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GEOLOGICAL SURVEY OF CANADA

DEPARTMENT OF ENERGY, MINES AND RESOURCES

PAPER 67-19 (Part B)

FERNIE AND MINNES STRATA NORTH OF PEACE RIVER, FOOTHILLS OF NORTHEASTERN BRITISH COLUMBIA

(Report and 8 figures)

D. F. Stott

1969

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DEPARTMENT OF ENERGY, MINES AND RESOURCES

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CONTENTS

Part B

		Page
Abstract		v
Outcrop sections		
62-1.	Fernie, Monteith, and Beattie Peaks Formations; Horseshoe Creek	1
62-2.	Beattie Peaks Formation; Chowade River	14
62-4.	Fernie and Monteith Formations; Headstone Creek	18
62-5.	Fernie, Monteith, and Gething Formations; between Headstone and Cypress Creeks	22
62-6.	Fernie Formation; south of Mount Wooliever	27
62-7.	Fernie, Monteith, and Gething Formations; north of Halfway River	29
62-9.	Fernie Formation; west of Headstone Creek	35
62-10.	Fernie, Monteith, and Beattie Peaks Formations; Halfway River map-area	38
62-11.	Fernie, Monteith, and Beattie Peaks Formations; Halfway River map-area	51
62-12.	Fernie, Monteith, and Gething Formations; south of Halfway River	57
62-13.	Fernie, Monteith, and Beattie Peaks Formations; south of Chowade River	63
62-14.	Fernie and Monteith Formations; west of Mount Stearns	74
62-15.	Fernie and Monteith Formations; between Cypress and Chowade Rivers	79
62-16.	Fernie and Gething Formations; south of Nevis Creek	85
64-7.	Fernie and Monteith Formations; north of Trimble Lake	90
64-8.	Monteith Formation; north of Mount Stearns	97
64-9.	Nordegg Member; north of Mount Stearns	104
64-11.	Fernie, Monteith, and Beattie Peaks Formations; south of Halfway River	106
64-12.	Beattie Peaks Formation; south of Cypress Creek	110
64-13.	Fernie and Monteith Formations; south of Halfway River	120
64-14.	Fernie and Monteith Formations; north of Besa River	125

Illustrations
(in pocket)

Figure 1. Index map showing location of outcrop sections.
2. Map showing distribution of Fernie and Minnes strata.
3. Columnar sections, Peace River to Besa River.
4. Columnar sections, Chowade River to Pink Mountain.
5. Columnar sections, Cypress Creek to Trimble Lake.
6. Columnar sections, Mount Stearns to Sikanni Chief River.
7. Approximate northern erosional edges of Fernie and Minnes strata.
9. Columnar sections, Hudson Hope to Spirit River.

ABSTRACT

This report presents stratigraphic information from twenty-three sections measured in Fernie and Minnes strata that outcrop in northeastern British Columbia.

The general geology of the area has been described in Paper 67-19 (Part A) of the Geological Survey of Canada.

Section 62-1

Fernie, Monteith, and Beattie Peaks Formations, and (?) younger beds, headwaters of Horseshoe Creek, 56°36'N, 122°54'W, Halfway River map-area, British Columbia.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	GETHING FORMATION		
3	Sandstone, coarse-grained to conglomeratic, laminated to homogeneous, brownish grey; thick-bedded to massive; pebbles as much as 2"; partly covered.	9	19
2	Covered.	6	10
1	Sandstone, medium-grained, brown, laminated, cherty; thick-bedded.	4	4
	MINNES GROUP		
	BEATTIE PEAKS FORMATION and (?) YOUNGER BEDS		
	Unit 3		
74	Covered. Approximately.	150	1,453
73	Sandstone, fine-grained, finely laminated, brown; limonitic staining; thin-bedded to flaggy.	8	1,303
72	Covered.	9	1,295
71	Sandstone, fine-grained, laminated; platy weathering.	4	1,286

