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BC Geological Survey
Assessment Report
39567

Ministry of Energy and Mines
BC Geological Survey

Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Hand trenching and Sampling

TOTAL COST: 6,618.75

AUTHOR(S): Bernie Kreft and Jarret Kreft

SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):

YEAR OF WORK: 2021

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5848432

PROPERTY NAME: O'Donnel River

CLAIM NAME(S) (on which the work was done): 1051694

COMMODITIES SOUGHT: Gold, Silver

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 104N 040

MINING DIVISION: Atlin

NTS/BCGS: 104N06w, 104N.034

LATITUDE: 59 ° 21 ' " **LONGITUDE:** 133 ° 17 ' " **(at centre of work)**

OWNER(S):

1) Bernie Kreft

2)

MAILING ADDRESS:

1 Locust Place, Whitehorse Yukon, Y1A 5G9

OPERATOR(S) [who paid for the work]:

1) as above

2)

MAILING ADDRESS:

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

Cache Creek Group argillite, limonite, quartz veins, pyrite, buried channel placer, placer gold

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

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TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for...)			
Soil			
Silt			
Rock			
Other	1 cubic metre of gravel sampled for placer gold	content	
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)	Hand trenching using pick and shovel	total of 33.231 cubic metres excavated	
Underground dev. (metres)			
Other			
		TOTAL COST:	$6,618.75

Assessment Report

2021 Field Exploration
On the
O'Donnel River Property
Tenure Worked On: 1051694
Work Period: July 3rd to August 15th, 2021

Located in the O'Donnel River Area
Northern British Columbia
Atlin Mining Division
On
NTS: 104N06W
BCGS: 104N.034
Latitude 59°21' North and Longitude 133°17' West

By Bernie Kreft

October 24th, 2021

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Location – The O'Donnel River Project is located in the Atlin Mining Division on BCGS map sheet 104N.034 centred at approximately 59° 21' 55" north and 133° 17' 24" west. The claims are located approximately 30 kilometres southeast of Atlin along the central portion of the O'Donnel River.

Access – Access was achieved by truck from Atlin via the Warm Bay Road and the O'Donnel River Road, a total distance of approximately 42 kilometres resulting in a 50 minute one-way drive time. The stretch of road between the warm springs and the property is extremely rough with numerous soft spots, washouts and creek crossings, care is recommended when driving this portion.

Topography And Vegetation – The project lies within the O'Donnel River drainage basin, which is a 50 kilometre long drainage system heading on Dixie Lake, flowing south and west and draining into the east side of the south end of Atlin Lake. Valley bottom width varies from approximately 5 metres in the canyon, located just upstream of the subject property, to approximately 350 metres in the vicinity of some of the larger meanders. Bordering both sides of the creek are bedrock benches which are covered with approximately 31.5 metres of mixed glacial clay, glaciofluvial gravels, indurated clay and tightly packed limonitic boulder to cobble gravel on bedrock. The bench on the west side of the creek has been heavily altered or modified by historic mining activity, with numerous "gullies" and divots which are remnants of the widespread ground-sluicing and limited hydraulicking which has previously taken place.

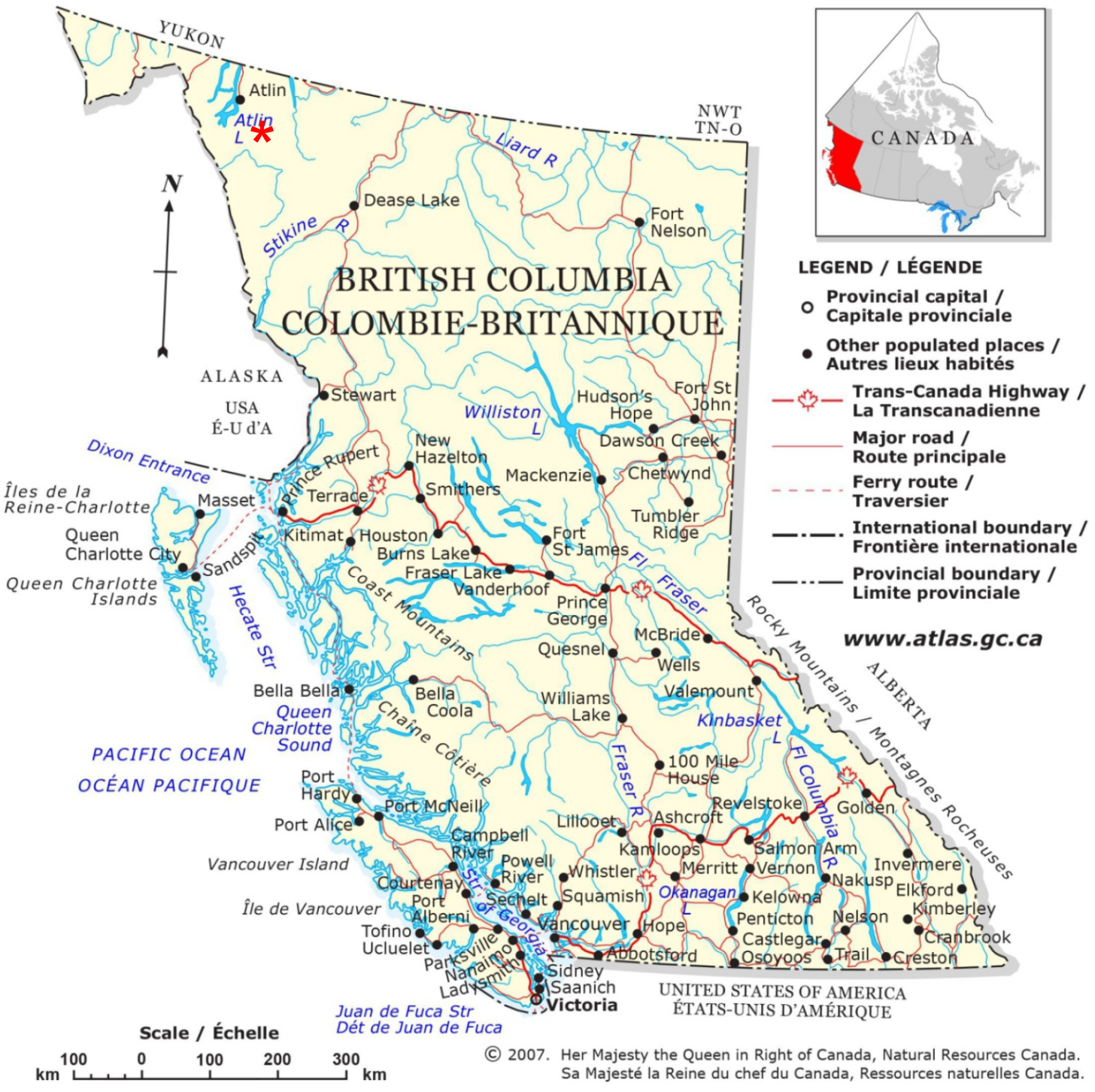
Valley bottom vegetation consists primarily of brush with occasional pine trees and rare spruce trees. The east bank of the river is covered with mixed brush and pine trees while the west bank is covered by a pine forest with occasional spruce trees.

