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ARIS Summary Report

Regional Geologist, Cranbrook

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ASSESSMENT REPORT: 24244

Mining Division(s): Fort Steele

Property Name: LMC

Location: NAD 27 Latitude: 49 17 30 Longitude: 116 04 00 UTM: 11 5460080 567869
NAD 83 Latitude: 49 17 30 Longitude: 116 04 04 UTM: 11 5460298 567786
NTS: 082F08E

Camp: 001 Purcell Belt (Sullivan)

Claim(s): LMC 1-4, LMC 7, LMC 19-24

Operator(s): Otis J. Exploration Corp.

Author(s): Rodgers, Glen M.

Report Year: 1995

No. of Pages: 90 Pages

Commodities
Searched For: Lead, Zinc, Gold

General
Work Categories: PROS

Work Done: Prospecting
PROS Prospecting (7500.0 ha;) No. of maps : 2 ; Scale(s) : 1:20 000

Keywords: Argillites, Gabbro dykes, Middle Aldridge Formation, Proterozoic, Quartzites, Tourmaline

Statement Nos.: 3077097

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Related Reports:

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORTS

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JAN 11 1996

GEOLOGICAL AND PROSPECTING REPORT
On the LMC, Lewis and peripheral claims

Fort Steele Mining Division

NTS# 82F/8E

Lat. 49°20', Long. 116°05'

FILMED

Owner & Operator : Otis J. Exploration Ltd.
1000 - 675 W. Hastings St.
Vancouver, B.C. V6B 1N2
(either 100% owner or optionee of LMC, Lewis and
all peripheral claims)

Report By:

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December 1995

GEOLOGICAL BRANCH
ASSESSMENT REPORT

24,244

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Summary

During the summer of 1995, 37.5 days were spent prospecting by T. and M. Kennedy and 20 days were spent geological mapping by G. Rodgers on the LMC, Lewis and peripheral claims. These claims were prospected for both Sullivan type and shearhosted gold deposits. Seventy two rock samples were taken and run for Au (ppb) and 32 element ICP (see appendix I). Geological mapping was done in addition to the prospecting mainly to delineate structures and to locate where "Sullivan Time" might be (ie. the Lower-Middle Aldridge Formation contact).

A model was put forward of a second "Sullivan Corridor" with undisturbed flat-lying sediments bounded by two north-northeast trending Precambrian structures 3km apart. Each structure being filled with unusually thick gabbro dyke material. The corridor is bounded by the Moyie Fault at the south end of the LMC9 claim and the Moyie River at the north end of the Lewis11 claim. Within this corridor, the area has been divided into three prospective areas; 1) Active Ridge, 2) Lewis Ridge & , 3) Panda Basin.

A major drill program is proposed for 1996 to test Sullivan Time along this corridor.

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1.0 INTRODUCTION

The property is located approximately 30km southwest of Cranbrook, B.C. within the upper Moyie River drainage. Much of the area has been logged and the road access is excellent. The area has been allocated to resource exploitation by recent land-use committees.

1.1 Summary (see page (i))

1.2 Property History

The claims that comprise the property have had minimal work done to date. Known work done (mainly by Cominco Ltd.) has consisted of some geological mapping, Aerodat airborne Mag & VLF and three drill holes none of which reached Sullivan Time.

1.3 Work Done

Work done to Oct.15,1995 consisted of 75 man days of prospecting and 20 man days of geological mapping. A total of 72 rock samples were taken and run for 32 element ICP and ppb Au. In addition several Sedex deposit experts visited the property at the request of Otis J. Exploration Corp..

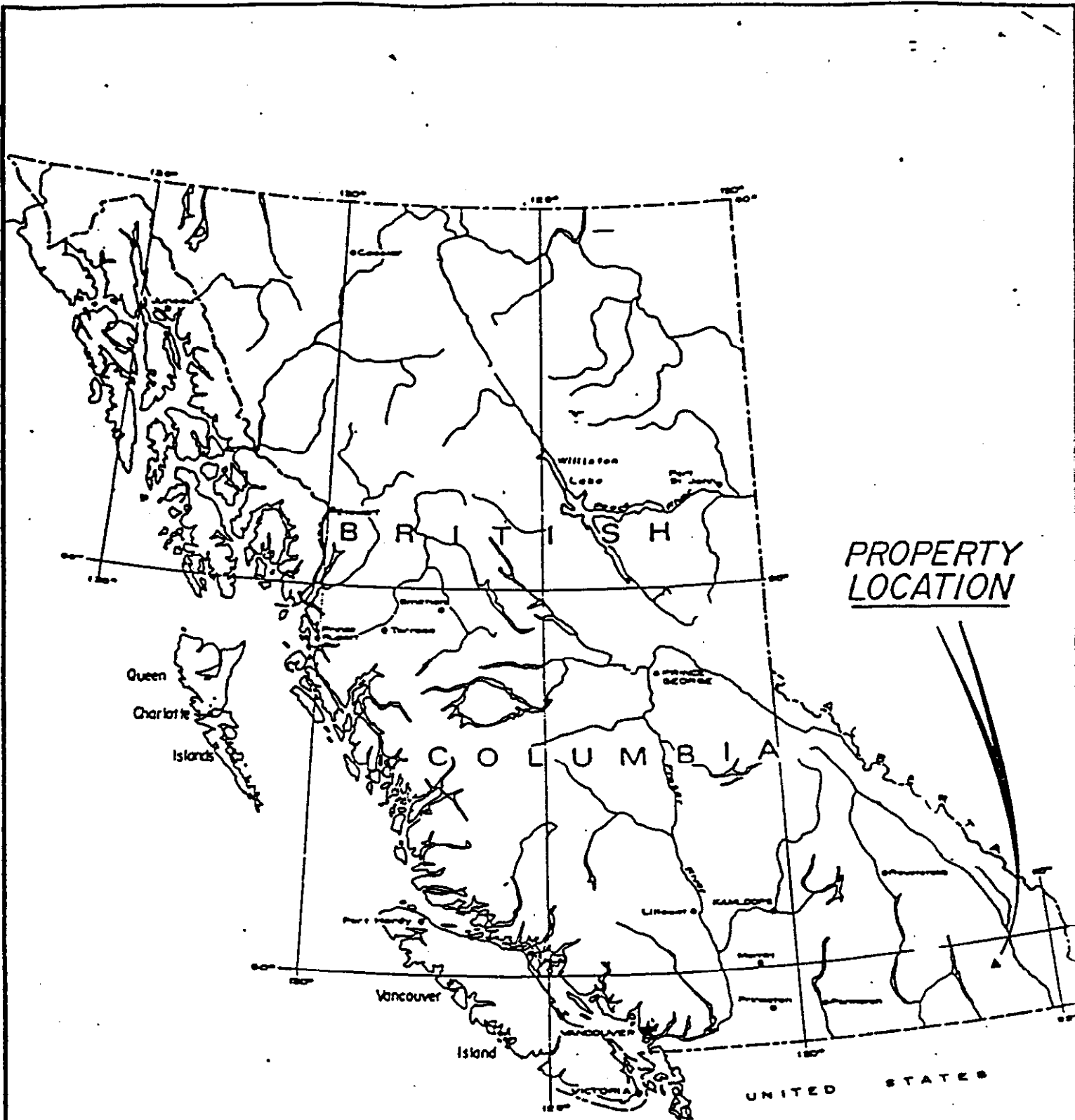


Figure 1

LOCATION MAP

SCALE
0 100 200 300 400 Km

1.4 Claim Status

Approximately 65% of the cost of this report has been apportioned to the LMC group of claims (S.O.W.event#3077097)

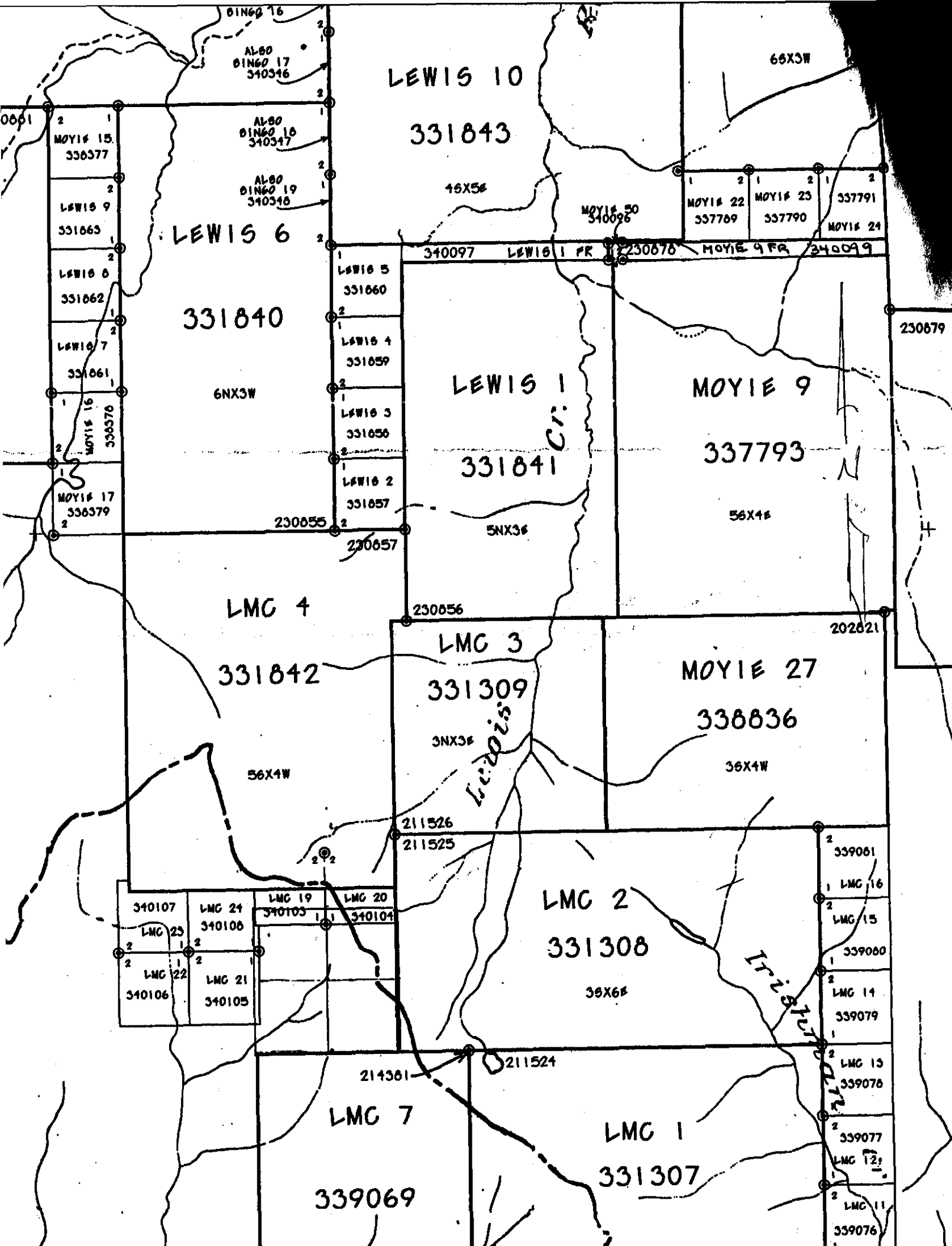
13% of the cost of this report has been apportioned to the SMC group of claims (S.O.W.event#3077614).

22% of the cost of this report has been apportioned to the BINGO group of claims (S.O.W.event#3077620).

All claims worked on are owned 100% or are optioned by Otis J. Exploration Corp..

The reader is referred to the Statements of Work listed above for a complete list of all claims involved.

Total number of units is approximately 300.



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2.0 Stratigraphy

The property is underlain by the middle Aldridge Formation which is a member of the PreCambrian Purcell Supergroup.

The Middle Proterozoic Purcell Supergroup is a thick succession of fine-grained clastic and carbonate sedimentary rocks exposed in the core of the Purcell Anticlinorium in southeast British Columbia. These rocks are believed to have been deposited in an epicratonic re-entrant of an ocean that extended along the western edge of the North American PreCambrian craton.

The oldest known member of the Purcell Supergroup is the Aldridge Formation, a thick sequence of fine grained siliclastic rocks deposited largely by turbidity currents. The Aldridge Formation is gradationally overlain by shallow water deltaic clastics of the Creston Formation (not exposed on the property). Conformably overlying Creston rocks is the Kitchener Formation consisting of fine siltstones, silty carbonate and carbonates.

3.0 Structure

The Purcell Anticlinorium is transected by a number of steep transverse and longitudinal faults which may have influenced sulphide mineral depositional processes. On the property two unusually large gabbro dykes strike north-northeast, each on either side of Lewis/Active Ridge. These two dykes are parallel and about 3km apart. It was concluded as a result of this summer's work that these dykes have followed old PreCambrian breaks which are the core of a down-dropped graben. Within this graben no gabbro sills are found but abundant sedimentary exhalative evidence can be seen. This graben therefore can be called another corridor such as the Sullivan Corridor south of the mine at Kimberley, B.C..

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4.0 MINERALIZATION

The Aldridge Formation is host to the world class Sullivan orebody at Kimberley which has produced 160mT of 6.8%Pb, 5.9%Zn and 2.4oz/t Ag. The Sullivan mine is situated at the Lower-Middle Aldridge contact (Sullivan Time), consequently this stratigraphy is prime exploration ground for the discovery of a similar deposit. On the property, the Lower-Middle Aldridge contact is believed to be between 300 and 500 meters deep.

Arsenic (arsenopyrite) values are extremely anomalous at the south end of the property (Panda Basin).

Chromium values are also elevated throughout the "corridor" (100-300ppm).

Gold values are elevated in the area known as Active Ridge. Abundant quartz-hematite-breccias are found on this ridge and are believed to be the source.

Tourmalinized fragmental, albitized fragmental and other types of fragmental can be seen in outcrop on the property. Galena can be seen disseminated within thick quartzite beds in the vicinity of the fragmental sheets and when close to tourmalinized vents. This kind of Sullivan "smoke" gives hope to the possibilities of a sulphide deposit somewhere at Sullivan Time on the property.

The prospecting report, which follows (5.0), also describes mineralization on the property.

PROSPECTING REPORT

by

Tom Kennedy

(Based on 37.5 days of prospecting work done during 1995 by Tom and Mike Kennedy over the LMC, Lewis and peripheral claims all of which were and are owned 100% or optioned to Otis J. Exploration Corp.*)

* Note: Otis J. Exploration Corp. will have its name changed during Feb.1996 to Sedex Mining Corp.

ACTIVE RIDGE AND WEST AREA

The active ridge and west area consists of the area, bounded by the property boundary to the south and west and by Lewis creek to the east. The ridge is covered mostly with thick second growth spruce/balsm and pine, with a small portion of older growth, with dense underbrush, on the ridge top. The overall exposure of rock is poor; however, there are a number of cliff faces in back basins and along the ridge top, with small exposures along some road cuts which offers a partial view of the geology.

At the eastern side of active ridge, about 1800 meters southwest of the junction of Lewis and Ridgeway creeks, there is a large zone of brecciation with a major structure trending 220 degrees cutting through the sediments. The main fault zone consists of a 10 meter wide hematite and magnetite matrix breccia. The majority of the breccia consists of silicified and albitized sediments, cut by hematite and magnetite stringers, with some massive hematite and magnetite zones occupying the core of the structure. It is cut by a number of small quartz veins containing some pyrite and limonite, with the breccia itself containing disseminated pyrite and limonite.

Along the footwall of the fault, there are a number of parallel zones of albitized chlorite matrix breccia and silicified bleached or albitized calcareous breccia zones ranging in size from 0.1 to 1 meter in width and with only minor strike lengths. All of these breccia zones were very

manganese rich. In the hanging wall of the fault zone, the sediments are slightly bleached and manganese altered, with pods of silicification containing fine-grained pyrite. This area is cut by a number of narrow 120 degree trending crystalline quartz veins with pyrite, chlorite and iron carbonate.

Along the ridge top, only erratic zones of massive hematite and magnetite brecciation were developed up to 0.5 meters in width. The zone of brecciation; however, widens with hematite and magnetite stringers forming over a 15 meter width. The zone of silicification increases to over 60m in width, with zones of silicified sediments with fine-grained pyrite and quartz veins with feldspar and limonite on either side of, as well as, within the magnetite and hematite breccia zone. The hematite breccias were not anomalous in gold where sampled; however, a 1.5m wide bedding parallel zone of quartz brecciation and silicification with fine-grained pyrite and limonite with minor amounts of galena along the edge of the zone, returned results of 0.1 oz gold per ton. Other grab samples taken from various parts of the silicified zone ranged between 80-400 ppb au.

Further to the south about 230 meters from the main zone in the talus, a number of quartz breccia blocks similar to that of the fault zone were found containing limonite in disseminations and veins. This float could be from a parallel zone as it was also anomalous in gold.

In the old logging on a landing, is a small 3m wide gabbro dyke trending 195 degrees. The dyke is non magnetic and is unaltered, but obviously part of growth fault activity.

Along the logging road to the north from the dyke, an angular peice of black silicified fragmental float was found. In the cliffs just to the south of the fault, a 6 inch wide disrupted bed and fragmental zone was found. It was dark grey in colour and very sericite and black biotite rich.

On the west side of the ridge, the magnetite breccia zone can be traced along strike by a number of very large blocks of float. The brecciated blocks are very simmlar to the zone over the ridge however the breccia contains abundant rutile crystals and has been fractured and sealed by a number of smokey black very hard quartz viens. Quartz float was also found in conjunction wth the breccia float that contained illmenite crystals, with others containing black disseminated tourmaline needles.

