

BC Geological Survey  
Assessment Report  
30681



Frontispiece. Helicopter Pilot Jim Reed on the Pit Bullfrog property, August 2008.

**2008 Stream Sediment Geochemistry,**

**Pit Bullfrog Property,**

Toodoggone River Area  
(NTS 094E/14)

Liard Mining Division, Northern British Columbia,

for

**Bitterroot Resources Ltd.,**

by S.T. Flasha (B.Sc.) and C.J. Greig (M.Sc. P.Geo.)

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## **1.0 Summary of Field Program and Results**

The Pit Bullfrog property consists of a single 430 hectare tenure that was staked on April 13<sup>th</sup>, 2007 to cover relatively elevated molybdenum and copper values in the British Columbia Regional Geochemical Survey (RGS) database that were coincident with an aeromagnetic anomaly. In July 2008, a four person sampling crew spent one day on the property, where they collected a total of 71 stream sediment samples and 6 moss mat samples from five drainage basins in the immediate vicinity of the tenure. The samples confirmed the molybdenum and copper potential of the property, as they yielded consistently highly anomalous Mo and Cu values, with 39 of the 77 samples returning greater than 8 ppm Mo, a value which represents the 95<sup>th</sup> percentile threshold for the BC RGS database. Equally impressive is the fact that 67 of the samples returned values greater than 80 ppm Cu, which is also the 95<sup>th</sup> percentile threshold for the BC RGS database. Furthermore, 25 of the copper values were greater than 1000 ppm. The highest molybdenum value was 62 ppm Mo, and that sample also yielded 1,135 ppm Cu; the highest value for copper was 3,200 ppm Cu.

The total cost of 2008 exploration program on the Pit Bullfrog property was \$21,710. Further exploration is highly recommended, and should include prospecting, geological mapping, and soil geochemical sampling, if warranted. A few other drainages also remain to be stream sediment sampled. As some of the anomalous silt geochemical samples are from creeks outside of the claim boundary, some of the surrounding area should be staked as a precautionary measure.

## **2.0 Location, Access, and Physiography**

Bitterroot Resources' Pit Bullfrog property is located in the northern part of the Toodoggone River map area (NTS 94E), in the area northeast of Mt. Albert Dease that is bounded by the Frog

River on the east, the Pitman River on the north, Lunar Creek on the west, and Geese Creek-Chukachida Protected Area on the south. It lies approximately 100 km northwest of Ft. Ware, in the Rocky Mountain Trench, and 170 kilometres east-southeast of Dease Lake, a small northern community on the Stewart-Cassiar Highway (figs. 1 and 2). Currently, the only practical access to the property is by helicopter, and the crew mobilized out of Dease Lake, but future and more practical access should be from the Rocky Mountain trench, where a well-developed system of logging roads exists that is only about 75 kilometres distant by air. The roads lead southward along the trench and Williston Lake to the full-service town of Mackenzie. Other possible access points include the Kutcho Creek massive sulphide property, which is road accessible from Dease Lake, and only 70 km to the west-northwest, and the formerly producing Lawyers and Baker mines, in the heart of the Toodoggone Au-Ag camp, and 70 km due south of the Pit Bullfrog property.

The Pit Bullfrog tenure is situated near the headwaters of the Pitman and Frog rivers, not far west of the Rocky Mountain Trench (at this latitude occupied by the Kechika River). The property is snow-covered for much of the year, with field work typically limited to the months of June through October. Relief on the property is almost 700 metres (1420 m to 2100 m), with steep sided valleys and local cliff faces (fig. 3). Scrub alpine fir is the predominant tree species found on the property, with pine found locally, although typically only at lower elevations (less than 1550 m); above this elevation alpine meadows predominate, with low shrubs and grasses being the predominant species.

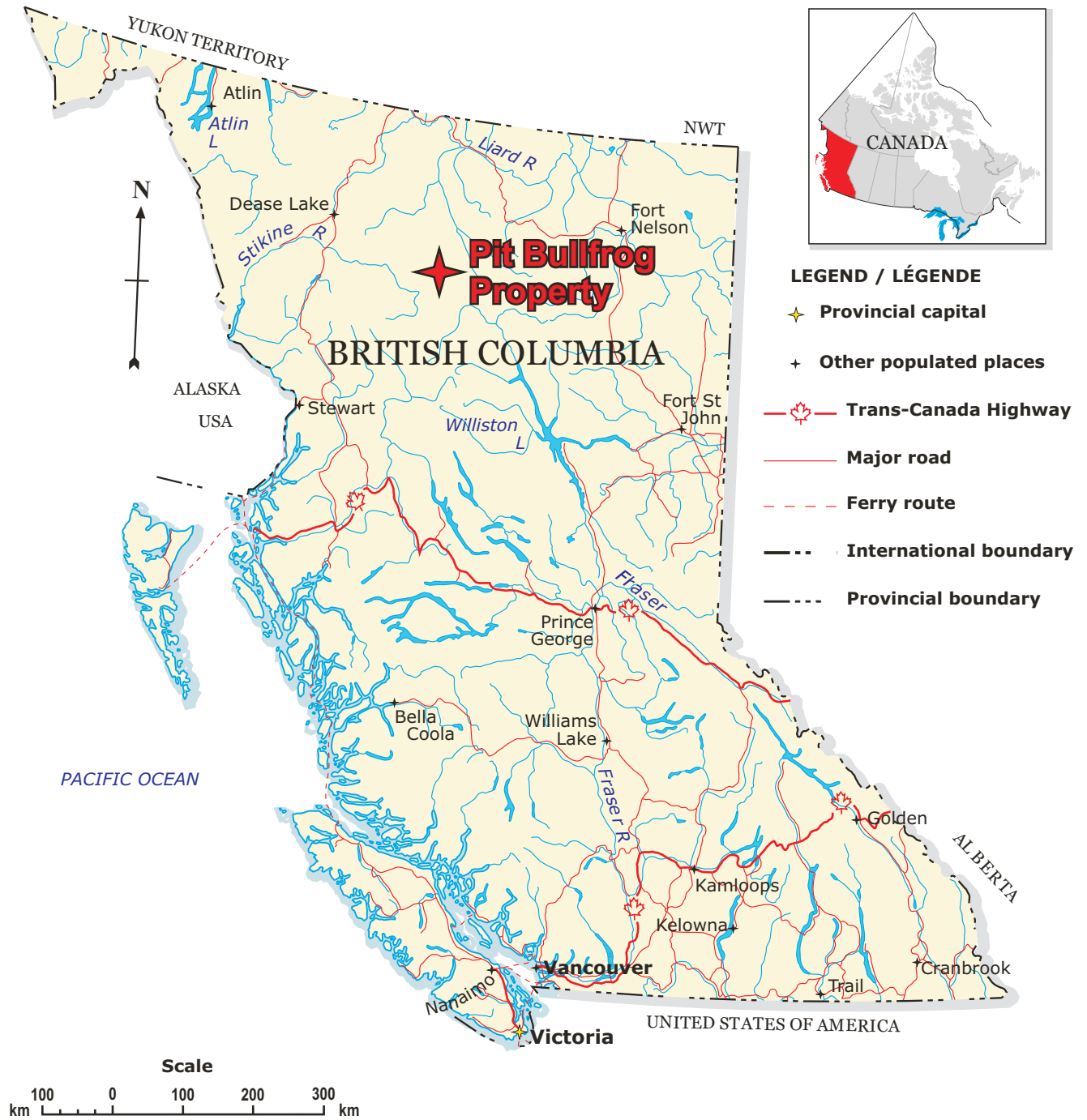


Figure 1. Location map of the Pit Bullfrog Property, northern British Columbia.

