GLASS EXCHANGE AND CHANGING NETWORKS AT PHROMTHIN TAI, CENTRAL THAILAND

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TABLE S1: Chemical Composition of PTT-S4 Glass Beads

Number	Location	Color	Type	Na_2O	MgO	Al_2O_3	SiO_2	P_2O_5	K_2O	CaO	TiO_2	MnO	Fe_2O_3
				*wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%
PTT-1	PTT-S4 West section South unit 210-220 cmbd	blue	m-Na-Al	14.42	0.21	9.76	67.98	0.06	1.60	1.99	0.33	0.06	0.76
PTT-2		blue	m-Na-Al	13.79	0.63	5.73	73.89	0.09	0.92	0.85	0.80	0.04	2.28
PTT-3		black	m-Na-Al	12.94	1.02	12.02	64.98	0.13	1.96	3.20	0.58	0.07	2.84
PTT-4		black	m-Na-Al	15.20	1.01	8.11	69.00	0.07	2.23	1.93	0.65	0.13	1.46
PTT-5		yellow	m-Na-Al	14.17	0.65	7.04	67.97	0.11	3.05	2.54	0.46	0.06	1.89
PTT-6		yellow	m-Na-Al	19.58	0.41	11.20	55.57	0.09	2.06	2.55	0.48	0.07	1.53
PTT-7		red	m-Na-Al	12.98	0.73	9.06	64.86	0.19	2.47	4.12	0.53	0.11	1.97
PTT-8		red	m-Na-Al	13.03	0.42	8.45	68.88	0.07	2.22	1.82	0.75	0.05	1.82
PTT-9		orange	m-Na-Al	12.34	0.86	11.89	55.64	0.18	1.90	3.46	0.48	0.07	3.11
PTT-10		orange	m-Na-Al	12.29	0.77	11.87	56.95	0.19	1.97	3.40	0.47	0.07	3.01
PTT-10		red	m-Na-Al	10.79	0.58	8.48	69.24	0.10	2.14	2.14	0.61	0.06	2.01
PTT-11		green	m-Na-Al	15.47	0.46	9.62	64.66	0.08	2.29	3.26	0.53	0.11	1.78

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PTT-12		green	m-Na-Al	17.14	0.42	8.55	65.10	0.08	1.96	2.10	0.55	0.05	1.83
PTT-13	PTT-S4 East section 120-130 cmbd	dark blue	m-K-Al	0.41	0.37	3.30	81.31	0.21	10.40	1.01	0.14	0.88	1.05
PTT-14	PTT-S4 East section North ledge 180-190 cmbd	dark blue	v-Na-Ca	14.99	3.71	3.66	65.05	0.18	2.22	7.67	0.17	0.18	1.65
PTT-15		red	m-Na-Al	12.43	0.53	11.88	64.53	0.16	3.44	2.35	0.44	0.06	1.29
PTT-16	PTT-S4 East section South unit 230-240 cmbd	dark blue	m-K-Al	0.14	0.23	4.23	79.50	0.15	12.55	0.75	0.16	1.15	0.87
PTT-17	PTT-S4 West section South unit 240-250 cmbd	dark blue	m-K-Al	0.15	0.26	3.24	79.14	0.10	13.26	1.05	0.16	1.15	1.17
PTT-18		blue	m-K-Ca-Al	0.24	0.21	0.94	78.38	0.31	14.74	2.94	0.04	0.31	0.37
PTT-19		green	m-Na-Al	15.97	0.25	10.36	61.73	0.10	1.80	2.16	0.49	0.05	1.02
PTT-20	PTT-S4 East section South unit 220-230 cmbd	dark blue	m-Na-Ca	16.47	0.93	2.58	68.95	0.11	0.94	8.37	0.17	0.23	0.99
PTT-21		blue	m-Na-Al	15.06	0.77	4.30	73.77	0.04	0.85	1.33	0.71	0.09	1.97
PTT-22	PTT-S4 West section 180-190 cmbd South part	blue	m-Na-Al	14.25	0.20	9.91	68.04	0.06	1.60	1.92	0.33	0.08	0.81
PTT-23	PTT-S4 East section North unit 220-230 cmbd	dark blue	m-Na-Ca	4.88	0.95	2.60	79.61	0.14	0.81	9.24	0.15	0.17	1.16