The property is characterized by a temperate climate with temperatures reaching an average high of19˚C in July with a record high of 31˚C. Winters tend to be moderately cold with average temperatures of -19˚C in January and a record low of -50˚C. Yearly precipitation averages 190 mm of rain and 150 cm of snow with the property typically snow free from early May through to the middle of October.

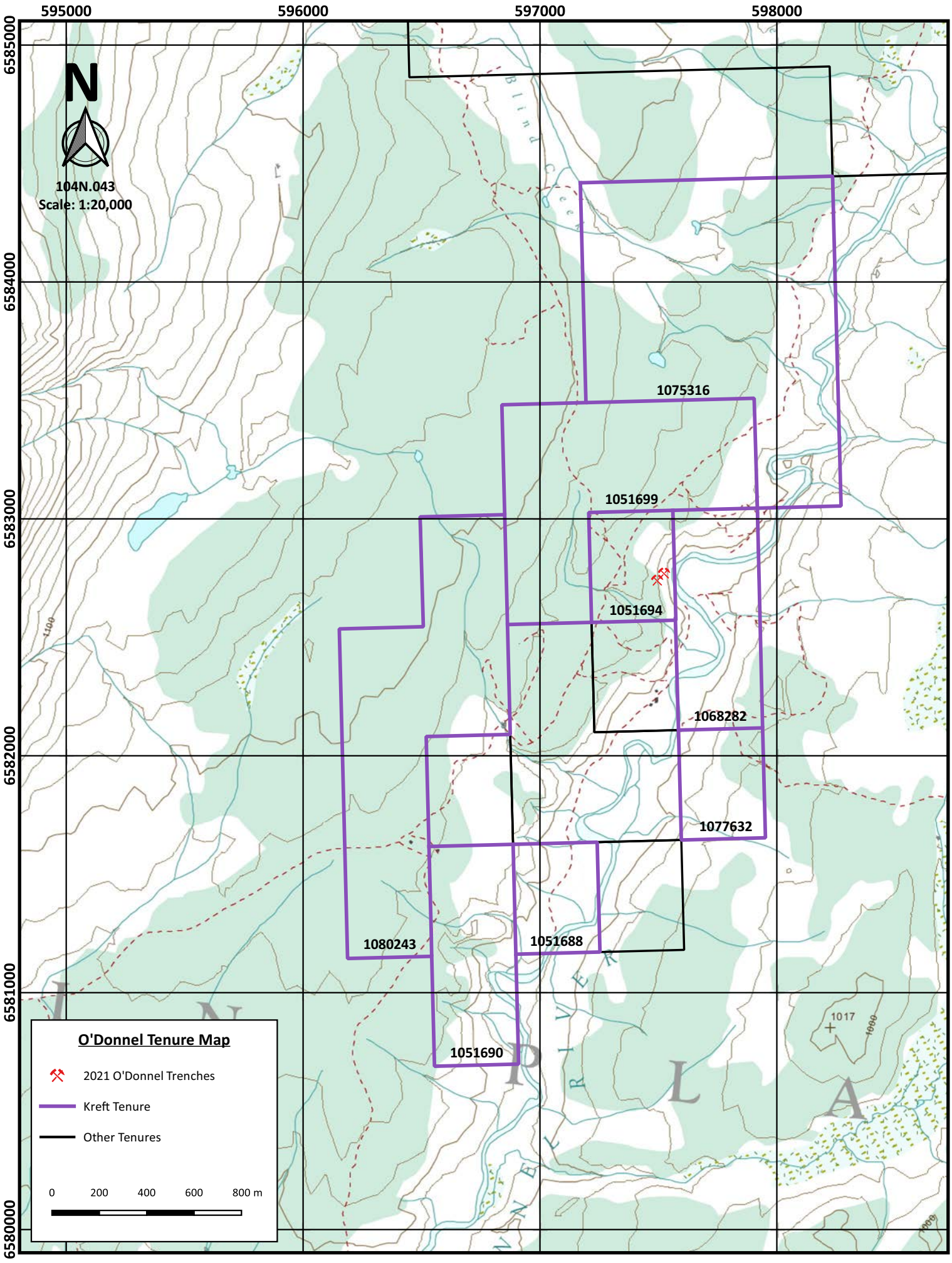
Claims And Land Status – The project is within the traditional territory of the Taku River Tlingit. Current land users active in the general area include placer miners and explorationists as well as occasional hunting traffic particularly from mid-September to mid-October. The table below details the 7 tenures that comprise this property:

Claim Name	Tenure Number	Owner	Expiry Date	Area
ODD NORTH FINAL	1051699	Bernard Kreft	2024/NOV/30	O'Donnel River
ODD NORTH	1051694	Bernard Kreft	2024/NOV/30	O'Donnel River
ODONNELL	1051690	Bernard Kreft	2024/NOV/30	O'Donnel River
ODD EAST	1068282	Bernard Kreft	2024/NOV/30	O'Donnel River
	1051688	Bernard Kreft	2024/NOV/30	O'Donnel River
PERIMETER PROTECTION	1075316	Bernard Kreft	2022/Jan/01	O'Donnel River
ODD JOB	1080243	Bernard Kreft	2022/Jan/01	O'Donnel River

Geology – Bedrock within the property area consists of Cache Creek Group argillite, cherty argillite and rare limey inter-beds. Authigenic pyrite content within these units is variable and may approach 1% in spots, with its weathering resulting in the occasional limonitic or orange stained colour of area bedrock and adjacent basal gravel units containing a significant component of bedrock material. Bedrock is known to host occasional weakly pyritic quartz veins that are discordant to bedding and weakly gold-bearing on assay.