Unit	Lithology	Thickness (feet)	Height above base (feet)
70	Covered.	20	1,282
69	Sandstone, fine-grained, laminated, brownish grey.	3	1,262
68	Mudstone to siltstone, dark brown to grey; platy to blocky; brownish grey weathering.	5	1,259
67	Covered. Approximately.	100	1,254
66	Siltstone to sandstone, crosslaminated, carbonaceous; platy to flaggy.	11	1,154
65	Covered.	5	1,143
64	Sandstone, fine-grained, laminated, brownish grey; thin-bedded to flaggy; carbonaceous.	7	1,138
63	Mudstone, silty, dark grey.	2	1,131
62	Sandstone, fine-grained, laminated, brownish grey; thin-bedded to flaggy.	5	1,129
61	Mudstone to siltstone, platy; concretionary layers at top.	5	1,124
60	Mudstone, rubbly to flaky.	2	1,119
59	Sandstone, fine-grained, laminated, brownish grey; thin-bedded to flaggy.	8	1,117
58	Mudstone, olive-brown, and siltstone; blocky to platy.	3	1,109
57	Sandstone, silty, brown, carbonaceous.	1	1,106
56	Coal.	1	1,105
55	Siltstone, interbedded with sandstone, fine-grained; carbonaceous; beds 2"-6".	5	1,104

Unit	Lithology	Thickness (feet)	Height above base (feet)
54	Sandstone, fine-grained, laminated, brownish grey; platy to thin-bedded; brown weathering; traces of plant fragments.	8	1,099
53	Mudstone, brownish grey; rubbly at base; silty and blocky at top; some siltstone in upper part.	10	1,091
52	Sandstone, very fine grained, interbedded with siltstone (70:30); thin-bedded to flaggy; brownish grey weathering.	5	1,081
51	Mudstone, dark brownish grey; rubbly to blocky.	6	1,076
50	Sandstone, very fine grained, laminated, medium-grey; thin-bedded to flaggy.	6	1,070
49	Sandstone and shale interbedded (50:50); beds 2"-4".	13	1,064
48	Covered.	9	1,051
47	Sandstone, fine-grained, finely laminated, grey, quartzitic; thin-bedded; some shale.	5	1,042
46	Covered.	10	1,037
45	Sandstone, fine-grained, laminated, brownish grey; limonitic; thin-bedded; some shale, brownish grey.	8	1,027
44	Mudstone, olive-brown; rubbly.	1	1,019
43	Covered.	7	1,018
42	Mudstone to siltstone, platy.	4	1,011
41	Sandstone, fine-grained, argillaceous, laminated, dark brown.	3	1,007

Unit	Lithology	Thickness (feet)	Height above base (feet)
40	Mudstone and siltstone, interbedded; blocky; some concretions.	5	1,004
39	Sandstone, fine-grained, laminated; limonitic staining; thick-bedded; some interbedded shale and siltstone.	14	999
38	Mudstone, silty, blocky.	5	985
37	Sandstone, fine-grained, quartzitic, laminated, grey to brownish grey; some interbedded shale, silty, platy.	11	980
36	Siltstone, argillaceous, carbonaceous; plant fragments. Partly covered.	8	969
35	Sandstone and shale interbedded. Sandstone, fine-grained, laminated, limonitic, carbonaceous; beds 2"-3".	14	961
34	Sandstone, very argillaceous, laminated.	3	947
33	Covered.	6	944
32	Sandstone, fine-grained, laminated, brown, carbonaceous; thin- to medium-bedded.	6	938
31	Mudstone, dark brown, carbonaceous; plant fragments.	4	932
30	Sandstone, very fine grained, silty, becoming fine-grained at top, laminated brownish grey; thin-bedded, becoming thicker at top; carbonaceous fragments; ripple-marks.	11	928
29	Covered.	19	917

Unit	Lithology	Thickness (feet)	Height above base (feet)
	Unit 2		
28	Sandstone, fine-grained, becoming coarser grained at top, cross-laminated, brownish grey; thin-bedded; few disseminated pebbles.	21	898
27	Covered.	14	877
26	Sandstone, very fine grained, quartzitic, finely laminated and crosslaminated.	3	863
25	Covered.	15	860
24	Sandstone, as above; traces of root fragments.	8	845
23	Mudstone, silty, dark grey to brown; blocky.	6	837
22	Sandstone, very fine grained, quartzitic, brownish grey, finely laminated and crosslaminated; thin-bedded; rusty brown weathering.	3	831
21	Covered.	15	828
20	Sandstone, fine-grained, quartzitic, grey; thin-bedded to flaggy; brown weathering.	7	813
19	Covered.	19	806
18	Sandstone, quartzitic, brown, laminated.	8	787
17	Covered.	10	779
16	Sandstone, fine-grained, quartzitic; some interbedded shale.	6	769
15	Sandstone, fine-grained, quartzitic, grey, limonitic, carbonaceous at base; thin-bedded; brown weathering.	25	763