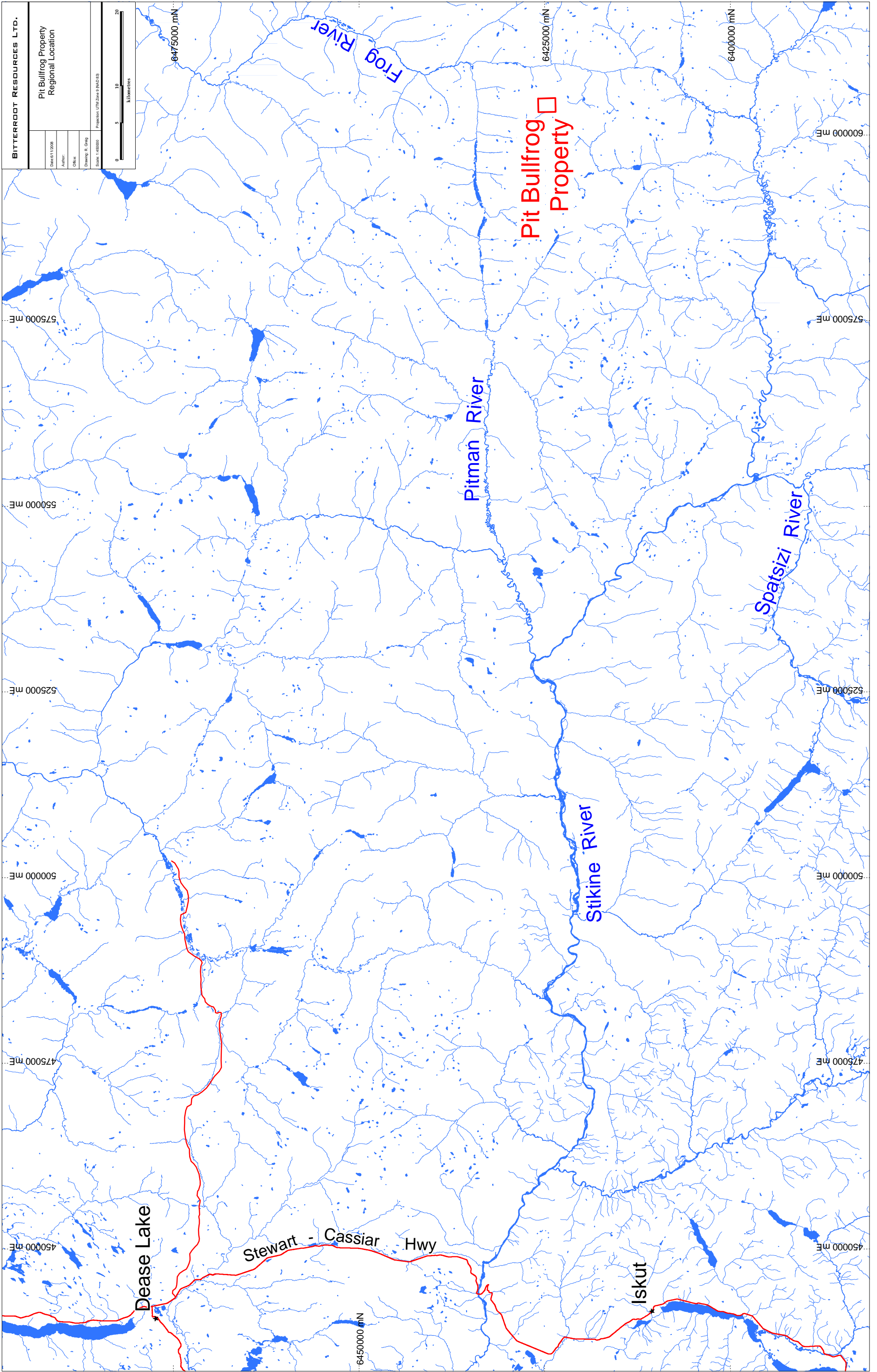


Figure 2. Location of the Pit Bullfrog Property, upper Stikine River area, northern British Columbia.

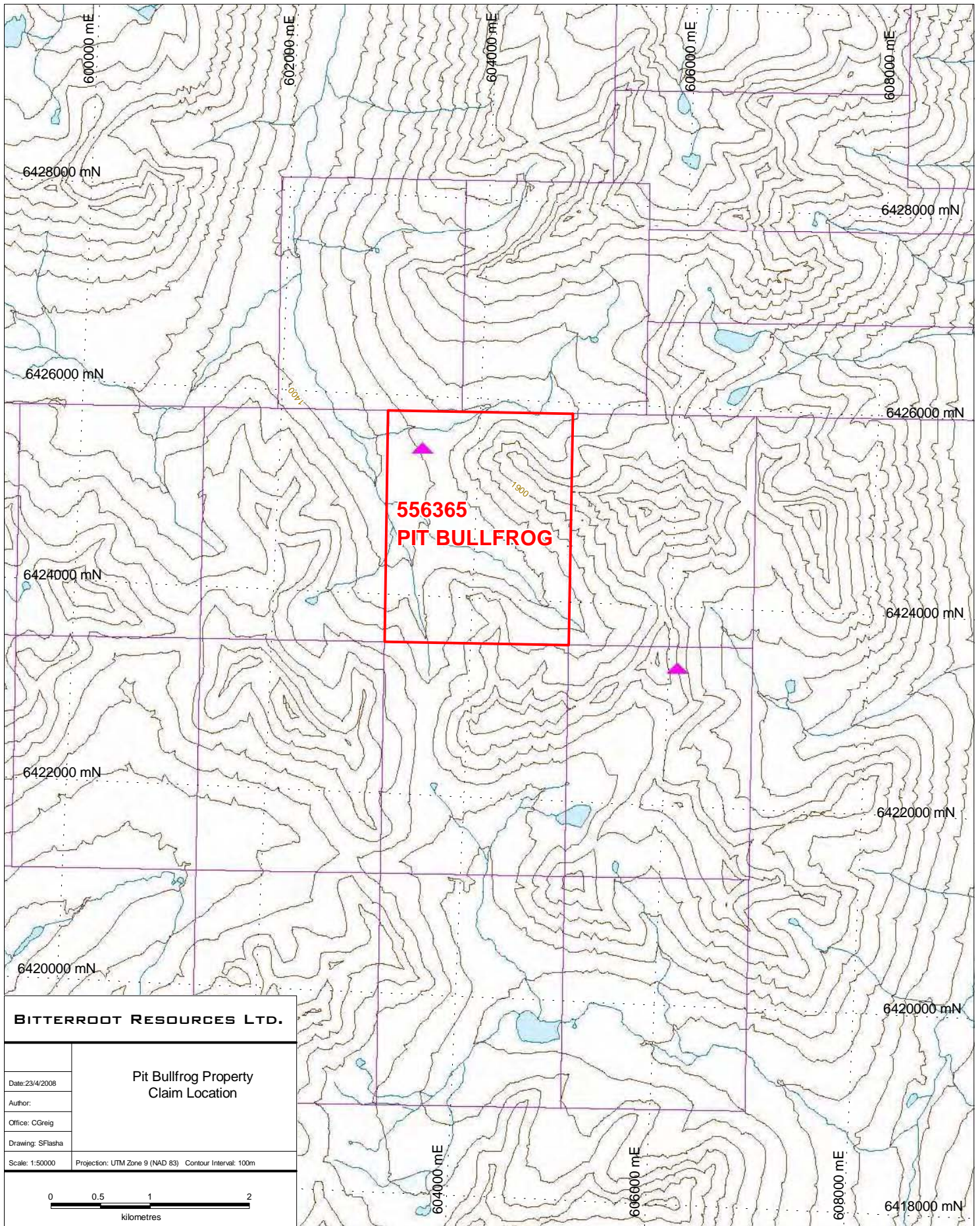


Figure 3. Pit Bullfrog property claim location map, Liard Mining Division, northern British Columbia.



### **3.0 Claims**

Bitterroot Resources Ltd.'s Pit Bullfrog property (fig.3) consists of one claim covering a total of 430 hectares. The tenure were staked online by Charles Greig in April 2007, and optioned thereafter to Bitterroot Resources Ltd. The claim lies within the Liard Mining Division and is in good standing until September 15, 2012.

### **4.0 Geologic Setting, Previous Work, and Mineral Occurrences**

According to geology maps available on the Ministry of Mines website, the Pit Bullfrog property is underlain entirely by Early Jurassic granodioritic intrusive rocks, possibly of the Pitman Batholith (fig. 4).

The only previously documented work on the Pit Bullfrog property is that reported by Kalnins and Stollery (1968), who located the two B.C. Minfile mineral occurrences on, or in the immediate vicinity of, the Pit Bullfrog property. Kalnins and Stollery (1968) reported some excellent silt geochemical values in Mo and Cu, and noted the potential for a bulk tonnage-style deposit on the property in their two week reconnaissance prospecting, mapping, and sampling program. They also noted that there was more than one intrusive phase present, and that the stream sediment geochemistry indicated a regionally very highly anomalous Cu geochemistry and locally very highly anomalous Mo geochemistry. In the area of highly anomalous Mo-in-silt geochemistry, Kalnins and Stollery (1968) noted three styles of molybdenite mineralization, which was found mainly in the northern part of the claims they were exploring, near the contact between the metamorphic and granitic rocks. Molybdenite occurred as blebs and sheets parallel with schistosity planes in the metamorphic rocks, as replacements of mafic minerals in granitic rocks, and as blebs and scales in widely spaced fault zones (Kalnins and Stollery 1968).

