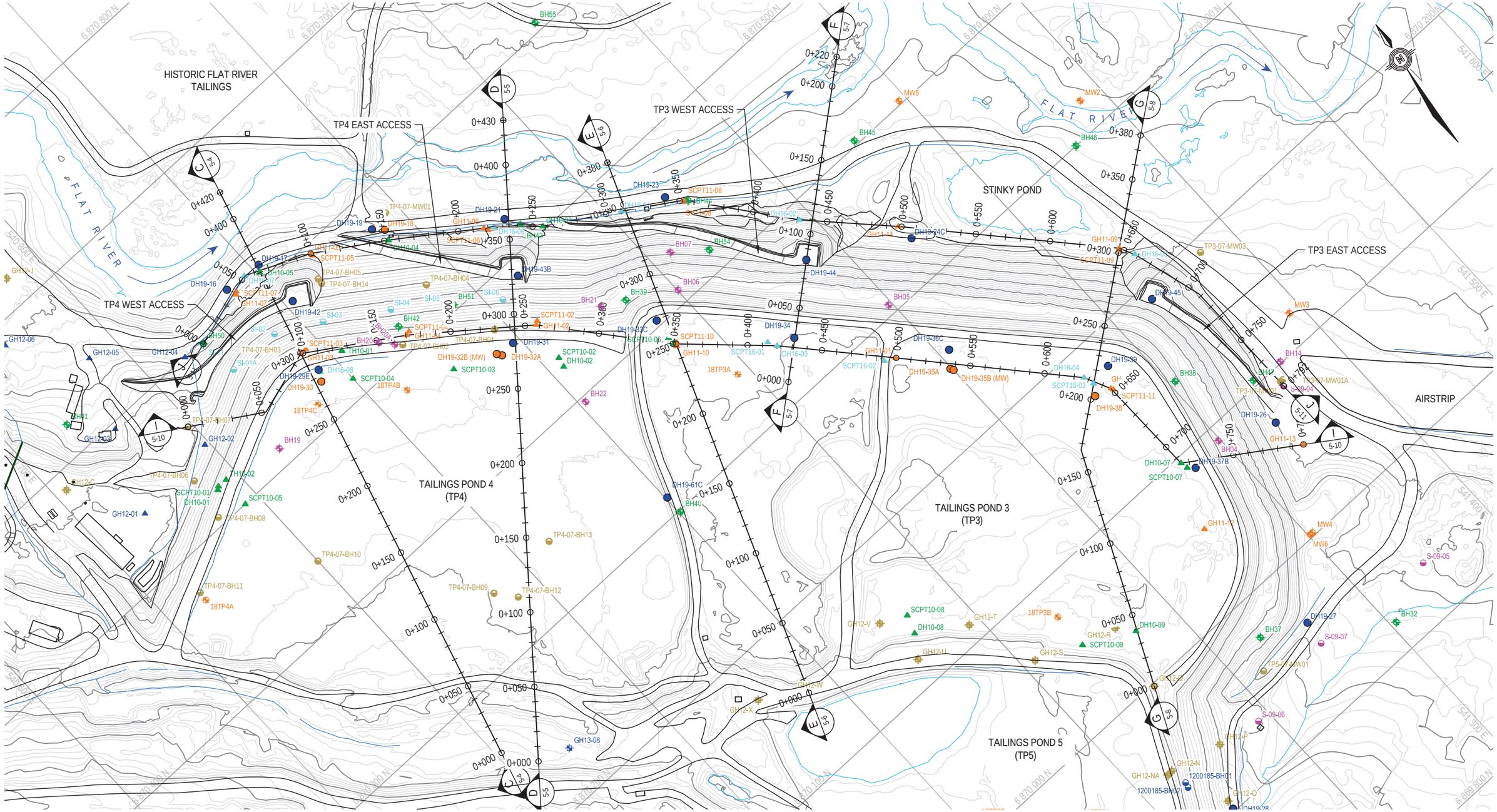
GEOTECHNICAL ASSESSMENT OF TAILINGS FACILITIES
CANTUNG MINE, NT

TAILINGS PONDS 1 AND 2
BOREHOLE LOCATION PLAN

PROJECT NO.	DWN	CKD	REV
ENW.WENW03039-05	EL	GDK	0
OFFICE	DATE		
EDMONTON	March 2021		

Figure 2-4

C:\Users\gary.koop\Desktop\Cantung\CAD\2.0 Working Drawings\2020-08 Geotech\Cantung Site Model r3 GDK.dwg [FIGURE 2-4] August 06, 2020 - 9:49:35 pm (BY: KOOP, GARY)