To the north along the ridge at the end of a long talus, there are a number of quartz breccia blocks consisting of silicified sediments with fine-grained pyrite cut by a number of quartz veins. The quartz veins contained abundant pyrite, chalcopyrite and galena. Samples taken of this float returned 215 ppb gold indicating that gold mineralization continues across to this side of the ridge.

As well as the quartz breccia zone, a number of peices of iron stained quartzite float in the talus containing concretions, with masses of pyrrhotite and biotite with pink garnet, and disseminated galena and chalcopyrite were found. Also concretions containing black and pink actinolite as well as one concretion of tourmaline were also discovered in the talus.

North of the hematite breccia zone, about 1500 meters, another 240 degree trending magnetite hematite breccia zone was found. It was about 5m wide and similar to the other magnetite/hematite breccia, except that it was more silicified and pyrite rich. The footwall of the breccia consisted of a chlorite breccia that was very manganese altered, with minor amounts of hematite and magnetite in 2-5mm wide veins along with some carbonate. The sediment fragments in the breccia were bleached and albitized. The hanging wall is strongly silicified with a well developed magnetite and hematite breccia. The breccia contained abundant disseminated fine and coarse-grained fresh pyrite. The breccia was fractured by a number of small white to clear quartz veins that are also pyrite rich. This structure was traced along strike in outcrop for 100m and in float over the ridge for another 400m.

50 meters above the magnetite hematite breccia zone, was a 1.5 to 3 meter wide bedding parallel breccia zone. It consisted of chloritic or green sericitized fine-grained silicified sediments with abundant finely disseminated

pyrite. It was dissected by a number of milky to clear bedding parallel quartz veins ranging in size from a 3 mm to 5 cm in thickness. The quartz veins were very persistent laterally and contained occasional masses of pyrite and limonite. Assays of this zone to date have returned only minor gold values.

Along the southwestern edge of the property above the power lines, was a thick unit of altered quartzite beds. They were silicified and albitized and were composed of a collage of minerals containing aggregates of black biotite coarse chlorite abundant pink garnets and often pyrrhotite. They were a concretionary bed and appear to have been formed as a result of dewatering, or were possibly an exhalative unit. There was about 20 meters of "collage" beds grading from 0.3 to 1.5 meters in width. One collage bed approximately 0.75 meters in thickness and very silicified with an abundance of disseminated pyrrhotite, also contained large masses of coarse galena up to the size of a dollar coin with coarse chlorite, and black biotite rind. Also contained in this bed was abundant pink garnet and some actinolite.

This sequence of collage beds is bounded above by a 10 meter thick, unit consisting of thin bedded biotite rich fine-grained grey quartzites with small beds of black agrillite between. Within this zone there are a number of small 1 to 2 cm thick beds of black biotite along with very carbonate freckled beds. There are also a number of

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silicified collage beds varying in size from 10 to 20 cm in thickness and in sulfide content from rich to poor. This unit displays cross bedding and is quite disrupted with individual beds swelling and pinching. Occasional albitized fragments are seen within the mass.

Above this unit is a thick sequence of grey medium grained and bedded quartzites about 30 meters thick. It contains occasional large albitized concretions with coarse chlorite, black biotite and pink garnets. This unit is cut by a number of crystalline quartz veins trending at around 120 degrees. They contain massive chlorite and some carbonate with rare iron staining and pyrite.

To the east along this unit a number of breccia zones with a parallel trend to the quartz veins were discovered. They were contained in the quartzite unit and do not cut through the lower unit. They were shaped like a funnel with the widest portion being at the base and pinching out towards the top. They ranged in size from .03 to 3 meters in width at the base. The breccias consist of bleached and albitic fragments in an albitized carbonate rich matrix. The breccias also contain coarse green chlorite and some specular hematite as well as pyrite, limonite and ankerite. They appear to be some sort of dewatering feature caused by fluid migration upwards in the quartzite unit.

Further along the cliffs going to the southeast around into the back of a small basin a number of similar breccia zones were found. They were very albitized and contained

lots of chlorite with some rare pyrite. They were also carbonate and manganese rich and were trending at 240 degrees. Chlorite and albite breccia float with rare pyrite was also found in slide chutes around into the back of the basin.

In the talus below the cliff further along into the basin, there are a number of small peices of lamprophyre or very mica and carbonate rich, altered gabbro float. In one of the structures there is a zone a few meters in width that contains abundant carbonate, and albitically altered gabbro. Also found in the talus and in outcrop below the cliffs is a very black fine-grained argillaceous unit possibly a black mud sequence. It is very iron stained and contains abundant finely disseminated pyrrhotite.

Towards the middle of the basin the beds steepen slightly and on the ridge top in the saddle between the basin and an old logging block the bedrock is very sheared. The shearing is trending at 350 degrees. The sediments are slightly chloritized and manganese altered, but the fracture zone on the whole is very dry containing little silicification.

At the back of the basin in an elongated talus below the saddle, numerous blocks of fragmental float were found.

It consisted of angular light grey fine-grained quartzite fragments, in a matrix of medium grained slightly darker grey biotite rich quartzite. The fragments range in size from a few mm to ten cm across. They are very recognizable on a weathered surface; however, on a fresh surface they are

extremely difficult to identify. The blocks are very massive in appearance and contain no bedding planes with a very pillow like texture.

In the cliffs above the talus in outcrop, there is a massive pillowy unit of grey quartzite. It is about 4 meters thick and contains rare small fragments. Possibly along its strike length it develops zones with a more dense and coarse fragmental nature such as is observed in the talus blocks.

Over the ridge to the east about 200m from the fragmental float, is another talus containing a number of blocks of fragmental float. They are very similar to the other fragmental float consisting of grey quartzite fragments in a grey quartzite matrix. In the cliffs above the talus are small 15 cm thick beds of fragmental. The fragments are angular and are very albitized. Above these fragmental beds there is a zone of biotite rich disrupted beds with zones of fragmental within. The zone is about 2-3 meters thick.

As well as the disrupted beds, there is a massive quartzite unit 2 meters thick. It is very similar in appearance to the unit containing fragments on the other side of the ridge as it has a pillowy weathered texture and is biotite rich and iron stained, containing some disseminated pyrrhotite.

Down the ridge another 100 meters to the southeast from the talus slopes, are a number of small outcrops in an old

logging block all of which contain some weakly developed fragmental for over a 150 meter thickness.

One outcrop approximately 10 meters thick contains a well developed fragmental unit. It is a massive medium-grained grey quartzite unit that is very biotite and sericite rich, containing angular quartzite and occasional albite fragments of various size. The unit contains fragments throughout with zones developed up to 1.5 meters thick that contained a very dense amount of fragments. It also contained abundant disseminated pyrrhotite and biotite with large sericitically altered concretions also containing much pyrrhotite. One small quartzite fragment was found that contained finely disseminated galena.

Below this outcrop was a series of medium bedded grey quartzites with occasional thin bedded argillite beds between. The quartzites contained numerous concretions that were albitized and silicified with pink garnets and black biotite as well as chlorite and some pyrrhotite. Also found within the quartzites were small zones of fragmental. The argillite beds were very mica rich with biotite and chlorite flakes. In one outcrop a small zone containing rare disseminated black tourmaline needles was found.

In float below the quartzites on an old road, an angular peice of very iron stained argillite was found that contained galena and sphalerite along the fractures, as well as some chalcopryrite. There was a zone of pyrrhotite rich black argillite about 3 meters thick developed between the

quartzites and fragmental unit which possibly developes lead mineralization along it and is the source for this float.

Also in float throughout the logging block, a number of peices of silicified fine-grained sediments were found. They were up to a meter across and contained abundant disseminated pyrite in the sediments and small veins.

South of the fragmental unit about 400 meters is another occurence of fragmental along the edge of the old logging block. It is about 20 meters in thickness and is identical to the other unit consisting of a massive grey quartzite with small angular quartzite and albite fragments. In this outcrop; however, there is not as much pyrrhotite, with only a minor amount in small iron stained sericitic concretions.

To the northwest from this fragmental about 400 meters at the top of the ridge, there is a 30 cm thick bed of fragmental. The fragments are all albitized and are in a fine-grained quatztite matrix.

Along the ridge top towards the southeast, there are a number of albite pods in outcrop. They trend approximately 246 degrees ranging in size from 3-0.3m containing some limonite cubes disseminated throughout and lots of chlorite. At the south end of the ridge near the top is a massive unit of white coarse-grained clean quartzite approximately 4m thick. The clean nature of the quartzite suggests that it is composed of recycled quartz sand grains and is possibly a vented sand unit.

Along the eastern end of the power lines where they cross the Moyie river large iron stained blocks of quartzite float were found along a 300 meter stretch. They are very silicified with a glassy texture and are sericitically altered containing abundant pyrrhotite with some pyrite. In the very pyrrhotite rich and intensely sericitically altered peices, rare disseminations of galena and sphalerite were found along with pink garnets. Galena and sphalerite are also found with pyrite and occasional chalcopyrite in cross cutting chlorite rich crystalline quartz veins.

Also found were large fine-grained silicified, quartz breccia blocks. They contained a lot of finely disseminated pyrite and were very chloritically altered. As well as the altered sedimentary blocks a large number of altered gabbro boulders were also found. These boulders were coarse-grained and very iron stained containing disseminated pyrrhotite. They were also cut by a number of quartz and epidote veins and also contained some disseminated epidote. Similar float was found for over 1200 meters up the road and a small outcrop of gabbro was found in the creek bottom about 1000 meters upstream from the power line bidge which was very iron stained and epidote rich.

Above the float boulders along the power line there are a number of small talus slopes. The first talus slope about 50 east of the second tower on the power line contained a number of sericitized and silicified quartzite blocks, containing crystalline quartz veins with rare galena. Galena

also is found disseminated in very sericitic and pyrrhotite rich concretions.

Further up the hill towards the southeast is an elongated talus slope. Numerous boulders of float quartz breccia were found on this and other talus slopes to the south over about a 300 meter length. The blocks consisted of grey quartzite brecciated by a number of small crystalline quartz veins containing chlorite and rare pyrite. Some of these peices were very silicified and contained abundant, finely disseminated pyrite.

In the set of cliffs directly above the middle of the elongated talus a small 1-2 meter wide bedding parallel silicified quartz breccia zone was found containing minor pyrite. A number of small 120 degree trending quartz veins with coarse chlorite and rare sulfide were also found in the cliffs. Where they intersected the breccia zone it widened with an increase in quartz and silicification, as well as, more pyrite and occasional blebs of galena found in the quartz viens. This was sampled and anomolous values of gold up to 360 ppb was obtained as well as up to 44 grams of silver per ton.

As well as quartz breccia float, a large number of fragmental float blocks were found. They ranged in size with blocks up to 4m across found. The fragmental blocks vary in character with the majority consisting of grey quartzite fragments in a massive grey biotite rich quartzite matrix. The fragmental blocks have a pillowy texture and

spherical masses are common. The fragments range in size from a few mm to 15 to 20 cm in length with only minor alteration and are angular to sub-angular in texture. There are also a number of blocks that contain fragments of quartzite and argillite, with a quartzite matrix. The majority of the fragmental is made up of fragments with only 20-30 percent of the space occupied by matrix. These fragments are also angular to sub-angular with occasional rounded fragments. They are all very altered with numerous biotite rich fragments some of which have been totally replaced by biotite as well as very sericitically altered fragments.

Some of the blocks were cut by small quartz veins made up of mostly stacked tourmaline needles. Disseminated black tourmaline needles were found in the fragmental along the edge of these veins. Abundant tourmaline needles are also found in the more biotite rich fragments. Also some of the fragments were altered to talc.

Along with the biotite rich fragmental, float blocks of albite fragmental were also found. These blocks contained large rounded fragments up to 20 cm across, with some very talcose biotite rich fragments. The entire matrix as well as fragments were albitized and intensely sericitically altered. The albitization varied from a very hard silicified albitization to a more punky granular texture. Also observed in some of the fragments were small disseminations of brown tourmaline needles.

Both the biotized and albite fragmental float blocks continued uphill and were found in outcrop. The albitized fragmental was about 10 meters thick and found in outcrop for 40 meters. Below this fragmental there is a thick sequence of sericite and biotite beds with talcose and albitic layers in between. These beds are about 1.5 cm in maximum thickness and occur over about 5m thickness. To the south the fragmental is lost in overburden but similar peices of fragmental float were found about 200 meters further along the hillside indicating the fragmental continues to the south.

The biotite rich fragmental was found in outcrop above the albite fragmental and two, 2 + 2 meter beds were found. They were composed of densely stacked angular and sub-angular fragments of various composition. They were intensely biotized and sericitically altered and bleached.

These units appear to pinch out towards the north where a 20 meter blackish biotite, chlorite, sericite rich fine to medium-grained quartzite with abundant pyrrhotite was found. Rare galena was found in the most iron rich and sericitically altered zones as well as along coarse chlorite rich fractures in a narrow bed within the quartzite.

Albitized, actinolite, and pink garnet rich float was found to the south of the albite fragmental about 75 meters. It also contained some pyrite and pyrrhotite as well as rare galena.

In the Moyie river about 850 meters upstream from the mouth of the North Moyie, there is a 200 meter stretch of bedrock exposed in the creek bottom. The furthest exposure upstream contained some small altered shearzones up to a foot in width trending 220 degrees. They are slightly silicified and quite sericitic with finely disseminated pyrite and pyrrhotite. Along the edge of the shearzone in small sericitic grey quartzite beds were fractures with pyrite and galena. Minor amounts of galena^{are} also found disseminated throughout these quartzite beds over a 2 foot thickness.

Further downstream, a number of crystalline 120 degree trending quartz veins occur in outcrop. The veins range in size from 1.5 meters to only a few centimeters in width. They are quite chloritic and contain massive clots of coarse pyrite and pyrrhotite as well as abundant chalcopyrite with some bornite and rare galena. They are also very biotite rich and contain actinolite. The contact is silicified and albitized as well as chloritically and sericitically altered with zones of very coarse biotite and chlorite as well as actinolite upto 10cm in thickness. Near the contact a number of parallel trending fractures containing coarse chlorite and galena were found, as well as, a small zone of biotized and disrupted beds.

Also found in outcrop were two small half meter bedding parallel zones of massive coarse black biotite and chlorite

with some hornblende. These are possibly some sort of mafic sills or vented unit.

Along the power lines between Kutlits creek and the junction of the south moyie logging road, there are a number of very large blocks of altered quartzite float. They are cross-cut by small crystalline quartz veins with coarse chlorite and pyrite and are very similar to the outcrop in the creek. In other float blocks there is a large amount of pyrrhotite in clots and disseminations as well as along fractures some of which are up to 3mm in thickness.

Along the edge of the South Moyie logging road approximately 600 meters from the junction of the Kutlits creek road, is a small outcrop of silicified, medium bedded quartzites containing some albitized concretions with pink garnets and pyrrhotite. It is very hematite altered with a purple hue and is cut by a number of sericitic solution fronts. Above this outcrop in float a medium sized piece of biotite rich fragmental float was found.

West of this outcrop about 250 meters just off the property boundary a zone of silicified and quartz brecciated quartzites was found. It was intensely chloritized and quite albitic. The quartz veins in the breccia zone trending about 140 degrees and contained coarse chlorite and biotite as well as abundant pyrite and carbonate.

Below this zone on strike a large albite outcrop was found. It was very chloritized and was trending at about 130 degrees. Along the edge of the zone there were numerous

disrupted beds with some fragmental, rare fragments were seen in the albite outcrop.

South of this zone about 80 meters a small zone of slightly biotized disrupted beds was found. Further south along the hillside numerous 120 degree trending quartz veins up to a foot in thickness were found. They also contained abundant coarse chlorite with rare pyrite.

On the hillside about 800 meters southeast of Yeko lake there are a number of small fragmental beds in association with intensely disrupted beds. They ranged in size from 15 cm to 0.5 meters in thickness and consisted of grey silty quartzite fragments in a grey quartzite matrix. They occur over about a 20 meter thickness in outcrop. Below the fragmentals a thick sequence of grey quartzites was found. In float below these outcrops a number of peices of albitized and silicified, magnetite and hematite breccia containing some pyrite and limonite were seen. Rare galena was also found in a peice of iron rich quartzite float.

In the small basin to the northwest, more peices of albitized, hematite/magnetite breccia are found at the base of the talus. In the cliffs at the head of the talus very iron stained sericite rich quartzite beds were found.

Along the talus to the west a number of blocks of albitized and brecciated gabbro were found. They contained abundant limonite in disseminations and quartz veins.

In the cliffs above the talus a large gabbro sill was seen. Besides the brecciated float in the talus the other gabbro float was fairly unaltered.

Over the ridge to the north looking down on Cooper Lake a number of peice of shearzone float were found in a talus. They consisted of bleached and slightly limonitic sheared sediments cut by a number of small, 1-3 cm wide, limonitic quartz viens. Two samples were taken and they returned slightly anamolous gold values.

Down the hill and to the east along the talus towards the small basin a few peices of hematite breccia were found along with silicified sediments containing fine-grained disseminated pyrite and some rare peices of fragmental and disrupted beds float.

West of the disrupted beds and fragmental in outcrop about 600 meters a number of breccia peices were found in the talus. They consisted of limonite rich silicified sediments cut by small quartz veins containing some pyrite and limonite. A sample of this material returned 275 ppb Au.