Unit	Lithology	Thickness (feet)	Height above base (feet)
14	Sandstone, very silty and black at base, fine-grained and grey at top, finely laminated, limonitic, brown; brown weathering.	6	738
13	Mudstone, black, blocky, carbonaceous; upper 4" coaly; traces of logs.	5	732
12	Sandstone, fine-grained, brownish grey; thin-bedded; brown weathering.	9	727
	Unit 1		
11	Covered. Approximately.	600	718
10	Sandstone, fine-grained, laminated; platy to flaggy.	7	118
9	Covered.	19	111
8	Sandstone, fine-grained, laminated; platy to flaggy.	8	92
7	Covered.	10	84
6	Sandstone, fine-grained at base, becoming medium-grained at top, laminated, some crosslaminated; thick-bedded; pinkish brown weathering.	5	74
5	Covered.	9	69
4	Sandstone, fine-grained, brown, laminated to homogeneous; thick-bedded; pinkish brown weathering.	10	60
3	Covered.	20	50
2	Sandstone, fine-grained, brown, laminated; some crossbedding; thick-bedded; brownish grey weathering.	18	30

Unit	Lithology	Thickness (feet)	Height above base (feet)
1	Covered.	12	12
	MONTEITH FORMATION		
	Unit 1		
2	Sandstone, fine- to coarse-grained, grey; thick-bedded, becoming more thinly bedded at top. Approximately.	150	245
1	Sandstone, fine- to coarse-grained, grey; thick-bedded; brownish grey to grey weathering.	95	95
	FAULT		
	BEATTIE PEAKS FORMATION and (?) YOUNGER BEDS		
	Covered. Approximately.	400	400
	Farther along ridge, a thick unit of sandstone occurs about 100' below top.		
	GSC loc. 52214 *Buchia* n. sp. aff. *B. inflata* (Toula) (common) *Buchia* cf. *B. bulloides* (Lahusen)(rare) Belemnitacea (true belemnites) genus and species indet.		
	MONTEITH FORMATION		
	Unit 1		
34	Sandstone, medium-grained, laminated, grey, thick-bedded.	2	573
33	Conglomerate and very coarse grained sandstone, grey; thick-bedded.	1.5	571.5

Unit	Lithology	Thickness (feet)	Height above base (feet)
32	Sandstone, fine-grained, grey, laminated, well sorted; thick-bedded.	4.5	570
31	Siltstone, grey; argillaceous at base, becoming sandy at top; platy to flaggy; grey weathering.	20	565.5
30	Shale, silty, black, carbonaceous.	5	545.5
29	Sandstone, fine-grained, laminated, dark grey; crossbedded; thin-bedded to flaggy; some thicker beds near top; grey weathering.	72	540.5
28	Siltstone, sandy, laminated, flaggy.	10	468.5
27	Sandstone, fine-grained, laminated, grey; thin-bedded.	6	458.5
26	Mudstone, silty, dark grey; platy.	16	452.5
25	Sandstone, fine-grained, grey, laminated; thick-bedded.	7	436.5
24	Mudstone, dark grey; grading upward into argillaceous and sandy siltstone.	11	429.5
23	Sandstone, fine- to medium-grained, silty at base; some crosslamination and crossbedding.	32	418.5
22	Sandstone, fine- to medium-grained, quartzose, finely laminated; cross-bedded; beds 2"-8"; grey weathering.	75	386.5
21	Sandstone, quartzitic, white to grey, fine- to very coarse-grained, laminated; thick-bedded; coarse lenses at base; coaly fragments.	47	311.5
	Unit 2		
20	Sandstone, fine-grained, brownish grey; lenses of coarse-grained sandstone with disseminated pebbles.	4	264.5

Unit	Lithology	Thickness (feet)	Height above base (feet)
19	Sandstone and siltstone interbedded; beds 2"-4"; some shale.	15	260.5
	FAULT		
18	Siltstone and shale interbedded (50%:50%); beds 1/2"-2".	13	245.5
17	Sandstone, siltstone, and mudstone interbedded; beds 1"-3".	16	232.5
16	Sandstone, fine-grained, laminated, thin-bedded; interbedded mudstone, 30%.	9	216.5
15	Mudstone, with lenses of very coarse grained, quartzose sandstone.	1	207.5
14	Mudstone, silty, platy.	5	206.5
13	Mudstone, grading upward into sandstone, (50%:50%).	29	201.5
12	Siltstone, sandy, with interbedded mudstone, 25%.	22	172.5
	FAULT of small displacement. Section continues below folded beds.		
11	Sandstone, fine-grained, laminated; some interbedded siltstone and sandstone.	25	150.5
10	Mudstone, silty; platy to blocky; rusty weathering.	24	125.5
9	Mudstone, silty, grading upward into siltstone, laminated, flaggy.	23	101.5
8	Sandstone, fine-grained, laminated, grey; some crosslamination; thick-bedded.	5	78.5
7	Siltstone, sandy; platy to flaggy.	5	73.5