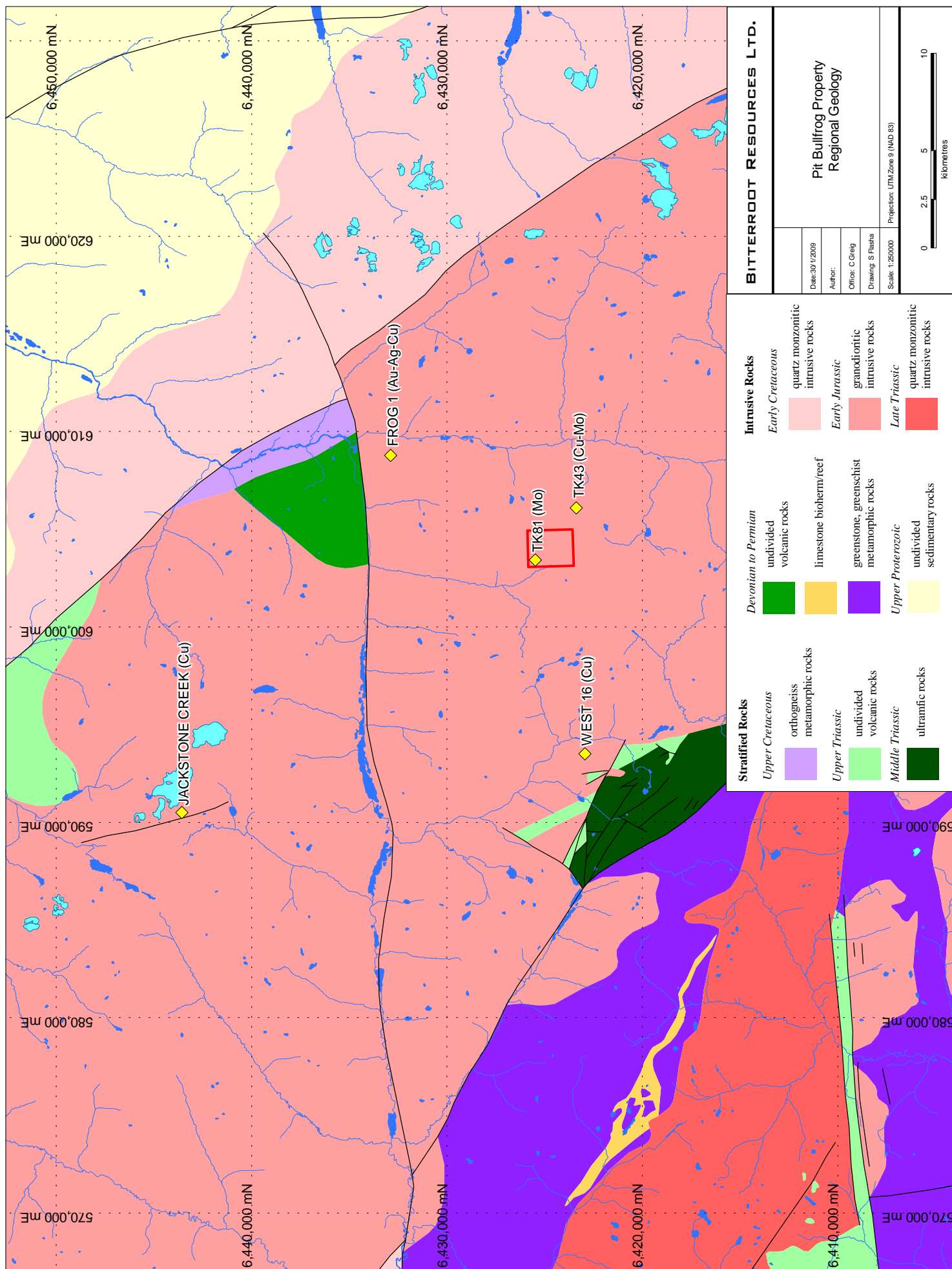


Figure 4. Regional geology, showing location of the Pit Bullfrog property and B.C. Minfile mineral occurrences in the upper Stikine River area, northern British Columbia.

## **5.0 Stream Sediment Geochemistry**

In July 2008, a four person crew collected 77 stream sediment samples from five drainages on and surrounding the Pit Bullfrog claim (fig 5). Six of the samples were moss mat samples, and the remainder were silt samples (Appendix I and II). Spacing between samples varied between 50 and 100 metres.

The results of the stream sediment sampling were encouraging, with one section of stream near the northern part of the claim averaging greater than 24 ppm Mo over 2 kilometres (20 samples) and with a high of 61 ppm Mo; Cu in this interval was as high as 318 ppm (figs. 6 and 7). A second stream, flowing northwest through the centre of the property, averaged 1363 ppm Cu over 2 kilometres, with a high of 3,200 ppm. The high in molybdenum for this stream was 11 ppm.

The stream sediment geochemical samples, which were collected from active drainages, were sent to ALS Chemex Labs in Vancouver for analysis. They were analyzed for gold and a 34 element ICP exploration package (Appendices I and II). Material collected included fresh silt, silty sand, or locally, silty mud. All samples were collected by bare hands, occasionally using the help of a mattock. The material collected was placed within Kraft paper sample bags and dried prior to shipping to the lab. Blank sample material was also sent for analyses with the stream sediment samples to test the accuracy and reproducibility of the results; analyses of four blank samples show that the work is of good quality (Appendix III).

## **6.0 Discussion**

Stream sediment sampling on the Pit Bullfrog property confirmed that the elevated molybdenum and copper values found by Kalnins and Stollery (1968) and confirmed that the British Columbia