Also found in this talus^{were} a number of carbonatite or very carbonate altered gabbro float with a very thick and iron rich carbonate weathered rind. They were composed of very fine-grained material with some pyrite in small quartz veins.

At the northwest corner of the property along the edge of the Weaver creek logging road about 1.6 km past Ryder creek,

there is a large outcrop of fragmental. It is about 30 meters across and can be traced up the hill for about 60 meters. It consists of small angular slightly bleached quartzite fragments in a grey quartzite matrix. The density of fragments varies through out the outcrop with some zones containing sparse fragments and other containing a very high density of fragments. The fragments range in size from just visible to more than 8 cm across. They are slightly bleached with some albitized fragments and the whole fragmental is very biotite and sericite rich. The fragmental is also very iron stained with some zones containing abundant finely disseminated pyrrhotite.

Up the hill about 300 meters from the fragmental is a gabbro sill. It is fairly unaltered with little iron staining and only occasional epidote. The contact with the sediments is bleached and manganese altered with large chlorite flakes disseminated in the sediments. Along the gabbro to the east at the edge of a small logging block there are a number of pieces of albitized fragmental float. They consist of medium sized silicified and albitized angular fragments in a gabbroic matrix.

Further to the west in the logging block just off the property boundary there is a small outcrop with disrupted beds over a width of about 4 meters. It is quite bleached and manganese altered with some biotization.

Along the road below this logging block just inside of the claim boudary a number of small pieces of brown and

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black tourmalinite were found. They consisted of brown or black disrupted tourmalinite beds and fragments. This indicates the possibility of a vent system buried somewhere close.

LEWIS RIDGE AREA

The Lewis ridge is the area between Lewis creek and Mcneil creek from approximately the Moyie placer mine to Ridgeway creek. The area is covered by recently thinned and unthinned thick second growth and old logging blocks. Exposure is very poor being relegated mainly along the ridge top with some outcrop near Ridgeway creek and along old logging roads.

Below the bridge where the road crosses Lewis creek, there is a small outcrop of fine grained quartzites. It is cut by numerous small (2mm wide) quartz carbonate veins containing hematite and pyrite. There are also some small zones of silicification developed within this unit which is sericitically altered and contains abundant fine grained disseminated pyrite.

Up the creek 50 meters, there is a 20 cm thick fragmental bed. The fragments are very angular and quite albitic. Just above this zone is a foot wide, 297 degree trending quartz vein, containing coarse chlorite and pyrite.

About 320 meters further up the creek, there is a zone of dry shearing with some chlorite trending about 334 degrees. Another 200 meters, there was a thinly developed zone of albitized fragmental beds.

Up the creek 20 meters from this zone, there is a 1.5 meter wide shearzone. It is chloritically altered and silicified, containing fine grained pyrite with rare galena and chalcopyrite in small quartz veins.

Further up the creek, there were sporadically developed zones of silicification that were sericitically altered and contained pyrite over about a 700 meter stretch of the creek bottom. This area was also very chloritic with coarse chlorite found along fractures and weak zones of chlorite breccia developed.

About 400 meters up the road from the bridge a number of pieces of silicified sediments with fine grained pyrite were found, as well as, some blocks containing coarse hematite veins up to 5 cm in width.

On the first switchback, there was a small outcrop containing hematitically altered quartzites with, pyrite and carbonate, as well as, hematite along small fractures.

Further up the road for about 200 meters, there are a number of large blocks of black pyrrhotite rich argillite float. As well as this float, a number of pieces of silicified quartzite with pink garnet and chlorite were found. These pieces were also very pyrrhotite rich and rare blebs of galena was found.

About 3 km southwest along the power line road, similar pieces of silicified quartzite float were found. They contained abundant clots of pyrrhotite with masses of black biotite and pink garnet. These blocks also contained rare coarse disseminations of galena. In association with these float boulders were a number of large pyrrhotite rich argillite blocks.

To the southeast 1200 meters along the hillside from the float boulders, a number of quartzite outcrops of similar material containing pyrrhotite and pink garnets, as well as, actinolite and biotite were found over a 4 meter thickness. No galena was found in this outcrop, however, 200 meters further along the hillside rare galena was found in a number of similar silicified beds, over a 10 meter thickness. The beds ranged in thickness between 1-3 feet.

About 400 meters to the northeast above an old logging road, there was a gabbro sill exposed in a cliff. This was the lowest of the sills observed and was 20 meters wide. The contact between the sill and the sediments was quite bleached and chloritic, with some poddy albitization just away from the contact.

From this sill about 300 meters southeast up the hill, is another gabbro sill that is quite extensive in outcrop. The contact, where viewed, is unaltered and the gabbro itself is also unaltered with only occasional veins of epidote.

About 400 meters further uphill from the top of this sill, is another gabbro sill. It is about 50 meters in width, and is slightly altered with some iron staining in places. It is also cut by a number of small quartz and epidote veins.

Over the ridge to the southeast along the sill, there is a large talus slope. This talus consists of very altered blocks. Some float is very albitized and quite siliceous, with some small white coloured flakes about 5mm across,

possibly some type of garnet, with black biotite and chlorite along fractures and in clots, as well as, some pyrrhotite and rare chalcopyrite.

Dark grey to black blocks were also found. They were very silicified looking with a weak conchoidal fracture pattern, however, they were easily scratched by a knife blade. These darker rocks were very biotite rich with small black biotite beds and an overall abundance of biotite. They also contained some pyrrhotite and rare chalcopyrite along fractures and white flakes or garnets in throughout.

Both the albitized and black float blocks contained very disrupted beds. Individual beds were pulled apart and folded, with some swirled into circular knots. Some small zones of fragmental were also developed within these blocks. Also found in the talus was a large block of massive biotite and pyrrhotite with abundant chalcopyrite.

Along the ridge top above the talus slope, a two meter wide bed of fine grained biotite rich quartzite with disrupted beds was found. Also found on the ridge, were a number of pieces of fragmental float. The fragments were very biotite rich and angular, in a matrix of grey to black argillaceous quartzite.

Further along the talus slope, a number of pieces of fine grained grey silicified quartzite with a chalcedony texture were found. They contained sericitic stringers and some disrupted beds. Also found were three pieces of crystalline

quartz, that contained abundant disseminated cubic limonite crystals.

In outcrop along the talus slope, a meter thick mafic intrusive sill was found. It was very biotite rich and contained occasional blebs of chalcopyrite along cross cutting veins of quartz.

Along the road at the back end of the basin, about 200 meters past a small lake, a very silicified, glassy blackish quartzite bed, with disrupted beds was found. It was about a meter thick and contained abundant pyrrhotite, as well as, pink garnets.

Along the ridgetop above the road going to the northwest, was an extensive outcrop of blackish quartzite. This outcrop was very sericitically altered and silicified, with abundant pyrrhotite with pink garnets. These beds were developed over a 15 meter interval and were traced back to the large gabbro outcrop.

About 350 meters north along the ridge, a number of pieces of fragmental float were found. They consisted of bleached fine grained quartzite fragments, in a grey quartzite matrix. To the northeast from this float about 375 meters, there is a 75 meter long outcrop of fragmental. It consists of large angular clasts of grey to black biotite rich argillite, in a coarse matrix of quartzite. The fragmental is very sericitic and quite carbonate altered, with some quartz and chlorite.

To the north about 150 meters, is a small outcrop of similar fragmental in association with disrupted beds.

Further north along the ridge, there is a small outcrop of grey albitically altered quartzites, cut by a number of 120 degree trending crystalline quartz veins. Northwest from this outcrop about 175 meters, is a small bed of very black fine grained and silicified quartzite. It contains some pink garnet and lots of pyrrhotite.

On the western side of the ridge, there is an outcrop of a gabbro sill. It is cut by small epidote veins and was slightly iron stained.

To the south along the outcrop in a small steep gulley, a quartz breccia zone was found in the gabbro. It was about 3 meters wide and contained abundant coarse chlorite in crystalline quartz veins, up to 2 feet wide. The zone appeared to be trending at 230 degrees, parallel to the gulley. There was an apparent off-set of the sill of about 6 meters. The sediments along the contact were very albitic and quite chloritized.

To the south along the gabbro sill, on an old road a number of silicified pyrrhotite and chlorite rich quartzite blocks were found.

Down this road about 800 meters, was a small outcrop of hematitically altered sediments. On the next corner, was a quartz breccia shearzone. The zone was approximately 4 meters wide and consisted of very silicified fine grained, chloritic sediments, containing disseminated pyrite and

limonite, cut by a number of small quartz veins also containing pyrite. The zone is also very felsic and albitically altered. Three samples were taken of this material and they ranged between 300 and 400 ppb Au.

About 300 meters further down this road, were a number of old trenches dug both above and below the road. They were in a large shearzone that appeared to be trending about 190 degrees. The zone was approximately 20 meters wide and consisted of limonitically and manganese altered sediments, cut by a number of quartz veins. The veins are pyrite and limonite rich with quite a bit of carbonate, and ranged in size from stringers only a few mm wide to veins up to 2 feet in width. Also found in the in the structure, were tiny zones of hematite matrix breccia. The fragments were quite albitized, and the breccia and was quite limonite rich.

Below the road and about 370 meters to the southwest from this zone, a 240 degrees trending quartz, magnetite and hematite breccia zone was found. It was quite albitically and carbonate altered, with some chlorite in the quartz veins as well as limonite and pyrite. The magnetite occurs as well developed crystals with lots of specular hematite. For the most part they occur in stringers; however, poddy massive zones were seen. The overall width of the zone was about 4 meters, with the strongest hematite and magnetite breccia zone about 0.5 to 1 meter in width, with more barren quartz veins found along the edge.

Along the road past the shearzone, there was a long exposure of gabbro in the ditch line. The gabbro is bedding parallel and is unaltered for the most part with rare epidote and crystalline quartz veins; however, 200 meters down the road from the shearzone 195 degree trending shearing cuts into the gabbro. The shearing is over a 5 meter width and is quite iron and carbonate rich, with a number of clean quartz veins also cutting through the gabbro.

Along the ridge about 600 meters west from the junction of the logging and power line road, a zone of carbonate and chlorite brecciation with some quartz was found. The sediments were bleached and manganese altered. They were also very phyllitic and quite sheared and contained abundant limonite. They were also cut by quartz veins, also containing chlorite and limonite. The shearing was trending 120 degrees and was dipping almost vertically. Two samples were taken of this material, and they returned results of 500 and 1150 ppb Au.

Down the hill 30 meters, was another large outcrop of gabbro approximately 40 meters in thickness. It is very unaltered, with only minor quartz veins and rare epidote. Along the contact with the sediments is a 5 meter wide chloritically and albitically altered zone. To the south along the sill where it crosses a logging road, it was much more iron rich and contained more epidote.

West of the gabbro contact about 200 meters, there was a meter wide zone of biotized disrupted beds and fragmental.

To the east along the road 200 meters from the upper contact, there a 2 meter wide bed of fragmental was found. The fragmental consisted of lighter silicified quartzite fragments, in a grey quartzite matrix. The fragmental outcrop is very iron stained and contains abundant finely disseminated pyrrhotite. Above the fragmental, is a 5 meter wide argillite/black mud zone. It is very graphitic and contains a lot of pyrrhotite in clots and disseminations. Above the argillite along the road, is a meter wide carbonate altered siltstone. It contained pyrite in disseminations and along carbonate rich fractures, with rare chalcopyrite and galena.

One km further up the road, is another gabbro sill outcropping along the road for about 250 meters.

Down the powerlines to the north from the logging road junction about 600 meters, was a 2 meter wide albite outcrop. It was cut by a number of quartz veins containing coarse chlorite with rare pyrite. Pyrite is also found disseminated throughout the albitized zone. Around this outcrop a number of hematite matrix breccia boulders were found. They were albitized and quite limonite rich.

Further down the road along the ditch side, there is a 0.5 meter wide zone of disrupted beds and weakly developed fragmental containing rare disseminated tourmaline needles.

Where the powerlines cross the Moyie river, there are a number of outcrops along the creek edge. They consist of mainly medium bedded quartzites with some large albitized concretions containing biotite and pink garnets along with some pyrrhotite.

In the placer washings, a number of angular peices of tourmalinized fragmental were found which consisted of grey tourmalinite beds and fragments suspended in a white coarse sand matrix. These blocks appeared to have come from the bottom of the pit and indicate the possibility of a tourmalinite outcrop in the creek bottom.

PANDA BASIN

The Panda basin area of the property consists of the area south of Ridgeway creek and east of the power lines. It is covered by old logging and there is good exposure along the ridge tops and back basins at the southeast boundary of the property as well as along the road cuts in the eastern logging blocks.

The southeast corner of the property is cut by a large gabbro dyke. The dyke varies in width from 100 to 150 meters in width and is trending at 10 degrees. It is rustily weathered and in places is very iron stained and is quite epidote rich both in disseminations and in small cross cutting veins. The gabbro is cut by a number of quartz veins trending in two main directions 120 and 40 degrees and ranging in size from a few inches to upto a foot in width. These veins pinch and swell through out the gabbro and appear to be contained only within the dyke. The majority of these veins contain sulfide with some containing coarse masses of arsenopyrite and pyrrhotite as well as chlorite in some cases these veins are almost pure arsenopyrite. Arsenopyrite is also found with pyrrhotite and some chalcopyrite in disseminations in the gabbro dyke in areas of more intense iron staining and silicification. The sulfide contained in the gabbro weakens as you move southwards along the dyke towards its termination at the Moyie fault with only rare blebs of arsenopyrite found with

coarse chlorite and some pyrrhotite in the cross cutting crystalline quartz veins.

Along the ridge top at the southern boundary of the property the dyke is offset by a number of faults. At these fault contacts there are a number of quartz veins and shearing with intense chloritization of the gabbro and sediments. The quartz veins contain abundant massive arsenopyrite, as well as, pyrrhotite and coarse chlorite. The contact of the dyke and the sediments away from the faults is slightly chloritically altered and bleached with some sporadic albitization. Also along the contact are contact parallel quartz veins containing massive arsenopyrite.

The dyke was found about 1500 meters to the north along strike in outcrop. The dyke was still quite iron stained and epidote rich, however the amount of sulfide was less than on and along the ridge and no arsenopyrite was found.

To the west of this dyke is another very large gabbro dyke approximately 100 meters in width. It is unaltered for the most part with rare pyrrhotite in small zones and some crystalline cross-cutting quartz and epidote veins. The contact of this dyke and the sediments is slightly albitic for up to 10 meters away from the dyke. To the north the dyke pinches out or is faulted off, and to the south it is lost in over burden.

In between these two large gabbro dykes three other small intrusive dykes were found. The closest to the eastern dyke

was a very fine-grained, porphoritic, mafic dyke containing white feldspar crystals some upto 5mm across. It was 2 meters wide and trending around 60 degrees. It contained minor sulfide and was magnetic. The contact with sediments was fairly unaltered with only slight beaching of the sediments.

About 400 meters to the west along the ridge another dyke was found. It was gabbroic in texture and very sheared located in a fault zone. It contained abundant epidote and was chloritically altered. The contact with the sediments was very chloritic and albitic with sediments having a greasy talcose look. The dyke contained rare pyrite and pyrrhotite and was trending about 246 degrees.

Another 400 meters west along the ridge a 211 degree trending, meter wide dyke was found. It was composed of a fine-grained light green calcareous matrix with bright lime green chips or flakes of epidote or possibly chromite.

To the east of the central dyke three other dykes were found as well as two small gabbro sills. The furthest dyke was found about 1400 meters to the south east of the central dyke, where it is found at its highest point on the ridge. It has a slightly weathered rind and is medium-grained with a gabbroic composition. It is trending about 210 degrees and is in association with a meter wide shearzone. The shearzone consists of small quartz veins with some limonite in bleached and manganese altered sediments. East of this zone about 50 meters is a 20 meter wide gabbro sill. It is

fairly unaltered containing some quartz and epidote veins. To the east of this sill about 40 meters is another weakly developed shearzone consisting of very micaceous sheared sediments with small quartz and feldspar veins. Further east 80 meters from this zone is another small gabbro sill about the same size as the previous one. It too is basically unaltered with rare epidote and sulfide.

East of the central dyke about 1100 meters, is another small mafic dyke. The dyke is 1.5 meters wide and is fairly flat dipping, striking about 220 degrees. It is similar in composition to the other dyke; however, it is finer grained and with a brownish green carbonate weathered rind.

The dyke closest to the large central dyke was found in a fault zone 240 meters east of the large dyke. It was very similar to the dyke located in a fault consisting of a medium-grained gabbroic intrusive that was intensely chloritically altered and sheared. It was about 3 meters in thickness and contained some quartz veins and pyrrhotite. The dyke was trending parallel with the fault at about 245 degrees. The sediments along the dyke and fault contact were also intensely chloritized with coarse chlorite along fractures up to .5cm in width.

The fault zone is quite extensive and can be traced for 400 meters to the south along strike. Developed within the fault zone there is some magnetite and hematite breccia. This consists of stringers of specular hematite and magnetite

crystals in a very albitized and silicified fine-grained creamy grey coloured material with abundant fine and coarse-grained disseminated fresh pyrite. This breccia is found in float in the talus below the notch where it crosses over the ridge and is found in outcrop on the ridge top where it is about 5 meters wide.

To the northeast 700 meters along strike of the fault another outcrop of hematite breccia was found. The zone in this outcrop varied in thickness from 3 meters to less than 30 cm in width and was trending about 260 degrees. This zone was also very silicified containing small stringers of hematite and abundant pyrite. Three samples from this outcrop were taken and they returned only slightly anomalous gold values.