LEGEND:

- 5 m MAJOR CONTOUR INTERVAL
- 1 m INTERMEDIATE CONTOUR INTERVAL
- GOLDER (1976)
- GOLDER (1977)
- GOLDER (1982)
- EBA (2005)
- EBA (2007 INSTRUMENTATION)
- EBA (2007)
- EBA (2009)
- KNIGHT PIESOLD (2010)
- KNIGHT PIESOLD (2011)
- KNIGHT PIESOLD (2012)
- TETRA TECH EBA (2012)
- SRK (2016)
- TETRA TECH (2018 Testpit)
- TETRA TECH (2019 iBPT)
- TETRA TECH (2019 SONIC)

NOTES:

1. Horzontal Datum/Projection: UTM Zone 9N, NAD83 (CSRS) (2010) - Meters

STATUS
ISSUED FOR USE

0 100m
Scale: 1:2,500 @ 11"x17"

CLIENT
NORTH AMERICAN TUNGSTEN CORPORATION LTD

GEOTECHNICAL ASSESSMENT OF TAILINGS FACILITIES
CANTUNG MINE, NT

TAILINGS PONDS 3 AND 4
BOREHOLE LOCATION PLAN

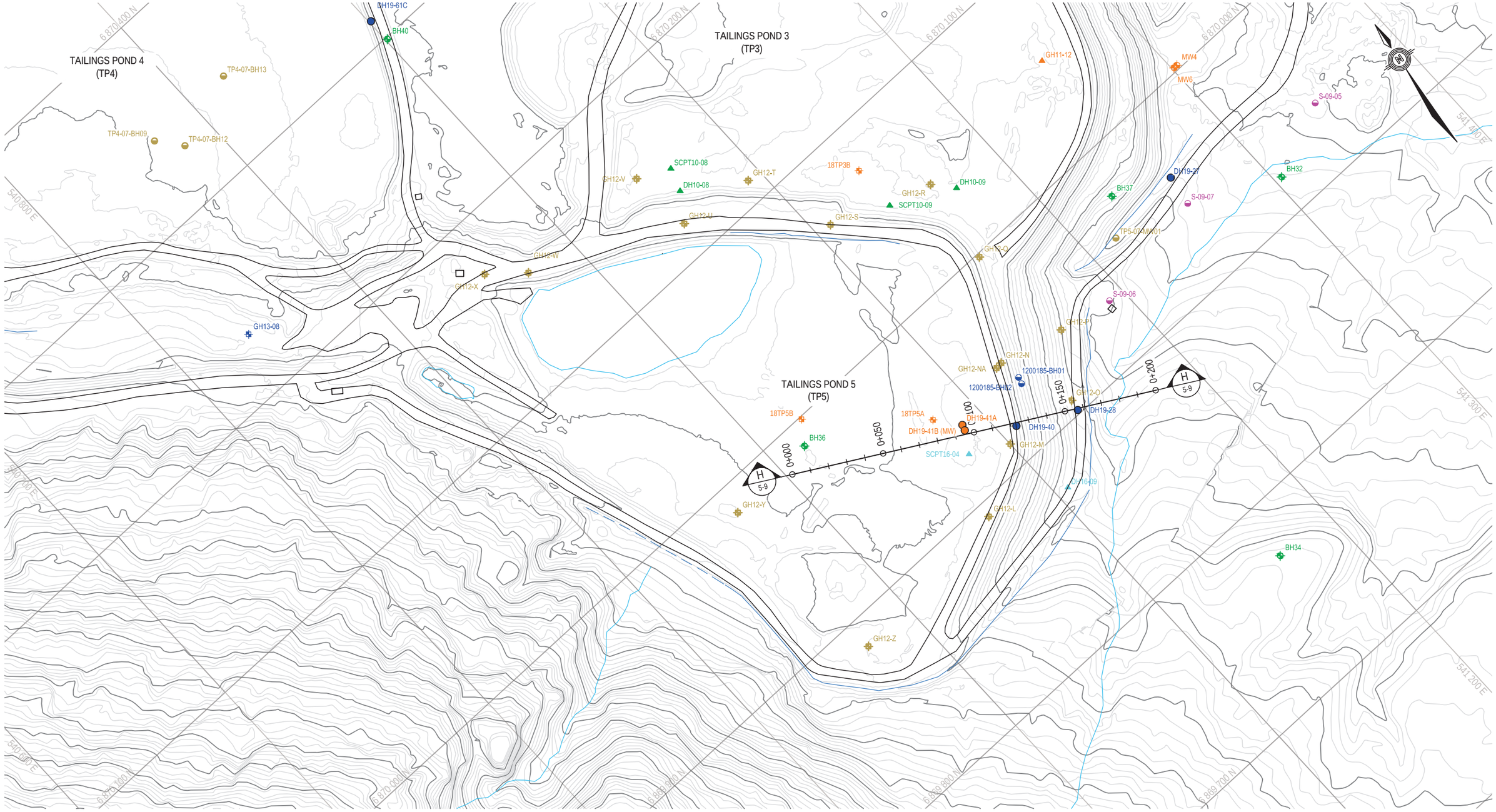
TETRA TECH

PROJECT NO.	DWN	CKD	REV
ENW.WENW03039-05	EL	GDK	0

OFFICE	DATE
EDMONTON	March 2021

Figure 2-5

C:\Users\gary.koop\Desktop\Cantung\CAD\2.0 Working Drawings\2020-08 Geotech\Cantung Site Model r3 GDK.dwg [FIGURE 2-5] August 06, 2020 - 10:12:32 pm (BY: KOOP, GARY)



LEGEND:

- 5 m MAJOR CONTOUR INTERVAL
- 1 m INTERMEDIATE CONTOUR INTERVAL
- GOLDER (1977)
- GOLDER (1982)
- EBA (2005)
- EBA (2007)
- EBA (2009)
- KNIGHT PIESOLD (2010)
- KNIGHT PIESOLD (2011)
- TETRA TECH EBA (2012)
- SRK (2016)
- TETRA TECH (2018 Testpit)
- TETRA TECH (2019 iBPT)
- TETRA TECH (2019 SONIC)

NOTES:

1. Horizontal Datum/Projection: UTM Zone 9N, NAD83 (CSRS) (2010) - Meters

STATUS
ISSUED FOR USE

0 100m

Scale: 1:2,000 @ 11"x17"

