

M 429

840782
Pedley Pass

L. DEK KER

1977



WATERPROOF

FIELD

R.D. PENHALL LTD.
CANADA



sayin the (sh) 6th

new



July 11/77.

Flown up the Ballinger River Valley followed
up to Cross Creek & Mount Breckinridge
Stop UD-77-RM-1

Light grey dolomite, no ϕ , dyal lumps?
Light grey weathering unit

2-3 feet below Brown weathering unit
slightly more massive.

Walked up the ridge thru most likely

thin light weathering (light grey) massive
dolomite in places laminated (dyal) also

massive no ϕ of overlain by

red, light green banded & laminated
dolomite possibly Tophen? overlain

by light grey laminated massive
Eldon? ϕ

possibly red shale are Stratigraphy from.

① in canyon of Mt Breckinridge

July 12, 1977. P.M. 2

low ceiling at 7500' / scattered clouds.

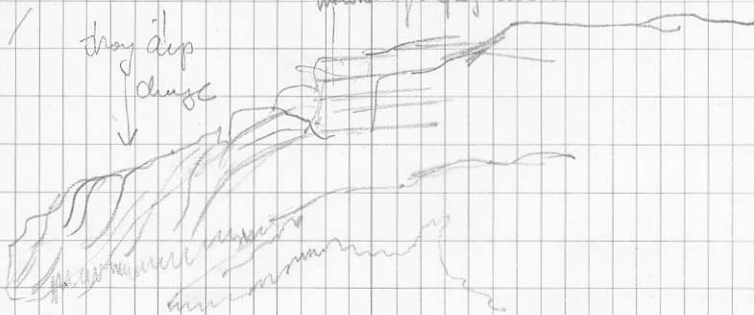
Flow up Palliser River to North of Albert.

Landed on saddle up on east side of Black
River.

Looking North, constant carb bands,
dip westward.

(Sample To BC 5490 / 248.

more light grey carb.



looky North

Pitline N^o 2.

340° / 54°

Walked up W side of saddle. Dip 45° westerly dips
Dark grey to black papery calcareous shale
intervals interbedded w/ mottled dk grey & brown
micritic limestone beds which are nodular
and laminar, micritic, dk grey.

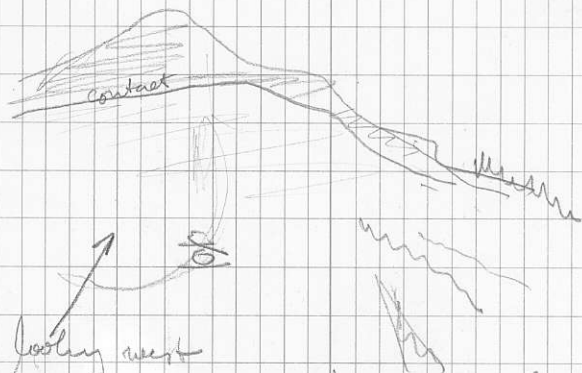
possibly (or more) calcarenite beds w/ ? ostracod fragments

~ places w/ to light yellow / buff calcite vng / also wh. qtz
vng. vng.

walked up other side of saddle

S/D 342/55

platy shales $\frac{1}{2}$ to 3 cm
mostly vertically interbedded w/
pale grey shales/lenses in places with the
broken same fossils X (?? quartzites)
Sample LO 77-RV-3



looking west
greenish grey platy ls & shales are brownish
weathering rocks.

the brownish units seem also to be
cutting the massive carbonates
indicated on previous page

LD 77 - CM - A

Flourish by Abrianten complex north.
Landed in small saddle on North end



Section ① across valley to north

②

③ } Calcophas

" "

④ pyramic type unit

Characteristic yellow and grey alternating
bands of limestone noddy micrite
mottled aspect, laminated

banding .1 to 3 cm. laminated / argilloseous.

secondary groove 10cm to 30 cm

" pyramic ls

sample LD / 4.74

The yellowest bands are laminated, the grey ones
are not. have, however, nodular aspect
Fresh surface both yellow/buff and grey
are dk grey concrete ls.