Unit	Lithology	Thickness (feet)	Height above base (feet)
6	Sandstone, fine-grained, grey; silty and platy in middle.	9	68.5
5	Siltstone, very argillaceous at base, sandy at top.	6	59.5
4	Sandstone, fine-grained, grey, laminated; brown weathering.	3	53.5
3	Shale, silty; platy.	4.5	50.5
2	Sandstone, fine-grained, grey, quartzose, finely laminated; beds 1"-6"; some thin layers of silty shale.	45	46
1	Sandstone, very coarse grained, quartzose; some pebbles of chert and quartzite; carbonaceous films; subangular grains.	1	1
	FERNIE FORMATION		
	Unit 6		
47	Siltstone, very sandy; beds 1"-3"; laminated, grey; some lenticular beds of sandstone; some channelling.	33	767
46	Siltstone, laminated, sandy; some sandstone beds at top; few thin layers of shale.	21	734
45	Sandstone, fine-grained, laminated; cut-and-fill structures.	1	713
44	Siltstone, argillaceous, laminated, dark grey.	9	712
43	Siltstone, sandy; thin-bedded; grading upward into coarse-grained, quartzose sandstone.	9	703

Unit	Lithology	Thickness (feet)	Height above base (feet)
42	Sandstone, fine-grained, grey, laminated; thin- to thick-bedded; rusty brown weathering.	4	694
41	Siltstone (70%), argillaceous, laminated; shale (30%), dark grey to black, rusty weathering; sandier at top.	37	690
40	Sandstone, very fine grained, grey, laminated; thick-bedded; some shaly layers; rusty weathering.	8	653
39	Siltstone, argillaceous; 1"-3" beds; few beds of sandstone, very fine grained, laminated.	44	645
38	Sandstone, fine-grained, grey; small chert nodules.	2	601
37	Mudstone, silty black, and siltstone, argillaceous, laminated.	22.5	599
36	Sandstone, fine-grained, grey.	1.5	576.5
35	Mudstone, very silty, blocky, to siltstone, argillaceous, laminated, rusty weathering.	16	575
34	Sandstone, fine-grained, black; thick-bedded.	2	559
33	Mudstone and interbedded siltstone; dark grey to black; platy.	10	557
32	Mudstone and siltstone, platy; some interbedded sandstone at top.	15	547
31	Sandstone, fine-grained, laminated, dark grey; thick-bedded; brown weathering.	5	532
	Unit 5		
30	Mudstone, black; rubbly at base, blocky at top; rusty weathering.	31	527

Unit	Lithology	Thickness (feet)	Height above base (feet)
29	Mudstone, black; rubbly, becoming blocky at top; rusty weathering.	26	496
	Unit 4 ?		
28	Mudstone, rubbly, grading upward into argillaceous siltstone.	9	470
27	Mudstone, grading upward into argillaceous siltstone; black; blocky; rusty weathering.	13	461
	Unit 3		
26	Covered. Approximately.	55	448
25	Mudstone, silty, dark grey, rubbly to blocky; rusty weathering; some sideritic concretions (some shearing).	36	393
24	Mudstone, rubbly; rusty weathering (some shearing).	17	357
23	Mudstone, dark grey; rubbly; rusty weathering; sideritic concretions.	17	340
22	Mudstone, black; rubbly; rusty weathering; becoming silty at top.	44	323
21	Mudstone, silty, dark grey to black; blocky; rusty weathering.	10	279
20	Mudstone, silty, to siltstone argillaceous; black; flaggy to slabby; rusty weathering.	18	269
19	Mudstone, black; blocky; rusty weathering (shear at top).	25	251
	Unit 2		
18	Shale and interbedded siltstone; slightly calcareous, black, laminated; rusty weathering.	20	226