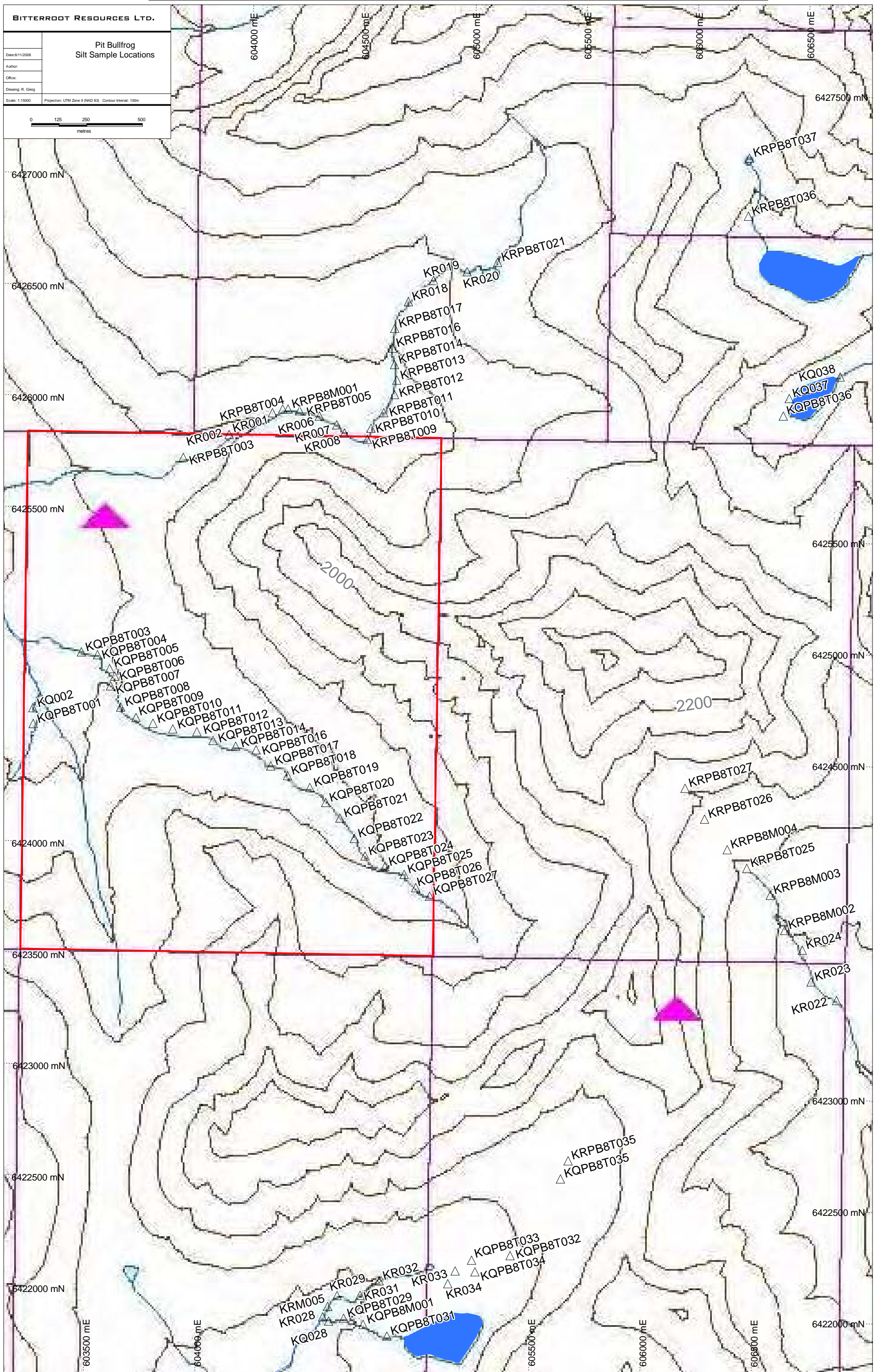


Figure 5. 2008 stream sediment sample locations, Pit Bullfrog property.

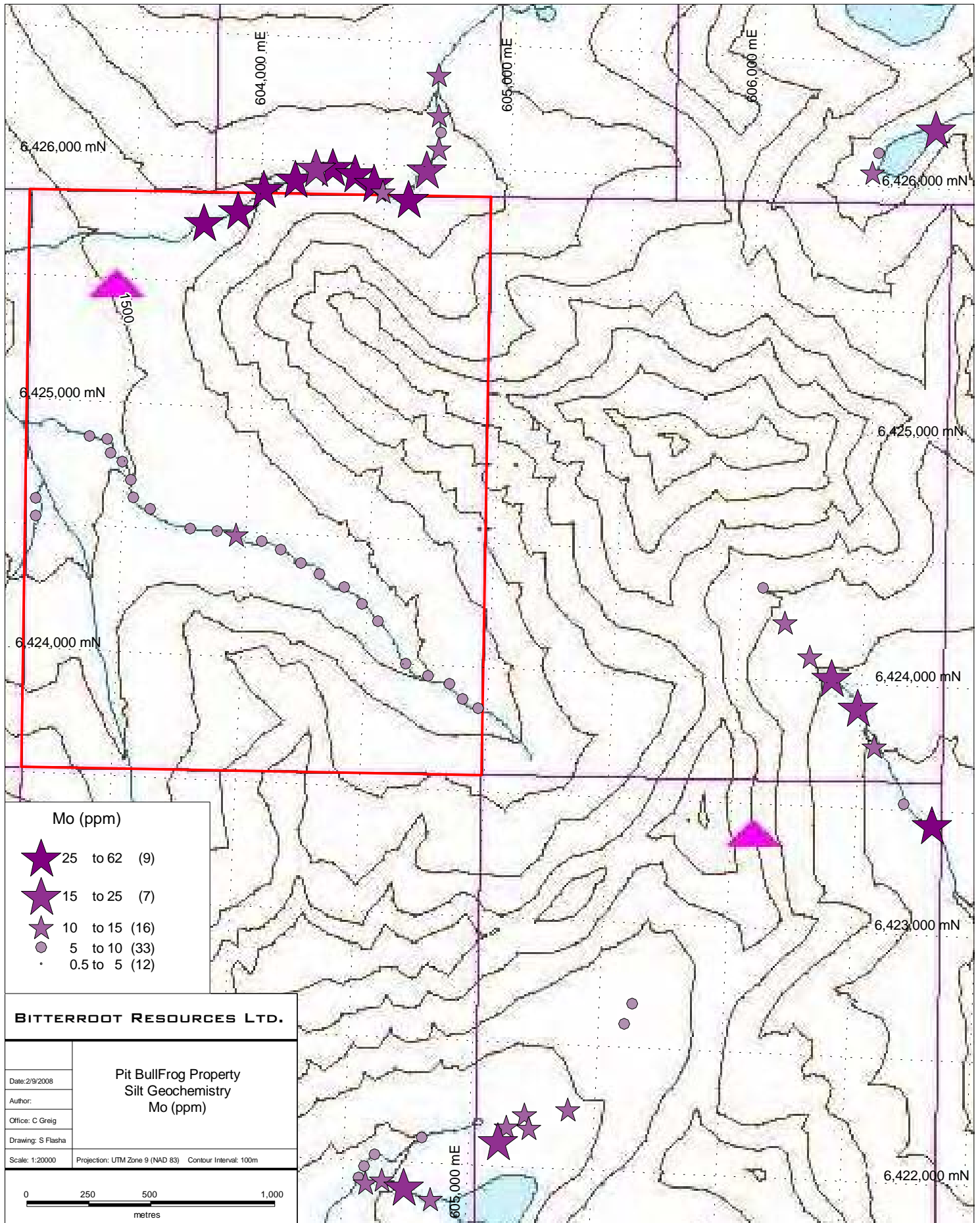


Figure 6. Molybdenum geochemistry in stream sediment samples, Pit Bullfrog property.

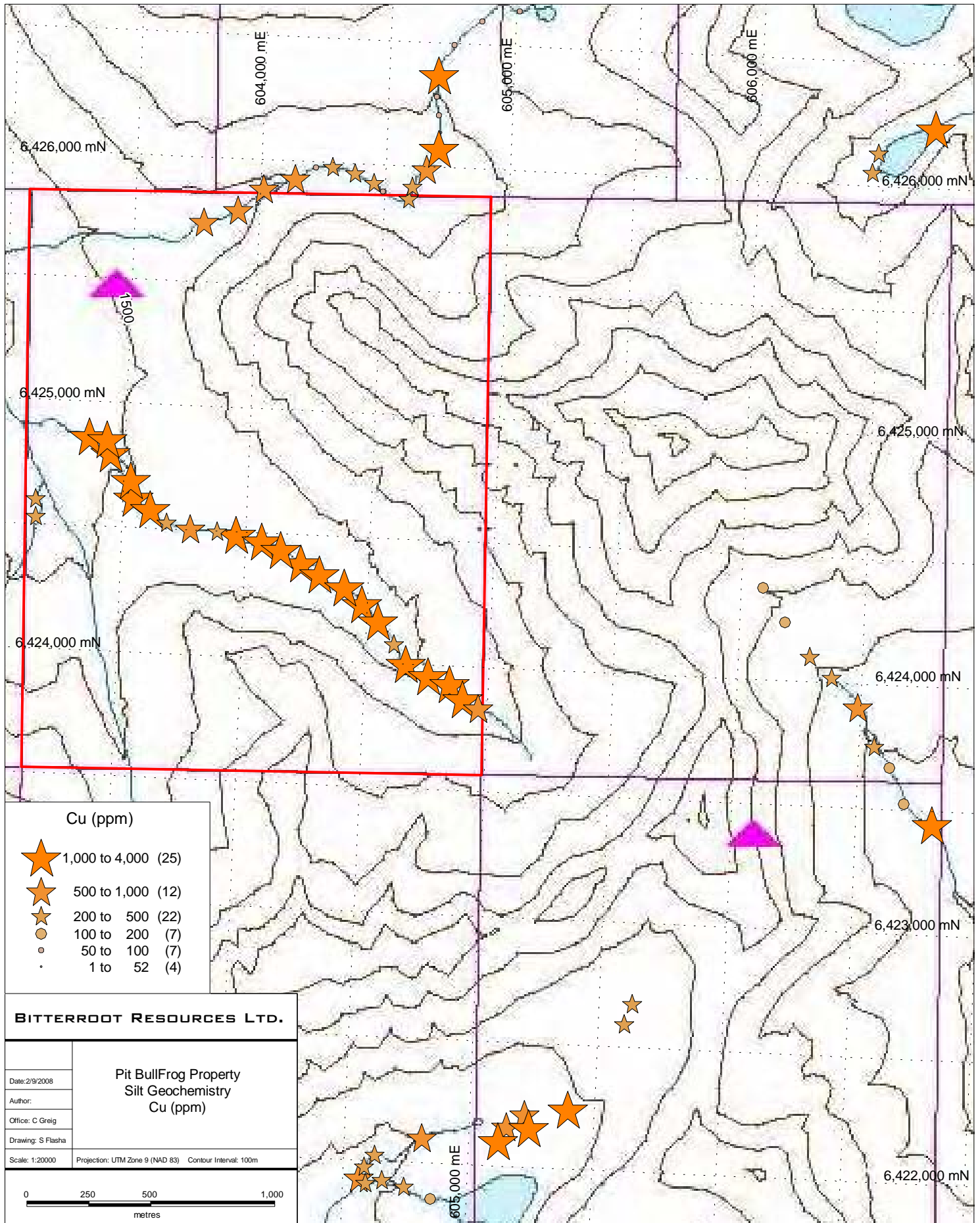


Figure 7. Copper geochemistry in stream sediment samples, Pit Bullfrog property.