Some sandstone at some ls at 243 but
fine much more shale (paperly interbedded)

Grey thin gully section 1st 50 in
basically same lithology although more
"lensy" than banding "overlapping"



climbing up along face mostly becomes
less pronounced, mostly dk grey limestone concrete

ls changes gradually to light grey weakly
massive ls. & slightly lighter

lithology changes to more irregular
massive cliff forming unit dk grey
& 7770 10 72 AM 5

heavy trilobite moldings on little cliff
1/2

Conduct in circle around mountain basin
no above that approximately above unit
brown recalling platy unit.

4 local holes

plan

35/62W

driving gently to the west.

around 1 grey carbonate

oily / brown platy

sediment unit

left greenish grey on fresh surface

some common ferruginous interbedded
partings

LO RM 6 A & 6 B

unit

drives up section to very platy greenish buff
weathering unit w/ occasional common
leads (FeO impregnated, leached) shell
present. In slope some conglomerate
beds (common fragments, shale fragments).

base of sea and very clayey
± 50 m S of fault contact of sample 8
Box with texture: Sample 9.

LD 11/77. unaltered by light grey weathering
medium grey calcarenite ls, fine bioclastic material
common (crinoids or pelmatopora?).

Bedding ^{to medium bedded} massive, irregular, small calcite veins common

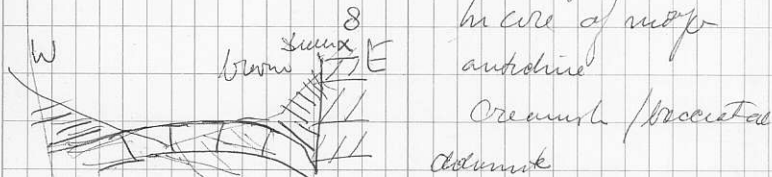
Clayey parting common in places. Buff.

Thickness grey from buff weathering basal part
to more medium grey weathering upper part

underlying stratum of greenish shales are
leaf weathering massive bedded fine to medium
massive light grey dolomites (no f)

LD 11-77 samples

locally brown shale faulted on
East side against light grey massive
massive blue dolomite dip changes to east
in case of map



Brecciated maybe because of fault plane
contact. Yellowish & red staining in
some places

walked up ridge to where helicopter landed
Oreumsh. necessary to find some of successive
dolomite so & probably dolomitized
platy ls. LD 12-77.

LD 11/77 undulating light grey weathering in grey
calcareous ls. (fine bitulastic material common)
(Ormosa? pelimtorosa?). Bedding massive
to medium bedded, small calcite vein common
cleavage fracturing common, small calcite vns
common.

limestones are buff weathering in basal part
to medium grey in upper part.

Walked up to ridge to where helicopter landed
orain weathering 30' thick unit of oolitic
dolomite no p; possibly dolomitized peaty
limestone LD 12/77

flaggy tabular masses are buff weathering in
basal part to medium grey upper part.

Monday

Silty dk gray argillaceous sandstone, weathering
buff to. Flaty, laminated, ip. trilobites
& bumblebees. ± 298/7 W.

LD 10-77. Various trilobites & examples of
laminated concretion

LD 13-77. walking up along ridge.

Interval of cream shaly fractured dolomite
pink grey. microlite. Some ferruginous crust ~~in~~ in
thin dolomite on the outcrop (LD 13B-77).

Depth more reddish? orange Fe₂O₃

Walked thru saddle dolomite seem to persist
thin saddle at blump recesses, some ferric crust
or iron oxide ^{in the 270° dip} ~~in the~~ on other side ^{eastly}
white creamy crdy thin fissile ^{concretion} fragments
interval of about 15 feet thick. Sample LD 14-77

Immaculate above fragments light grey to cream
weathering light grey fine thin dolomite
has cherty smell on weathering. Masses
Cliff forms many small ^{concretions} LD 15/77

Walked further up ridge about 100 ft west
Some micaceous light grey to cream dolomite
very massive and

low ranking beds 305-16° W at about N² 13
at this locality oncotic & stromatolite fragments
in levels 1/2" to 1"

LD 16 in crevice below moraine

platy yellowish buff to grey weathering deep yellowish
limestone, lenticular planes irregular, stromatolite
containing burrows and tracks which are slightly dolomitized
contain psuedo nodules (small 1/2") in places.

? isolated small oncotic.