Over the notch in the fault, there is an outcrop of albitized coarse chlorite breccia about 4 meters wide. It is a dry zone with few quartz veins and only rare limonite and pyrite.

Near the fault on the ridge there are a number of small quartz veins trending around 120 degrees. They contain massive arsenopyrite with some pyrrhotite along with coarse chlorite and sometimes a blue bloom. Like the veins in the gabbro dyke some are almost completely sulfide. Similar veins can be found along the ridge line in the sediments along both sides of the gabbro dyke with the same orientation and ranging in size from a few cm up to a foot in width and in sulfide content from almost pure to rare. A

small vein 10 cm in size was sampled 800 meters west along the ridge from the fault. It contained 2420 ppm cobalt with little gold however veins sampled near the fault returned high cobalt values as well as 325 ppb gold.

To the west along the ridge from this fault is a parallel trending fault. It offsets the gabbro dyke along the ridge and its contact along its contact are numerous quartz veins with coarse chlorite and arsenopyrite as well as pyrite and pyrrhotite. The gabbro and sediments along the fault are both very chloritically altered with some bleaching and brecciation occurring in the sediments as well as silicification.

In between these two faults and the large gabbro dyke about 50 meters from the edge of the ridge there is a very large outcrop of fragmental. The fragmental is bounded by the eastern fault on one side and tapers off towards the western fault and gabbro dyke. It varies in composition from fine to large angular fragments in a dark to light grey fine silty quartzite matrix. The fragments consist of slightly lighter or darker in colour matrix material with some argillite and other very black clasts. There are zones within the fragmental that contain abundant fragments possibly some sort of flow channels which trend parallel with the gabbro dyke. The fragmental is bleached and biotite and sericitic containing some albite altered fragments.

The northern part to the fragmental contains sporadic zones of tourmalinization. These zones are upto 2 feet across by 5 feet in length and contain tourmalinite fragments in a tourmalinite matrix. The fragmental is cut by a number of quartz veins some of which are composed of stacked tourmaline needles. The fragmental along the edge of these veins is very altered and bleached, and contains disseminated black tourmaline needles. As well as the quartz veins small epidote veins, a few mm in width, were also seen cross-cutting the fragmental. In iron stained areas, along fractures and in disseminations within the fragmental there is abundant arsenopyrite as well as pyrrhotite. A number of small clasts of arsenopyrite were observed, one about the size of a dollar coin was found within the fragmental.

Further to the north and towards the western fault along the ridge, the fragmental grades into a zone of disrupted beds with rare fragments and pinches out towards the cliff face with rare pieces of fragmental float in the talus below.

Towards the south the fragmental takes on a coarse characteristic with a higher density of larger more altered and black fragments. At the southern most exposure of fragmental a large zone of tourmalinized fragmental is developed. It is approximately 10 meters wide by 20 meters long and is lost along strike down the hill in overburden. It consists of fine-grained angular black tourmalinite

fragments in a slightly coarser grained black tourmalinite matrix. The tourmalinite is very aphenitic with a nice concoidal fracture pattern. The outcrop varies in hardness with black zones identical to the tourmalinized areas however they are easily scratched with a knife. They are probably composed of a boron rich mud that did not form tourmalinite. This zone is sulfide rich with abundant arsenopyrite along fractures and in disseminations as well as pyrrhotite and some chalcopyrite.

Towards the eastern fault the fragmental grades into intensely disrupted beds with some large angular fragments and is then cut off by the fault. On the other side of the fault there is another zone of fragmental. It is about 30 meters from the fault and is about 10 meters in thickness consisting of small lighter grey quartzite fragments in a fine-grained grey quartzite matrix. It contains some fine-grained pyrrhotite and black biotite and is quite sericitically altered.

About 600 meters west of the western fault zone are a number of small fragmental beds. They range in thickness from 3 to 10 cm and are albitized and chloritically altered.

West of these beds along the ridge is a zone containing very mica rich disrupted beds and fragments up to a foot in width. Similar material can be found in float east for about 500 meters in the talus slope below the ridge.

Along this slope just west of the gabbro dyke is a 5 meter thick outcrop of a massive pyrrhotite rich

fine-grained grey quartzite containing no bedding planes. It is biotite rich and very sericitic. No fragments were seen; however, the unit is identical to units containing fragmental elsewhere and is possibly a fine-grained fragmental itself.

Along the cliff face between the gabbro dyke and fault there are a number of tourmaline needle beds. These beds are comprised of massive black tourmaline needles up to 1cm in length interlayered with bedding parallel quartz veins. Individual massive tourmaline needle beds are between 2-3 cm in width with occasional beds upto 5cm in width. This interlayering occurs over 0.3-1 meter thickness and 4 such series of massive beds were seen. Between the massive tourmaline needle beds there are disseminated tourmaline needles over almost the entire face of the cliff. Both the massive and disseminated tourmaline needles occur in pyrrhotite, biotite and sericite rich silty grey fine-grained quartzite. The quartzites are medium to fine bedded and comprise a fairly massive looking unit. Intermixed with the tourmaline needle beds are small beds of actinolite upto 2cm in width and carbonate freckle, or some type of flat garnet, beds ranging in size from a few mm to 6 cm in thickness. There are also small albitized and silicified beds containing coarse chlorite, biotite, pink garnet and actinolite, as well as some sulfide including arsenopyrite and rare galena.

These tourmaline needle beds can be traced to the west in float and in outcrop along the talus slope and ridge top past the central gabbro dyke until the end of the talus just before the powerline. In this direction the beds begin to pinchout in size and at the end of the talus in outcrop only a small zone 0.5 meters in width containing disseminated tourmaline needles was found.

To the northeast from the eastern fault along the ridge and cliffs above the talus zones of tourmaline needles can be found for about 600 meters. In the talus below the slight saddle on the ridge there are abundant blocks of tourmaline needle float. Some of these contain bedding parallel and cross-cutting tourmaline needle veins. These veins consist of tourmaline needles stacked or lined up along one another like a picket fence. They range in size from 1-5 cm in width. These veins were also found in outcrops with disseminated tourmaline needles elsewhere. In conjunction with the disseminated tourmaline needles and veins, small zones of black tourmalinite were also observed in float.

Also found in float in this talus were silicified blocks of creamy white to black fine-grained cherty or chalcedony textured material. They are very hard leaving behind metal when scratched by a knife and have a slightly concoidal fracture pattern. These peices contained disseminated pyrite and occasional galena, sphalerite and chalcopryite along fractures. Similar float can be traced back towards the

south along the talus slope to the small mafic dyke located in the eastern fault. Above the dyke in the cliff face a foot wide zone of similar albitized material was found trending at about 100 degrees.

In this talus, float resembling felsically altered gabbro was found; however, it contained bedding planes and lots of actinolite as well as rare galena in bedding parallel quartz veins. Also found were very sericitically altered and bleached float blocks and very iron rich fine-grained black argillaceous quartzite. Arsenopyrite was found in float in quartz veins, disseminations and concretions.

The zones of disseminated tourmaline needles continued in outcrop to the east into the next basin. They can be traced around this basin to about half way down the eastern side. Past this point further north they were not found. On the Eastern ridge top these zones appear to pinch out with only a small zone about 0.5 meter thick found about 400 meters southeast down the ridge. It is associated with silicified and chloritically altered quartzite beds. All of these zones are associated with zones of intense carbonate freckling. These zones are more extensive than the tourmaline needle beds and occur more than 400 meters south of the gabbro dyke near its intersection with the Moyie fault.

Just to the northwest of the slight saddle between the two basins, there is a small outcrop of silicified and albitized quartzite. It is about 1 foot thick and contains

pink garnet as well as black biotite, chlorite, and actinolite and is very sericitically altered. It also contains abundant pyrrhotite and numerous disseminations of galena and arsenopyrite with some sphalerite. Rare amounts of galena can be found over a 5 meter thickness in outcrop. Towards the saddle the zone is intersected by a few 120 degree trending quartz veins containing arsenopyrite. Galena and arsenopyrite as well as coarse chlorite are also found in parallel fractures and in disseminations in a zone of chloritic and sericitically altered, silicified fine-grained fragmental. The zone is about 2 meters thick and is about 10 meters wide.

In the top of the saddle between the two basins, there are a number of sericitically altered and slightly silicified pyrrhotite rich quartzite beds over a 20 meter thickness. Individual beds range between about 1- 2 meters in thickness and are cut by a number of 120 degree trending crystalline quartz veins ranging in size from a few mm to upto 10 cm in width. These veins contain massive chlorite with some actinolite and rare galena. Galena is also found in disseminations along the edges of these quartz veins as well as within the more iron rich areas of the quartzite. Towards the south along these beds galena is found in disseminations and concretions in association with masses of black biotite. Arsenopyrite is also found in disseminations and concretions.

Below the quartzite unit there is a small zone 3 meters thick of disseminated and bedded tourmaline needles which is also cut by 120 degree trending quartz veins. One small vein about 4cm wide was found that contained massive galena and pyrrhotite along with actinolite. It was sampled and results returned up to 46 grams of silver per ton. The lead mineralization continues along in cross cutting veins and concretions. Further along the hillside; however, not as much galena was found.

The zone of cross-cutting veins and lead mineralization towards the south continues for about 300 meters from the saddle where there is a 2 meter wide zone with a density of veins. These veins trend between 115-135 degrees and are up to half a foot in width. They contain masses of galena and arsenopyrite, and like the other veins are chlorite and actinolite rich. The zone of disseminations and concretions with galena can be traced as far in this direction as the edge of this vein system. These veins can be traced in outcrop down the hill towards the east and are found in float in the talus below the cliffs on the other side of the valley.

On this side of the valley similar quartzite float can be found containing galena in both disseminations and concretions. In the cliffs a large zone of 120 degree trending quartz veins about 10 meters wide can be seen. They are crystalline and contain abundant chlorite and biotite as well as pyrrhotite and pyrite. No galena was

found in outcrop; however, numerous blocks of float were found with small quartz veins containing rare to massive amounts of galena. In addition to the sulfide in the quartzites and quartz veins, galena and sphalerite was found along fractures and in disseminations within a fine-grained pyrrhotite rich black argillite. Numerous blocks of this material were found at the base of a rock slide and the cliffs above are very iron stained and are probably the source. Boulders upto 1.5 meters across were found containing sulfide.

To the south on this side of the valley more of this material can be found. The talus slope is composed almost entirely of the black pyrrhotite rich argillite with some pieces containing galena and sphalerite. On the ridge top there are a few small quartz veins trending around 120 degrees for and containing galena for about 400 meters along the ridge top.

Along the talus slope near the back of the basin there are a number of small black argillaceous quartzite outcrops that are very pyrrhotite rich and quite silicified cross-cut by numerous small quartz veins. Moving around the slope to the back of the basin in the cliffs there is a 3 meter wide zone of psuedo tourmalinite. It is composed of a fine very black argillite that has a tourmalinite texture. It contains arsenopyrite, chalcopyrite and pyrrhotite along fractures and in disseminations.

Also at the back of the basin in the talus there are a number of large blocks of fragmental and disrupted beds float. The fragmental consists of large to small angular greyish to black argillaceous quartzite fragments in a dark grey argillaceous matrix. The density of the fragments varies from just a few to a majority of the rock. In the cliffs just above the talus in a very dark grey and dirty quartzite unit there is rare disseminated arsenopyrite.

In the cliff face above this unit at the back of the basin a large collapsed zone can be seen. It is about 100 meters in width and the sediments are slumped into the middle on both sides of the zone with near vertically dipping sediments found in the middle. This is probably the source of the intensely disrupted beds and fragmental float blocks in the talus.

On the ridge top above this collapsed structure a number of small very dense fragmental beds and zones can be found. They occur over a hundred meter length at the top of the ridge with the well developed zones upto a foot in size. These zones consists of medium to small angular fragments of argillite and quartzite in a medium-grained grey quartzite matrix. They are sulfide poor with only occasional pyrrhotite and are slightly chloritically and sericitically altered with some zones that are very biotite rich. To the south along the gabbro dyke on the ridge top where it heads down towards the moyie fault a small zone of albitized fragmental was found.

Around the basin to the west past the collapsed zone at the back there is a foot wide actinolite vein. It is trending around 120 degrees and is composed of massive green actinolite with some quartz and pyrrhotite and rare arsenopyrite.

About 40 meters along the western side of the basin from this vein there is another massive actinolite vein. It is about 4 meters in width and along the edge there a zone 30 cm across of massive arsenopyrite and pyrrhotite. Samples from this zone ran up to 120 ppb Au.

Off the northern edge of the vein there is a zone of fragmental. It consists of albite fragments in an albitized matrix with both containing disseminated tourmaline needles.

Just above the vein there is a freshly exposed section of cliff where a slide has occurred and in the talus large peices of silicified fragmental were found. These peices were very iron stained and consisted of a fine-grained small silicified and seriticitic quartzite fragments in a fine-grained silicified matrix. These blocks were cross-cut by numerous small actinolite veins. Also found in the talus were a number of pieces of tourmalinite fragmental. They consisted of fine-grained black tourmalinite fragments in a coarser grained black tourmalinite matrix. In outcrop about five meters past the fragmental outcrop there is a zone of brownish black tourmalinite. It is about 0.5 meters in thickness and consists of a very fine-grained tourmalinite which has a very excellent conchoidal fracture

pattern. The whole zone of actinolite and fragmental is about 10 meters wide and further along hillside a small peice of tourmalinite float was found indicating the zone may extend further to the north in the cliffs above.

On the northern side of the main valley in a large logging block above a narrow lake, there is a small gully off the edge of the road with a good exposure of rock. It consists of pyrrhotite rich silty fine-grained medium bedded quartzites with some albitized concretions containing pink garnets. Also found within this unit are small carbonate freckle and mica rich beds a few centimeters in thickness with rare tourmaline needles in the more biotite rich beds.

The sediments are cut by a few 120 degree trending crystalline quartz veins that are rich in chlorite and biotite with rare pyrite and pyrrhotite. In the more iron rich and sericitic concretions and areas of the quartzite rare blebs of galena can be found along with actinolite and black biotite.

Near the top of the gulley a small zone about 10 cm in thickness of disrupted biotized beds was found. Above this bed in outcrop a unit of pyrrhotite rich quartzite was found that contained rare galena and actinolite and was cut by a number of greenish sericitic solution fronts. Also found was a large piece of fragmental float

About 350 meters along the road after it crosses the top of the gulley there is a small gabbro sill in outcrop above the road. It is 15 meters thick and is fairly unaltered.

Along the foot wall zone of the gabbro there is an albitized iron stained and silicified outcrop. It contains abundant disseminated and some bedded black tourmaline needles upto 4 cm in length. Also there is abundant green actinolite and black biotite as well as pink garnet and some pyrrhotite. This zone is about 5 meters in thickness.

Along the road to the north about 30 meters back along the switch back there is a small outcrop of grey quartzites that is cut by a number of 120 degree trending quartz veins. This outcrop also contains some rare disseminated tourmaline needles. About 600 meters along the road from this outcrop are a number of pieces of glassy silicified quartzite float. These blocks contain lots of pyrrhotite and rare galena and actinolite. Further along the road about 50 meters to the west past a switch back is a small outcrop with abundant disseminated tourmaline needles.

South, down the hill on the next road there is an outcrop of gabbro that is cut by a 228 degree trending shearzone. In the sediments the zone is quite limonite rich and very albitized and chloritized. A few meters to the west along the road there is another parallel zone about 2 feet wide cutting through the gabbro and sediments. It contains abundant pyrite and some quartz. A two foot wide pyrite rich parallel trending crystalline quartz vein was found about 3 meters down the road from this zone.

A small zone of biotite rich disrupted beds with some fragmental and rare disseminated tourmaline needles was found about 200 meters further down the road.

6.0 Conclusions and Recommendations

The prospecting phase has discovered a number of good Sullivan type targets. The area of highest potential for a Sullivan type deposit is the panda basin area, with the next best area being the zone of talc and fragmental on active ridge. Both of these targets and other areas with fragmental outcrop should receive detailed geological mapping with soil, and more extensive rock sampling, and some type of geophysical work where possible in order to determine the areas of greatest potential. As well as the Sullivan targets, a number of shearzone hosted gold target areas were also found. These areas should also receive more rock sampling and mapping as well as some soil sampling as the potential for gold in this areas is very high.

Geological mapping has shown that the property is underlain by predominantly flat lying Middle Aldridge sediments. Depth to Sullivan Time is everywhere relatively accessible (in the range of 300 - 500 meters). To date no drill holes have penetrated Sullivan Time on the property. Abundant Sullivan "smoke" such as fragmental beds, tourmalinized fragmental vents, albite and talcy fragmental, actinolite and arsenopyrite rich areas and widespread chloritic and sericitic alteration indicate that the "corridor" discovered on this property during 1995 has good potential to host a Sedex type of sulphide deposit.

A large program of diamond drilling is recommended to test Sullivan Time within the property.

STATEMENT of QUALIFICATIONS

I, Glen M. Rodgers of Skookumchuck, B.C., hereby certify as follows:

1. I am a consulting Geological Engineer presently registered with the Association of Professional Engineers and Geoscientists of British Columbia.

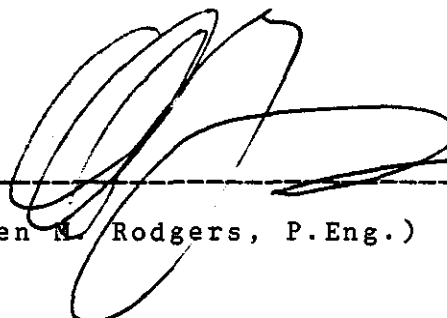
2. I graduated from the University of Manitoba in 1977 with a bachelor's degree in Geological Engineering.

