

Book 3

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CANADA  
Department of Energy, Mines and Resources  
Geological Survey of Canada

## NOTE BOOK

No. 3SEASON OF 19. 90PROVINCE B.C.DISTRICT StewartNAME R. V. KirkhamCHIEF OF PARTY R. V. Kirkham

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THE DIRECTOR,  
GEOLOGICAL SURVEY OF CANADA  
Department of Energy, Mines and Resources  
OTTAWA, CANADA

G.S.C. 146-S  
R. 2527

Kitsault Lake, B.C.

Tues Aug. 28/90 Light Rain &amp; Fog

- 790m camp elevation

- @ Keetwatin Camp

David Tupper, Terry Tucker

Mike Renning (prospector),

Steve Kneelman (owner) + Margaret

Porter Charlie Gregg (GSC) (wife +  
4-1 + 2 yr child. - Powell R.)

- short traverse late pm  
(~3 hours) up E shore of  
lake across Hazelton -  
Bowser Lake Group contact  
(covered) - see 1986  
Cominco map for spec.  
locations

- Hazelton Group rocks  
generally similar to those  
near camp - i.e.  
pale weathering,

115A, C+D dacitic?  
medium green-green, lithic  
(x11) tuff & lapilli tuff  
& minor br. units @  
some minor interlayered(?)  
mottled maroon & green-grey  
mafic (basaltic?) breccia  
(115B)

- general relatively simple  
structure? @ ~20-30°  
dips to N-NE?  
but probably some  
~NS steep faults in  
small gullies

- many upper units  
are pale green-grey  
& appear carbonate  
altered? @ local  
vein. areas (~steep NS?)  
& pyritic alt. rks (e.g.  
115C)

- ~20-30m strat. cover  
across contact

2  
zone but 116A ~10-15m  
from contact? dark graphitic  
py arg. float blocks  
~20-30m strat. N small  
~2-3m o/c of dark grey  
py graphitic siltst.  
(@ large holes suggestive  
of *Weyfella* & belemnites  
but too poor an o/c  
to be sure

- ~15-20m N strat.  
blocks of potential  
pyjama beds (thin unit  
~2-4m thick ?? based  
on <sup>limited</sup> distribution of blocks  
(116C)

~20-30m cover N ~3m o/c  
dark py graphitic Bowers  
arg. (116D)

- ~20-30m to point relative  
uniformly <sup>20-30°</sup> N dipping Bower  
L. Gyp. bl. py arg. & siltst.  
(@ some rip-up clasts

- spec. generally up through section from 115A to 116E - LC (lithochemistry) samples were collected for each sample to give a generalized profile through sections

- most of Bousier L. Gyp contains ~ 2-5% fig. diss (framboidal?)  $\mu\text{g}$  @ no obvious qz or sp on exp

- contact although covered is probably essentially stratigraphic @ little or no fault displacement

- contact zone does not appear to be particularly favourable for extensive mineralization

Kitsault West Showing - 3  
Ace Galena & Summit Lake area

Wed August 29/90 rain, fog, wet

- went @ David Tupper & Terry Tucker

- good day for mineralization

<sup>~100m?</sup>  
- to NE of West Showing <sup>polylitic</sup> maroon volcaniclastic conglomerate-breccia (KQ-90-117) - possible marker unit deep in FW (below drill area) - "Betty Creek" type - possibly interbedded @ bedded immature <sup>lithic</sup> S-S. (didn't see)

- Bluebird qz vein vein-breccia zone along fault zone to W of West showing



- followed Bluebird structure to S ( $\sim 20^\circ$ ?)
- $\sim 200-300m$  S of west zone  
15-20m long adit to E  
 $\sim 50-70m$  qz vein breccia zone - dips  $\sim 75^\circ$  NW  
KQ-90-118 @ <sup>pale</sup> altered carb. (st py) and? to E in adit & some v. hard dense pale alt rts??

- $\sim 200-300m$  S?  $\sim 10-15m$  E of structure near pass  
 $\sim 1m$  wide carbonate? matrix breccia vein system @ green and. wallrock clasts & minor diss.  
f. qz, gn, sp & py  
KQ-90-119

- saw some excellent o/c's of Bluebird essentially barren breccia vein material (potogenic) - several generations

- of quartz @ wallrock & early vein frags.
- cut by late druse qz veins - low sulph.