PTT-24	PTT-S4 West section South unit 230-240 cmbd	dark blue	v-Na-Ca	17.50	4.41	2.51	65.29	0.17	2.26	5.87	0.14	0.10	1.35
PTT-25		yellow	m-Na-Al	15.43	0.46	9.69	64.25	0.08	1.76	3.26	0.42	0.05	1.17
PTT-26		orange	m-Na-Al	12.49	2.43	9.58	51.89	1.56	3.40	5.61	0.48	0.21	2.80
PTT-26		red	m-Na-Al	12.75	2.44	9.71	51.94	1.61	3.43	5.59	0.48	0.21	2.84
PTT-27	PTT-S4 West section South unit 270-280 cmbd	dark blue	m-K-Al	0.20	0.25	3.66	78.12	0.12	13.50	0.61	0.17	1.37	1.73
PTT-28	PTT-S4 West section North unit 270-280 cmbd	blue	m-K-Ca-Al	0.17	0.33	2.27	78.66	0.10	12.75	1.24	0.09	1.08	1.07
PTT-29	PTT-S4 West section North unit 200-210 cmbd	amber	m-Na-Al	16.02	0.50	9.30	63.24	0.10	2.29	4.79	0.52	0.10	3.08
PTT-30	PTT-S4 West section South unit 220-230 cmbd	amber	m-Na-Al	16.82	0.55	8.60	61.94	0.10	2.26	5.98	0.49	0.10	3.10

TABLE S1: Chemical Composition of PTT-S4 Glass Beads (Continued)

Number	Location	Color	Type	Li	Be	B	Sc	V	Cr	Co	Ni	Cu	Zn
				**ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
PTT-1	PTT-S4 West section South unit 210-220 cmbd	blue	m-Na-Al	11.29	1.53	47.30	2.10	34.78		5.29	11.45	11802.77	15.25
PTT-2		blue	m-Na-Al	14.76	0.43	158.54	5.33	77.63		13.59	24.77	5247.07	27.68
PTT-3		black	m-Na-Al	11.88	0.92	84.88	7.94	86.71		11.18	20.05	1188.24	37.38
PTT-4		black	m-Na-Al	9.44	0.61	117.12	3.84	53.35		11.68	11.69	147.84	32.85
PTT-5		yellow	m-Na-Al	12.17	0.77	127.25	6.39	171.10	45.64	7.36	22.02	124.18	18.10
PTT-6		yellow	m-Na-Al	9.10	1.01	27.11	2.20	75.60	26.21	3.67	10.51	19.52	23.27
PTT-7		red	m-Na-Al	13.80	0.47	45.11	3.93	65.51	37.88	20.40	102.21	17273.57	47.05
PTT-8		red	m-Na-Al	8.86	1.54	36.64	4.15	66.20	35.99	20.67	48.05	16196.71	26.89
PTT-9		orange	m-Na-Al	6.69	1.04	52.56	7.74	103.12	56.42	32.35	161.97	53660.53	289.17
PTT-10		orange	m-Na-Al	10.42	0.02	44.81	5.48	88.77	55.02	35.38	269.18	51645.87	419.68
PTT-10		red	m-Na-Al	9.97	0.11	85.57	5.72	86.82	45.37	12.26	64.74	27298.64	64.67
PTT-11		green	m-Na-Al	10.21	0.97	38.49	4.97	68.55	25.91	7.59	19.41	3875.74	44.99
PTT-12		green	m-Na-Al	14.85	1.59	46.02	2.66	73.61	31.53	8.88	24.85	3394.91	34.29
PTT-13	PTT-S4 East section 120-130 cmbd	dark blue	m-K-Al	45.65	0.75	139.74	4.32	62.12		340.65	50.14	1481.43	30.82
PTT-14	PTT-S4 East section North ledge 180-190 cmbd	dark blue	v-Na-Ca	14.68	0.42	115.16	2.66	28.39		724.17	66.36	1423.24	53.38
PTT-15		red	m-Na-Al	11.45	2.45	46.06	3.31	40.20	14.42	13.72	47.93	17709.49	60.87