~~Underneath to equivalent to that found on other side~~
specimen LD 16/77

this might be Cathedral formation

Walked up thru gulley on S. side of moraine
Lithology stays similar. Characteristically
thinly bedded ± 1 to 2" to 3".

Work burrows canary reef slants on bedding planes
Some thin cream dolomite horizons.

The lowermost ~~stays~~ platy bedded
is overlain by a sub-massive ^{grey} massive
(30') dolomite which overlies a grey &

bed 2

greenish silicles very thin interval $\approx 30'$
at root. Skelton??

These are overlain by a clayey flaggy
platy limestone interval such have the
same characteristics as the possible
Chickamauga over below. Maybe dealing with
Eldon fm. 500'?

This unit is overlain by a cliffing
6-ft amount to $1\frac{1}{4}$ ft weathering
ZEBRA type dolomite consisting of
light (whitish cream) & grey bands.
 $\approx \frac{1}{2}$ " thick. In places particularly
in ore. white bands w/ crystals of
hematite often pyrite. LD.

picture 2

Walked down a little way

^{specimen 4}
* ~~slightly wadling~~ transition in conoidal fragments
(calcareous) ^{calcareous} sandy clay mostly unexposed
In place laminated, micaceous.

LD 22/77

Also argillaceous micaceous w/ micaceous
(samples)

Some cream chert patches in the formation

LD 23/77.

LD 24-77.

Flown across valley to gully where
down heavier previous day
light brown to weathering, platy to blocky light grey to
cream micro to fine clay carbonate w/
few prominent vugs, somewhat nodular aspect.
1/2 plus small pyrite xls. passed to hematite

LD 25/77

Landed at lake.

finely laminated flaggy rusty to
brown weathering calcareous shales
greenish, brownish. some fine xeroketic
ss to siltstone laminae in places. fairly
fractured & cleaved.

On some bedding planes, fossils, dark grey to
left grey  lumps, about 1/4"
in diam. sometimes sl. larger

~~M. Feoxide~~
~~claudete~~ on some bedding planes
Fossils of lenses on bedding planes common

215/12 E.

Walked up 215/14°

dry base of outcrop on scree slope
lithology monotonous greenish shales as
flaggy 1/4" to 1/2" average

Found trilobite on piece of shale on scree slope

Somehow thin laminae of muscovite
Another large trilobite fragment 25F

Walked up along scree slope at base of rock outcrop
Lithology of green shales stays monotonously
similar flaggy to platy, hard, cleavage
Nodular fossiliferous limestone section



Where 2 large conglomerates meet on
contact with overlying massive cliff forming
quartzite matrix with many rounded
nodular irregularly bedded 1" to 5"
limestone, brecciated, calcarenite
6570' elevation

contact abrupt along basal
bed has still some greenish shale in it
LD 26-77.

Perhaps just above 26-77 grey weathering
dk grey very fine oolitic or pelletoidal
ls LD 26-77

Followed along same slope
± 20 short feet of ~~grey~~ pelletoidal ls.
Then a couple of very cliff forming
units of massive dk grey ls not
bedding at all buff to grey weathering
could be by slightly less massive
creamy pinky light greyed dolomite
dense fine to medium ls 28-77.

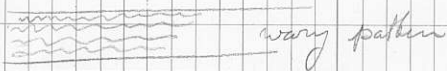
Next tier up on hill heavily jointed
Massive dolomite as described above
 persists



fluffy ls as seen yesterday in
sect at several places must be
overlying the contact

The previous outcrop on other side
of valley also had thin lithology

on walking down a few feet
peculiar thin white surfaces
following more or less the bedding
from $\frac{1}{4}$ " to about 2" thick



wavy pattern

mass of underlying vases

lenses with small nodules $\frac{1}{4}$ in to, few X's
or 3 mm in diameter

LD 29.77.

LOOKING UP AT END LAKE WHERE HELICOPTER
IS PARKED



July Wednesday from out of Brun N. of 98
then to creek with slight gradient anomalous
drop in base from south

LD 30-77

Walls down to top of possibly Cathedral fm
Massive to blocky cliff gray
light gray to m gray to buff weather
dark gray limestone, very fine Kev to
microlite, in places brecciated w/ indist
fossil fragments. Weathers blocky, no of
Elongation 6800' Beauty unknown

White 1" came w/ ~~some~~ texture

Seen yesterday (see LD 29-77)

This may indicate that both fms are
Cathedral 205/12 w.