- followed discontinuous to semi-continuous Bluebird vein system for  $\sim 500-600m$  S down structure @ coarse gm. and br. to W & alt and? to E? @ some black arg. @  $\sim 70^\circ$  W dips W to W of structure to S.

- generally Bluebird structure is  $\sim 2-8m$  wide?

- local areas in both HW & FW @ bedding  $\parallel$  to Bluebird structure (i.e.  $\sim 75^\circ$  NW) - bl. arg. & green volcanoclastic immature S.S.

- some old drill sites ( $\sim 1950s$  1963 + 1968 Tom McKay Silver Butte)

were drilled from stream  
gully to E through  
Bluebird structure into  
FW - \* in old drill core  
at "helicopter pad" (flattened  
old building) (some  
unsampled) diamictite  
(w/ diss. sp & some contorted  
vs. matrix py beds  
sulphate beds, HW of Floc  
andesite (basaltic??) tuffs &  
breccia KQ-90-120 &  
some high grade well-bedded  
honeycomb sp (w/ minor gr)  
120A - the best  
grade sp was not  
sampled

- drill sites were probably  
uphill (stream) from old  
building

- FW ~ 30m? NE uphill  
W end of trench  
siltstone @ minor diss.  
sp & py & asp @ prominent  
greenockite stains over  
~ 30cm KQ-90-121 <sup>L22+180W</sup>  
<sub>L16+25E</sub>

5  
- This material is very  
similar to the diamictite  
~ 20-30m S of the West  
Showing

- then examined the  
Ace galena zone  
(~ 15-20m in FW to E  
of Bluebird structure)  
for ~ 200m S below  
old building

- several high-grade  
10-20cm blocks of  
gn ore down stream  
gully - possibly coming  
out of several old  
trenches (KQ-90-121A)  
blocks near upper part  
of zone

121B - 2 specimens  
in situ in trench  
middle part of zone  
(same <sup>diss</sup> tetrahedrite? grey mtd)

121C - small spec Floc  
Bluebird structure near





Discovery Showing  
Quartz Eye Lake

Thurs. Aug. 30/90

Rain, fog, Wed

- first examined holes  
#6 & #11 with Dave Tupper  
and Charlie Greig in am  
& then traversed to  
Discovery Showing & Quartz  
Eye Lake in pm  
(dd holes to be sampled &  
described later)

Discovery Showing

- small scattered ofc's from  
E to W along creek (~20-40m  
apart) going strati. up  
KQ-90-124A (lowest - to E up str.)

- dark layered sulphate  
(± carbonate) @ diss. p<sub>1</sub> (~5%)  
124B - (middle of c), medium  
grey well-bedded sulphate  
(± carbonate) @ diss. p<sub>1</sub> (~10%)

124C - (W of c highest strati.)  
pale grey well-bedded

7  
sulphate @ diss. p<sub>1</sub> (~5%) along  
bedding & in veinlets & disrupted  
bedding

124D - ~1 to 1.5m exposed  
on top of 124C of  
interlayered jasper & pale  
sulphate (no p<sub>1</sub>?)

- ~50-70m S on NW &  
N side of small pond  
dark interlayered carb. (& sulph.)  
@ diss. p<sub>1</sub> KQ-90-125A  
(~2-3m exposed in old trench  
overlain? (~5-10m <sup>strati.</sup> cover).  
by ~3m high ofc of  
prominent br. @ 0.5 to 40cm  
long clasts @ sulphate-rich  
limy matrix @ ~5%? diss. p<sub>1</sub>  
could be syngenetically disrupted  
or slumped (debris flow)  
sulphate-sulphide unit  
KQ-90-125B

- ~200+ m? E to W of str.



4-5m hydraulic, o/c of rust-  
weathered, limy, well-  
bedded sulphate unit @  
diss. py (10%?) KQ-90-126  
- ~150m upstr. dip slope in str. @ bl. ls  
overlying dark diamictite  
- ~300-400m SSW? at top  
of high resistant ridge -  
~200-300m N of Quartz Eye  
Lake hand pale "rhyolite"  
o/c silicified andesite?  
or dacite? some relic  
feld. xtl's KQ-90-127

- saw huge blocks of  
"agglutinate unit" - possibly  
ash-flow top @ closely  
packed lapilli & bombs ???  
& then checked o/c's along  
west side of Quartz Eye  
Lake <sup>m.g. med. narrow: 400m</sup> feldspar (~15-20%?)  
quartz (0.5%?) porphyry unit  
@ ~1-3% scattered lapilli-size  
chsts KQ-90-128  
\* also WPB zircon sample  
from ~~the~~ side of lake towards