Regional Geochemical Survey (RGS) values were real. The samples yielded consistently highly anomalous Mo and Cu values, with 39 of the 77 samples returning greater than 8 ppm Mo, a value which represents the 95th percentile threshold for the BC RGS database. Equally impressive is the fact that 67 of the samples returned values greater than 80 ppm Cu, which is the 95th percentile threshold for the BC RGS database. Furthermore, 25 of the copper values were greater than 1000 ppm, which is extremely high for stream sediment samples. The highest molybdenum value was 62 ppm Mo, and that sample also yielded 1,135 ppm Cu; the highest value for copper was 3,200 ppm Cu. These results strongly suggest that further work be undertaken on the Pit Bullfrog property.

## **7.0 Recommendations**

Further exploration work on the Pit Bullfrog property is highly recommended, and should include prospecting, geological mapping, further silt, and possibly soil geochemical sampling. A few drainages remain to be stream sediment sampled. This would help constrain the principal areas of interest. As some of the anomalous silt geochemical samples are from creeks outside of the claim boundary, some of the surrounding area should be staked as a precautionary measure. Much of the reconnaissance work could be undertaken out of small fly-camps set up in the various drainage basins in and around the present property, and perhaps with helicopter moves every several days, weather permitting. Prospecting, sampling, and reconnaissance mapping along the contact between the granitic and metamorphic contact described and partially mapped out by Kalnins and Stollery (1968) could help guide this work.

## **8.0 References**

Kalnins, T. and Stollery, J.W. 1968. Geological and Geochemical Report from July 21<sup>st</sup> to August 6<sup>th</sup>, 1968 on the TK Nos. 1 - 88 Claims, Liard Mining Division, British Columbia; Unpublished Assessment Report on behalf of Quebec Cartier Mining Company; British Columbia Ministry of Energy and Mines, Assessment Report No. 1,674, 21p.