Map to accompany 2021 O'Donnel Report	O'Donnel River Property *
Drawn By: Jarret Kreft	October 31st, 2021


595000
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1051699
1051694
1068282
1077632
1080243
1051688
1051690
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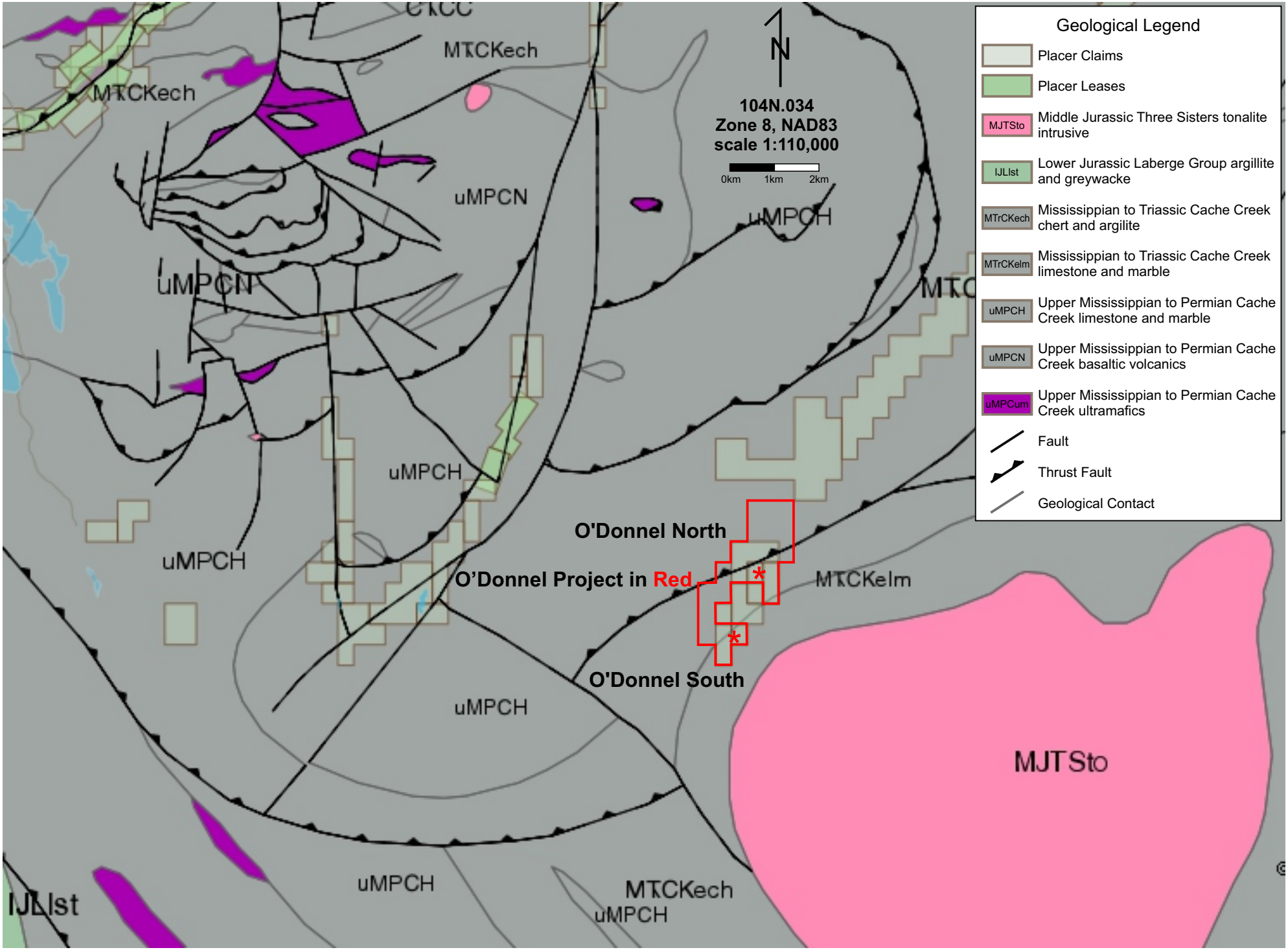
O'Donnel Tenure Map
2021 O'Donnel Trenches
Kreft Tenure
Other Tenures
0
200
400
600
800 m


Geological Legend
Placer Claims
Placer Leases
MJTSto
Middle Jurassic Three Sisters tonalite intrusive
IJLlst
Lower Jurassic Laberge Group argillite and greywacke
MTrCKech
Mississippian to Triassic Cache Creek chert and argilite
MTrCKelm
Mississippian to Triassic Cache Creek limestone and marble
uMPCH
Upper Mississippian to Permian Cache Creek limestone and marble
uMPCN
Upper Mississippian to Permian Cache Creek basaltic volcanics
uMPCum
Upper Mississippian to Permian Cache Creek ultramafics
Fault
Thrust Fault
Geological Contact
N
104N.034
Zone 8, NAD83
scale 1:110,000
0km 1km 2km
O'Donnel North
O'Donnel Project in Red
O'Donnel South
MTrCKech
uMPCN
uMPCH
MTrCKelm
MJTSto
IJLlst

Gold production within the Atlin area has typically been recovered from pre-glacial or inter-glacial channels buried by up to 80 metres of glacially derived sediments and occasional recent (Pleistocene) basaltic volcanic flows. Although bedrock within the Atlin area is quite varied, significant concentrations of placer gold are typically found within drainage basins with a significant amount of Mississippian to Permian Cache Creek Group basaltic volcanic to ultramafic bedrock. Although these favourable rock units are missing within the O'Donnel drainage basin, several thrust faults are mapped along the creek. In the Klondike Goldfields, significant placers are invariably located downstream of thrust faults active in the early Jurassic particularly in areas which are cut by later structures active in the middle Cretaceous. These dilatant zones are prime loci for the introduction of gold bearing mineralization. A similar structural setting is possible in the O'Donnel area and may be a source for the gold found in creeks with no significant component of volcanic or ultramafic rocks. Atlin area gold typically occurs as coarse nuggets and chunks generally 75% to 85% in purity.