8  
S end near narrows (2 arms)  
& 2 islands - could be  
a porphyritic ash-flow tuff  
unit - could be same  
unit as near base of hole #4  
(check petrographically)  
- Charlie also took a sample  
for zircon dating from here  
(EPC-90-337) - also  
some pale green siliceous  
altered o/c's in area

- Rocks in area do not  
appear to be as felsic as  
rhyolite but they might  
be dacites. They appear  
to be more felsic than  
the andesitic to basaltic  
rocks in the vicinity  
of the "ore" unit  
- ash-flow tuff eruption  
could have been  
accompanied by caldera  
collapse

Dolli Vanden  
1990 Core (with Star vein core)

Fri. Aug 31/90

Cloudy fog

- core is all mixed up  
& boxes for a single hole  
are stacked in several  
piles

- impossible for me to  
unstack & restack core  
in several piles

- split core is stacked  
separately but again is  
all mixed up - can't  
even effectively log  
& study the mineralized  
intervals

- could only examine a  
few random sections  
of a few holes.

Hole # N15-90-10

9

- intact

Box # 28 - 517.2 - 535.6m

- pale to med. green green  
and  $\frac{1}{2}$  and  $\frac{1}{4}$

Spec. 520.3m

Box # 46 - 47 850.5 896.1

- ~50% split core  
pale carb <sup>minor</sup> alt andesite  
K-feld alt? one positive  
test on core minor  $\frac{1}{2}$   
diss. py spec. 871'

Box # 50 & 51

pale alt. hb pyrrh  
and ? neg. cal.

Spec. 966.5'

Box # 53

more intensely altered  
but similar material

Box # 81-83

1525.9 - 1581.5

~1527.5 - ~1546' (split)  
peculiar sheared non-lim.  
(sulphate?) breccia minor  
pc  
1 Spec. 1531'

~1546' - 1581.5 (end of box #83)  
grading pale to dark grey  
to bl. silt. arg. sed.  
rk. - highly veined (i.e.  
contorted 'or near fault?')  
- cruddy rock of uncertain  
nature  
Spec. 1559'

Summary

- no obvious exhalative unit in this hole & no obvious base metal sulphides
- some sections show evidence of significant shearing.

NS-90-14 10  
(V vein area?)

- more complete because of more sampled sections
- start at Box #11
- ~1.79m - ~47.3m (conformable?)  
interbedded immature  
pc (S100%) bl. arg. & siltstone & dark med. green immature  
f. to mg. S.S. @ a few pebble beds  
~45 - 47.3 ~15-20%  
diss. pc giving to impression of some semi-massive sulphide beds
- a few sulph. frags.
- some well bedded sections
- some limy beds
- Spec. 38.8m (sulph. frags.)  
~46.8m heavily diss.

~47.3m - ~193.6m (fault)  
pale grey alt pyritic (1-5%)



uniform plagioclase porphy  
<sup>only</sup> local minor up sp & qz (trasp?) but mainly <sup>py</sup> only  
- could be a relatively massive  
andesite flow but??  
- upper contact does not  
appear to be intrusive  
& low contact is a fault @  
many associated gash veins  
- minor line

Spec. 48.8m, 67m, 84.2m  
109.4m, 134.9m, 158m, 171.6m (1cm of cut  
gn sp. py vein)  
179m

Spec 67.5m <sup>sp</sup> py vein  
@ up & f.g. asp?

193.6 - 296.8m  
dark well-bedded arg.  
siltstone & f.g. S.S.  
mostly unsplit & in separate  
pile  
Spec. ~200m, 249.5m

291.85m - 306m (conformable?)  
pale to med. grec. rel mas  
immature S.S. & pebbly S.S. @

some pumice & pyrite 11  
+ coal fragments & diasp py  
Spec. 299m

306m - 348.8m (box 61) end  
of "logging"  
pale grec altered f.g.  
plagioclase mas. flows?  
& breccia - some autoch.  
mostly negl. py @ py increasing  
towards base of section

Spec. 307.8m, 318j  
328, & 348.3m

- this is probably  
same unit as higher  
in hole but @ fault  
repetition - py  
clastic sed. rocks  
probably sit directly  
on (py) alt f.g.  
rel. mas. pale pl-hb  
porph. andesite

Northstar & David  
Copperfield

Sat Sept. 1/90

Cloud

(minor sun in FW)