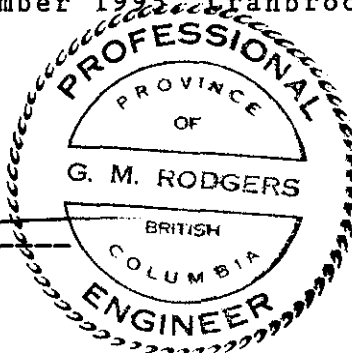
3. Since graduation, I have practised my profession continuously in Western Canada, Yukon Territory, Alaska and Central America working primarily in the field of mineral exploration.

4. I have based this report on work done by myself and Tom and Mike Kennedy on the LMC, Lewis, SMC, Bingo and Moyie claims during 1995.

5. I hold approximately 90,000 shares of Otis J. Exploration Corp. which I both purchased at market value and also received as consideration for four different property vendings including an interest in the claims mentioned above. I do not expect to receive any shares as a result of writing this report.

-dated this 24th day of December 1995, Cranbrook, British Columbia.

-

(Glen M. Rodgers, P.Eng.)



(58)

Statement of Costs

Prospecting (Tom & Mike Kennedy),
75 man days @ \$150./day . . \$ 11,250.

Geological Mapping (Glen Rodgers)
20 days @ \$200./day . . . \$ 4,000

Assays (Chemex) \$ 1,573.20

4*4 Truck 40 man days @ \$50./day . . . \$ 2,000.

Supervision (R.Hughes)
3 days @ \$300./day . . . \$ 900.

Motels, Meals etc. \$ 1,000.

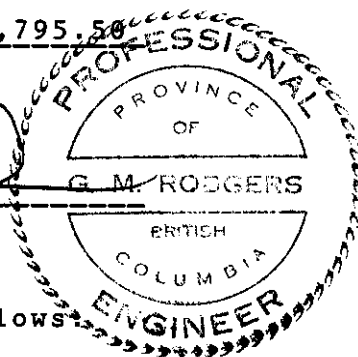
sub-total= \$ 20,723.20

Overhead (Hastings Management...10%) = \$ 2,072.30

TOTAL COST = \$ 22,795.50

-Certified Correct.

(G.M. Rodgers, P.Eng.)



Note: This amount is to be apportioned as follows

: \$10,000 towards Statement of Work #3077097, LMC Group

: \$ 3,325 " " " " # , BINGO Group

: \$ 2,000 " " " " # , SMC Group

and remainder (ie. \$5,398.20) to P.A.C. in name of Otis J.
Exploration Corp. (soon to be changed to Sedex Mining Corp.)

APPENDIX I

Prospecting Report by Tom Kennedy
(to accompany maps in pockets)



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 Brookbank Ave., North Vancouver
 British Columbia, Canada V7J 2G1
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CERTIFICATE OF ANALYSIS

A9525691

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA/AA	Ag ppm	Al %	As 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
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419242	205 226	< 5	< 0.2	0.37	< 2	10	< 0.5	2	0.01	< 0.5	4	175	4	6.87	< 10	< 1	0.01	< 10	< 0.01	15
419243	205 226	< 5	< 0.2	0.28	4	10	< 0.5	< 2	0.01	< 0.5	4	60	3	6.33	< 10	< 1	0.02	10	< 0.01	5
419244	205 226	20	0.2	1.04	< 2	100	< 0.5	< 2	0.08	< 0.5	5	177	30	2.54	< 10	< 1	0.79	30	0.24	55
419245	205 226	20	0.4	1.40	>10000	60	< 0.5	10	0.11	< 0.5	2420	129	38	7.02	< 10	< 1	0.43	30	0.46	205
NO NUMBER	205 226	125	2.8	0.23	>10000	10	< 0.5	104	0.01	< 0.5	1225	59	380	>15.00	< 10	< 1	0.14	< 10	0.01	20



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SAMPLE DESCRIPTION	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
419241	205 226	1	0.17	16	170	12	2	10	4	0.06	< 10	< 10	41	< 10	30
419242	205 226	1	0.09	7	160	2	8	6	2	0.10	< 10	< 10	145	< 10	4
419243	205 226	1	0.11	8	550	6	4	4	2	0.01	< 10	< 10	59	< 10	4
419244	205 226	1	0.08	8	460	22	2	1	10	0.04	< 10	< 10	13	< 10	48
419245	205 226	2	0.04	28	290	18	58	8	14	0.04	< 10	< 10	38	10	26
NO NUMBER	205 226	2	0.01	12	140	184	114	3	5	0.02	< 10	< 10	3	< 10	2

10/17/95 11:51AM CHEMEX LABS VAX-FAX2

PAGE 005

CERTIFICATION:



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SAMPLE DESCRIPTION	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
419201	205 226	1	0.08	1	20	2	6	2	2	0.06	< 10	< 10	73	< 10	< 2
419202	205 226	2	0.02	6	640	10000	2	4	63	< 0.01	< 10	< 10	11	10	12
419203	205 226	< 1	0.04	21	200	44	14	7	16	< 0.01	< 10	< 10	412	< 10	24
419204	205 226	< 1	0.02	6	280	50	6	4	9	< 0.01	< 10	< 10	116	< 10	12
419205	205 226	1	0.01	< 1	170	12	2	1	1	< 0.01	< 10	< 10	16	< 10	14
419206	205 226	< 1	0.17	19	140	12	2	3	4	< 0.01	< 10	< 10	12	< 10	34
419207	205 226	1	0.01	1	160	26	8	2	2	< 0.01	< 10	< 10	23	< 10	4
419208	205 226	< 1	0.05	7	130	58	2	2	8	0.02	< 10	< 10	20	< 10	270
419209	205 226	< 1	0.14	4	70	18	2	2	2	0.08	< 10	< 10	81	< 10	4
419210	205 226	6	0.01	3	50	960	< 2	< 1	2	< 0.01	< 10	< 10	9	< 10	14
419211	205 226	2	0.01	2	10	5910	2	< 1	< 1	< 0.01	< 10	< 10	2	< 10	38
419212	205 226	5	0.02	1	110	288	< 2	1	6	< 0.01	< 10	< 10	18	< 10	58
419213	205 226	< 1	0.01	29	60	6	6	6	9	< 0.01	< 10	< 10	46	10	40
419214	205 226	< 1	0.05	1	200	6	< 2	4	17	< 0.01	20	< 10	38	< 10	4
419215	205 226	1	0.01	4	50	2	< 2	< 1	3	< 0.01	< 10	< 10	4	< 10	2
419216	205 226	< 1	0.03	2	190	10	4	1	7	< 0.01	< 10	< 10	18	< 10	12
419217	205 226	6	0.07	25	310	4	6	8	26	0.01	< 10	< 10	27	< 10	46
419218	205 226	< 1	0.07	15	20	< 2	6	7	174	< 0.01	< 10	< 10	30	20	48
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419220	205 226	< 1	0.14	21	150	34	4	15	34	0.04	< 10	< 10	230	< 10	120
419221	205 226	1	0.03	2	80	44	< 2	1	5	0.01	< 10	< 10	16	< 10	2
419222	205 226	1	0.02	5	160	48	120	3	7	0.01	< 10	< 10	166	< 10	16
419223	205 226	1	0.01	2	170	404	16	1	4	< 0.01	< 10	< 10	29	< 10	4
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419226	205 226	78	0.03	7	300	30	2	10	7	0.01	< 10	< 10	129	< 10	14
419227	205 226	7	0.04	13	130	2	2	1	< 1	< 0.01	< 10	< 10	21	< 10	12
419228	205 226	1	0.06	4	430	90	6	4	6	0.01	< 10	< 10	46	< 10	18
419229	205 226	1	0.03	3	130	116	2	3	5	0.02	< 10	< 10	14	< 10	16
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419231	205 226	1	0.02	< 1	130	< 2	2	1	6	< 0.01	< 10	< 10	9	< 10	6
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419236	205 226	12	0.01	6	30	3100	4	< 1	1	< 0.01	< 10	< 10	12	< 10	440
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419238	205 226	7	0.02	8	90	18	2	1	12	< 0.01	< 10	< 10	20	< 10	14
419239	205 226	< 1	0.06	13	230	8	4	7	2	0.01	< 10	< 10	41	< 10	22
419240	205 226	1	0.12	13	380	12	< 2	6	7	0.02	< 10	< 10	15	< 10	22



Chemex Labs Ltd.

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419205	205 226	5	0.2	0.12	6	20	0.5	2	0.01	0.5	1	118	60	3.54	10	1	0.22	40	0.04	25
419206	205 226	5	0.2	0.52	18	30	0.5	2	0.03	0.5	27	148	2	1.70	10	1	0.21	20	0.02	290
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419209	205 226	5	0.2	0.35	2	10	0.5	2	0.01	0.5	3	106	2	3.80	10	1	0.02	10	0.02	10
419210	205 226	10	10.2	0.21	2	10	0.5	28	0.01	0.5	1	344	9	0.73	10	1	0.34	20	0.01	20
419211	205 226	215	96.4	0.01	2	10	0.5	294	0.01	0.5	1	341	4	0.54	10	1	0.03	10	0.01	30
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419213	205 226	5	0.2	3.28	2	10	0.5	2	0.10	0.5	20	268	1	5.62	10	1	0.01	10	3.82	815
419214	205 226	55	0.2	1.11	2	100	0.5	2	0.01	0.5	1	119	8	1.11	10	1	0.54	90	0.05	40
419215	205 226	35	0.2	0.14	2	10	0.5	2	0.01	0.5	1	335	10	0.87	10	1	0.07	10	0.01	40
419216	205 226	275	0.4	0.59	14	80	0.5	2	0.01	0.5	1	158	2	2.47	10	1	0.53	30	0.03	20
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419219	205 226	5	0.2	0.51	2	10	0.5	4	7.02	0.5	2	26	9	1.17	10	1	0.01	10	0.40	1335
419220	205 226	5	0.2	0.24	2	180	0.5	2	0.13	0.5	13	239	7	8.69	10	1	0.13	20	0.03	520
419221	205 226	115	0.8	0.22	2	40	0.5	4	0.01	0.5	1	243	28	1.26	10	1	0.24	20	0.01	25
419222	205 226	60	3.4	0.90	26	90	0.5	2	0.01	0.5	2	130	74	2.38	10	1	0.82	30	0.12	30
419223	205 226	2770	9.2	0.25	2	170	0.5	2	0.01	0.5	1	167	116	1.36	10	1	0.33	20	0.02	15
419224	205 226	1550	2.0	0.30	2	30	0.5	8	0.01	0.5	1	282	64	1.27	10	1	0.32	10	0.01	15
419225	205 226	5	0.2	0.46	2	20	0.5	2	0.02	0.5	1	159	9	8.51	10	1	0.02	40	0.01	25
419226	205 226	120	0.4	0.73	6	60	0.5	2	0.01	0.5	4	186	6	2.35	10	1	0.69	30	0.27	45
419227	205 226	330	0.2	0.21	50	10	0.5	2	0.01	0.5	15	244	91	2.69	10	1	0.15	10	0.01	45
419228	205 226	20	0.6	0.65	2	60	0.5	6	0.03	0.5	1	114	23	2.98	10	1	0.47	10	0.09	55
419229	205 226	95	0.8	0.44	2	30	0.5	2	0.04	0.5	1	275	33	1.87	10	1	0.30	10	0.10	70
419230	205 226	5	0.2	0.89	2	130	0.5	2	0.01	0.5	1	133	12	2.92	10	1	0.63	40	0.06	55
419231	205 226	5	0.2	0.25	2	30	0.5	2	0.01	0.5	1	226	6	0.97	10	1	0.26	30	0.02	25
419232	205 226	5	0.8	0.51	2	60	0.5	6	0.01	0.5	1	206	23	1.86	10	1	0.58	20	0.13	65
419233	205 226	5	1.4	0.28	2	40	0.5	4	0.01	0.5	2	154	25	1.86	10	1	0.36	20	0.08	70
419234	205 226	5	1.8	0.63	2	80	0.5	12	0.01	0.5	4	195	17	2.08	10	1	0.63	20	0.11	85
419235	205 226	100	44.2	0.06	2	10	0.5	136	0.01	5.0	1	314	64	0.73	10	1	0.09	10	0.01	15
419236	205 226	360	27.8	0.08	2	10	0.5	90	0.01	6.0	1	542	93	1.11	10	1	0.14	10	0.01	20
419237	205 226	15	4.6	0.23	2	30	0.5	46	0.01	0.5	1	114	4	2.25	20	1	0.26	160	0.01	5
419238	205 226	10	0.2	0.41	2	40	0.5	2	0.01	0.5	3	346	6	1.76	10	1	0.46	20	0.04	40
419239	205 226	10	0.2	0.68	6	10	0.5	2	0.01	0.5	13	198	3	5.34	10	1	0.05	10	0.20	40
419240	205 226	5	0.2	0.74	2	90	0.5	2	0.01	0.5	6	152	1	2.26	10	1	0.15	40	0.14	200

Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers
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To: HASTINGS MANAGEMENT CORP

1000 - 675 W. HASTINGS
 VANCOUVER, BC
 V6B 1N6

Project:
 Comments: CC: GLEN RODGERS

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 Total Pages 1
 Certificate Date 30-NOV-95
 Invoice No. 1-9534417
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CERTIFICATE OF ANALYSIS

A9534417

SAMPLE DESCRIPTION	PREP CODE	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
115	205 226	655	1	0.01	28	250	1080	2	3	4	0.01	< 10	< 10	116	< 10	142
439246	205 226	70	1	0.01	7	20	36	68	2	7	0.04	< 10	< 10	6	< 10	4
439247	205 226	165	1	0.01	6	400	4120	< 2	5	8	0.10	< 10	< 10	26	< 10	12
439248	205 226	610	1	0.01	10	180	1660	2	1	18	0.06	< 10	< 10	16	< 10	48
439249	205 226	25	1	0.12	2	40	12	< 2	1	2	0.07	< 10	< 10	43	< 10	2
439250	205 226	20	1	0.11	5	90	2	< 2	1	1	0.07	< 10	< 10	46	< 10	2
439251	205 226	10	1	0.13	9	240	8	< 2	3	3	0.21	< 10	< 10	16	< 10	< 2
439252	205 226	20	2	0.09	5	120	6	< 2	1	4	0.11	< 10	< 10	12	< 10	2
439253	205 226	55	1	0.12	8	240	4	< 2	8	4	0.21	< 10	< 10	25	< 10	6
439254	205 226	895	1	0.06	14	1550	54	< 2	3	33	0.30	< 10	< 10	116	< 10	100
439255	205 226	80	1	0.01	4	120	7890	< 2	< 1	2	0.01	< 10	< 10	7	< 10	6
439256	205 226	70	1	0.01	4	110	2150	< 2	< 1	4	0.04	< 10	< 10	5	< 10	4
439257	205 226	770	1	0.02	14	270	280	< 2	3	4	0.20	< 10	< 10	25	< 10	52
439258	205 226	250	1	0.01	14	220	12	< 2	1	3	0.01	< 10	< 10	20	< 10	28
439259	205 226	620	1	0.04	41	1370	2	< 2	4	37	0.63	< 10	< 10	185	< 10	70
439260	205 226	145	1	0.01	9	410	2	< 2	1	4	0.01	< 10	< 10	14	< 10	22
439261	205 226	30	1	0.14	7	240	6	< 2	3	3	0.01	< 10	< 10	10	< 10	10
439262	205 226	350	1	0.04	18	350	124	< 2	4	13	0.11	< 10	< 10	41	< 10	144
439263	205 226	40	3	0.01	3	560	6	< 2	2	21	0.01	< 10	< 10	22	< 10	32
439264	205 226	165	3	0.01	7	810	12	< 2	9	12	0.01	< 10	< 10	15	< 10	126
439265	205 226	195	9	0.03	3	910	14	< 2	4	71	0.01	< 10	< 10	25	< 10	16
439266	205 226	655	2	0.01	21	710	20	< 2	6	7	0.01	< 10	< 10	23	< 10	52
439267	205 226	60	1	0.01	5	460	8	< 2	2	17	0.01	< 10	< 10	17	< 10	34
439268	205 226	490	1	0.03	12	490	330	< 2	3	77	0.01	< 10	< 10	8	< 10	140
439269	205 226	40	3	0.01	3	110	4	< 2	< 1	1	0.01	< 10	< 10	5	< 10	10
439270	205 226	300	1	0.01	21	80	4	< 2	14	3	0.01	< 10	< 10	125	< 10	60
439271	205 226	120	1	0.03	16	50	< 2	< 2	8	6	0.12	< 10	< 10	238	< 10	28