## **Appendix I. Silt Sample Locations & Geochemistry**

Sample Number	Easting NAD 83	Northing Zone 9	Au ppm	Au ppb	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
KQPB8T001	603152	6424530	0.006	6	<0.2	1.66	3	<10	140	0.7	<2	0.35	<0.5	16	16	230	2.41	10	<1	0.27	20	0.54	1160	5	0.03	15	760	<2	0.03	2	2	74	<20	0.1	<10	<10	58	<10	88
KQPB8T002	603149	6424602	<0.005		<0.2	1.73	3	<10	140	0.7	<2	0.33	<0.5	20	16	276	2.34	10	<1	0.29	30	0.55	1155	5	0.03	16	790	<2	0.03	<2	3	70	<20	0.09	<10	<10	57	<10	96
KQPB8T003	603354	6424861	0.015	15	<0.2	1.49	2	<10	80	1	<2	0.32	<0.5	39	12	1680	1.91	<10	<1	0.21	20	0.44	996	5	0.02	17	900	<2	0.04	<2	1	50	<20	0.06	<10	20	37	<10	66
KQPB8T004	603427	6424851	0.015	15	<0.2	1.7	<2	<10	80	1	<2	0.23	<0.5	20	14	1560	1.97	<10	<1	0.25	20	0.49	599	5	0.02	14	810	<2	0.04	<2	2	43	<20	0.06	<10	20	39	<10	58
KQPB8T005	603485	6424792	0.013	13	0.2	1.79	3	<10	90	1	<2	0.25	<0.5	33	15	1585	2.56	<10	<1	0.25	30	0.52	2590	7	0.03	16	910	7	0.07	<2	2	46	<20	0.07	<10	20	43	<10	63
KQPB8T006	603509	6424759	0.005	5	<0.2	1.06	3	<10	120	0.6	<2	0.43	<0.5	13	9	49	5.15	<10	<1	0.06	20	0.21	3830	6	0.03	6	720	2	0.06	<2	1	74	<20	0.03	<10	10	35	<10	62
KQPB8T007	603492	6424715	0.018	18	<0.2	1.75	3	<10	90	1.2	<2	0.25	<0.5	32	15	1980	2.19	<10	<1	0.27	30	0.55	765	7	0.03	16	910	5	0.08	<2	2	43	<20	0.07	<10	20	43	<10	67
KQPB8T008	603542	6424622	0.017	17	<0.2	1.37	<2	<10	80	0.8	<2	0.27	<0.5	26	13	1175	1.87	<10	<1	0.21	20	0.48	825	5	0.03	13	790	5	0.05	<2	1	41	<20	0.06	<10	10	38	<10	59
KQPB8T009	603612	6424578	0.015	15	<0.2	1.7	3	<10	80	1	<2	0.25	<0.5	33	14	1665	2.02	10	<1	0.25	20	0.52	1140	7	0.03	15	820	6	0.06	<2	2	46	<20	0.07	<10	20	40	<10	59
KQPB8T010	603690	6424555	0.012	12	<0.2	1.01	3	<10	70	<0.5	<2	0.18	<0.5	4	11	325	1.36	<10	<1	0.18	10	0.44	336	2	0.03	8	580	3	0.04	<2	1	33	<20	0.06	<10	<10	31	<10	49
KQPB8T011	603780	6424533	0.015	15	<0.2	1.52	3	<10	80	0.5	<2	0.21	<0.5	5	14	629	2.05	<10	<1	0.23	20	0.53	387	5	0.04	11	680	5	0.1	<2	1	42	<20	0.06	<10	10	38	<10	60
KQPB8T012	603888	6424526	0.008	8	<0.2	1.24	2	<10	70	0.6	<2	0.35	<0.5	10	14	456	1.62	<10	<1	0.2	20	0.51	700	8	0.03	9	640	5	0.07	<2	1	56	<20	0.06	<10	60	40	<10	55
KQPB8T013	603962	6424490	0.02	20	<0.2	1.49	<2	<10	80	0.8	<2	0.3	<0.5	12	14	1055	2.42	<10	<1	0.23	20	0.53	463	11	0.03	12	790	3	0.08	<2	2	51	<20	0.07	<10	10	42	<10	61
KQPB8T014	604064	6424468	0.01	10	<0.2	1.51	3	<10	80	1	<2	0.24	<0.5	26	15	1680	1.77	<10	<1	0.26	20	0.51	849	6	0.02	13	880	5	0.06	<2	2	39	<20	0.07	<10	20	39	<10	55
KQPB8T015	blank		<0.005		<0.2	1.83	7	<10	330	0.7	<2	0.84	0.8	15	49	60	3.72	<10	<1	0.14	10	0.77	1265	1	0.03	53	1780	6	0.03	<2	7	41	<20	0.13	<10	<10	72	<10	196
KQPB8T016	604157	6424457	0.016	16	0.2	2.22	2	<10	100	1.8	<2	0.23	<0.5	37	17	3200	1.93	10	<1	0.31	30	0.58	1100	6	0.03	23	920	4	0.08	<2	2	43	<20	0.07	<10	30	42	<10	69
KQPB8T017	604226	6424387	0.011	11	<0.2	1.78	3	<10	90	1.2	<2	0.22	<0.5	24	16	1775	1.86	<10	<1	0.29	20	0.56	816	7	0.03	15	930	4	0.08	<2	2	39	<20	0.07	<10	20	41	<10	57
KQPB8T018	604302	6424347	0.016	16	0.3	1.69	4	<10	90	1.2	<2	0.26	<0.5	29	15	2030	1.8	10	<1	0.27	30	0.51	878	7	0.03	16	990	4	0.08	<2	2	40	<20	0.07	<10	20	38	<10	56
KQPB8T019	604406	6424298	0.013	13	<0.2	1.61	2	<10	100	1	<2	0.23	<0.5	20	17	1605	1.89	<10	<1	0.31	20	0.56	819	6	0.03	15	880	4	0.07	<2	2	42	<20	0.07	<10	20	41	<10	54
KQPB8T020	604479	6424235	0.012	12	0.2	1.58	2	<10	100	1	<2	0.23	<0.5	19	18	1550	1.88	<10	<1	0.33	20	0.57	765	6	0.03	15	920	4	0.08	<2	2	41	<20	0.08	<10	10	42	<10	54
KQPB8T021	604546	6424168	0.012	12	<0.2	1.49	3	<10	90	0.8	<2	0.24	<0.5	12	16	1195	1.83	<10	<1	0.27	20	0.56	528	6	0.03	14	820	4	0.07	2	2	40	<20	0.07	<10	10	40	<10	57
KQPB8T022	604615	6424079	0.011	11	<0.2	0.98	2	<10	70	0.5	<2	0.37	<0.5	11	7	437	1.63	<10	<1	0.2	30	0.4	1245	1	0.03	8	690	5	0.02	<2	1	44	<20	0.05	<10	10	32	<10	57
KQPB8T023	604666	6424002	0.016	16	0.2	1.84	5	<10	110	1.3	<2	0.21	<0.5	30	20	1920	1.9	<10	<1	0.36	20	0.6	1130	8	0.03	17	960	4	0.12	<2	2	42	<20	0.08	<10	20	43	<10	54
KQPB8T024	604757	6423957	0.016	16	0.2	1.42	4	<10	110	0.9	<2	0.22	<0.5	22	18	1395	1.8	<10	<1	0.33	20	0.53	826	7	0.03	14	960	3	0.1	<2	2	40	<20	0.07	<10	10	40	<10	45
KQPB8T025	604844	6423928	0.015	15	<0.2	1.57	3	<10	110	1	<2	0.22	<0.5	17	19	1455	1.92	<10	<1	0.34	20	0.56	763	7	0.03	15	980	3	0.1	<2	2	42	<20	0.08	<10	20	42	<10	48
KQPB8T026	604900	6423870	0.019	19	0.3	1.79	<2	<10	120	1.2	<2	0.23	<0.5	18	20	1700	1.97	<10	1	0.39	20	0.61	751	8	0.03	17	1060	4	0.12	<2	2	43	<20	0.08	<10	20	45	<10	50
KQPB8T027	604963	6423835	0.011	11	<0.2	1.05	4	<10	90	0.5	<2	0.22	<0.5	6	16	614	1.68	<10	1	0.3	10	0.48	443	5	0.03	10	880	<2	0.08	<2	2	36	<20	0.06	<10	10	37	<10	39
KQPB8T028	604592	6421912	0.029	29	<0.2	1.31	6	<10	150	<0.5	<2	0.44	0.5	16	18	285	2.21	<10	1	0.28	20	0.55	1555	11	0.03	17	1130	6	0.1	<2	2	47	<20	0.07	<10	40	54	<10	63
KQPB8T029	604658	6421927	0.015	15	0.2	1.37	4	<10	120	<0.5	<2	0.38	<0.5	13	18	279	2.18	10	<1	0.26	20	0.57	1030	13	0.03	15	1100	6	0.07	<2	2	44	<20	0.08	<10	30	54	<10	59
KQPB8T030	blank		<0.005		<0.2	1.81	7	<10	330	0.7	<2	0.84	0.8	15	48	47	3.66	10	<1	0.14	10	0.76	1270	1	0.03	53	1750	7	0.02	<2	7	41	<20	0.12	<10	<10	70	<10	194
KQPB8T031	604857	6421857	0.01	10	0.2	1.6	3	<10	90	<0.5	<2	0.29	<0.5	10	25	175	2.28	10	<1	0.18	10	0.56	966	10	0.03	16	850	6	0.05	<2	2	38	<20	0.1	<10	10	53	<10	57
KQPB8T032	605394	6422241	0.016	16	0.5	2.33	<2	<10	200	0.9	<2	0.34	<0.5	19	33	1500	3.54	10	<1	0.72	30	1.3	903	10	0.04	23	1220	18	0.14	<2	4	59	<20	0.16	<10	<10	84	<10	124
KQPB8T033	605221	6422213	0.012	12	<0.2	2.23	5	<10	160	0.7	<2	0.35	<0.5	20	29	819	3.07	10	1	0.36	20	0.88	764	12	0.03	23	1120	10	0.08	<2	3	52	<20	0.15	<10	<10	66	<10	89
KQPB8T034	605239	6422161	0.028	28	0.6	2.21	2	<10	160	0.8	<2	0.3	<0.5	17	32	1290	3.66	10	<1	0.71	30	1.27	1100	14	0.03	19	1190	29	0.16	<2	4	53	<20	0.16	<10	10	82	<10	143
KQPB8T035	605605	6422594	0.008	8	<0.2	2.03	6	<10	240	0.5	<2	0.33	<0.5	14	44	372	3.62	10	<1	0.7	20	1.2	720	8	0.04	29	1310	9	0.16	<2	4	61	<20	0.16	<10	<10	84	<10	81
KQPB8T036	606455	6426055	0.008	8	0.2	1.91	3	<10	290	<0.5	<2	0.3	<0.5	12	44	433	3.19	10	<1	0.78	10	1.2	638	14	0.04	30	1220	13											