- @ Dave Tupper  
& Terry Tucker

- underground @  
Northstar

- see underground map for some spec.  
locations

- ~350-400m in FW

med. green-grey vel.  
mas. and. & and br

KQ-90-129A portal

129B - ~120m from

129C - ~200m " "

at dog's leg

~100m to old workings

& 150m to "ore" zone

- some maroon material on dump

129D - FW at junctn  
@ drift

129E - ~<sup>50m</sup> 150m in FW  
- down river bank

subtle trays in river washes

typical specimens <sup>etc</sup> 12

perhaps more pyrite  
(bleached halos on veins)  
closer to "ore" zone

KQ-90-130

- various spec.  
from "ore" zone @  
concentration on  
areas @ colloform  
layers - <sup>mostly indicated</sup> upward growth of layers  
- also much  
tectonized veined  
& brecciated areas &  
areas @ ductility detorm.  
sulfides  
- some barite blades  
to 5-7cm  
130A - sulph. - rich  
area

130B - upper few  
10-15cm of ore  
zone about 3-5cm

below 131A (FW)

pale grey-grn and. suff. br - dust suff

to 10cm frags + includes dismember, p, bed  
(p, frags.)

130C - relatively barren qz vein breccia material similar to Bluebird structure

KQ-90-131B

- typical HW green-grey andesite breccia ~ 1.5m above ore zone

- very uniform FW rock down road to mill - diss. grains of magnetite

- little apparent difference between HW (didn't see much of HW) & FW rocks but perhaps FW " are magnetic & HW rocks are not

KQ-90-132 Torbrit?

ore from dumps at mill site - colloform barite, qz, sp, quartz, siderite, jasper, etc  
(minor tetrah. etc)

layers of veins

13

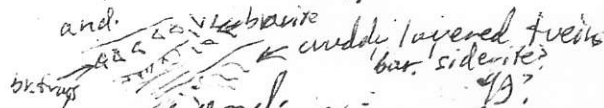
mas. green-grey f. q. and. Cepid. in places to David Coppentield showing

~ 1-2m? vein? barite Fe carb. Yz?

KQ-90-133A

@ breccia top @ grn and. wallrock frags. (photo)

dips ~ 30° NE?

and. 

typical wallrock

~ 10m S 133B

at road (~100m W) - dropped one from river of down hillside

in mas. med. green-grey pl-hb porph. andesite



Summary

1) FW med. green-grey f.g. pl-hb porph. andesite is very uniform & massive. On good surfaces can see block & lapilli frags. It is probably extrusive. It is now at low greenschist facies meta (epid. & chl.) but has no penetrative fabric. Near the "one" unit it contains more bleached zones along veinlets @ pyrite. In the W end of the drift, layered basaltic veins @ sulphides are present

2) David Coppenfield showing ore in same massive andesitic unit but they appear to be veins?

3) North Star Zone could be extrusive but it has suffered extensive tectonic redistribution (brecciation, numerous tension gash veins, vein breccia, mobilized sulphides & faulted & folded contact) & no bedded units occur near the mine zone.



Kitsault Lake Property 14

Core

Sun. Sept 2/90

Rain, cloud

K89-11 - 420.32m  
- 85° 165° azm.

started @ box #6 31.09m

31.09m - ~ 114.4(m) bleached "contact" 108.8 ~ start of bleaching

HW basalt -

medium green-grey & some maroon basaltic (or andesitic?) breccia @ f.g. pl & hb plones & some amygdaloidal frags.

- some frags to 10cm
- some magnetite
- some sections (10-20m) @ numerous calcite veins indicating some faulting

Spec. 31.4m, 39m, 58m, 83.5m, 72.6m, 92m, 106.5m, 113.8m (sl. bleached)

~114.4m - ~314.7m

# HW "Andesite"

- mainly pale & med. grn-grey  
(@ a few maroon sections  
& frags.) andesitic (or  
basaltic?) volcanic breccia,  
lapilli & dust tuff -  
bleached? - some  
pyritic sections  
↳ some graphitic  
sections especially  
towards base of  
unit (incorporated  
from underlying sed.)

~157m suggestion for breccia bedding  
most of unit prominent frags up to 20cm dia  
- some sharp glass shales of 30-liply frags  
~115.9 - 123m (split) section  
py. "and." br. unit

Spec. ~116m, 131m,  
148.4m, 157.7m, ~~158m~~  
162.7m (maroon), 168m, 177.5m  
189.2m, 199.7m, 211.7m, 223.4m

239m<sup>242</sup>, 259.7m (carbonaceous mat.?)  
252.2m, 268m (last shaly br. before sulphate beds) 15?