PTT-16	PTT-S4 East section South unit 230-240 cmbd	dark blue	m-K-Al	12.85	0.59	70.38	3.42	48.17		436.13	65.66	223.86	32.65
PTT-17	PTT-S4 West section South unit 240-250 cmbd	dark blue	m-K-Al	38.10	0.54	111.93	4.57	54.63		452.03	63.08	346.83	24.95
PTT-18		blue	m-K-Ca-Al	10.57	0.23	49.47	1.63	7.69		13.12	36.84	11588.99	14.65
PTT-19		green	m-Na-Al	12.61	1.21	59.35	1.46	70.23	7.86	4.06	7.17	6392.50	27.58
PTT-20	PTT-S4 East section South unit 220-230 cmbd	dark blue	m-Na-Ca	3.99	0.74	152.36	2.40	19.60	17.31	121.59	18.85	538.75	21.04
PTT-21		blue	m-Na-Al	16.97	0.40	170.17	4.60	58.90		11.04	26.30	6796.23	19.89
PTT-22	PTT-S4 West section 180-190 cmbd South part	blue	m-Na-Al	10.62	1.40	45.01	1.73	33.92		10.83	11.96	11788.77	23.47
PTT-23	PTT-S4 East section North unit 220-230 cmbd	dark blue	m-Na-Ca	4.97	0.35	180.75	2.96	20.38	16.65	250.09	27.81	635.41	22.20
PTT-24	PTT-S4 West section South unit 230-240 cmbd	dark blue	v-Na-Ca	22.11	0.65	146.04	1.75	17.90	38.84	620.82	49.65	895.43	43.42
PTT-25		yellow	m-Na-Al	11.30	1.08	36.57	3.69	80.24	20.47	3.20	8.17	494.53	17.02
PTT-26		orange	m-Na-Al	13.39	2.34	80.41	6.03	58.97	21.92	40.44	175.97	53755.97	433.03
PTT-26		red	m-Na-Al	9.92	1.99	83.99	4.98	57.60	20.47	39.36	163.00	50388.53	426.50

PTT-27	PTT-S4 West section South unit 270-280 cmbd	dark blue	m-K-Al	36.61	0.59	97.92	4.96	68.02		521.87	76.67	220.30	28.67
PTT-28	PTT-S4 West section North unit 270-280 cmbd	blue	m-K-Ca-Al	20.93	0.24	75.67	2.09	16.00		59.86	10.71	15486.37	40.83
PTT-29	PTT-S4 West section North unit 200-210 cmbd	amber	m-Na-Al	8.31	0.67	28.01	4.24	97.99		5.54	9.37	15.86	24.43
PTT-30	PTT-S4 West section South unit 220-230 cmbd	amber	m-Na-Al	8.31	1.14	29.21	4.46	91.78		4.70	8.19	9.46	22.07

TABLE S1: Chemical Composition of PTT-S4 Glass Beads (Continued)

Number	Location	Color	Type	Ga	As	Rb	Sr	Y	Zr	Nb	Mo	Ag	In
				ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
PTT-1	PTT-S4 West section South unit 210-220 cmbd	blue	m-Na-Al	10.56	12.21	28.93	428.02	12.82	282.43	4.18	0.31	39.58	0.00
PTT-2		blue	m-Na-Al	7.66	261.00	30.92	156.79	15.21	1094.90	10.85	0.34	1.04	0.59
PTT-3		black	m-Na-Al	13.77	6.07	62.90	483.05	13.84	456.12	6.84	2.95	2.53	0.01
PTT-4		black	m-Na-Al	8.25	2.57	55.06	334.84	11.54	461.71	6.99	1.66	3.54	0.01
PTT-5		yellow	m-Na-Al	8.14	26.13	63.40	295.60	13.66	453.60	5.13	1.16	1.42	9.16
PTT-6		yellow	m-Na-Al	11.41	15.08	35.87	488.11	9.69	393.75	4.30	0.87	1.01	15.42
PTT-7		red	m-Na-Al	9.33	53.19	60.50	376.72	14.51	567.98	5.81	0.95	21.67	2.44
PTT-8		red	m-Na-Al	8.75	558.47	68.82	295.42	11.91	456.16	8.47	0.46	5.64	3.15
PTT-9		orange	m-Na-Al	13.27	256.27	47.44	489.21	11.20	374.79	5.27	2.37	48.27	12.98
PTT-10		orange	m-Na-Al	13.49	251.05	50.38	492.79	10.87	402.15	5.19	2.86	53.17	12.10
PTT-10		red	m-Na-Al	8.84	35.97	59.21	345.82	11.45	450.20	6.21	1.11	107.10	1.63
PTT-11		green	m-Na-Al	10.23	16.74	66.05	393.94	15.72	532.36	5.37	0.42	7.13	1.83
PTT-12		green	m-Na-Al	8.73	16.95	31.50	327.63	11.43	620.75	7.56	0.96	4.83	3.52
PTT-13	PTT-S4 East section 120-130 cmbd	dark blue	m-K-Al	5.35	10.60	446.87	48.46	8.71	99.47	3.39	0.90	0.87	0.00
PTT-14	PTT-S4 East section North ledge 180-190 cmbd	dark blue	v-Na-Ca	5.74	14.31	30.11	667.64	5.97	127.52	2.59	3.86	1.53	0.42
PTT-15		red	m-Na-Al	14.16	47.74	81.07	327.21	17.62	613.98	9.11	1.72	40.87	4.95