CLIENT

NORTH AMERICAN TUNGSTEN CORPORATION LTD

TETRA TECH

GEOTECHNICAL ASSESSMENT OF TAILINGS FACILITIES
CANTUNG MINE, NT

TAILINGS POND 5
BOREHOLE LOCATION PLAN

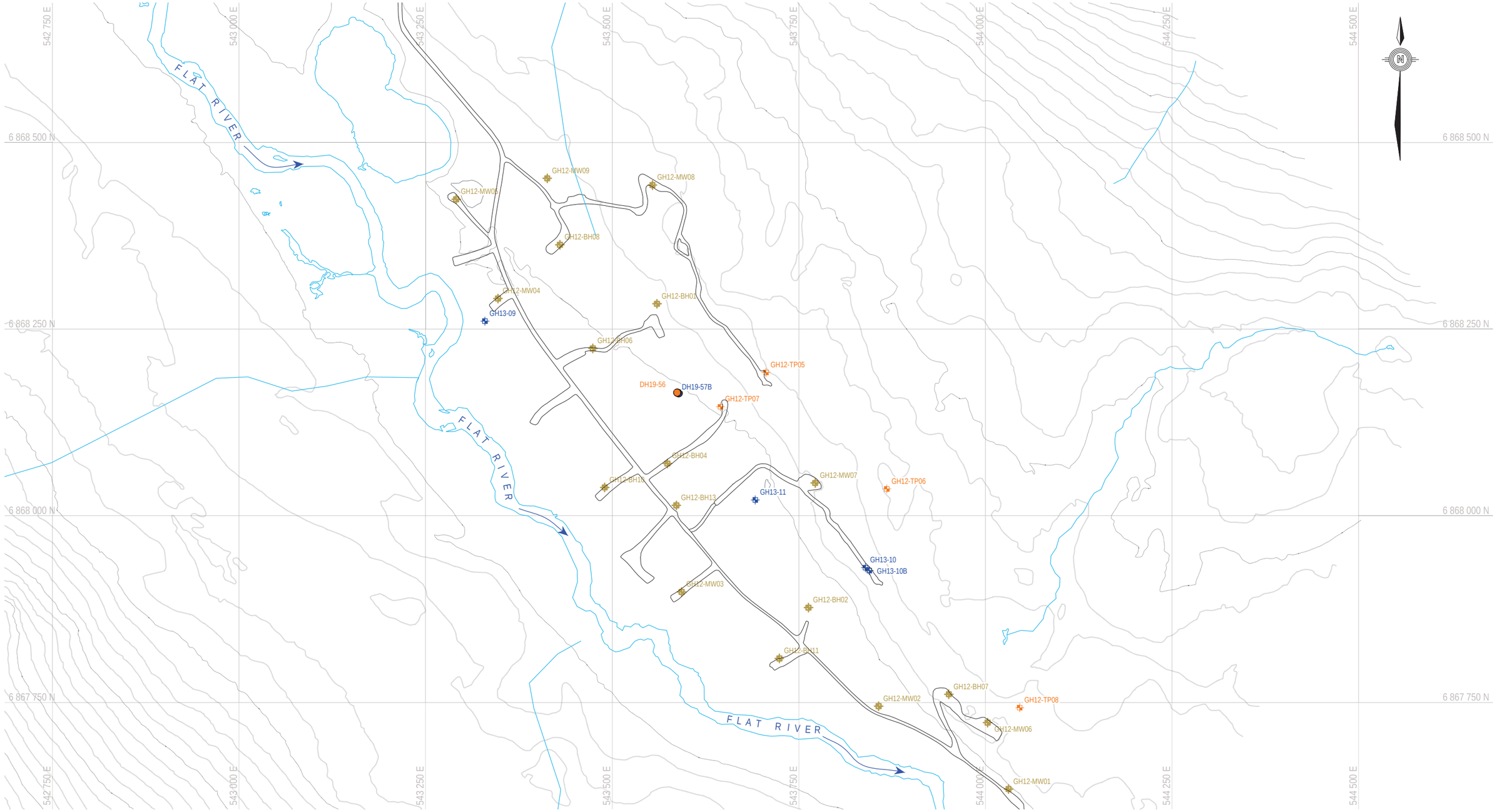
PROJECT NO.	DWN	CKD	REV
ENW.WENW03039-05	EL	GDK	0

OFFICE: EDMONTON
DATE: March 2021

Figure 2-6

C:\Users\gary.koop\Desktop\Cantung\CAD\2.0 Working Drawings\2020-08 Geotech\Cantung Site Model r3 GDK.dwg [FIGURE 2-6] August 07, 2020 - 4:21:02 am (BY: KOOP, GARY)

C:\Users\gary.koop\Desktop\Cantung\CAD\2.0 Working Drawings\2020-08 Geotech\Cantung Site Model r3 GDK.dwg [FIGURE 2-7] August 07, 2020 - 4:36:24 am (BY: KOOP, GARY)



LEGEND:

- 5 m MAJOR CONTOUR INTERVAL
- 1 m INTERMEDIATE CONTOUR INTERVAL
- TETRA TECH EBA (2012 TESTPIT)
- TETRA TECH EBA (2012)
- TETRA TECH EBA (2013)
- TETRA TECH (2019 iBPT)
- TETRA TECH (2019 SONIC)

NOTES:

1. Horizontal Datum/Projection: UTM Zone 9N, NAD83 (CSRS) (2010) - Meters

STATUS
ISSUED FOR USE

0 250m

Scale: 1:5,000 @ 11"x17"