159.7 - 220 - ~2-5m  
thick, alternating  
pale grn-grey & maroon  
breccia units - would  
probably appear well-bedded  
in o/c but no distinct  
bedding surfaces in drill core

268.85 - 269.1 bedded bl. py  
arg.?? cut by numerous  
qz-carb veins.

269.1 - ~314.7m same  
interlayered pale & off  
lap. tuff & br. but  
@ scattered v. well bedded  
0.5 to 5cm thick pale to  
med. grey sulphate  
beds (- 90° to core)  
~1-5% diss @ sulphate &  
some soft sed. (downward  
dehydrating structures - nodular  
sulphate near top

- some disrupted bedding - some carbonaceous frags.

Spec. 269.8m (py grey sulphate? beds),  
275.4m loaded thin sulphate? beds by graded 40cm-thick shaly <sup>py</sup> tuff to tuff bed, 276.4m (downward mobilized dewatering (fluidized) structure) (276.3m - upper part of structure), 281.3m (disrupted sulph. beds & carb. material)

285.5m to 286.9 rel. high sulph. rel. c.g. matrix  
py (10-15%) ± minor sp?  
Spec. 285.7, 286.6m

286.9m to 314.7m med. to pale green-grey, bleached f.g. <sup>py</sup> hb f low or tuff? 302-314.7m sheared & faulted w some carbonaceous

Sections - 314 16

- 314.7m some sulphate

fpy  
Spec 291.2m (rel. unaltered),  
297.4 (pale alt.), 309.3m  
pyritic veins @ alt. halos

314.7 ~ 317.3m  
mostly med. grey well bedded  
pyritic sulphate  
Spec. 314.9m, 315.8m

317.3m - 319.6m: graded  
grey "grit" to dust tuff?  
bed  
Spec. 319.1m

319.6 - 320.3m med grey  
v. pyrite bedded sulph  
Spec. 319.8m

320.3m - 321.1m  
grey <sup>pebbles</sup> debris flow? bed  
Spec. 321m



321.3-326m  
mainly med. grey  
well bedded py sulphate  
Spec. 325m

326m - 327m black  
diamictite  
Spec. 326.2m

327m - 333.8m mainly  
med. grey to bl. carbonaceous  
py well-bedded sulphate  
Spec 327.1m, 331,  
333.4m

333.8m - 335.3m  
"marker" c.g. py-sp matrix  
of f.g. Sulph. ? br.  
- good Zn section?  
Spec. 334.1m, 335.1m

335.3m - 366.3m  
pale to dark grey py

muddy debris flow <sup>17</sup>  
& br beds (heterogeneous  
(w) some thin interlayered  
grey well bedded mudstone  
& sulphate beds?

Spec 340m, 346.3m  
357.3m, 355.4m, 357.5  
363m (acret lap.?)<sup>362.5, 363.5</sup>, 364.8m  
366.3m - 372m

black graphitic f.g.  
diamictite (w) disrupted  
py beds & pyritic alt  
frags.

Spec. 366.9m,  
371.9m

~372m to 420.32m (end of hole)

pale to med green-green  
andesitic breccia & lapilli  
poorly-sorted volcanoclastic  
rocks - debris flows?  
- scattered c.g. white mica  
throughout unit

- variable ~ 0.5 - 4% diss.  
py @ some pyritic  
altered clasts  
- possible v. minor diss.  
pale sp?

- 407.6 - 410.8m  
scattered diss. f.g. qm  
& sp (py) in sil. rck assoc.  
@ qm & cal. ?? veinlets?

- some leucocene after  
titaniferous magnetite  
- this unit has some  
unusual features

Spec. 375m, 377m (py  
alt veined clast), 384m  
395m, 403.8m,  
414.3m, 420.1m

- some well-bedded chemical sed.  
in this hole interlayered @ muds & debris  
flow sed; underlain by debris flows?  
& overlain by "shandy" lapilli tuff & breccia  
hole #89-6 Extension - ~ 30-40 m threaded by pe. & sp. material  
- selected sample intervals

Torbrit core 18  
Mon. Sept. 3/90 Cloudy

NS-90-22

290.03m total depth

2.69m (start) - 138.7 (dyke contact  
& fault?)

HW Andesite(?)