PTT-16	PTT-S4 East section South unit 230-240 cmbd	dark blue	m-K-Al	4.63	8.09	259.55	39.31	11.08	115.82	3.34	0.74	0.21	0.00
PTT-17	PTT-S4 West section South unit 240-250 cmbd	dark blue	m-K-Al	5.49	8.17	361.47	37.18	9.89	121.77	3.68	0.60	0.09	0.02
PTT-18		blue	m-K-Ca-Al	0.97	35.56	73.13	79.10	2.30	13.79	0.82	4.24	1.46	0.05
PTT-19		green	m-Na-Al	11.10	10.83	32.79	519.63	9.05	336.83	7.00	0.27	22.55	12.46
PTT-20	PTT-S4 East section South unit 220-230 cmbd	dark blue	m-Na-Ca	3.58	12.99	22.18	633.98	7.66	109.57	2.82	0.84	0.27	0.13
PTT-21		blue	m-Na-Al	5.95	4.42	29.93	229.80	16.08	956.67	9.39	0.92	3.48	0.00
PTT-22	PTT-S4 West section 180-190 cmbd South part	blue	m-Na-Al	10.22	16.91	28.56	409.35	12.60	310.01	4.26	0.39	8.51	0.00
PTT-23	PTT-S4 East section North unit 220-230 cmbd	dark blue	m-Na-Ca	3.98	4.06	13.00	731.83	7.90	96.80	2.68	1.12	0.10	0.25
PTT-24	PTT-S4 West section South unit 230-240 cmbd	dark blue	v-Na-Ca	4.09	12.61	15.59	516.80	6.10	86.47	2.22	2.85	0.06	0.66
PTT-25		yellow	m-Na-Al	10.41	8.48	41.71	406.68	10.85	430.52	4.31	0.35	1.46	11.98
PTT-26		orange	m-Na-Al	12.64	130.28	81.06	556.85	21.59	501.05	9.44	3.12	27.82	26.41
PTT-26		red	m-Na-Al	13.02	123.23	82.20	552.38	22.48	511.11	9.58	2.96	36.03	25.76

PTT-27	PTT-S4 West section South unit 270-280 cmbd	dark blue	m-K-Al	5.09	6.74	293.79	40.35	13.12	131.52	3.30	0.87	0.22	0.02
PTT-28	PTT-S4 West section North unit 270-280 cmbd	blue	m-K-Ca-Al	3.24	4.23	351.67	36.02	5.13	67.43	2.24	0.34	2.69	0.04
PTT-29	PTT-S4 West section North unit 200-210 cmbd	amber	m-Na-Al	9.83	6.39	50.61	365.93	21.71	555.23	6.14	0.96	0.19	0.02
PTT-30	PTT-S4 West section South unit 220-230 cmbd	amber	m-Na-Al	9.44	4.40	47.79	393.77	18.90	554.14	5.66	0.86	0.29	0.02

TABLE S1: Chemical Composition of PTT-S4 Glass Beads (Continued)