The targeted placer deposit is located on a right limit (west) bedrock bench of O'Donnel River typically found 12 to 14 metres above river level. Unconsolidated deposits in the area of the 2021 test-work include a basal section of hard packed limonitic boulder to cobble gravel approximately 1.5 metres in thickness on bedrock. Covering the limonitic boulder gravels is a 27.5-33.5 metre thick mixed sequence of glacially derived indurated clayey till and gravel with numerous angular clasts, clay rich glacial till with cobbles and boulders and fine loose to moderately packed glaciofluvial gravels. Exposures of the basal gravel layer, which was the target of 2021 fieldwork, are rare as slumping of the bank has typically covered the section with at least 2.0-3.0 metres of unconsolidated slide material. Consequently, hand digging is necessary to expose the basal gravel layer for sampling. Gold from the O'Donnel River reportedly occurs as coarse nuggets and chunks with a purity of approximately 80.5%.

History And Previous Work – Discovered in 1898, the Atlin Goldfields have been in near continuous production since. Gold production from discovery to 1945 totals approximately 600,000 ounces and the Goldfields continue to be a significant producer to this day. The O'Donnel River is located in the southeast corner of the Goldfields and was discovered in 1898 during the preliminary "rush" to the district. Production from the O'Donnel River between discovery and 1945 totals approximately 6,455 ounces with the majority of this occurring between 1910 and 1920. A chronological summary of publicly available exploration and mining data pertaining to the immediate project area is as follows:

BCGS Annual Report 1898 – Gold was discovered on the O'Donnel River, with results suggesting it would be equal in richness to the main creeks of the camp.

BCGS Annual Report 1899 – Although numerous claims and leases were acquired, the bulk of work was completed on tributaries to the O'Donnel near its headwaters.

BCGS Annual Report 1905 – A significant amount of claim staking and cursory prospecting was conducted but little of substance was completed and the majority of the claims were abandoned even though a large volume of pay gravels were thought to be present.

BCGS Annual Report 1906 – A crew of 4 men were shafting and drifting on the O'Donnel River on the Gold Hill leases; which is thought to be the area of the current property. Production was reported as an ounce of gold per man day and plans were to acquire either a dredge or a steam shovel.

BCGS Annual Report 1907 – A crew of 3 men was active on the O'Donnel River. Supplies were brought in and preparations for mining were begun, but financial difficulties caused an early stop to operations.

BCGS Annual Report 1908 – The main claimholder on the creek created a company and raised sufficient money for further development of the placers.

BCGS Annual Report 1910 – Prospecting was conducted and further equipment including a steam boiler and pumping equipment was purchased and mobilized to site.

BCGS Annual Report 1911 – Extensive amounts of developmental work were conducted including the construction of a sawmill, pumping and hoisting outfits, a 900 metre long water supply ditch, stables and bunkhouses. Although equipped with 2 pumps the operation was unable to continue their valley bottom shaft to bedrock due to groundwater inflow and operations were shut down early. Further work was recommended including the acquisition of a steam shovel or dredge.

BCGS Annual Report 1912 – The shaft started in 1911 was continued, but even with a significantly larger pump, groundwater inflow proved too much and shaft sinking was discontinued. A Keystone drill was brought in and although good gold values were found on bedrock at 28.6 metres (94 feet), the depths coupled with large amounts of groundwater terminated efforts in the valley bottom. Focus shifted to a bedrock bench located approximately 9 to 15 metres above creek level which contained rich pay gravels on bedrock and several layers of washed gravel with good gold values higher in the section.

BCGS Annual Report 1913 – The 1912 discovery of rich gravels on a bedrock bench spurred staking and exploration. Numerous men were active on the creek driving drifts into the bench deposit, doing a stream diversion and mining valley bottom surface gravels as well as digging a ditch to bring water from Canyon Creek to aid in sluicing and to power a hydraulic elevator. Very rich pay was reportedly discovered.

BCGS Annual Report 1914 – Work included the driving of 609 metres (2,000 feet) of drifts, cleaning of 12,000 square feet of bedrock, along with extensive ditch and flume construction to help provide water to these workings. Although numerous rich spots were located, and a significant amount of gold was recovered, high operational costs related to difficulties in obtaining a sufficient water supply saw the operation lose money.

BCGS Annual Report 1915 – Although a significant amount of preparatory work including the construction of extensive water supply systems and much stripping was completed, a shortage of water caused an early end to the season and much of the prepared ground was left un-sluiced.

BCGS Annual Report 1916 – Although a large amount of gravel was moved by hydraulic methods, much of the area worked had previously been subjected to drift mining, resulting in a significantly reduced gold recovery. It was felt that the limits of the drifting were reached this season and subsequent hydraulicking efforts into virgin ground would yield significantly better results.

BCGS Annual Report 1918 – A small crew was at work for a limited time and the returns were good.

BCGS Annual Report 1919 – A small crew was at work for a limited time and the returns were good.

BCGS Annual Report 1920 – A crew of 7 or 8 men spent much of the season prospecting on the creek and some gold recovery was reported.

BCGS Annual Report 1929 – A 2-man crew spent the winter drift mining and the summer washing the gravels.

BCGS Annual Report 1930 – A 2-man crew spent the winter drift mining and the summer washing the gravels. Good gold recovery was reported.

Bulletin 1, 1931, Placer Mining in British Columbia – A thorough geological evaluation of this creek was made by the provincial geologist. High bedrock was noted along the left limit (east bank), and although some gold was noted in the patches of gravel covering it, prospects for a large buried channel were thought to be limited. On the right limit of the creek there is a low bedrock bench that is covered with glacial till and gravels and which dips to the northwest indicating potential for a deep channel to the west of the face. Drifting into this face indicates that the bedrock underlying the channel is hummocky and includes several subsidiary channels of varying width, rim-slope and depth. At least two layers of bedded gravel of "appreciable thickness" were noted well above bedrock within the glacial till and clay. These layers likely represent inter-glacial stream deposits, are known to contain gold, and may pay to work. The creek was thought to have good potential for both large-scale hydraulic operations as well as smaller drift mining operations.