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CERTIFICATE OF ANALYSIS

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SAMPLE DESCRIPTION	PREP CODE	Au ppb 1A/AA	Au FA g/t	Ag ppm	Al %	As 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 %
419245	205 226	10000	20.60	11.4	0.18	6.36	10	< 0.5	16	0.01	< 0.5	11	268	515	7.82	< 10	< 1	0.08	< 10	0.04
419246	205 226	120	-----	2.4	0.55	10000	10	< 0.5	62	0.28	< 0.5	87	57	531	7.82	< 10	< 1	0.11	< 10	0.02
419247	205 226	20	-----	19.0	0.51	286	50	< 0.5	38	0.14	< 0.5	7	139	175	1.37	< 10	< 1	0.14	20	0.16
419248	205 226	5	-----	4.2	1.41	2550	10	< 0.5	8	0.33	< 0.5	41	192	55	3.08	< 10	< 1	0.07	10	0.59
419249	205 226	10	-----	< 0.2	0.12	18	< 10	< 0.5	< 2	0.01	< 0.5	2	167	2	6.10	< 10	< 1	0.01	< 10	0.01
419250	205 226	5	-----	< 0.2	0.13	46	10	< 0.5	< 2	0.01	< 0.5	2	250	4	5.08	< 10	< 1	0.01	< 10	0.01
419251	205 226	< 5	-----	< 0.2	0.12	6	< 10	< 0.5	< 2	0.11	< 0.5	11	175	3	1.85	< 10	< 1	0.03	10	0.01
419252	205 226	< 5	-----	< 0.2	0.16	14	10	< 0.5	< 2	0.01	< 0.5	1	178	3	1.47	< 10	< 1	0.08	10	0.06
419253	205 226	< 5	-----	< 0.2	0.45	4	< 10	< 0.5	< 2	0.21	< 0.5	2	152	3	1.19	< 10	< 1	0.10	20	0.11
419254	205 226	< 5	-----	< 0.2	2.19	8	50	< 0.5	< 2	1.16	< 0.5	26	25	64	5.05	< 10	< 1	0.43	< 10	1.28
419255	205 226	< 5	-----	46.6	0.17	< 2	< 10	< 0.5	96	0.03	< 0.5	1	255	223	1.89	< 10	< 1	0.02	< 10	0.07
419256	205 226	< 5	-----	12.2	0.25	138	20	< 0.5	28	0.04	< 0.5	2	258	78	1.07	< 10	< 1	0.10	< 10	0.03
419257	205 226	< 5	-----	2.2	2.25	6	70	< 0.5	6	0.21	< 0.5	5	116	39	4.08	< 10	< 1	0.51	10	0.89
419258	205 226	< 5	-----	< 0.2	2.10	8	50	< 0.5	< 2	0.01	< 0.5	9	147	9	3.68	< 10	< 1	0.28	10	1.64
419259	205 226	< 5	-----	< 0.2	2.72	2	20	< 0.5	< 2	1.36	< 0.5	29	121	49	5.22	< 10	< 1	0.11	< 10	2.15
419260	205 226	< 5	-----	< 0.2	2.48	8	20	< 0.5	< 2	0.04	< 0.5	2	108	2	2.85	< 10	< 1	0.17	< 10	2.56
419261	205 226	< 5	-----	< 0.2	0.61	22	< 10	< 0.5	< 2	0.05	< 0.5	8	91	38	2.36	< 10	< 1	0.04	120	0.26
419262	205 226	25	-----	0.4	1.83	2	80	< 0.5	12	0.21	< 0.5	26	80	120	5.45	< 10	< 1	0.82	< 10	0.72
419263	205 226	415	-----	< 0.2	0.26	< 2	40	< 0.5	< 2	0.01	< 0.5	1	110	25	3.25	< 10	< 1	0.19	40	0.01
419264	205 226	105	-----	0.2	0.37	2	40	< 0.5	< 2	0.01	< 0.5	4	104	11	4.12	< 10	< 1	0.22	60	0.03
419265	205 226	225	-----	0.2	0.33	4	90	< 0.5	< 2	0.01	< 0.5	5	54	7	3.70	< 10	< 1	0.43	40	0.01
419266	205 226	1150	-----	0.6	0.10	2	60	< 0.5	< 2	0.09	< 0.5	20	181	7	4.77	< 10	< 1	0.20	30	0.02
419267	205 226	495	-----	< 0.2	0.43	4	60	< 0.5	< 2	0.01	< 0.5	3	130	23	4.01	< 10	< 1	0.29	30	0.02
419268	205 226	5	-----	< 0.2	0.53	2	70	< 0.5	< 2	2.16	< 0.5	5	52	14	2.37	< 10	< 1	0.16	10	1.04
419269	205 226	< 5	-----	< 0.2	0.67	14	10	< 0.5	< 2	0.01	< 0.5	3	160	2	1.94	< 10	< 1	0.20	< 10	0.36
419270	205 226	< 5	-----	< 0.2	5.81	28	20	< 0.5	< 2	0.01	< 0.5	19	253	4	5.28	< 10	< 1	0.02	< 10	6.60
419271	205 226	< 5	-----	< 0.2	0.23	< 2	10	< 0.5	< 2	0.01	< 0.5	2	203	< 1	14.90	< 10	< 1	0.10	< 10	0.13

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APPENDIX II
(FIELD NOTES, LMC AREA)



 J.L. DARLING



CONTENTS

PAGE	REFERENCE	DATE
X K10-1	(326/13E) FG. OF L. 100	
	SECRET	
O K10-2	1340/18E	
	(BDS TO 0.5m)	
	1st sub. 100m	
AK10-3	TOURMALINITE FLAT PR	
	(POS. DROPPED UP FR. PEACOCK PIT)	
	JULY 12/95	
X K12-1	Siltstone with graphitic sand	
	(305/19E)	
X K12-2	Albite	
	Albite some pyrite	
	Albite some mica	
X K12-3	Arg. F.B. (380/12E)	
X K12-4	Disrupted Bds small frag. disjunct	
	Tourmaline crystals	
X K12-6	Tourmalinite Flat about 100	
	5-6 fragments	

J.L. Darling's "J.L. Darling" covers (Item #31) are available for this style of notebook.

 Contact your dealer or the J.L. Darling Corporation.

streamy sands. K12-7

K12-7 Flow silicified sands fine grained pyrite
brecciated with Q.V. with PbS large
angular
pebbles
Sample 434202

K12-8 coarse flow with 3/2 veins containing Py and PbS

July 19/95 M-8?

K12-1 P.H. coarse with native Cu.
small angular pieces M.B. quartz (F 347, 7°)
8" wide black bed of coarse bed with biotite
and some pink garnet contain rare malachite

K12-2 small angular M.B. quartz some calc.

K12-3 small angular with subvolcanic staining MS?

K12-4 T.B. quartz

K12-5 Sub angular pieces of Magnetite Pb

K12-6 Mg, Pb breccias brecciated beds? (F 333, 5°)
dy staining 298

K12-7 small angular brecciated zone off side

K12-8 chlorite breccia 1/2 foot wide thin bed

K12-9 Magnetite breccia flow lots of angular pieces
in talus also 500 ft. 434203

K12-10 Mag. Breccia in place ~ 10 m wide
striking ~ 220°

K12-11 dry shelling ~ same orientation as mag. bre.

K12-12 Pebbly silicified sands with fine grained py
Q.V. some veins 295 orientation
Sample 434204 - silicified sed with py and gte
carb

K13-14 fragmental bed in place ~ 6" thick

bedrock is almost due to top of pit shows no structure

K13-15 flow thin bedded material with some rounded
small pieces dark angular blocks

K13-16 K13 breccias and thin bedded
MS. breccias and some staining

July 19/95

K13-17 Fracturing in bedrock (F 347, 7°)
to the west

K13-18 E.B. Mg breccias and staining

K13-19 (F 106, 6°) staining

K13-20 (F 106, 6°) staining

K13-21 (F 106, 6°) staining

K13-22 (F 152, 7°W) staining

K13-23 (F 152, 7°W) staining

K13-24 Weak chlorite breccia zone - off
trending at 246°?

K13-25 alkali zone, pad

K13-26 5" wide fragmental bed

K13-27 brecciated zone some staining

July 19/95

K13-28 small piece of flow with PbS staining

K13-29 large boulder of flow. Also some
also some in place with staining

K13-30 large angular pieces of flow with staining

K13-31 flow on sand bed with Magnetite breccia

K13-32 flow chlorite breccia

K13-33 flow alkali breccia

Aug 16/95

K10-1 Floor in fillers - chlorite breccia silicified
sols with some py and
carbon with some disseminated Pbs
along strike of QV

K10-2 (T 32, 20)

K10-3 Abitic gte breccia zone ~ 1.5m wide
striking ~ 290° some fine grained py
some coarse grained

K10-4 (T 40, 8°)

K10-5 (T 40, 8°) part of Lycopodium
K10-6 (T 40, 8°) fractured with some quartz
K10-7 (T 40, 8°)

K10-8 (T 40, 8°)

K10-9 (T 40, 8°)

K10-10 (T 40, 8°)

K10-11 (T 40, 8°)

K10-12 (T 40, 8°) in fillers chlorite breccia

K10-13 (T 40, 8°) 11m thick fill.

K10-14 (T 40, 8°)

K10-15 (T 40, 8°)

K10-16 (T 40, 8°) pyrite and hematite in bedding, quartz carb. veins

K10-17 (T 40, 8°) chert by bridge E. U. Qtz. 2m wide
(some silicification and fine grained py)

K10-18 (T 40, 8°) with quartz in concretions. (T 342, 10°)

K17-2 M.B. M.B. Qzites underneath
6" wide Aug bed 5m above 297° trending
QV 6-12" wide with pyrite and pa.

370m up Ck

K17-3 dry Shearing in bedrock at 324. (T 312, 4°)

500m K17-4 (T 312, 4°) fragments of shells and bones (A 312)

600m K17-5 (T 312, 4°) bedrock 6-10m thick

K17-6 (T 312, 4°) possibly bedrock

K17-7 (T 312, 4°) possibly bedrock

K17-8 (T 312, 4°) possibly bedrock

K17-9 (T 312, 4°) possibly bedrock

K17-10 (T 312, 4°) possibly bedrock

K17-11 (T 312, 4°) possibly bedrock

K17-12 (T 312, 4°) possibly bedrock

K17-13 (T 312, 4°) possibly bedrock

K17-14 (T 312, 4°) possibly bedrock

K17-15 (T 312, 4°) possibly bedrock

K17-16 (T 312, 4°) possibly bedrock

K17-17 (T 312, 4°) possibly bedrock

K17-18 (T 312, 4°) possibly bedrock

K17-19 (T 312, 4°) possibly bedrock

K17-20 (T 312, 4°) possibly bedrock

K17-21 (T 312, 4°) possibly bedrock

K17-22 (T 312, 4°) possibly bedrock

K17-23 (T 312, 4°) possibly bedrock

K17-24 (T 312, 4°) possibly bedrock

July 1955

K23-1 1/2 in. piece of thin, fine grained, angular, siliceous rock.

July 1955

K23-1 1/2 in. siliceous black glauk. flt.
angular.

K23-2 siliceous rock with fine grained pyrox. and glauk. ves. med. angular piece of flt.

K23-3 shatter flt. bleached rock with brownish gray fracture sample 439207
thin along fault. Small piece of mag. breccia flt. thin in fault albite concretions with pink garnets and biotite.

July 1955

K23-1 1/2 in. flt. siliceous glauk. with alt. frag. congl. with biotite and po-wil. Some clay.

K23-2 1/2 in. flt. in fault.
Mag. breccia flt. numerous pieces
congl. with clastic and outside congl.

K23-3 1/2 in. flt. mag. breccia flt.
sample 439209
small av. with feldspars further along fault.

K23-4 1/2 in. flt. (163, 90)

K23-5 flt. in thin, coarse with some small pieces

K23-6 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-7 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-8 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-9 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-10 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-11 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-12 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-13 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-14 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-15 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-16 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-17 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-18 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-19 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-20 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-21 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-22 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-23 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-24 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-25 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-26 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-27 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-28 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-29 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K23-30 1/2 in. flt. siliceous black glauk. with alt. frag. congl. with biotite and po-wil.

K26-1 - [unclear] (105, 45)

K26-2 - small QV core with some pyrite and some zones of
negative opaline? or tourmaline

K26-3 - small white concreted 8"

also fill small lens, chl loc.

show in bedrock 20m corner in bed,
with Fe and Pink garnets.

Small QV core Visc trending ~ 110
dipping in the south steep

K26-4 - fill 2.5m bed alb. K26

small piece of fill with lots of
pyrite and pyrite

K26-5 - in wide zone of [unclear] bed.
with the old [unclear]

K26-6 - 2m wide chlorite [unclear] pyrite
zone (104 [unclear])

like [unclear] fragments, carbonate [unclear]

K26-7 - 2ft [unclear] alb. 55. zone
Sample No 43219

K26-8 - 1ft [unclear] chlorite 61 zone
Sample No 43219

K26-9 - alb. fill in [unclear] large piece

July 27/95

K27-1 - fill large angular piece of [unclear] may be
with some pyrite - Sample 43220

K27-2 - [unclear] (pyrite)

K27-3 - Shale [unclear] 220 [unclear] [unclear]
[unclear] [unclear] [unclear] [unclear] [unclear]
[unclear] [unclear] [unclear] [unclear] [unclear]
Sample No 43222, 43223, 43224

K27-4 - [unclear] [unclear] [unclear] [unclear] [unclear]
pyrite. Sample No 43225

K27-5 - [unclear] [unclear] [unclear] [unclear] [unclear]
Sample No 43226

K27-6 - [unclear] [unclear] [unclear] [unclear] [unclear]
[unclear]

K27-7 - [unclear] [unclear] [unclear] [unclear] [unclear]
Sample No 43227

July 28/95

K28-1 - [unclear] [unclear] [unclear] [unclear] [unclear]
[unclear] and [unclear] along [unclear]

K28-2 - [unclear] [unclear] [unclear] [unclear] [unclear]
[unclear] pyrite

K28-3 - [unclear] [unclear] [unclear] [unclear] [unclear]
[unclear] [unclear] [unclear] [unclear] [unclear]

K28-4 - [unclear] [unclear] [unclear] [unclear] [unclear]
[unclear] [unclear] [unclear] [unclear] [unclear]

K28-5 - [unclear] [unclear] [unclear] [unclear] [unclear]
[unclear] [unclear] [unclear] [unclear] [unclear]

K28-6 - [unclear] (144, 20) [unclear] [unclear]
[unclear]

K28-7 - [unclear] [unclear] [unclear] [unclear] [unclear]
[unclear]

K28-8 - [unclear] (164, 19) [unclear] [unclear]
[unclear] [unclear] [unclear] [unclear] [unclear]

K28-9 - [unclear] [unclear] [unclear] [unclear] [unclear]
[unclear]

K28-10 - [unclear] [unclear] [unclear] [unclear] [unclear]
[unclear] and [unclear]

K28-11 - brecciated zone with siliceous quartz veins and
limestone ~ bedding fl.

K28-12 large angular blocks of white flint with pink

K28-13 n. of pieces of siliceous sds with fine gr. and py
shale zone flt.

K28-14 same shale zone with siliceous sds fragment pyrite and
some small fl. ~ bedding fl.

K28-15 weakly shelled bedrock trending with bedding
120 trending QV. with coarse chloride

K28-16 bedrock (T134, 15°) possible marker
also disrupted bed 6° wide

K28-17 brecciated fl. with siliceous flint
also some small fl. ~ bedding fl.
K28-18 large blocks of fragment fl. in shale
also some of the breccia

K28-19 fl. with siliceous flint fragment with
some fl.

K28-20 large blocks of fragment fl. in shale
also some of the breccia

K28-21 fl. with siliceous flint fragment with
some fl.

K28-22 fl. with siliceous flint fragment with
some fl.

K28-23 fl. with siliceous flint fragment with
some fl.

K28-24 fl. with siliceous flint fragment with
some fl.

11
K31-7 (bedrock) (K28, 15°) thin bedded
and siliceous sds with some fl. ~ bedding fl.
On top of flint fl. ~ bedding fl.
On breccia zone with fl. ~ bedding fl.

K31-8 fl. with siliceous flint fragment with
some fl. ~ bedding fl.
K31-9 fl. with siliceous flint fragment with
some fl. ~ bedding fl.

K31-10 fl. with siliceous flint fragment with
some fl. ~ bedding fl.
K31-11 fl. with siliceous flint fragment with
some fl. ~ bedding fl.

K31-12 fl. with siliceous flint fragment with
some fl. ~ bedding fl.
K31-13 fl. with siliceous flint fragment with
some fl. ~ bedding fl.

K31-14 fl. with siliceous flint fragment with
some fl. ~ bedding fl.
K31-15 fl. with siliceous flint fragment with
some fl. ~ bedding fl.

K31-16 fl. with siliceous flint fragment with
some fl. ~ bedding fl.
K31-17 fl. with siliceous flint fragment with
some fl. ~ bedding fl.

K31-18 fl. with siliceous flint fragment with
some fl. ~ bedding fl.
K31-19 fl. with siliceous flint fragment with
some fl. ~ bedding fl.

K31-20 fl. with siliceous flint fragment with
some fl. ~ bedding fl.
K31-21 fl. with siliceous flint fragment with
some fl. ~ bedding fl.

K31-22 fl. with siliceous flint fragment with
some fl. ~ bedding fl.
K31-23 fl. with siliceous flint fragment with
some fl. ~ bedding fl.

with very strong

with lots of pyrite

2nd cutting of shear zone with fine grained
pyrite and quartz

01-9 bitrock (T 520, 2°)

01-10 lots of small pieces of altered rock
with biotite and chlorite

01-11 bitrock (T 10, 6°) cl. 1720

01-12 thin bitrock with fine grained pyrite

01-13 bitrock (T 5, 6°) same stuff

01-14 bitrock

01-15

01-16 thin with bitrock dyke with chromite

01-17 epidote? trending to 211° dipping steep

01-18 large beds with epidote veins - fth

01-19 small fragmented beds - altered and chlorite
within collage beds

01-20 bitrock

01-21 thin dark quartz vein cutting through
altered beds (crystal)

01-22 bitrock

01-23 thin bitrock dyke - magnetic with

01-24 bitrock

01-25 Valerian with quartz veins containing As Py

46 SAMPLES^{to} AVE. 3

AVE. 3 ORIENTATION WITH CRANE
(NO NOTES)

K01-7 May breccia with limonite very strong
Sample No. 439242
Sample No. 439243 ^{very} altered breccia
with lots of pyrite.