Unit	Lithology	Thickness (feet)	Height above base (feet)
17	Shale, silty, platy; grading upward into interbedded siltstone and shale, black calcareous, laminated.	17	206
16	Covered.	15	189
15	Siltstone and shale interbedded; nodules and thin layers of chert.	2.5	174
14	Limestone, silty, dark grey, laminated, dense.	2	171.5
13	Shale, black, calcareous; platy to fissile; silty at top; few concretions; thin layer of bentonite in middle.	12	169.5
	Nordegg Member		
12	Siltstone, argillaceous, calcareous, black, finely laminated; large 1' x 3' concretions at base; sandy at top.	4	157.5
11	Siltstone, argillaceous, calcareous, black, finely laminated; massive; cross-sections of belemnites.	18	153.5
10	Shale, black, calcareous.	2	135.5
9	Siltstone, argillaceous, calcareous, black, finely laminated; platy to massive.	10	133.5
8	Siltstone, calcareous, laminated, black; thin shale layer at base; sandy at top; chert nodules.	20	123.5
7	Siltstone, calcareous, laminated, black, massive; few thin chert nodules and lenses.	42	103.5
6	Siltstone, very argillaceous, black, calcareous; massive.	23	61.5

Unit	Lithology	Thickness (feet)	Height above base (feet)
5	Siltstone, calcareous, to limestone, silty; black; chert nodules.	5	38.5
4	Sandstone, fine-grained, dark grey.	0.5	33.5
3	Siltstone, calcareous, black, beds 2"-6"; small chert nodules.	11	33
2	Siltstone, calcareous, argillaceous, black, pyritic; 4"-8" beds; some interbedded shale, black, calcareous; chert nodules as much as 2" thick.	17	22
1	Covered.	5	5

TRIASSIC

PARDONET FORMATION

Limestone, fossiliferous, black, laminated.

GSC Loc. 52243
Monotis subcircularis Gabb
Age: Norian, *Monotis subcircularis* zone.

Section 62-2

Beattie Peaks Formation and (?) younger beds, north of Chowade River, 56°46'N, 122°50'W, Halfway River map-area, British Columbia.

Unit	Lithology	Thickness (feet)	Height above base (feet)

GETHING FORMATION

Dip slope into valley to west is covered by great talus piles of fine-grained sandstone and some conglomerate. Section begins at top of ridge.

Unit	Lithology	Thickness (feet)	Height above base (feet)
3	Sandstone, fine-grained, cherty, brown; massive to thick-bedded; brownish grey weathering.	17	43
2	Covered.	15	26
1	Sandstone, fine-grained, brown, laminated; layers and lenses of conglomerate; pebbles as much as 1"; much black chert.	11	11
	MINNES GROUP		
	BEATTIE PEAKS FORMATION and (?) YOUNGER BEDS		
33	Covered. (Farther downslope this interval consists of sandstone similar to underlying unit. A shale bed is cut out by the overlying conglomeratic sandstone.)	15	1,352
32	Sandstone, fine-grained, laminated, crosslaminated, brown, crossbedded; thin-bedded at base, thicker at top; limonitic.	8	1,337
31	Mostly covered. Sandstone, fine-grained; platy.	10	1,329
30	Sandstone, very fine grained, laminated, brown; platy; brown weathering.	6	1,319
29	Covered. Some platy siltstone and sandstone.	55	1,313
28	Covered. Approximately.	65	1,258
27	Sandstone, fine-grained, laminated, brown; grey weathering; thick-bedded; crossbedded; becoming platy at top.	13	1,193
26	Covered.	19	1,180

Unit	Lithology	Thickness (feet)	Height above base (feet)
25	Sandstone, silty, very fine grained; platy; brownish grey weathering.	3	1,161
24	Covered. Approximately.	125	1,158
23	Sandstone, medium- to coarse-grained, brownish grey, homogeneous; some fine conglomeratic beds and lenses; finer grained in upper 15' with some shale.	35	1,033
22	Mostly covered. Some interbedded sandstone and shale.	60	998
	Small anticline and syncline.		
21	Sandstone, fine-grained, clean, brownish grey; thick-bedded; grains of white weathered chert.	10	938
20	Covered.	155	928
19	Sandstone, fine-grained, laminated; flaggy at base with some shale, more thickly bedded at top; grey weathering.	40	773
18	Mostly covered. Some platy sandstone and siltstone.	30	733
17	Sandstone, very fine grained, brown carbonaceous fragments, thick-bedded; brown weathering.	3	703
16	Covered.	58	700
15	Partly covered. Sandstone, fine-grained; laminated at base and platy, becoming thick-bedded and cleaner at top; grey weathering.	55	642
14	Covered.	21	587