KRPB8T009	604596	6425869	0.007	7	0.3	2.01	<2	<10	320	<0.5	<2	0.28	<0.5	5	48	318	5.49	10	<1	1	10	1.48	574	61	0.02	23	1880	6	0.39	<2	6	60	<20	0.19	<10	<10	105	<10	61
KRPB8T010	604610	6425919	0.005	5	<0.2	1.03	3	<10	80	0.5	<2	0.33	<0.5	8	16	219	2.18	<10	<1	0.21	10	0.49	510	4	0.01	8	980	3	0.04	<2	1	44	<20	0.07	<10	10	43	<10	49
KRPB8T011	604664	6425991	0.005	5	0.7	1.84	3	<10	210	0.6	<2	0.41	<0.5	16	35	602	3.45	10	<1	0.5	20	1.08	767	21	0.02	22	1140	9	0.09	<2	3	64	<20	0.14	<10	20	79	<10	80
KRPB8T012	604709	6426075	0.008	8	<0.2	2.2	3	<10	240	0.9	<2	0.41	<0.5	39	37	1355	3.5	10	<1	0.55	20	1.18	1125	12	0.02	31	1240	10	0.1	<2	3	67	<20	0.14	<10	20	74	<10	99
KRPB8T013	604716	6426140	<0.005		<0.2	1.19	10	<10	50	0.6	<2	0.39	<0.5	5	14	38	2.07	10	<1	0.11	10	0.43	491	7	0.02	6	810	<2	0.05	<2	1	52	<20	0.09	<10	10	49	<10	47
KRPB8T014	604703	6426210	<0.005		<0.2	1.02	8	<10	50	0.6	<2	0.31	<0.5	5	13	59	1.61	<10	<1	0.11	10	0.35	646	13	0.02	6	800	<2	0.07	<2	1	48	<20	0.07	<10	20	41	<10	36
KRPB8T015	blank		<0.005		<0.2	1.83	9	<10	380	0.7	<2	0.9	1	16	46	44	3.54	<10	<1	0.14	10	0.73	1330	<1	0.02	51	1840	<2	0.01	<2	6	49	<20	0.11	<10	<10	67	<10	195
KRPB8T016	604691	6426283	0.006	6	<0.2	0.7	4	<10	50	<0.5	<2	0.29	<0.5	4	13	73	1.96	<10	<1	0.11	10	0.29	313	2	0.01	5	890	<2	0.01	<2	1	41	<20	0.04	<10	<10	44	<10	32
KRPB8T017	604697	6426371	0.014	14	<0.2	1.72	4	<10	220	0.7	<2	0.31	<0.5	32	26	1355	2.65	<10	<1	0.52	20	0.81	1000	14	0.02	26	1280	<2	0.15	<2	3	58	<20	0.11	<10	20	57	<10	78
KRPB8T018	604753	6426493	0.014	14	<0.2	1.73	6	<10	80	0.9	<2	0.43	<0.5	8	16	99	2.18	10	<1	0.2	20	0.65	701	1	0.02	11	1080	<2	0.03	<2	2	78	<20	0.08	<10	30	48	<10	73
KRPB8T019	604862	6426594	0.014	14	<0.2	1.58	4	<10	70	0.8	<2	0.38	<0.5	7	20	63	2.61	10	<1	0.17	20	0.57	630	2	0.02	12	1250	<2	0.03	<2	2	60	<20	0.08	<10	20	57	<10	77
KRPB8T020	605010	6426640	0.015	15	<0.2	1.66	6	<10	80	0.8	<2	0.42	<0.5	7	20	59	2.67	<10	<1	0.17	20	0.57	660	2	0.02	12	1270	<2	0.03	<2	2	69	<20	0.09	<10	20	59	<10	68
KRPB8T021	605146	6426688	0.011	11	<0.2	1.52	7	<10	70	0.8	<2	0.39	<0.5	7	15	50	2.11	10	<1	0.15	20	0.55	588	1	0.02	11	1090	<2	0.03	<2	2	64	<20	0.08	<10	20	46	<10	63
KRPB8T022	606808	6423447	0.015	15	<0.2	7.54	4	<10	190	2.5	<2	0.21	0.8	216	37	1135	2.67	10	1	0.49	20	0.93	6390	62	0.02	47	1140	<2	1	<2	3	44	<20	0.13	<10	50	70	<10	82
KRPB8T023	606690	6423526	0.009	9	<0.2	2.04	3	<10	320	<0.5	<2	0.34	<0.5	27	37	168	3.5	<10	<1	0.7	10	1.3	1135	7	0.02	29	1290	<2	0.12	<2	3	48	<20	0.15	<10	<10	83	<10	110
KRPB8T024	606644	6423666	0.009	9	<0.2	2.05	3	<10	310	<0.5	<2	0.34	<0.5	18	37	169	3.38	<10	<1	0.7	10	1.32	890	4	0.02	28	1290	<2	0.1	<2	3	46	<20	0.16	<10	<10	83	<10	110
KRPB8T025	606379	6424021	0.022	22	<0.2	4.23	3	<10	270	0.9	<2	0.23	<0.5	25	39	441	3.41	<10	<1	0.74	10	1.14	911	23	0.03	27	1400	<2	0.57	<2	3	66	<20	0.15	<10	20	85	<10	68
KRPB8T026	606181	6424233	0.006	6	<0.2	2.11	<2	<10	360	<0.5	<2	0.24	<0.5	5	28	130	4.22	10	<1	0.98	10	1.41	643	11	0.03	17	1640	<2	0.27	<2	4	67	<20	0.18	<10	<10	107	<10	68
KRPB8T027	606088	6424369	0.007	7	<0.2	2.44	<2	<10	370	<0.5	<2	0.22	<0.5	5	51	184	4.83	10	<1	1.19	10	1.57	707	9	0.04	26	1710	<2	0.44	<2	6	94	<20	0.22	<10	<10	128	<10	77
KRPB8T028	604565	6421930	0.013	13	<0.2	1.7	<2	<10	160	0.6	<2	0.34	0.5	27	22	665	2.97	<10	<1	0.4	20	0.77	1100	7	0.02	16	1250	<2	0.07	<2	2	56	<20	0.11	<10	10	70	<10	73
KRPB8T029	604625	6422027	0.009	9	<0.2	1.73	2	<10	140	0.6	<2	0.31	<0.5	25	28	452	2.76	10	<1	0.35	10	0.8	991	6	0.02	16	1060	<2	0.04	2	2	54	<20	0.11	<10	<10	66	<10	64
KRPB8T030	blank		0.006	6	<0.2	1.94	9	<10	350	0.7	<2	0.81	0.9	16	48	46	3.74	<10	<1	0.14	10	0.78	1275	<1	0.02	54	1850	<2	0.01	<2	7	44	<20	0.12	<10	<10	71	<10	196
KRPB8T031	604728	6422033	0.006	6	<0.2	0.59	2	<10	60	<0.5	<2	0.26	<0.5	3	15	36	1.62	<10	<1	0.12	10	0.26	202	2	0.02	5	910	<2	0.03	<2	1	32	<20	0.04	<10	<10	36	<10	22
KRPB8T032	604811	6422102	0.015	15	<0.2	1.9	2	<10	170	0.7	<2	0.34	<0.5	27	23	762	3.02	10	<1	0.45	20	0.88	945	8	0.02	16	1210	3	0.06	2	3	61	<20	0.13	<10	<10	68	<10	80
KRPB8T033	605150	6422162	0.025	25	<0.2	2.41	<2	<10	210	0.9	<2	0.38	<0.5	26	35	983	3.39	10	<1	0.53	20	1.11	1110	11	0.03	24	1360	5	0.09	<2	3	68	<20	0.15	<10	<10	78	<10	94
KRPB8T034	605119	6422103	0.024	24	0.5	2.48	3	<10	180	1	<2	0.3	<0.5	24	32	1625	3.75	10	<1	0.72	30	1.27	1440	15	0.03	19	1250	22	0.14	2	4	58	<20	0.17	<10	10	83	<10	148
KRPB8T035	605635	6422677	0.012	12	<0.2	1.89	2	<10	230	<0.5	<2	0.32	<0.5	12	42	337	3.3	<10	<1	0.69	20	1.1	644	7	0.03	27	1390	<2	0.15	<2	3	60	<20	0.16	<10	<10	77	<10	72
KRPB8T036	606261	6426943	0.011	11	<0.2	2.66	7	<10	70	1.5	<2	0.75	<0.5	11	19	113	2.99	10	<1	0.24	30	0.95	1080	<1	0.02	14	1310	<2	0.04	<2	3	152	<20	0.07	<10	20	63	<10	98
KRPB8T037	606255	6427204	<0.005		<0.2	2.82	3	<10	70	1.5	<2	0.71	<0.5	11	18	114	2.9	10	<1	0.23	40	0.99	877	<1	0.03	15	1300	<2	0.04	<2	3	164	<20	0.07	<10	30	59	<10	102



KQPB8T032	0.016	0.5	2.33	<2	<10	200	0.9	<2	0.34	<0.5	19	33	1500	3.54	10	<1	0.72	30	1.3	903	10	0.04	23	1220	18	0.14	<2	4	59	<20	0.16	<10	<10	84	<10	124
KQPB8T033	0.012	<0.2	2.23	5	<10	160	0.7	<2	0.35	<0.5	20	29	819	3.07	10	1	0.36	20	0.88	764	12	0.03	23	1120	10	0.08	<2	3	52	<20	0.15	<10	<10	66	<10	89
KQPB8T034	0.028	0.6	2.21	2	<10	160	0.8	<2	0.3	<0.5	17	32	1290	3.66	10	<1	0.71	30	1.27	1100	14	0.03	19	1190	29	0.16	<2	4	53	<20	0.16	<10	10	82	<10	143
KQPB8T035	0.008	<0.2	2.03	6	<10	240	0.5	<2	0.33	<0.5	14	44	372	3.62	10	<1	0.7	20	1.2	720	8	0.04	29	1310	9	0.16	<2	4	61	<20	0.16	<10	<10	84	<10	81
KQPB8T036	0.008	0.2	1.91	3	<10	290	<0.5	<2	0.3	<0.5	12	44	433	3.19	10	<1	0.78	10	1.2	638	14	0.04	30	1220	13	0.19	<2	4	53	<20	0.15	<10	<10	78	<10	79
KQPB8T037	<0.005	0.2	1.29	2	<10	250	0.5	<2	0.32	<0.5	12	32	422	2.59	<10	<1	0.62	10	0.88	539	8	0.03	24	1160	6	0.12	<2	3	46	<20	0.12	<10	10	64	<10	79
KQPB8T038	0.017	0.5	4.35	6	<10	630	1.4	<2	0.66	0.6	69	92	2030	6.07	10	<1	1.45	30	2.65	2280	23	0.08	81	1440	34	0.28	<2	8	148	<20	0.3	<10	10	157	<10	226
KQPB8M001	0.034	0.2	1.47	2	<10	180	0.5	<2	0.52	1.5	27	22	408	2.21	<10	<1	0.41	20	0.54	3450	18	0.03	25	1370	8	0.12	<2	2	61	<20	0.07	<10	50	52	<10	91