Contact of Cathedral w/ overlying brownish buff
weathering recessive interval will expose

Top is rusty buff 1' thick fairly irregular
bed of "nodular" rather irregular medium gray
limestone LD 31-77

total of shaly interval 690 cms. to base
of blocky gray nodular unit

(muddy)
Brownish buff weathering platy sometimes
almost pebbly very hard shales to
shaly (argillaceous) micaceous
Burrow tracks on bedding planes
locally. Some yellowish micaceous
(very thin). Faint ripple in places
on sharp & usually even bedding planes

LD 32-77

LD 32-77 F (faint interbeds)
occasionally fine fossil debris on
bedding planes. (spines?)

Quarry Sweeney is massive resistant
wavy bedded flaggy above very fine
to massive limestone (red &)

Impressa scattered round stem like fragments
② 1/2 cm in diam probably primary?

Bedding varies from 2 to 10 cm commonly
3 to 4. The unit weathers to a
dk grey.

Locally dk grey to black lumps

Residue to irregular. LD 33-77

~~New books~~

Climbed back up to Helms at 7050'
now on beach. Lithology of dk grey limestone
stayed fairly monotonous dk grey sand to
very fine blue limestone

Now walked up along ridge.

at 7075'
light grey weathering
medium blue nodular
dolomite white
In space middle of dk grey limestone
as below LD-34-77.

bedding massive ^{fine to medium blue cream}
This dolomite interval ^{solid} reddish cream
pervasive about 100 ft ^{20m thick}
then at base of cliff grey weathering
dk grey fine blue ^{compacted} limestone with white calcite veins
[small] / ^{thin} Helms. Mottled apart
thin sections weathering of irregular
darker patches of more dolomitic limestone

LD 35/77

Base cliff at 7160

400 feet below a yellowish Ammonites
and lumpy shales

Consists of dk grey very fine sh
interbedded w/ some clear white calcite

patches some small porphyromorphous ??

LD 37-77 by columnar measure 198°/20 W

partly

Walked up along cliff from mottled sh grey
to an ledge

At 7300' more buff brown instead of
in grey weathering rebra & down
w/ sh grey ^{very} fine kb and white to cream
to medium brown LO 36-77. no ϕ

At 7340' Cliff w/ rebra texture fine
sooty to buff to medium grey weathering
sh grey or yellowish brown
platy to blocky
LO 38-77.

Becoming flatter ^{more} rounded

Blocky grey sh grey to brown / black limestone
bars 1" to 2" with thin ~~flg~~ platy
laminae of buff brown weathering
diply reddish brown or yellowish brown
180°/19'

Small tracks & trails occasionally on
becoming flatter

base cross cutting bedded w/ white calcite
& limestone for pigment

Group 3 on folding on Buddy scale

Flies out in circle to take picture of the section. Looked lower down the side of the mountain. Slightly below stratigraphic (10m?) the brown weathering interval. On survey point V L3764 6890 altimeter LD 39-77.

Grey weathering the maximum in part flagging where it weathers all grey massive limestone with clean white calcite patches locally bedding flat overplan.

Now walked down to light colored light grey to cream.

clean calcite patches are more or less following the bedding canopy semi reba effect

"Buddy" is mostly a weathering effect of massive ls.

202/20 W

On bedding plane weathering small concretions & other fragments

1' thick interval of light yellow
weathering laminated algal structures

LO 40-77

2 samples, algal laminated &
& oncolitic structures

6725 elevation ^{walked} down slightly
small mass consisting of white coarse grained
dolomite follows into a low bedded
& very coarse grained white to sometimes
slightly pinkish dolomite & magnesite
is bedded & numerous red
hematite spots & pyrite spots

LO 41-77

if present unit as mixed cellular
where is power stage

Thursday 21 July

Flown to Mitchell River Valley now
on west side where resistant cliff
forming unit is ocular by crusty & gray
interbedded intervals of flyschitic shales
which are intensely folded
elevation 7,200.

LD 40177.

Top cliff consists of light to medium grey
weathering medium to dark grey very fine
Klu limestone, weathering ~~slaty~~ flaggy to
blocky.