CLIENT

NORTH AMERICAN TUNGSTEN CORPORATION LTD

TETRA TECH

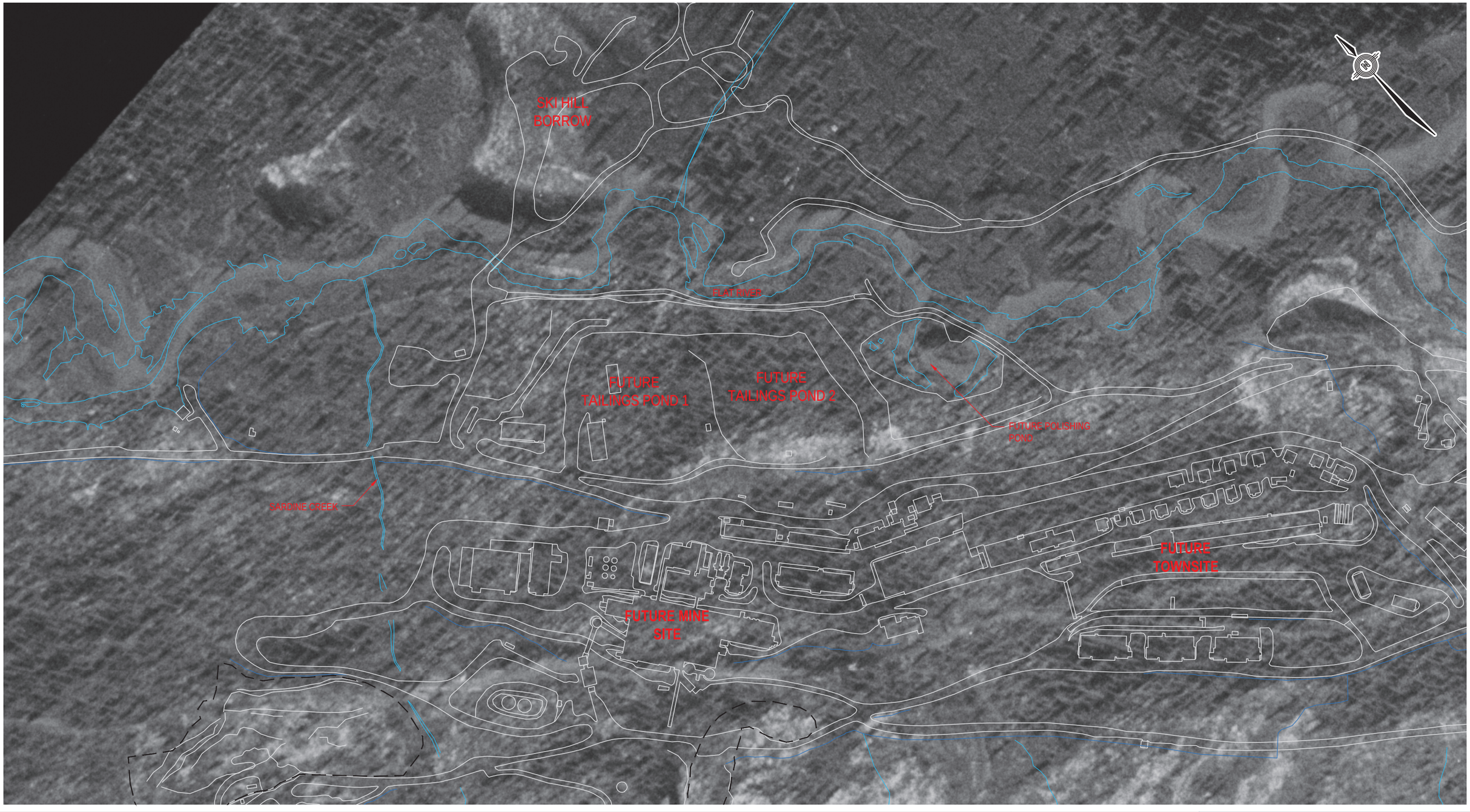
GEOTECHNICAL ASSESSMENT OF TAILINGS FACILITIES
CANTUNG MINE, NT

PROPOSED TAILINGS STORAGE FACILITY 6 AREA
BOREHOLE LOCATION PLAN

PROJECT NO.	DWN	CKD	REV
ENW.WENW03039-05	EL	GDK	0

OFFICE	DATE
EDMONTON	March 2021

Figure 2-7



0 100 m

Scale: 1: 3 000

NOTES
- Based on Air Photo A17105-022
- Air photo oriented and scaled to match site drawing . Location is approximate

STATUS
ISSUED FOR USE

CLIENT
NORTH AMERICAN TUNGSTEN CORPORATION LTD

TETRA TECH

GEOTECHNICAL ASSESSMENT OF TAILINGS FACILITIES
CANTUNG MINE, NT

Tailings Pond 1 and 2
1960 Plan View

PROJECT NO.	DWN	CKD	REV
ENW.WENW03039-05	GDK	TP	0

OFFICE	DATE
EDM	March 2021

Figure 3.1-1

C:\Users\gary.koop\Desktop\Cantung\CAD\2.0 Workng Drawings\CSM1960.dwg [FIGURE 3.1-1] August 07, 2020 - 4:52:06 am (BY: KOOP, GARY)