Murphy Lease – This 3-person operation was involved in drifting along the west bank of the creek. Bedrock is described as west dipping, decomposed, iron rich schist. Drifts extend for at least 122 metres (400 feet) and the west rim has yet to be found. Workings are dry and values of up to $20 per set have been reported. Based on information found on page 36 of BC Department of Mines Bulletin, a set is thought to represent 4 feet of drift advance.

Prpich Lease – Located upstream of the Murphy Lease, valley bottom gravels were being worked. Although mostly fine gold was recovered, some nuggets were located on hardpan found in bedrock depressions. Fair wages were earned. Plans were to commence a drifting operation during the winter.

Miller Leases – Located downstream of the Murphy Lease, shafting was being attempted in the vicinity of an older drift. Efforts in this area appear to have been focused on what was thought to be bedrock rim, but under closer examination was found to be a large glacial erratic.

BCGS Annual Report 1932 – Prospecting activity increased in this area. Various areas were being worked including:

Murphy Lease – This crew continued their drifting activities, and had encountered a large area of gravel averaging approximately $5 per cubic yard.

Pini Crew – A crew of 6 were operating on Murphy's ground and were involved in shaft sinking in the valley bottom as well as driving a drift into the right limit bank just upstream from the Murphy workings. Valley bottom work was hindered by groundwater inflow.

Prpich Lease – This crew was involved in driving a bedrock drift in hopes to tap the deeper channel postulated to occur to the west of the face. Work suggests that the bedrock dips to the west, but at a very shallow angle.

Viola Crew – This group were working on Prpich's ground and were involved in drifting at the "bluff" approximately 200 feet north of Prpich's drift as well as shovelling on hardpan in a 6 foot deep pit close to river level.

BCGS Annual Report 1933 – Prospecting continued along the O'Donnel River at various areas.

Murphy Lease – This crew continued their drifting activities with reportedly good gold recovery and an appreciable amount of pay gravels were outlined.

Pini Crew – This crew continued their shaft sinking efforts. The elevation of the collar of their shaft is about midway between the portal of the Murphy drift and creek level. Although bedrock was thought to be only 35 feet down, significant groundwater inflow was hindering these efforts.

Fosberg Crew – A crew of 3 leased ground from Murphy and were involved in driving a drift approximately 400 feet northwest of Murphy's portal. The tunnel was 339 feet long and an "encouraging" amount of gold was being recovered.

Louis Piccolo – Was involved in shovelling in on the Prpich Lease which was located just upstream of the Murphy lease.

Lee and Freeval – Located approximately half a mile upstream of Piccolo, this operation was involved in drifting and excellent gold values were reportedly encountered.

BCGS Annual Report 1934 – Prospecting continued on the O'Donnel River.

BCGS Annual Report 1935 – Prospecting continued on the O'Donnel River.

BCGS Annual Report 1936 – A total of 7 small drift mining operations were active on bench gravels of the O'Donnel River.

BCGS Annual Report 1937 – A detailed examination of the O'Donnel River was undertaken by the district engineer for the provincial government.

Murphy Lease – This crew continued drift mining with gold recovery totalling 33 ounces from 500 cubic yards. The adit portal was measured as 47 feet above creek level. Bedrock within the adit was relatively flat for approximately 800 feet westerly into the bank, whereupon it plunged steeply to the west.

John Thomson – Patches of yellow gravel were located on the east bank of the O'Donnel, approximately 1,200 feet northeast of the Murphy adit.

Prpich – Shovelling in, conducted in 6-8 foot deep valley bottom gravels approximately 1,000 feet upstream of the Murphy adit on the west side of the valley, was yielding fair values in coarse gold.

The district engineer noted:
1) a steep westerly plunge of bedrock at the western extremity of several drifts
2) the possibility that the flat bedrock of the Murphy workings and other drifts in the area represents a bench to a deeper channel located farther to the west

3) a total of 38 adits along a 2 mile stretch of creek, many of which were too high or too low to properly test the ground
4) bedrock within the channel targeted by drifting was hummocky and contained smaller subsidiary channels of various width and depth
5) the east rim of the west bench coincides with the west limit of the valley bottom at the south end of the canyon about 1 mile above Murphy's drift

BCGS Annual Report 1938 – Only the Murphy operation was actively mining on the O'Donnel River, several other groups are prospecting the benches, but none of them have found a definite paystreak.

BCGS Annual Report 1939 – Only the Murphy operation was actively mining on the O'Donnel River, several other groups are actively prospecting the benches, but none of them have found a paystreak.

BCGS Annual Report 1941 – Prospecting continued on the O'Donnel River.

BCGS Annual Report 1948 – Murphy and partner continued their drift work and encountered soft bedrock with an appreciable amount of gold. Although water was in short supply clean-ups were satisfactory. Prpich was working just upstream of Murphy and had driven several drifts into the west bank of the creek.

BC Geology Exploration and Mining 1972 – Assessment work was completed on a lease.

BC Geology Exploration and Mining 1973 – Two men worked for 2 months repairing an access road and building sluice boxes, settling ponds and a 12-inch water line.

BC Geology Exploration and Mining 1974 – Approximately 10,000 cubic yards of gravel from an old hydraulicked area was sluiced. Equipment included a TD-14 bulldozer and a pump. The tailings were disposed of in a large settling pond and the overflow returned to O'Donnel River.

1976 Stratigraphy Of The Placers In The Atlin Placer Mining Camp, Proudlock and Proudlock – No placer miners were active in 1976. Widespread old workings were noted during their visit, numerous pictures of which were taken.

Figure 53

O'Donnell R., adit into north bank. Three adit levels were seen in the bank, which had also been hydraulicked at one time; old channel gravels are probably 15-20' thick.

Figure 54

O'Donnell R., looking northwest to an old (?) shaft, situated 100-200 yards from bank, and a similar distance from the river.