Unit	Lithology	Thickness (feet)	Height above base (feet)
13	Sandstone, very fine grained, finely laminated; platy to flaggy; some layers of shale.	15	566
12	Covered.	38	551
11	Sandstone, very fine grained, brownish grey, laminated, slightly carbonaceous, flaggy to thick-bedded; grey weathering. About 30% covered.	41	513
10	Covered.	115	472
9	Sandstone, very fine grained, silty, brownish grey, carbonaceous; thick-bedded; grey weathering.	7	357
8	Covered.	31	350
7	Sandstone, fine-grained, finely laminated, brownish grey; flaggy to thin-bedded.	10	319
6	Covered.	125	309
5	Sandstone, fine-grained, laminated, brown, flaggy; grey weathering.	11	184
4	Mostly covered. Small exposures of platy, limonitic sandstone.	75	173
3	Partly covered. Sandstone, very fine grained, quartzitic, brownish grey, slightly carbonaceous, laminated.	65	98
2	Covered.	19	33
1	Sandstone, fine-grained, quartzitic, brown, thin- to thick-bedded; grey weathering.	14	14
	Axis of Syncline.		

Section 62-4

Fernie and Monteith Formations, syncline west of headwaters of Headstone Creek, 57°04'N, 123°18'W, Trutch map-area, British Columbia.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	MONTEITH FORMATION		
20	Shale, and siltstone interbedded, platy; some thin units of fine-grained sandstone. Poorly exposed.	50±	364
19	Sandstone, fine-grained, siliceous; thick-bedded; brown.	9	314
18	Covered.	19	305
17	Sandstone, fine-grained, siliceous, ferruginous; thick-bedded; brown.	13	286
16	Covered.	30	273
15	Sandstone, fine-grained, calcareous, grey.	3	243
14	Covered.	16	240
13	Sandstone, fine-grained, dark grey, siliceous, hard, laminated; thick-bedded; brownish grey weathering.	3	224
12	Covered.	13	221
11	Sandstone, fine-grained, laminated, crosslaminated, grey; siliceous; thick-bedded; rusty weathering.	10	208
10	Mostly covered. Some thin-bedded sandstone; mainly interbedded siltstone and shale.	80	198
9	Sandstone, fine-grained, laminated; flaggy.	3	118

Unit	Lithology	Thickness (feet)	Height above base (feet)
8	Covered.	33	115
7	Sandstone, fine-grained, laminated, grey; thin-bedded.	3	82
6	Siltstone and shale interbedded.	5	79
5	Sandstone, fine-grained, grey; thin-bedded; brownish grey weathering.	5	74
4	Shale and siltstone interbedded; upper part not well exposed.	33	69
3	Sandstone, fine-grained, laminated; siltstone and shale interbedded (30%).	8	36
2	Sandstone, fine-grained, silty; interbedded silty shale; platy to flaggy; rusty weathering.	17	28
1	Sandstone, fine-grained, laminated, brownish grey; thick-bedded to massive; rusty brown weathering.	11	11
	FERNIE FORMATION		
35	Shale, silty, platy; interbedded toward top with siltstone; beds (2"-6") of sandstone in upper 6'.	18	463
34	Sandstone, fine-grained.	1	445
33	Siltstone, sandstone, and shale interbedded; platy to flaggy.	9	444
32	Shale and siltstone (30%); platy.	12	435
31	Sandstone, fine-grained, laminated, brownish grey; some crossbedding; flaggy to thin-bedded.	8	423
30	Shale, platy; interbedded with siltstone at top.	16	415

Unit	Lithology	Thickness (feet)	Height above base (feet)
29	Sandstone, fine-grained, laminated; thick-bedded.	3	399
28	Sandstone, fine-grained, laminated, silty; interbedded siltstone and shale; beds 2"-4"; rusty weathering.	17	396
27	Shale, platy, silty; rusty weathering.	7	379
26	Shale, rubbly, dark grey to black; rusty weathering.	10	372
25	Sandstone, argillaceous, fine-grained, brownish grey, laminated; flaggy; brown weathering.	1	362
24	Shale, silty; rubbly at base, more platy at top; rusty weathering.	26	361
23	Sandstone, fine- to medium-grained; thick-bedded; rusty weathering.	4	335
22	Sandstone, fine-grained, brown.	4	331
21	Shale, dark grey to black; platy; rusty weathering; yellow efflorescence.	52	327
20	Covered.	35	275
19	Shale, black; platy; rusty weathering.	15	240
18	Covered.	10	225
17	Shale, platy to fissile; black; rusty weathering.	6	215
16	Covered. Approximately.	30	209
15	Shale to siltstone; platy; black.	2	179
14	Covered. Approximately.	45	177