K01-8 2m bedding in shear zone with fine grained
pyrite and quartz

K01-9 bedrock (T 320, 2°)

K01-10 lots of small pieces of altered cores
with biotite and chlorite.

K01-11 bedrock (T 10, 6°) cl. 1720

K01-12 flt silicified sds with fine grained pyrite

K01-13 bedrock (T 35, 6°) some clots
of coarse chlorite

Aug 2/95

K02-1 Meter wide diabase? dyke with chrome diopside +
epidote? trending ~ 210° dipping steeply ~ 80°

K02-2 Collage beds with epidote veins - flt.

K02-3 small fragmental beds - albitized and chloritized
within collage beds.

K02-4 ^{black} silicified beds

K02-5 flt with black quartz vein cutting through
and tourmalinized beds (crystal)

by LMC 1 South

K02-6 60° trending gabbro dyke - magmatic with
some feldspar.

K02-7 Gabbro sill with quartz veins containing Aspy
and in gabbro - also Calc

46 SAMPLES TO AUG. 3

AUG. 3 ORIENTATION WITH CRAIG KENNEDY
(NO NOTES)

Aug 9/95

K09-1 - flt in talus & of pieces with
tourmaline needles and veins?

K09-2 - also piece of May Hill. flt.
in outcrop 6" wide bed with
disseminated tourmaline needles
(T 80, 4)

K09-3 6" wide bed with pink garnet
chloritized also actinolite and
lots of Po with PbS/20 S and Aspy
very silicified. can trace along strike
for 20 m.

K09-4 outcrop talus of disseminated tourmaline
needles 2ft wide

K09-5 Actinolite veins ^{or zones} not wide with silicified
fragmental also above ^{actinolite} tourmaline needles
disseminated throughout beds. flt.
Also lots of Aspy wide vein ~ 1/2 ft
and Albitized sds - Sample No 439246

K09-6 actinolite vein - vein trending 120°
foot wide dipping into hill steeply

K09-7 - pseudo tourmaline outcrop with
Aspy, Po, Calc

18° to North cl 1920

Aug 14/95

KA14-1

fill in talus of chert? br. or fragmental with some PBS and Culp. - Sample No. 439247

*KA14-2 small As vein ~ 4cm wide trending

*KA14-3 silicified chloritic zone with diss. PBS and As Py as well as tourmaline needles - sample No 439248

KA14-4 silic. gztites with some Po as well as poched alteration and some diss. tourmaline needles. (t 7, 5°) cross cutting gte vein trending 152° chlorite along fractures

KA14-5 fill in talus very silicified brown - cream colored tourmaline?

KA14-6 lots of albite fill in talus also gzt br with albite fragments and tourmaline veins in fill.

KA14-7 disrupted beds fragmental? on edge mafic dyke with some Po. trending 98° dipping 62°

KA14-8 ~ foot wide albite, silicified zone trending at ~ 100°

KA14-9 Hem br. fill in talus # of peices Sample No 439249 439250 - with

KA14-10 bedrock - lots of diss. tourm. needles in beds over 20m wide thickness

15

Aug 15/95

KA15-1 Number of punky argillently altered peices at float. - Down road 75m large block of silicified sericitically altered gztite.

KA15-2 small peice of tourmaline? fill

KA15-3 Talus sheared argillently altered gztite with gzt veins cutting through trending ~ 195° ~~talus~~ butt gzt vein 1M wide

KA15-4 outcrop - gabbro slightly altered.

KA15-5 bedrock (t 380, 10°) grey gztites and argillites along road 5m. Very sheared and biotite rich very altered.

KA15-6 - marker? In road cut down below road old tunnel hem br. fragments.

KA15-7 fractured shear zone - some hem. br. lots of gzt. shearing at 193° direction

KA15-8 large peice of fill - chloritized silicified gztite with carbonates and pyrite along fractures.

KA15-9 - grey gztite fill with some diss. tourmaline needles

KA15-10 - 6" wide disrupted bed (t 10, 8°)

Aug 16/95

KA16-1 - disrupted bed ~ 5" wide with tourmaline - disseminated tourmaline needles needles through small ^{quartz} vein 6" wide out beds. with albited and biotite rich

also actinolite and tourmaline needles

seeds trending 120° with P number of small 1-1/2" wide black quartz veins trending ~ 240°

KA16-2 - disrupted beds and small fragments over ~ 2m thickness

KA16-3 - silicified br. with ~~py~~

possibly Him?

albited and black matrix

Sample No 439251, 52, 53.

trend 202° small disrupted bed ~ 1/2' below bedding (173°, 14) breccia

KA16-4 - meter wide zone of diss. and massive tourmaline needles with 1/2" wide tourmaline needle and albited disrupted beds zone bedrock (P320, 2) very fine

KA16-5 - 1.5m wide mafic ~~zone~~ 220° trend Sample number 439254

KA16-6 - # of pieces of flt in talus with same diss PbS along fractures in P_o rich rock

17

KA16-7 - coarse PbS in small quartz veins - float

KA16-8 - flt of PbS and actinolite along quartz vein

KA16-9 - collage bed with PbS in place foot wide

KA16-10 - large concn with PbS and actinolite

Aug 17/95

KA17-1 diss. PbS along edge of small 3" wide glassy glt vein trending 120° - metre wide faulted bed with lots of P_o and rare black or disseminated of PbS

KA17-2 rare PbS along fractures

KA17-3 diss. tourmaline needles in beds with bedding 11 glt veins foot wide zone Sample No 439256 tourmaline needles diss over 3-4 m thickness, 6" wide bed on top P_o rich and silice. with rare AsPy also 2" wide glt vein, vein trend 120° with lots of PbS Sample 439255 lots of actinolite and strong blue powdery stuff

KA17-4 - large concn. in glt bed with float PbS

Aug 18/95 - Orientation with Glen No notes

- KA17-1 slumped zone of breccia
Sdls striking $\pm 72, 4^\circ$ on left
hand side and $\pm 192, 18^\circ$ on right
Silic. some chl.
- KA17-2 tourmaline needle beds and bedding
11 g.v. some AsPy in association
4 concs.
- KA17-3 foot wide bed chloritized silic.
with po and blebs of Pbs.
Sample 439247

Aug 20/95

- KA20-1 Pbs and Po along fractures
in outcrop
- KA20-2 shearing in outcrop trending $\sim 137^\circ$
some g.v. with actinolite and
tourmaline needles in bed and
disseminations some Pbs along fractures
- KA20-3 lots of tourmaline needles in flint
also Pbs, Zns in flint along
fractures possibly bedding planes?

Aug 21/95

- KA21-1 fills all gabbro flt. some epidote and
Q.v.

- KA21-2 Chloritized bleached calcified
sheared sandstone - very siliceous
shearing fabric trending 30° very phylitic
small g.v., feldspar veins
- KA21-3 outcrop of quartzite M. Thick bedded and
argillites - some siltification and
caliche beds with biotite and some
rare pink garnet also small
zone (1.5 m wide) of 98° trending
gtz stringers with some tremolite
Sample No 439258
trend of bedrock ($\pm 24, 10^\circ$)
- KA21-4 1.5 m wide gabbro dyke trending
 210°
- KA21-5 ($\pm 30, 22^\circ$) some siltification
little po and gtz. - small zone of frayed
Chloritized - some tremolite in quartz veins
also weak calcareous fractures or pocket
beds
- KA21-6 silic. glazed beds 9m wide with
Po and biotite - above some dark
tourmaline needles and chloritized
sds with chlorite along fractures
- KA21-7 gabbro with some rare AsPy in 60° trending
Quartz veins.
- KA21-8 very sheared phylitic zone with some
quartz veins very bleached and chloritic
trend 222° dipping 74°
Angular pieces of flt with diss AsPy and AsPy in small
quartz veins

KA21-9 All quartz large angular boulders
with some Apy

Aug 22/95

KA22-1 large blocks of gabbro all some
epidote close to source

KA22-2 thin massive quartzite unit silicified
and mica altered some Po and
fatted out patches. Conc. have black
biotite some chlorite - also some
minor pocket beds of carbonate
skeletons (f. 242, 50) also
some small 120° trending g.v.

KA22-3 thin bedded argillite ~~some~~ maybe a
little some Po also in with
argillite ~ 1.5 ft wide altered
quartzite down in latter some
small disrupted beds all and usually
brecciated. All - An perov
(f. 244, 22)

KA22-4 large gabbro dykes ~ 100m wide

KA22-5 contact between gabbro dyke and sed.
some quartz and sphery chlorite
sed. (f. 169°, 18°) some carbonate
freckles
also altered fragmental or breccia

KA22-6 - weakly silic and chloritized sed.
some carbonate breccia beds

KA22-7 Hbl. argillite and quartzite with
coarse chlorite along structures

KA22-8 Hbl. quartz some what silicified
with biotite rich concretions
of small Q.V. with some Po and
albitized along the edge trending
120°

KA22-9 thin bedded quartzite and argillite
(f. 242, 40)

Aug 25/95 forgot book no notes only on map
notes after Aug 27 notes

Aug 26/95

KA26-1 meter and a half wide bed with
medium amount of Po and lots
of microcline also some 6" wide
bed with diss. tourmaline needles
flecked with green - clear tourmaline needles

KA26-2 12" wide disrupted beds, Peraluminous
micaceous

KA26-3 thin latter albitized
conc. with Pk
garnet and Po also number
of pieces with disrupted
beds
some
pieces
of microcline
all

KA26-4 Gabbro dyke ~ 3m epidote
rich trending ~ 246°
Sample no 439259

Any contact very chloritic and somewhat
rich 120°

KA26-5 - # of disrupted bed (fragmental)
pieces in talus as well as
iron rich ^{black} crystalline

KA26-6 lots of carbonate freckle beds
in flt - also some black
biotite beds

KA26-7 Massive po rich unit 5m
thick possible fragmental?
(+145, 90)

KA26-8 diss. laminae needles in 6" wide
bed

~~Aug 27/95~~ Aug 27/95

KA27-1 # of pieces gabbro fragmental?
also some pieces of flt with diss.
beds

KA27-2 sediment gabbro contact sed's characteristically
altered and bleached - large chlorite
flakes (+239, 5)

Aug 25/95

KA25-1 - flt collage beds with PBS - albite/ized
of pieces

KA25-2 hem br. flt in talus
2.0 in cliff trending 100°
bedrock (+347, 14°)

KA25-3 hem, may br in place
~ 1m wide 0° trend

KA25-4 - 10" wide ^{collage} bed - silicified, pink garnet
Po, and green actinolite

KA25-5 Collage beds with rare PBS over
5m thickness (+322, 14°)

KA26-5 - # of disrupted bed (fragmental)
pieces in ^{matrix} as well as
iron rich ^{black} crystalline

KA26-6 100' carbonaceous freckle beds
in fill - also some black
biotite beds

KA26-7 Massive po rich unit 5m
thick possible fragmental?
(T 145, 90)

KA26-8 diss. karstic necks in 6" wide
bed

~~KA27~~ Aug 27/95

KA27-1 # of pieces gabbro fragmental?
also some pieces of M with diss.
beds

KA27-2 sediment gabbro contact sed. chloritically
altered and bleached - large chlorite
flakes (T 238, 5)

Aug 25/95

KA25-1 fill collage beds with PBS ^{matrix} altered
of pieces

KA25-2 hem br. fill in talus
g.v. in cliff trending 100°
bedrock (T 347, 14°)

KA25-3 hem, may br in place
a 1m wide 60' trend

KA25-4 - 10" wide ^{collage} bed - silicified, pink garnet
Po, and green actinolite

KA25-5 Collage beds with rare PBS over
5m thickness (T 322, 14°)

Sept 4/95 - Office Ck.

KA25-1 large 1m x 1m wide boulder of
quartz and chalcopyrite in fill
el. 1290

KA25-2 bedrock in Cr. - very shistly (T 324, 22.94°)
shale at el. 1320

KA25-3 greenstone (diabase gabbro?) dyke strike
~ 7° SWS (T 346, 56°)

KA25-4 greenstone? gabbro? dyke? sill? trend
350° ~ 10-15 m thick
el. 1370

KA25-5 foot wide piece of quartzite fill with PBS
el. 1374

KA25-6 large 1m x .5m x .5m boulder of
Po, Py and Cu Py el. 1430

KA25-7 dolomitic unit in Cr.
large piece of fill - holes like an iron
cap rock el. 1500m

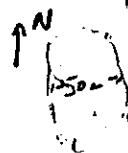
KA25-8 Carb. unit with PBS, ZNS along fractures
and in g.l. veins el. 1530m
(T 14, 70°) overlain by black argillite with Pb

KA25-9 soccer ball size piece of fill with
g.v. Po, Py, Cu Py and some carbonates
el. 1540m

cl. 1470m

KS4-10 outcrop on nose between of 455 and

460 (T358, 65°) shaly, argillite



- further towards, off to sparse

outcrop trending in same

direction also shaly, argillite

along all clear line

in

KS4-11 phyllitic carbonaceous unit ~ 2m

wide outcrop cl. 1405m

Sept 11/95

KS11-1 large outcrop of fragmental
biotized very similar to big lens fragmental
fragmental lots of Po and some tiny fragments
some albite
fragments ~ 20m thick

KS11-2 - bedrock (T335°, 22°) lots of dis-
rupted beds and biotite

KS11-3 - Marker

KS11-4 - Marker

KS11-5 fragmental P.H. in talus

KS11-6 bedrock with lots of chlorite flakes

KS11-7 disrupted beds - biotized, chloritized
also thin albite fragmental
very argillically altered

KS11-8 babbled sill ^{pyroxene} altered with epidote

KS11-9 - 6-8 ^{small} pieces of horn mat. ^{biotized}
disrupted beds both brown and
black

Sept 12/95

KS12-1 Small outcrop of siliceous quartzite
some const. with Po and pink garnets
also sericite or chlorite fragments
or wisps hummocky purple (T340, 12°)

KS12-2 P.H. fragmental with biotized clasts

KS12-3 outcrop - brecciated quartzite silicified
and chloritic - some albization
and 140 trending quartz veins
with some Py and biotite.
(T173, 12°)

Sample 439260 brecciated zone with
small qtz stringers with some Py
and chlorite 140° trend.

KS12-4 Pool wide 110° trending quartz vein
with coarse biotite along edge.

KS12-5 silicified gneiss with lots of sericite
and some calcification concretions
of biotite

KS12-6 small disrupted beds

KS12-7 albite outcrop - disrupted chloritized
beds some fragmental albite
and chloritized trend ~ 130°
see Sample 439261

KS12-8 quartzite with some disseminated PBS and Po
shearing trending ~ 220°
(T300, 10°)

KS12-9 - 7290 trending gabbro
with Pz Py. Calc. and
PbS silicified and biotized.
Contact some PbS along
fractures in bedrock.

KS12-10 biotized disrupted beds. Quartz
vein with massive clots of
biotite very chloritic or
sericitic along contact possibly
actinolite.

Sample No 435262

KS12-11 foot wide gabbro sill or actinolite
bed albited hanging wall.

KS12-12 rare PbS along fractures.

Sept. 13/95

KS13-1 two large blocks of fragments
float - grey granite matrix and
bleached grey quartzite fragments.

KS13-2 fragments in place very angular.
clasts some biotized. Also disrupted
beds. (T 10, 25°)?

KS13-3 small fragments in outcrop
also disrupted beds.

KS13-4 M.B. grey quartzite in outcrop
(T 360, 20°)

KS13-5 black silicified quartzite small
outcrop Pb rich.

KS13-6 gabbro outcrop - unaltered

KS13-7 full of mostly gabbro - gabbro has
some epidote veins running through
it.

KS13-8 albite sds on hanging wall of gabbro
(323, 8°) 2 foot wide quartz vein
in gabbro - gabbro looks like
it moved downhill possibly a
fault. ~ orientation 230° or 11
bed in gutter.

KS13-9 shear zone in ditch line of road
silicified sds with Qtz and
limonite also felsic and
albitized Samples 435263, 640

KS13-10 after the banded argillite at a place
of siliceous sds with fine grained
Py.

(T 355, 8°)

KS13-11 hematitic sd purplish alteration
and large biotite or chlorite
plates.

KS13-12 - gabbro sill very rotten in
some places.