Fold in cliff on small scale
Contact w/ blocky buff unit follows side
or less top of cliff.

Unit could be similar to Calcutta seen up here
in places some small red w. fragments of ~~fly~~ ~~shales~~
often pyrite.

Blocky unit consists of mainly cleaved
and folded typically laminated and LD41-22
banded slightly slaty grayish greyish or
and brownish soft shales, argillaceous in part
and grey to shaly limestone which
weather orange brown

Coarsened thin bed 1 to cm of dk grey
very fine thin limestone

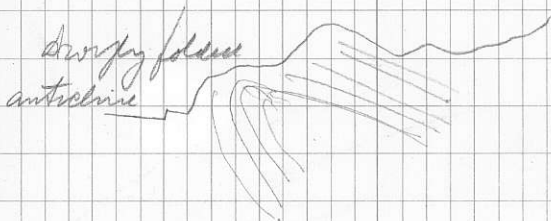
Brown weathering units consists of pinkish
grey dolostone. Orange brown weathering
penetrates about 1/4".

LD41/77

#100m along ridge following contact of
competent cliff from unit w/ weathering
diply folded & cleaved limestones

At small lake N⁶⁰°/50W

Atolpy consists of platy dk grey
limestone which is mostly grey a little
brownish; "Sarnia phyllitic"
Looking South
weathered blue.



25NH LTD MADE IN
DUKESBORO W.VA. 26001 C

Produce

Walked across to the side
Here on mountain some goats
phyllitic porous grey to greenish
grey argillaceous slightly carbonaceous
shales

Walked up after having spotted the Redoubt
H 200 & H 201

Now in col. A major fault extends
thru this col & can be traced south
thru 3 different ledges.



almost horizontal dolomites are
in contact with 45° dipping slates &
severely cleaved
dolomites are grey & cream colored
mostly light grey. Strongly veined
with ^{white} dolomite. In places, because
in several places w/ very; no fine
reaction - Sample 43-97
dolomite very fine & medium to dk grey
Banded dolomite oblique face

Landed in creek limestone outcrop

all along creek

LD 44-77.

210 550

gray weather bluish laminated sh grey
calcareous

Walker Canyon \approx 100 yds 310°-16
in outcrop of same dense sh grey laminated
calcareous

Quite 50 yds or so up stream on
left bank light grey to buff weather
very dense very fine crystalline to
microcr. white calcomite (marble?)
Appears to have been blasted
very massive no bedding
LD 45/77.

Carbon locally very finely concretionary
pyrite. Also hematite often
pyrite.

very of brecciation on the side of creek
 opposite magnesite showing seams
 to be related to fault plane very
 parallel to river
 fault runs $\approx 290^\circ / 7^\circ W$



\rightarrow more or less parallel
 strike

Shale and arg $290^\circ / 52$

In places ls changes to marlstone
 the grey dolomite with white dolomite
 lens. 10 46-77 of veins of
 grey dolomite & ls.



Notes

Friday 22 July

Helicopter break down

Went out at 1. P.M.

Rown to Palliser River to check facies
change of Chancello to carbonates.

Herd of spats. (D 47-77)

Carbonates very paperly light brown grey
duds. Soft platy aspect from air
Calcareous when previously in small
cavernous outcrop. ~~grey~~ These seem
to be really brown as could be seen
with emerald bear

300/10° light greenish paper slabs

19 July '77.

D. TAYLOR

Cirque at head of Assiniboine Ck.

2km dolomite - very
 waxy. Dolomite & hematite (after
 pyrite x'ls in matrix. Open
 fracture $020^{\circ}/90^{\circ}$. Samples 1 & 2

Becomes more dolomitized
 to 50' introduction of more
 hematized pyrite as clumps
 & veins up to 1 cm thick.

Fault $\approx 020^{\circ}/\pm 90$ has
 dropped N side about 100'.
 Shaly unit on top.

Dolomitized section \approx
 150' thick.

Sequences through sample
 5 & 6 noted as lensoidal
 features 4-6' thick &
 1-200' long.

21

Dr. Wheeler 148.

1/2/30

13	11	16	20	19
108	101	101	148	0,4
56th				

Adam Temple

Revisita full not assessed
magnifica.

sambillona (one on line).

History