Number	Location	Color	Type	Sn	Sb	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu
				ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
PTT-1	PTT-S4 West section South unit 210-220 cmbd	blue	m-Na-Al	262.29	4.53	0.33	819.98	16.39	37.53	3.71	15.49	3.03	0.96
PTT-2		blue	m-Na-Al	97.36	2.80	1.13	264.50	34.23	48.14	6.37	24.11	4.39	0.93
PTT-3		black	m-Na-Al	45.93	0.35	0.71	604.42	32.64	55.37	6.59	25.54	4.50	1.16
PTT-4		black	m-Na-Al	2.69	0.08	0.69	896.83	26.50	40.95	4.93	18.67	2.98	0.84
PTT-5		yellow	m-Na-Al	2390.33	0.31	0.64	470.46	25.72	42.73	5.08	20.10	3.54	0.86
PTT-6		yellow	m-Na-Al	4077.78	0.19	0.26	730.65	25.00	41.48	4.32	16.45	2.44	0.91
PTT-7		red	m-Na-Al	605.96	22.46	0.48	703.00	25.61	43.24	4.87	18.85	3.37	0.92
PTT-8		red	m-Na-Al	776.40	1.44	0.53	781.95	32.20	55.12	5.85	22.01	3.50	0.88
PTT-9		orange	m-Na-Al	3351.00	143.81	0.61	644.25	28.96	53.10	5.73	21.91	3.76	0.99
PTT-10		orange	m-Na-Al	3121.64	110.46	0.49	691.47	28.82	52.12	5.61	21.66	3.67	1.06
PTT-10		red	m-Na-Al	411.32	12.37	0.66	688.95	26.03	44.16	5.01	18.96	3.36	0.86
PTT-11		green	m-Na-Al	490.67	3.00	0.53	904.10	27.51	44.90	5.23	18.98	3.45	0.89
PTT-12		green	m-Na-Al	903.24	0.93	0.26	1263.32	39.82	61.88	6.39	23.18	3.75	0.94
PTT-13	PTT-S4 East section 120-130 cmbd	dark blue	m-K-Al	493.49	1.42	3.71	921.95	15.65	117.23	3.70	14.15	3.18	0.76
PTT-14	PTT-S4 East section North ledge 180-190 cmbd	dark blue	v-Na-Ca	65.89	5.87	0.31	254.40	7.65	13.70	1.59	6.23	1.22	0.34
PTT-15		red	m-Na-Al	1296.69	19.05	0.73	881.07	18.62	44.06	3.92	16.01	3.17	0.97

PTT-16	PTT-S4 East section South unit 230-240 cmbd	dark blue	m-K-Al	21.77	0.45	2.03	938.35	14.51	97.35	3.55	14.76	3.64	0.94
PTT-17	PTT-S4 West section South unit 240-250 cmbd	dark blue	m-K-Al	4.23	0.37	2.30	1266.17	17.40	133.68	4.13	16.19	3.88	0.88
PTT-18		blue	m-K-Ca-Al	42.10	1.10	0.34	159.94	3.50	6.69	0.71	2.73	0.49	0.09
PTT-19		green	m-Na-Al	3312.24	6.60	0.44	988.20	16.51	38.54	3.48	13.98	2.64	0.92
PTT-20	PTT-S4 East section South unit 220-230 cmbd	dark blue	m-Na-Ca	16.04	461.65	0.10	172.75	7.92	14.16	1.80	7.29	1.38	0.42
PTT-21		blue	m-Na-Al	63.59	0.23	0.94	333.15	37.47	44.72	7.18	27.07	4.63	1.09
PTT-22	PTT-S4 West section 180-190 cmbd South part	blue	m-Na-Al	1429.19	14.48	0.43	851.84	16.50	38.59	3.69	15.50	3.07	1.06
PTT-23	PTT-S4 East section North unit 220-230 cmbd	dark blue	m-Na-Ca	10.70	284.18	0.11	173.72	8.14	14.83	1.83	8.03	1.54	0.41
PTT-24	PTT-S4 West section South unit 230-240 cmbd	dark blue	v-Na-Ca	34.10	1.28	0.15	129.28	6.34	11.47	1.40	5.64	1.18	0.30
PTT-25		yellow	m-Na-Al	3155.31	0.09	0.32	649.78	20.95	33.85	3.82	14.41	2.47	0.82
PTT-26		orange	m-Na-Al	6903.16	86.11	0.50	1341.00	42.97	84.66	8.40	32.92	5.82	1.11
PTT-26		red	m-Na-Al	6770.61	82.09	0.51	1326.97	43.50	85.15	8.32	32.66	6.24	1.16