KS13-13 - full of mostly gabbro

KS13-14 small outcrop of gabbro

- KS13-15 large piece of float quartzite
silicified with some calcareous
looking stuff along shear plane.
also some Pb and chlorite
KS13-16 - small outcrop of gabbro

Sept. 14/95

- KS14-1 Gabbro outcrop ~ 30 ft thick
KS14-2 Gabbro outcrop
KS14-3 - silic quartzites and F.B. Argillite
some chloritization along gabbro contact also float
white albite bed and
(+ 327, 9°)
KS14-4 - 2 large angular pieces of shear zone
P11 - whitized some pinky iron
and chloritic with quartz in
~~a small gully with some silicification~~
Sample 439266
KS14-5 small outcrop - bleached and leached
quartzite and argillite - effluvia
and chloritized with some limonite
also some staining from ~ 120°
some small quartz veins also trending
120°
KS14-6 quartz breccia P11 that pieces with
limonite good looking Sample No 439267

2.7

- KS14-7 M.B. grey quartzite in outcrop
(+ 345, 10°)
KS14-8 small outcrop M.B. Quartzites with
some F.B. Argillite
KS14-9 M.B. grey quartzites with sericite
or chlorite wisps
KS14-10 small piece of silicified fragmental
P11
KS14-11 carbonaceous siltstone with Pyrite
and PbS along fractures and desquaring
Sample No 439268
Underlain by marker looking argillite
(+ 335, 17°)
KS14-12 Meter wide ^{black} argillaceous (glaukophane) bed
with lots of Pb
KS14-13 1-1.5 m wide fragmental bed
very Pb rich (+ 320, 16°)
KS14-14 Gabbro sill iron staining
KS14-15 disrupted beds with weak limonite
pool wide beds. Beds are slightly
biotized
KS14-16 black argillite with lots of Pb
KS14-17 Gabbro sill along road less than 700 m
KS14-18 Gabbro outcrop
All Gabbro P11 between 514-16 and
514-17

KS14-18 dot pieces of collage bed III
with pink quartz, actinolite
and Po with rare Pbs

Sept 19/95

KS17-1 - albite ^{silicified ellipsoidal} contact with gabbro sill
($\pm 340, 11^\circ$) above contact

small grey glazes slightly sericitic

KS19-2 Gabbro outcrop

KS19-3 ^{grey pinky} quartzite outcrop with small black
biotite concretions - dolomite rare

KS19-4 Gabbro outcrop

KS19-5 biotized and ellipsoidal disrupted
beds - VERY BLACK silicified
rock - very close to biotite
some very silicified also have
lots of white flakes of actite?
in them large black

KS19-6 ^{massive} biotite with Po and CuPy also
white garnets? and possible
fragments floor

KS19-7 Plt - chalcodan looking grey
quartzite with sericite stringers
and disrupted beds.

KS19-8 - grey quartzites H.A.

($\pm 325, 20^\circ$) Very albite

some coarse biotite along fractures with

KS19-9 - black gabbro ^{very mafic} or biotite rich
bed with some quartz and
Chalcopyrite

KS19-10 - silicified almost chert disrupted
beds - also biotized
~ 5 m thick overlain by
2 m thick unit of black
quartzite. ($\pm 290, 21^\circ$)

KS19-11 silicified quartzite bed with garnets
and Po, Py with some chlorite
~ 1.5 m thick

KS19-12 silicified black quartzites with Po
and chloritized concretions.
($\pm 320, 16^\circ$) fairly thick
unit of beds ~ 10-15 m

KS19-13 - Marker?

KS19-14 - black sericitically altered quartzite

KS19-15 - disrupted biotized beds ~ 2 m
with zone

KS19-16 - fragments of Plt - biotized fragments

Sept 20/95

KS20-1 biotized and albitized grey quartzite
unit

KS20-2 H.A. Very quartzite with patches of
(carbonate patches)

- KS20-3 M.B. Grey quartzite with some Pb and large concentrations of garnet (T 256, 6°)
- KS20-4 M.B. silicified quartzites chloritized and very Pb rich - also black biotite beds and rare tourmaline needles
- KS20-5 thin bed quartzite and argillite with carbonate freckles
- KS20-6 grey & white albite quartzite with some garnet and chlorite as well as 120° trending Q.V. with chloritized contact and coarse chlorite
- KS20-7 M.B. quartzites with chloritized silicified ~~concr.~~ some with Pb and actinolite - some quartzites also PbS in nodules very sericitic (T 326, 8°)
- KS20-8 4" wide zone of disrupted biotized beds.
- KS20-9 M.B. quartzite very sericitically altered with lots of Pb and some rare PbS ^{green} sericite fingers and carbonate freckles as well as actinolite

- KS20-10 flt - fine black - argillite
- KS20-11 collage bed - albite with biotite - 1 foot wide (T 358, 12°)
- KS20-12 small piece of black tourmaline flt on road.
- KS20-13 lots of disseminated tourmaline and with biotite and albite beds - well as actinolite beds along contact of Uabbar sill 5m thick zone
- KS20-14 M.B. grey quartzites with some albitized collage beds.
- KS20-15 M.B. grey quartzite
- KS20-16 M.B. grey quartzites with medium - small size albitized concretions (T 345, 24°)
- KS20-17 M.B. Grey Quartzite some conc. Small 100° trending Q.V. also rare tourmaline needles
- KS20-18 flt - glassy silicified quartzite with lots of Pb and some PbS with actinolite
- KS20-19 M.B. Grey quartzite with some black biotite beds some coarse chlorite - long fractures
- KS20-20 large block of quartzite with tourmaline needles

- KS20-21 Small outcrop with lots of diss.
tourmaline needles in beds.
- KS20-22 very sericitized and manganese rich
argillite
- KS20-23 Gabbro outcrop somewhat brecciated
- KS20-24 - 228° trending shear zone
sericitized and chloritized with
some limonite. Sediments
are very chloritic or sericitic
- Sample No. 439269
KS20-25 // shear zone ~ 2' thick with
lots of pyrite and
some quartz. Sample
439270
- KS20-26 Gabbro outcrop with 2' thick with
228° trending Q.U.
- KS20-27 silt. quartzite with lots of
Po and actinolite ~ 1.5m thick
- KS20-28 M.B. grey quartzites
(+333, 14")
small zone of disrupted
beds with some fragments
~ 6" wide further down road
there are some rare tourmaline
needles also some fine
wide collapse beds

Sept 21/95 - Red Property

- KR-1 Small outcrop of very phyllitic
quartzite and argillite. Some quartz
veins with calcite and lots of
chlorite also rare PPS along
some fractures
25 m down line from plot 42SE
- KR-2 Plot 500m - brecciated quartzite with
some small quartz veins
with chlorite
- KR-3 Plot - M-F.R. quartzites and
argillites - quartzites are fairly
sericitic

* 439271 - Hem. May be
flr. below Lewis
gold showing

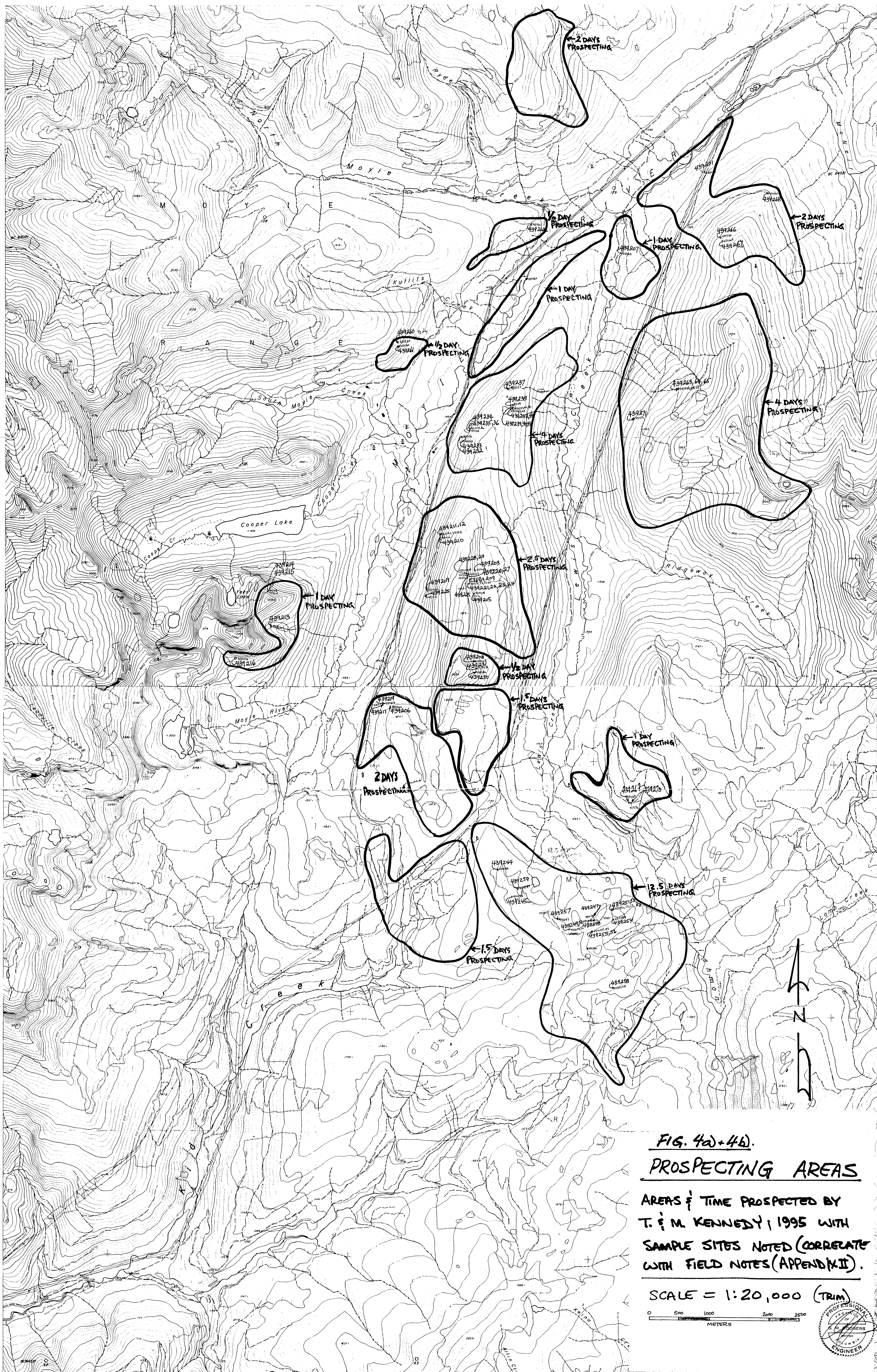


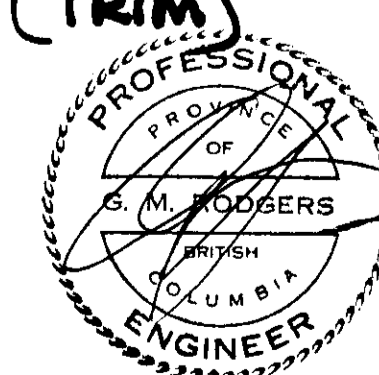
FIG. 4a) + 4b).

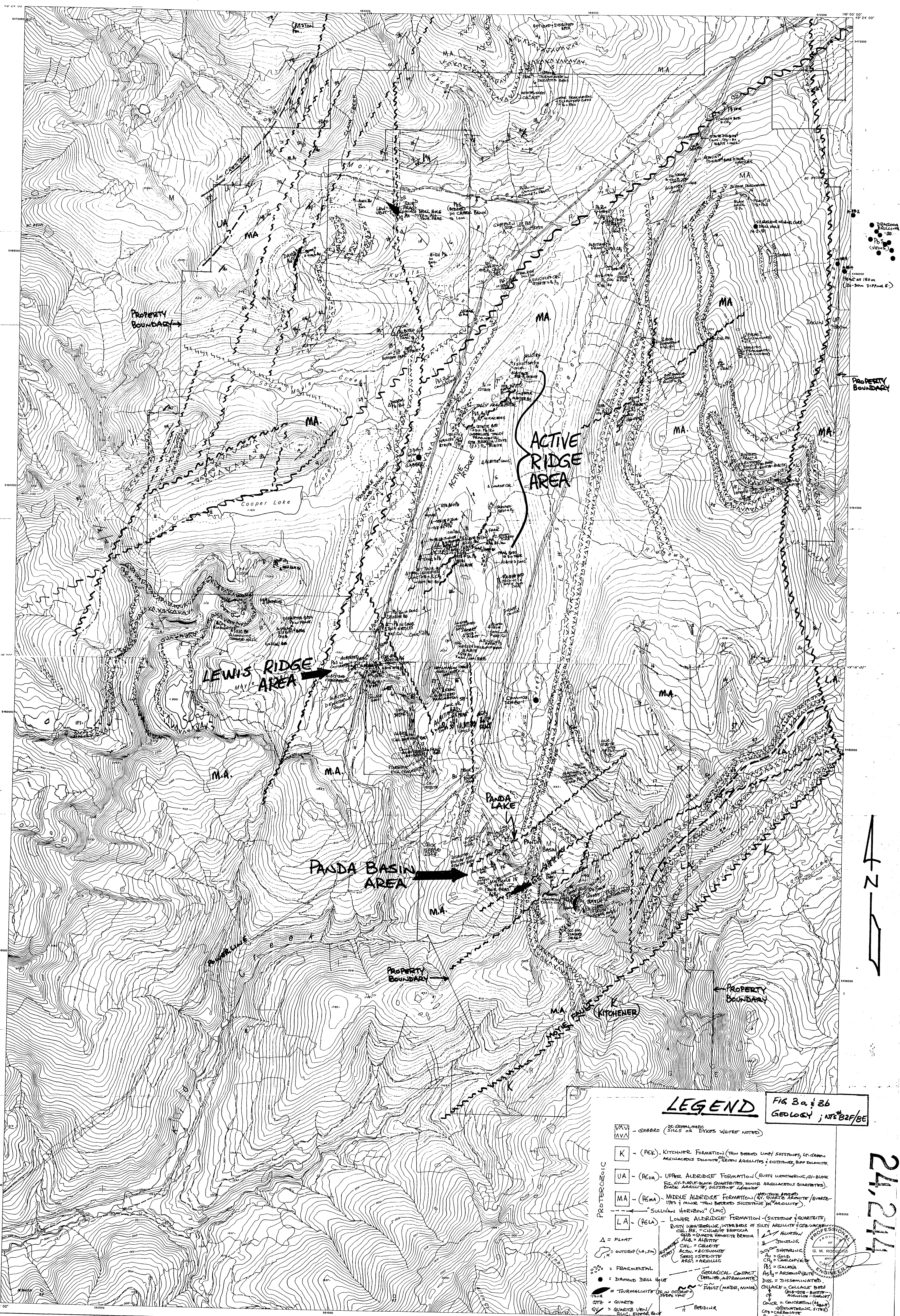
PROSPECTING AREAS

AREAS & TIME PROSPECTED BY
T. & M. KENNEDY, 1995 WITH
SAMPLE SITES NOTED (CORRELATE
WITH FIELD NOTES (APPENDIX II)).

SCALE = 1:20,000 (Trim)

0 500 1000 2000 2500
METERS





LEGEND Fig 3a & 3b
GEOLOGY; NTS 82F/85

- PROTEROZOIC**
- MA** - GABBRO (SILLS OR DYKES WHERE NOTED)
 - K** - (PEK) - KITCHENER FORMATION (THIN BEDDED LIMB SLTSTONES, LG. GREEN ARGILLACEOUS DOLOMITE, GREEN ARGILLITES & SLTSTONES, BUFF DOLOMITE)
 - UA** - (REU) - UPPER ALDRIDGE FORMATION (RUSTY WEATHERING, GR-BLACK FG, CY-PURPLE-BLACK QUARTZITES, MINOR ARGILLACEOUS QUARTZITES, BLACK ARGILLITE, SLTSTONE LAMINAE)
 - MA** - (REMA) - MIDDLE ALDRIDGE FORMATION (GR-BLACK SANDY SLTSTONES & MINOR THIN BEDDED SLTSTONES IN ARGILLITE)
 - LA** - (RELA) - LOWER ALDRIDGE FORMATION (SLTSTONES & QUARTZITE)
- FLUAT**
- Δ** - FLUAT
 - - OUTCROP (LG. 5M)
 - - DIAMOND DRILL HOLE
 - - QUARTZITE
 - - QUARTZITE VENEZ
- GEOLGICAL CONTACT**
- - FAULT (MAJOR, MINOR)
 - - BEDDING
- OTHER**
- - PROPERTY BOUNDARY
 - - COASTLINE
 - - RAILROAD
 - - HIGHWAY
 - - POWER LINE
 - - TELEPHONE LINE
 - - FENCE
 - - CREEK
 - - LAKE
 - - SWAMP
 - - MOUNTAIN
 - - HILL
 - - VALLEY
 - - PASS
 - - RIDGE
 - - CANYON
 - - GULCH
 - - SLOPE
 - - CLIFF
 - - SCREE
 - - DEBRIS
 - - ROCK
 - - SOIL
 - - VEGETATION
 - - BUILDING
 - - FURNACE
 - - MINE
 - - QUARRY
 - - PIT
 - - TOWER
 - - LIGHT
 - - WINDMILL
 - - WATER TOWER
 - - DAM
 - - BRIDGE
 - - TUNNEL
 - - TRESTLE
 - - RAILROAD TUNNEL
 - - HIGHWAY TUNNEL
 - - POWER TOWER
 - - TELEPHONE TOWER
 - - FENCE POST
 - - CREEK BED
 - - LAKE BED
 - - SWAMP BED
 - - MOUNTAIN BED
 - - HILL BED
 - - VALLEY BED
 - - PASS BED
 - - RIDGE BED
 - - CANYON BED
 - - GULCH BED
 - - SLOPE BED
 - - CLIFF BED
 - - SCREE BED
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 - - FURNACE BED
 - - MINE BED
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 - - TRESTLE BED
 - - RAILROAD TUNNEL BED
 - - HIGHWAY TUNNEL BED
 - - POWER TOWER BED
 - - TELEPHONE TOWER BED
 - - FENCE POST BED

24,244

Universal Transverse Mercator Projection
North American Datum - NAD83

Lead District:
Lead Title Dist:

SCALE 1:20 000

Contours generated from Digital Elevation Model.
Contour Interval 20 metres.

82F.030 DIGITAL