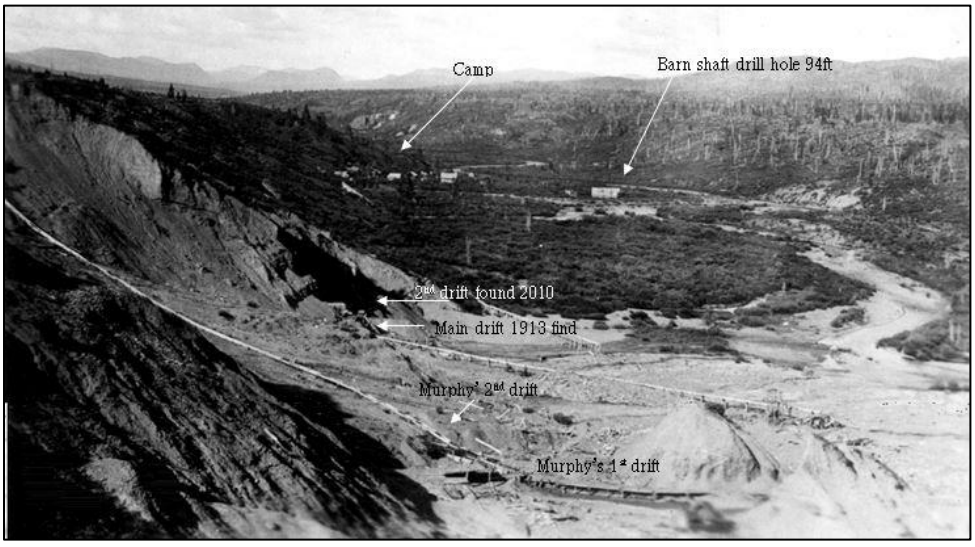
Figure 55

O'Donnell R.; old pipehead box above north bank, about half a mile west of the workings.

Photos: P. Proudlock, Aug. 8/76.

Junior Miners website listing – During 1986 the area of the Murphy workings (currently covered by claims owned by Doug Hall) was optioned by Queenstake Resources and subjected to seismic work, the drilling of 26 holes and an 1,120 cubic yard bulk test. Drilling reportedly outlined 82,823 cubic yards of gravel averaging 0.047 oz/yard for a total of 3,892.7 inferred ounces. The 1,120 cubic yard bulk sample returned 60.28 refined ounces of gold for an average grade of approximately 0.054 ounces per cubic yard.

Above Picture: auriferous fluvial gravel layer located well above bedrock



Above Picture: view looking upstream along the O'Donnel, unknown date

1998 Doug Hall – Since at least 1998 Doug Hall has been active in the area of the historical Murphy and Prpich workings. Two cuts have been opened up into the bank around these drift areas. Old equipment and material remaining from both the Murphy/Prpich workings as well as the more recent Doug Hall operations are found in two places, in the area of Murphy's drifts and about 650 metres upstream at the valley bottom camp.

From Bulletin 28, Placer Gold Production of BC

Year	O'Donnel River (13)	
	Ounces	Value
		$
1874–75	.....	.....
1876–80	.....	.....
1881–85	.....	.....
1886–90	.....	.....
1891–95	.....	.....
1896–1900	138[1]	2,298
1901–05	.....	.....
1906–10	.....	.....
1911–15	3,264	54,360
1916–20	1,106	18,415
1921–25	248	4,133
1926–30	288	4,776
1931–35	598	14,186
1936–40	412	11,932
1941–45	401	12,370
Totals	6,455	122,470

Discussion – Significant amounts of drift mining and limited amounts of hydraulicking and modern mechanical mining have occurred along the west bench of the O'Donnel River, on claims currently held by Doug Hall, which the subject property envelopes but does not include. Where exposed, drifts are concentrated on bedrock and are approximately 6 feet high, with reports suggesting they extend as much as 800 feet into the bank. Although grades of up to 1 oz every 4 cubic yards have been reported from drift mining, numerous workers reported erratic pay values likely due to the "hummocky" nature of bedrock, and the average grade is probably much less. In 1986 Queenstake Resources conducted systematic exploration of the Hall property, including drilling (26 holes) and bulk sampling (1,120 cubic yards), resulted in an estimated average grade for the deposit of approximately 0.05 ozs per cubic yard (pay thickness not reported), with this number likely a lot closer to the average deposit grade than the isolated "hotspots" reported from drift mining activities. It is also possible that the grades reported for the 1986 exploration work may represent what remains of this area of the deposit after taking into consideration the amount of gold mined out by the extensive historical drift mining activities.

Current Work And Results – A program of prospecting, hand trenching and small scale test sluicing was completed between July 3rd and August 15th 2021, in an effort to locate and assess channel gravels on the subject property. Prospecting included hand panning and assessing the targeted gravel bank while hand trenching (3 test sites) and test sluicing (1 bulk test) was concentrated in the immediate vicinity of the 2019 exploration sites on the northern part of the property.

Site 1: Located at coordinates Zone 8, NAD83, 597527E/6582733N, the original 2019 excavation was cleared of sloughage and further advancement of the excavation into the bank was completed. Exposed bank material included a limonitic indurated clay-rich gravel layer with numerous angular cobbles overlying a basal section of limonitic coarse cobble and boulder gravel that was very well packed but was significantly sandier than the overlying material. This sandy material appeared to be thickening slightly as the pit was excavated further back into the bank.

One 1 cubic metre sample of the lower 1.6 metres of gravel and top 0.15 metres of bedrock was sluiced from this pit. The sample consisted of a mixture of approximately 5% indurated clay material, 70% packed sandy channel gravel and 25% packed sandy gravel with numerous bedrock fragments and a limited amount of actual bedrock representing a total tested thickness of 1.75 metres. A total of 1.976 grams of small flakey and nuggety gold was recovered for an average grade of 1.976 grams per cubic metre. These results compare closely to the values from Queenstake's 1986 test work completed on the Hall property as well as the results from the sampling completed by the author at this site in 2019.

Site 2: Located at coordinates Zone 8, NAD83, 597520E/6582762N, an excavation approximately 3.5m wide x 3.3m high x 3.5m into the bank was completed. Exposed original bank material included a limonitic indurated clay-rich gravel layer with numerous angular cobbles interbedded with a well packed and sandy limonitic coarse cobble and boulder gravel. No bedrock was encountered in the main excavation so a 0.75 metre deep hole was dug at the base of the back wall. This hole encountered possible broken bedrock at the bottom. A total of 6 pans taken from this excavation, including the pit at the base of the back wall, returned anomalous amounts of magnetite and one fine piece of gold. These results suggest original bedrock and gold bearing channel gravels are located in this area but further digging will be necessary to properly expose them for detailed sampling.