- alternating maroon &  
green-grey relatively mas  
pl. (± px hb?) phytic 'andesite'  
breccia

- numerous (cal.?) gash  
veins indicating significant  
deformation of unit  
103-137.3 heavily veined  
suggesting significant  
fault in HW of the  
ore zone

- also, some sheared sections  
with flattened fragments  
64.3 - 70.8 late basaltic  
(lamprophyre) dyke

75.5-78.7 (clay gouge fault zone)  
late mafic dyke  
124.5-125.6 late mafic dyke

Specimens - 8.8m, 21.7m  
(shear flattened frags.), 27.5m  
( " " " ), 43.7m,  
57.2m, 77.5m (dyke-diabasic  
texture), 83.3m, 94.6m  
(assoc. ~0.4m bedded maroon volcan. rocks)  
114.7m, 122.1m, 138.4m,

138.7m-142m

late mafic dyke  
Spec. 139.2m (diabasic)

142m-174.1m (sheared conformable?)  
Torbrite ore zone  
mainly relatively massive,  
white to medium grey, sheared  
and brecciated barite with

19  
~1-20% wispy diss.  
pyrite ( $\pm$  <sup>minor</sup> sp. gn) increasing  
fairly regularly from  
bottom to top of unit  
- little ev. of much quartz  
& only minor fizz except  
169.7-171.1m strong fizz  
"bull" white carbonate  
& barite? (heavy)  
or unit appears to be  
severely "tectonized" without  
any of the well preserved  
layering ( $\pm$  hem. & jasper) in  
underground workings

Spec. 142.4, 146, 148.5m  
151.6, 152.9, 154.3m  
158.6m, 162.2m, 165m, 168m  
170 (fizz rock), 173.5m  
- reasonably typical spec

174.1m-181.9m  
sheared medium green-grey  
andesitic juff-breccia  
flattened frags



174.1 - 177.8 irregular  
barite veins & or nodules.  
Spec. 174.4, 176m, 178,  
180.5

181.9m - 183.8m  
late mafic dyke

183.8m - 194m  
craddy faulted med.-grn-quec  
and. tuff-br. - somewhat similar  
to that above

188.5 - 189.2 pale grey  
sheared baritic vein?

Spec  
185.7m, 188.8m (sh. vein?), 192m  
(layered py + sulphate?), 193.1m

194m - 196.6m

late mafic dyke (diabase)  
Specs 196.2m

196.6m - 200.5m

craddy med. grey (man. & gr)

sheared and tuff-br.? 20  
Spec. 197.5m

200.5m - 203.3m  
late diabase dyke

203.3m - 212m  
med. grey, sheared, andesitic  
tuff?  
Spec. 203.5m, 208.9m

212m - 223.8  
2 late dyke - 1st large  
one is polyphase + c.g.

223.8 - 290.03m (end of hole)  
rel. mas, interlayered green-grey and maroon  
(~2-15m thick units), sheared, andesitic  
tuff & lapilli tuff;  
229.6 - 231.9m (faulted contacts) } late mafic  
242.3 - 243.6m } dykes

- grn-grey sections are pyritic & sheared (folded)

Spec. 227.5m, 237, 245.2,  
251, 265.9m, 272.5,  
280.8m, 286.5m

### Summary

- 1) Hole is not convincing for an exhalative origin - no good bedded exhalative sedimentary rocks & no bedded sequence associated with the ore unit. Rocks are not similar to those at Kitsault Lake.
- 2) Ore unit has fault & dyke in HW contact and is sheared on the FW. The ore has been strongly deformed (breccia, sheared & gash veins). The intense deformation may conceal the exhalative, bedded nature of deposit.
- 3) HW & FW rocks are rather similar interbedded green-grey & maroon and. tuff & breccia @ FW rocks being finer grained.  
- check hole # NS9023 - no obvious bedding.

Silver Butte & Big Missouri 21

Tues. Sept. 4/90

Rain, fog

- went @ Jack & Marrette
- Dave Visagie, Glen MacDonald & Bruce McLeod & Brian

Photos G8908051-12-324, 11-306

- 35 Zone, West Kansas & Kansas - more drilling soon

- sulphides & gold early but still no firm evidence of orientation & origin of zones

- 1 1/2 km reverse movement on Anomaly Creek fault

- supposedly minor east bedded arg. in & near zone of grn. f.g. frag. and. in FW & C.g. frag. and. in HW

- bl. py sil. & ser. alt. rts around zone