PTT-27	PTT-S4 West section South unit 270-280 cmbd	dark blue	m-K-Al	0.85	0.70	2.63	1315.98	16.61	134.21	3.91	15.70	4.01	0.98
PTT-28	PTT-S4 West section North unit 270-280 cmbd	blue	m-K-Ca-Al	3.21	0.54	3.42	2404.99	7.13	19.98	1.45	5.83	1.40	0.32
PTT-29	PTT-S4 West section North unit 200-210 cmbd	amber	m-Na-Al	2.35	0.03	0.59	818.07	30.91	49.08	5.89	22.65	4.20	1.10
PTT-30	PTT-S4 West section South unit 220-230 cmbd	amber	m-Na-Al	5.77	0.09	0.45	784.27	28.61	48.91	5.56	20.61	4.27	1.02

TABLE S1: Chemical Composition of PTT-S4 Glass Beads (Continued)

Number	Location	Color	Type	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W	Au	PbO	Pb	Th	U
				ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	wt%	ppm	ppm	ppm
PTT-1	PTT-S4 West section South unit 210-220 cmbd	blue	m-Na-Al	2.73	0.40	2.14	0.46	1.28	0.20	1.29	0.21	7.01	0.36	0.10	0.28	1.05	9747.53	5.25	7.46
PTT-2		blue	m-Na-Al	3.63	0.49	2.91	0.57	1.62	0.25	1.75	0.29	25.15	0.76	0.20	0.02	0.11	1066.48	11.25	5.97
PTT-3		black	m-Na-Al	3.27	0.45	2.48	0.50	1.45	0.21	1.50	0.21	11.11	0.46	0.38	0.00	0.03	267.59	7.23	6.86
PTT-4		black	m-Na-Al	2.36	0.35	2.09	0.42	1.22	0.16	1.29	0.21	11.53	0.44	0.30	0.00	0.01	126.03	7.19	4.48
PTT-5		yellow	m-Na-Al	3.05	0.45	2.56	0.53	1.32	0.20	1.45	0.25	10.58	0.39	0.21	0.01	1.51	14042.62	11.94	15.75
PTT-6		yellow	m-Na-Al	2.01	0.28	1.68	0.34	1.02	0.15	1.12	0.17	8.91	0.36	0.28	0.03	5.40	50156.42	4.96	7.02
PTT-7		red	m-Na-Al	2.88	0.42	2.66	0.53	1.61	0.25	1.75	0.27	13.17	0.36	0.27	0.18	0.56	5168.93	7.01	5.94
PTT-8		red	m-Na-Al	2.70	0.40	2.15	0.45	1.32	0.19	1.51	0.22	10.69	0.50	0.14	0.84	0.13	1251.89	11.31	6.15
PTT-9		orange	m-Na-Al	2.83	0.36	2.12	0.43	1.15	0.17	1.17	0.17	8.86	0.34	0.22	0.13	2.59	24025.44	7.24	4.09
PTT-10		orange	m-Na-Al	2.77	0.39	2.04	0.40	1.09	0.16	1.08	0.17	9.18	0.31	0.24	0.54	1.82	16914.50	7.51	6.57
PTT-10		red	m-Na-Al	2.64	0.39	2.16	0.44	1.14	0.17	1.22	0.18	10.51	0.40	0.17	0.07	0.23	2141.99	7.30	5.52
PTT-11		green	m-Na-Al	3.14	0.42	2.84	0.56	1.66	0.25	1.89	0.28	12.61	0.42	0.19	0.23	0.97	8964.05	7.37	6.59
PTT-12		green	m-Na-Al	3.04	0.39	2.17	0.46	1.13	0.17	1.18	0.20	14.54	0.47	0.13	0.06	1.37	12708.95	13.88	6.44
PTT-13	PTT-S4 East section 120-130 cmbd	dark blue	m-K-Al	2.37	0.41	2.34	0.45	1.12	0.17	1.16	0.17	2.67	0.26	0.33	0.02	0.38	3562.53	3.59	0.78
PTT-14	PTT-S4 East section North ledge 180-190 cmbd	dark blue	v-Na-Ca	1.05	0.17	1.09	0.23	0.55	0.09	0.63	0.09	3.27	0.20	0.16	0.04	0.13	1250.11	2.06	1.38
PTT-15		red	m-Na-Al	2.95	0.49	2.92	0.64	1.91	0.30	2.12	0.37	14.57	0.63	0.33	0.33	0.27	2471.91	8.82	19.97