## **Appendix II. Moss Mat Sample Locations & Geochemistry**

Sample Number	Easting NAD 83	Northing Zone 9	Au ppm	Au ppb	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
KQPB8M001	604748	6421904	0.034	34	0.2	1.47	2	<10	180	0.5	<2	0.5	1.5	27	22	408	2.21	<10	<1	0.41	20	0.54	3450	18	0.03	25	1370	8	0.12	<2	2	61	<20	0.07	<10	50	52	<10	91
KRPB8M001	604234	6425989	0.007	7	<0.2	1.25	4	<10	80	0.6	<2	0.4	<0.5	6	17	72	2.46	10	<1	0.21	10	0.5	663	21	0.02	7	1060	<2	0.07	<2	1	54	<20	0.1	<10	10	55	<10	64
KRPB8M002	606562	6423752	0.011	11	3.3	3.36	4	<10	320	0.9	<2	0.3	<0.5	10	46	448	3.82	10	<1	0.82	20	1.36	628	12	0.03	29	1560	<2	0.29	<2	4	76	<20	0.16	<10	40	103	<10	90
KRPB8M003	606490	6423906	0.025	25	0.8	7.24	4	<10	250	1.5	<2	0.2	<0.5	9	42	537	3.17	<10	1	0.66	10	1.12	501	18	0.03	29	1480	<2	1.1	<2	3	59	<20	0.14	<10	30	76	<10	83
KRPB8M004	606288	6424101	0.011	11	0.3	2.85	<2	<10	330	<0.5	<2	0.3	<0.5	7	42	294	4.19	<10	<1	0.91	10	1.32	602	12	0.03	26	1590	<2	0.34	<2	4	76	<20	0.17	<10	<10	101	<10	78
KRPB8M005	604585	6421978	0.01	10	0.4	1.67	4	<10	120	0.8	<2	0.3	0.6	15	30	261	2.89	<10	<1	0.34	20	0.59	731	5	0.03	17	1190	<2	0.15	<2	2	69	<20	0.1	<10	10	69	<10	55

### **Appendix III. Blank Geochemistry for Stream Sediments**



Sample Number	Au ppm	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
KRPB8T015	<0.005	<0.2	1.83	9	<10	380	0.7	<2	0.9	1	16	46	44	3.54	<10	<1	0.14	10	0.73	1330	<1	0.02	51	1840	<2	0.01	<2	6	49	<20	0.11	<10	<10	67	<10	195
KRPB8T030	0.006	<0.2	1.94	9	<10	350	0.7	<2	0.81	0.9	16	48	46	3.74	<10	<1	0.14	10	0.78	1275	<1	0.02	54	1850	<2	0.01	<2	7	44	<20	0.12	<10	<10	71	<10	196
KQPB8T015	<0.005	<0.2	1.83	7	<10	330	0.7	<2	0.84	0.8	15	49	60	3.72	<10	<1	0.14	10	0.77	1265	1	0.03	53	1780	6	0.03	<2	7	41	<20	0.13	<10	<10	72	<10	196
KQPB8T030	<0.005	<0.2	1.81	7	<10	330	0.7	<2	0.84	0.8	15	48	47	3.66	10	<1	0.14	10	0.76	1270	1	0.03	53	1750	7	0.02	<2	7	41	<20	0.12	<10	<10	70	<10	194

## **Appendix IV. Cost Statement**

<b>Exploration Work type</b>	<b>Comment</b>	<b>Days</b>			<b>Totals</b>
<b>Personnel (Name)* / Position</b>	<b>Field Days (list actual days)</b>	<b>Days</b>	<b>Rate</b>	<b>Subtotal*</b>	
Roy Greig		3	\$325.00	\$975.00	
Kei Quinn		3	\$275.00	\$825.00	
Kelsey Rufiange		3	\$275.00	\$825.00	
Mairi Greig		3	\$275.00	\$825.00	
				\$3,450.00	<b>\$3,450.00</b>
<b>Office Studies</b>	<b>List Personnel (note - Office only, do not include field days)</b>				
Computer modelling	Susan Flasha	2.0	\$450.00	\$900.00	
Reprocessing of data	Roy Greig	2.0	\$325.00	\$650.00	
General research	Charlie Greig	2.0	\$650.00	\$1,300.00	
Report preparation	Susan Flasha	2.0	\$450.00	\$900.00	
Other (specify)				\$3,750.00	
				\$7,500.00	<b>\$7,500.00</b>
<b>Geochemical Surveying</b>	<b>Number of Samples</b>	<b>No.</b>	<b>Rate</b>	<b>Subtotal</b>	
Stream sediment	4 silts	7.0	\$26.00	\$182.00	
Soil	77 soil	77.0	\$26.00	\$2,002.00	
				\$2,184.00	<b>\$2,184.00</b>
<b>Transportation</b>		<b>No.</b>	<b>Rate</b>	<b>Subtotal</b>	
truck rental	3 days at 85/day	3.00	\$85.00	\$255.00	
kilometers	1940 (prince george to Dease)	1940	\$0.35	\$679.00	
Helicopter (hours)			\$0.00	\$5,352.00	
				\$6,286.00	<b>\$6,286.00</b>
<b>Accommodation &amp; Food</b>	<b>Rates per day</b>				
Hotel	Northway Motor Inn - 1 night		\$0.00	\$220.15	
Camp	tents, stove, supplies, rental for week	1.00	\$1,150.00	\$1,150.00	
Meals	4 people, 3 days, \$45pp	12.00	\$45.00	\$540.00	
				\$1,910.15	<b>\$1,910.15</b>
<b>Equipment Rentals</b>					
Field Gear (Specify)	bear bangers, flares, soil bags, flag			\$282.00	
Other (Specify)				\$282.00	<b>\$282.00</b>
<b>Freight, rock samples</b>					
freight	greyhound to Vancouver		\$0.00	\$98.00	
			\$0.00	\$0.00	
				\$98.00	<b>\$98.00</b>
<b>TOTAL Expenditures</b>					<b>\$21,710.15</b>

## **Appendix V. Statements of Qualifications**

I, Susan Teresa Flasha, of 764 Government St, Penticton, British Columbia, Canada, hereby certify that:

1. I am a graduate of the Okanagan University College with a B.Sc. (Earth & Environmental Science, 2003), and have practiced my profession continuously since graduation.
2. I have been employed in the geoscience industry for 5 years, and have explored for gold and base metals in Canada for junior mining companies.
3. I am not aware of any material fact or material change with respect to the subject matter of the technical report that is not reflected in the technical report, the omission to disclose which makes the technical report misleading.
4. I am an author of the report entitled; "2008 Stream Sediment Geochemistry, Pit Bullfrog Property," dated February 2009. I worked on and supervised the work program reported on herein. I have been involved with exploration on behalf of Bitterroot Resources Ltd. since March 2004.

Dated at Penticton, British Columbia, this 6<sup>th</sup> day of February, 2009.

Respectfully submitted,

*"Susan Teresa Flasha" - signed*

Susan Teresa Flasha, B.Sc.

I, Charles James Greig, of 250 Farrell St., Penticton, British Columbia, Canada, hereby certify that:

1. I am a graduate of the University of British Columbia with a B.Comm. (1981), a B.Sc. (Geological Sciences, 1985), and an M.Sc. (Geological Sciences, 1989), and have practised my profession continuously since graduation.
2. I have been employed in the geoscience industry for over 25 years, and have explored for gold and base metals in North, Central, and South America, and Africa for both senior and junior mining companies, and have a number of years of experience in regional-scale government geological mapping.
3. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia (license #27529).
4. I am a "Qualified Person" as defined by National Instrument 43-101.
5. I am not aware of any material fact or material change with respect to the subject matter of the technical report that is not reflected in the technical report, the omission to disclose which makes the technical report misleading.
6. I am the President and sole shareholder of C.J. Greig & Associates Ltd., a privately owned British Columbia corporation.
7. I am a co-author of the report entitled: "2008 Stream Sediment Geochemistry, Pitt Bullfrog Property," dated February 2009. I worked on and supervised the work program reported on herein. I am the sole owner of the mineral titles constituting the Pitt Bullfrog property.

Dated at Penticton, British Columbia, this 6th day of February, 2009.

Respectfully submitted,  
"Charles James Greig"

Charles James Greig, P.Geol