Site 3: Located at coordinates Zone 8, NAD83, 597516E/6582770N, an excavation approximately 1.4m wide x 2.3m high x 2.8m into the bank was completed. Exposed material was comprised of limonitic and indurated clay rich gravel with both rounded as well as angular cobbles. Some sandy layers were encountered within the exposed section but no true fluvial gravels were encountered and none of the 6 pans of the limonitic material returned gold. It should be noted that bedrock was not encountered within the confines of this pit.

Excavation at Site 3 showing indurated limonitic and clayey gravel.

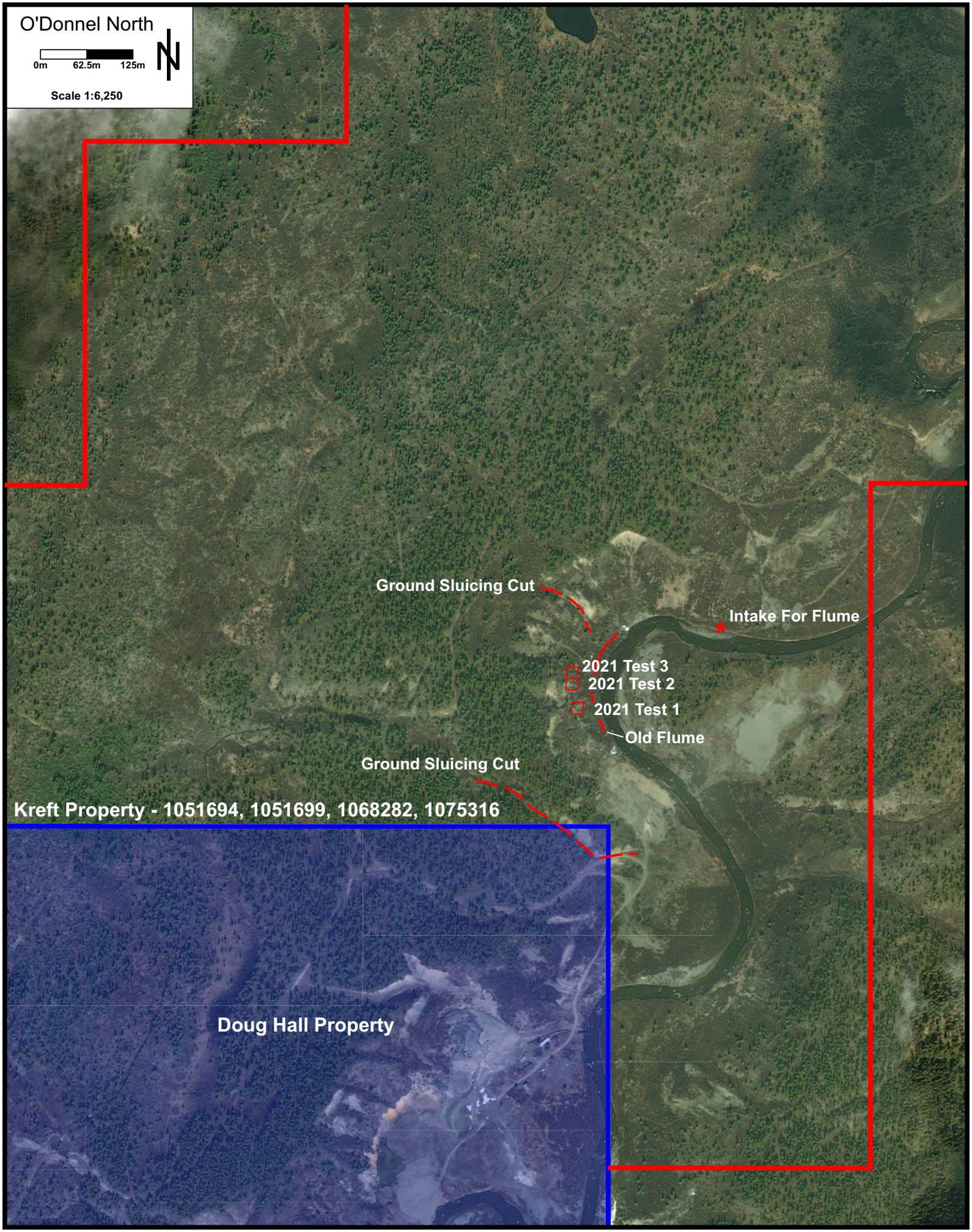
An elevation survey of the three pits was completed in an effort to help gauge where bedrock would be located at Sites 2 and 3. To accomplish this a total of 6 elevation measurements were taken at the floor of each pit, which in the case of Site 1 was on bedrock. These elevation measurements were averaged yielding the following values: Bedrock at Site 1 = 894.67 metres above sea level ("masl"), the floor of the pit at Site 2 = 895.33 masl while the floor of the pit at Site 3 = 895 masl. The average gradient of the O'Donnel River in the area of the pits was calculated using measurements found on topographical maps, and was found to be 0.3 metres of drop over 43 metres of distance, which is the approximate distance between Site 1 and Sites 2/3. Using these measurements, bedrock at Site 2 should be approximately 0.36 metres below the current floor of the pit while the floor of the pit at Site 3 should be very close to bedrock. When taken together with observations of the type of material exposed by the pits, this data suggests that Site 2 needs to be excavated 0.36 metres deeper and a bit further into the bank while Site 3 needs to be excavated much further into the bank but only a tiny bit deeper (calculated as 3cm).