PTT-16	PTT-S4 East section South unit 230-240 cmbd	dark blue	m-K-Al	2.89	0.47	2.76	0.55	1.41	0.21	1.55	0.19	2.89	0.28	0.36	0.00	0.02	184.73	3.60	0.69
PTT-17	PTT-S4 West section South unit 240-250 cmbd	dark blue	m-K-Al	2.93	0.47	2.71	0.50	1.41	0.23	1.48	0.21	3.23	0.26	0.25	0.00	0.00	15.36	3.68	0.81
PTT-18		blue	m-K-Ca-Al	0.50	0.07	0.46	0.08	0.22	0.04	0.23	0.04	0.38	0.05	0.10	0.25	0.00	42.19	1.68	0.29
PTT-19		green	m-Na-Al	2.24	0.27	1.65	0.32	0.97	0.14	1.09	0.15	7.37	0.47	0.07	0.16	4.32	40143.08	6.34	16.67
PTT-20	PTT-S4 East section South unit 220-230 cmbd	dark blue	m-Na-Ca	1.50	0.22	1.39	0.29	0.75	0.11	0.76	0.11	2.47	0.21	0.13	0.00	0.01	108.02	1.47	1.28
PTT-21		blue	m-Na-Al	3.72	0.52	2.98	0.61	1.64	0.23	1.71	0.29	23.77	0.64	0.38	0.08	0.08	699.62	9.76	8.63
PTT-22	PTT-S4 West section 180-190 cmbd South part	blue	m-Na-Al	2.66	0.36	2.24	0.46	1.36	0.20	1.33	0.18	7.68	0.31	0.09	0.23	0.86	8015.03	5.66	7.53
PTT-23	PTT-S4 East section North unit 220-230 cmbd	dark blue	m-Na-Ca	1.53	0.22	1.25	0.30	0.80	0.11	0.74	0.11	2.26	0.18	0.08	0.00	0.02	164.08	1.40	1.49
PTT-24	PTT-S4 West section South unit 230-240 cmbd	dark blue	v-Na-Ca	1.08	0.17	1.04	0.22	0.62	0.11	0.65	0.09	2.09	0.17	0.05	0.00	0.13	1204.79	1.64	0.85
PTT-25		yellow	m-Na-Al	2.01	0.33	1.95	0.39	1.19	0.18	1.33	0.20	9.92	0.30	0.19	0.03	2.61	24247.87	5.12	4.09
PTT-26		orange	m-Na-Al	4.91	0.70	4.15	0.84	2.21	0.31	2.16	0.34	11.03	0.54	0.28	0.10	1.55	14403.21	9.14	19.99
PTT-26		red	m-Na-Al	4.74	0.73	4.22	0.84	2.33	0.33	2.26	0.35	11.49	0.59	0.31	0.08	1.46	13543.31	9.39	19.99

PTT-27	PTT-S4 West section South unit 270-280 cmbd	dark blue	m-K-Al	3.26	0.50	3.07	0.63	1.52	0.24	1.70	0.25	3.32	0.29	0.30	0.01	0.00	8.21	3.47	0.83
PTT-28	PTT-S4 West section North unit 270-280 cmbd	blue	m-K-Ca-Al	1.09	0.17	0.96	0.21	0.54	0.09	0.53	0.10	1.89	0.22	0.15	0.20	0.00	10.32	2.49	0.52
PTT-29	PTT-S4 West section North unit 200-210 cmbd	amber	m-Na-Al	3.63	0.56	3.71	0.78	2.29	0.31	2.38	0.40	14.28	0.48	0.35	1.15	0.00	24.88	8.19	8.51
PTT-30	PTT-S4 West section South unit 220-230 cmbd	amber	m-Na-Al	3.32	0.53	3.33	0.69	1.92	0.30	2.08	0.31	13.94	0.42	0.39	0.01	0.01	53.01	8.95	6.82

NOTE:

***wt% = weight percent**

****ppm = parts per million (1 ppm = 0.0001%)**