Unit	Lithology	Thickness (feet)	Height above base (feet)
	Nordegg Member		
13	Siltstone, very platy.	2	132
12	Siltstone, thick-bedded; black.	2	130
11	Covered.	20	128
10	Siltstone, black, calcareous.	2	108
9	Covered.	6	106
8	Siltstone, calcareous, laminated, black.	2	100
7	Covered.	4	98
6	Siltstone, calcareous, laminated, black, splintery; light grey weathering.	5	94
5	Mostly covered.	18	89
4	Siltstone, calcareous, laminated, black; splintery; hard; massive to platy; bluish white weathering.	4	71
	G. S. C. Loc. 52226 Pectinids Age: Early Jurassic		
3	Covered. Approximately.	45	67
2	Siltstone, black, calcareous; platy to flaggy; 6" of dense limestone at top.	5	22
1	Mostly covered.	17	17
	TRIASSIC		
	Limestone, dense, bluish grey, platy, fossiliferous.		
	G. S. C. Loc. 52237 *Monotis subcircularis* Gabb Age: Norian, *Monotis subcircularis* zone.		

Section 62-5

Fernie, Monteith, and Gething Formations; on west flank of anticline between Headstone and Cypress Creeks, Halfway River map-area, British Columbia, 56°57'N, 123°05'W.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	Top of ridge.		
	GETHING FORMATION		
12	Sandstone, fine-grained; very argillaceous and black at base, cleaner and grey at top; thick-bedded.	20	105
11	Shale, coaly, black; some siltstone at top.	2	85
10	Sandstone, fine-grained, laminated, dark grey; thick-bedded; brownish grey weathering.	7	83
9	Covered. Approximately.	20	76
8	Sandstone, medium- to coarse-grained, homogeneous, dark grey; massive; very coarse grained at top; some disseminated pebbles.	5	56
7	Covered.	7	51
6	Sandstone, fine-grained, grey, slightly laminated; massive; few lenses of conglomerate.	19	44
5	Covered.	2	25
4	Sandstone, very coarse grained, to conglomerate; brownish grey; thick-bedded; dried bitumen.	2	23
3	Sandstone, fine- to medium-grained, brownish grey; some lenses of conglomerate.	13	21

Unit	Lithology	Thickness (feet)	Height above base (feet)
2	Sandstone, fine- to medium-grained, brownish grey; massive.	6	8
1	Conglomerate; cobbles as much as 2", pebbles average 1/2"; chert, quartzite; dark bluish grey, grey; fine-grained matrix.	2	2
	GSC Loc. 52202 Indeterminate pelecypod (Ostrea or Exogyra-like but generically indeterminable with any degree of certainty).		
	MONTEITH FORMATION		
21	Covered.	8	417
20	Sandstone, fine-grained, quartz grains, brownish grey, homogeneous; massive; grey weathering.	11	409
19	Sandstone, fine-grained, argillaceous at base; thin- to thick-bedded; grey weathering; lenses of conglomerate with pebbles of white chert.	45	398
18	Sandstone, fine-grained; platy to flaggy.	5	353
17	Sandstone, fine-grained, laminated to homogeneous, siliceous, hard, grey; thin- to thick-bedded; grey weathering.	15	348
16	Covered.	15	333
15	Sandstone, fine-grained, quartz, grey, siliceous; thick-bedded; grey weathering.	8	318
14	Sandstone, very argillaceous to siltstone, argillaceous, black; platy to flaggy; some interbedded shale.	7	310

Unit	Lithology	Thickness (feet)	Height above base (feet)
13	Sandstone, fine-grained, quartzose, siliceous; thick-bedded to massive; grey weathering; coarse-grained in upper 1' with small pebbles.	26	303
12	Sandstone, fine- to medium-grained; siliceous, grey; thick-bedded; grey to brown weathering; grains of white-weathered chert.	3	277
11	Covered.	11	274
10	Sandstone, fine-grained, siliceous, grey; thin-bedded to platy; cross-bedded; brownish grey weathering.	17	263
9	Siltstone, sandy, to argillaceous sandstone; sandier at top; platy to flaggy.	14	246
8	Sandstone, argillaceous, silty, dark grey; thin-bedded to flaggy; rusty brown weathering.	23	232
7	Shale and siltstone interbedded.	1	209
6	Sandstone, medium- to coarse-grained; massive.	22	208
5	Sandstone, medium- to coase-grained, quartzose, homogeneous, grey, siliceous; thick-bedded to massive; grey weathering; 6" conglomerate at top with pebbles of white chert up to 1".	29	186
4	Sandstone, fine-grained, homogeneous, siliceous, grey, quartzose; thick-bedded to massive; grey weathering; cone-in-cone.	69	157
3	Sandstone, fine-grained, siliceous, brownish grey, slightly argillaceous; thin-bedded; brown weathering.	23	88