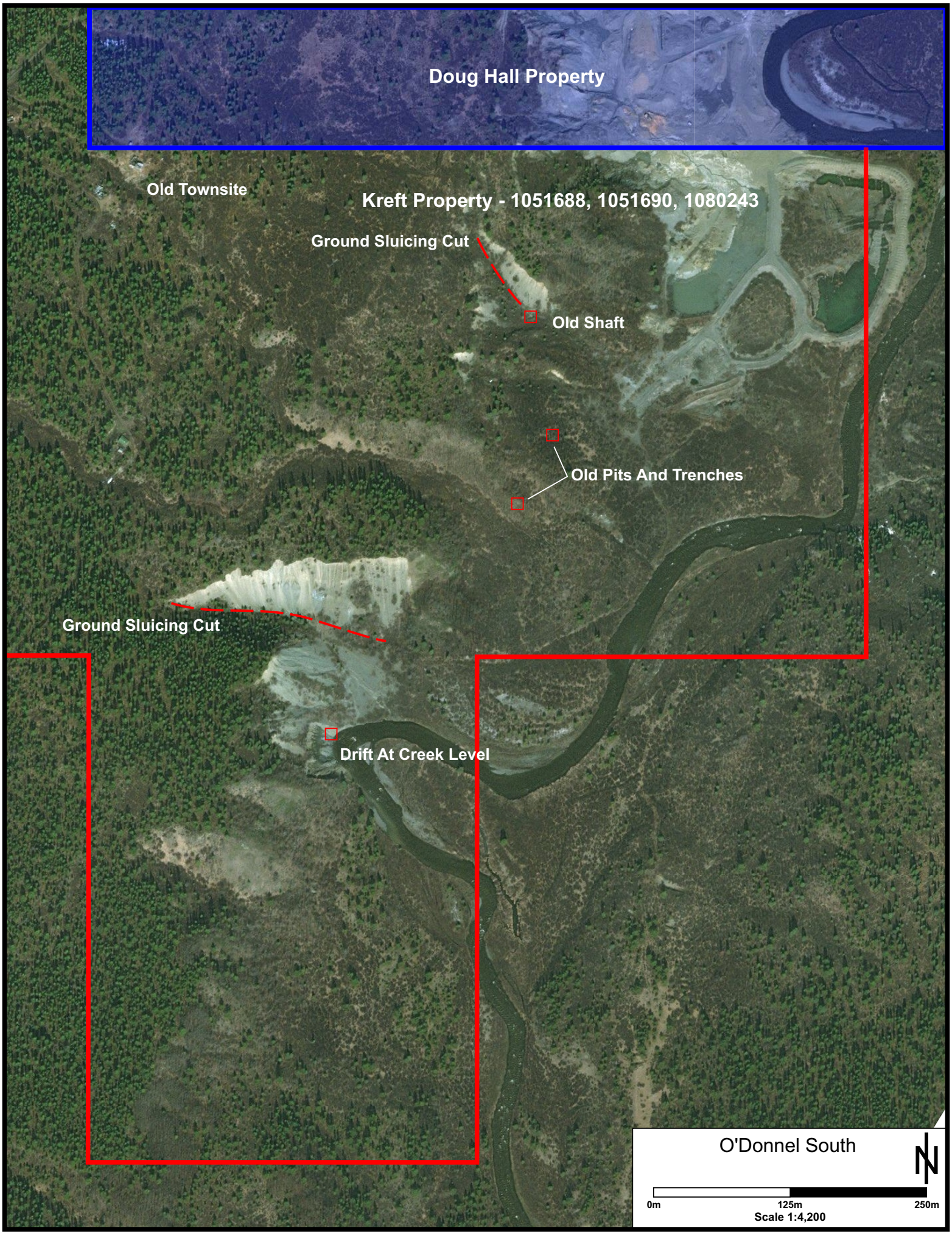
Pictures of 2021 test work: left – targeted gravel bank; right – sample packed to river for panning.

Conclusions – Although interesting amounts of gold continue to be encountered by testwork, the amount of overburden present results in a stripping ratio of approximately 1 pay to 19 stripping which suggests these grades are uneconomic. Further work is definitely warranted to test whether the testwork completed to date represents either a low-grade portion of the deposit and grades improve along strike, or whether a larger sized test yields improved grades due to the possible presence of coarse gold that wasn't encountered by the small-scale tests. The possibility also exists that the estimated channel thickness of 1.5 metres increases as the hand dug exposures had just barely tapped into original deposit material and digging further into the bank may reveal a thicker pay channel and/or better gold grades. Also significant is a lack of readily apparent historical drifting in this area which means the majority of the deposit remains intact in this area unlike areas downstream along the O'Donnel River where historical drifting efforts may have removed much of the gold that previously existed on bedrock.

Recommendations – Continued testing of the basal gravels in the area of the test sites is certainly recommended. Although pick and shovel work remain a viable though time consuming option to advance the property, mechanized trenching will ultimately be required to expose sufficient amounts of

gravel to truly assess deposit size and grade. Therefore, a small-scale low-impact excavator trenching program is recommended, with a total of 50 machine hours likely sufficient to test the targets defined by 2019 and 2021 fieldwork. A permit allowing for at least a program of this scale along with water use, for test sluicing of exposed gravels should be applied for.


O'Donnel North
0m
62.5m
125m
Scale 1:6,250
Ground Sluicing Cut
Intake For Flume
2021 Test 3
2021 Test 2
2021 Test 1
Old Flume
Ground Sluicing Cut
Kreft Property - 1051694, 1051699, 1068282, 1075316
Doug Hall Property


Doug Hall Property
Old Townsite
Kreft Property - 1051688, 1051690, 1080243
Ground Sluicing Cut
Old Shaft
Old Pits And Trenches
Ground Sluicing Cut
Drift At Creek Level
O'Donnel South
N
0m
125m
250m
Scale 1:4,200

Statement Of Qualifications

I, Bernie Kreft, directed and helped conduct the exploration work described herein.

I have over 32 years prospecting experience in the Yukon and B.C., with abundant experience in the placer mining and exploration field.

This report includes information from various publicly available reports.

This report is based on fieldwork completed from July 3rd to August 15th of the 2021 field season.

This report is based on fieldwork completed on the O'Donnel River Project, Atlin area of B.C.

Respectfully Submitted,

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Bernie Kreft

Statement Of Costs

Jarret Kreft Wages (3 days x $350/day)		=	$1,050.00
Justin Kreft Wages (3 days x $350/day)		=	$1,050.00
Bernie Kreft Wages (3 days x $500/day)		=	$1,500.00
Truck Travel 3 trips x 175km/trip x $0.75/km		=	$393.75
Food and field supplies (9 man days x $125/day)		=	$1,125.00
Report writing and research		=	$1,500.00
	Grand Total	=	$6,618.75