Unit	Lithology	Thickness (feet)	Height above base (feet)
2	Partly covered. Sandstone, fine-grained, argillaceous; interbedded with argillaceous siltstone (40%); grades into overlying unit.	20	65
1	Sandstone, fine-grained, homogeneous, quartzose, brownish grey, siliceous; thin- to thick-bedded; brownish grey weathering.	45	45
	FERNIE FORMATION		
15	Mostly inaccessible; sandstone, fine-grained; thin-bedded to flaggy; light brown weathering; interbedded siltstone and shale (30%); grading into overlying beds.	46	256
14	Siltstone, sandy, dark grey; platy; rusty weathering; interbedded shale (35%).	32	210
13	Sandstone, fine-grained, grey, quartzose, ferruginous; thin- to thick-bedded; rusty weathering.	9	178
12	Shale, silty, dark grey; rusty weathering; some interbedded siltstone and sandstone at top.	12	169
11	Shale, very silty; grading upward into argillaceous siltstone, blocky, rusty weathering, and sandstone, argillaceous, brownish grey, thin-bedded.	14	157
10	Shale, rubbly; rusty weathering; grading upward into interbedded sandstone and shale.	9	143
9	Sandstone, fine-grained, argillaceous to silty, siliceous, dark grey, homogeneous; rusty weathering; some interbedded shale and siltstone; beds 1"-4".	10	134

Unit	Lithology	Thickness (feet)	Height above base (feet)
8	Shale, rubbly, rusty weathering.	3	124
7	Sandstone, fine-grained, argillaceous, siliceous, dark grey; rusty weathering.	3	121
6	Siltstone and shale interbedded; platy; rusty weathering.	10	118
5	Siltstone, argillaceous, rusty weathering; large sandy concretionary body.	2	108
4	Shale, dark grey to black, rubbly, rusty weathering.	17	106
3	Shale, dark grey to black; rusty weathering; siltier at top.	14	89
2	Shale, dark grey to black; rusty weathering; platy to rubbly; silty at top.	19	75
	Nordegg Member		
1	Covered. Some shale, black platy, calcareous, and siltstone, calcareous, platy.	56	56
	GSC Loc. 52230 *Arniotites* sp. Age: Sinemmurian		
	TRIASSIC		
	PARDONET FORMATION		
	Limestone, argillaceous, dense, dark brown to black.		
	GSC Loc. 52241 *Monotis subcircularis* Gabb Age: Norian, *Monotis subcircularis* zone		

Section 62-6

Fernie Formation, ridge south of Mount Wooliever, 57°08'N, 123°17'W, Trutch map-area, British Columbia.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	GETHING FORMATION		
4	Sandstone, fine-grained, homogeneous, siliceous, grey; massive; light brown weathering; cleaner at top; 1' of conglomerate at top, pebbles average 1/2", some as much as 3", chert quartzite, well rounded, bluish grey, white, black.	44.5	53
3	Shale.	1	8.5
2	Sandstone, fine-grained, homogeneous, siliceous, grey; thick-bedded; rusty to maroon weathering.	6	7.5
1	Conglomerate; cobbles as much as 3"; pebbles average 1/2" chert, quartzite; well rounded, bluish grey, white.	1.5	1.5
	FERNIE FORMATION		
13	Sandstone, fine-grained, quartzose, siliceous, homogeneous, black; thin beds of shale; some siltstone at top.	11	391
12	Sandstone, as above; thick-bedded.	5	380
11	Sandstone, fine-grained, quartzose, homogeneous, black; irregularly and thinly bedded; dark grey weathering.	4	375
10	Partly covered. Shale and siltstone interbedded.	8	371

Unit	Lithology	Thickness (feet)	Height above base (feet)
9	Sandstone, fine-grained, quartzose, homogeneous, black; thin-bedded; rusty weathering; few thin layers of shale.	11	363
8	Sandstone, fine-grained, quartzose, laminated; interbedded siltstone and shale (50%) rusty weathering.	9	352
7	Partly covered. Several units of fine-grained sandstone grading downward into siltstone and mudstone.	60	343
6	Covered.	89	283
5	Talus covered. Shale, dark grey to black; platy to papery; slightly rusty weathering.	110	194
	Nordegg Member		
4	Siltstone, calcareous, black, phosphatic.	1	84
3	Siltstone, hard, calcareous, black; platy; some shale.	28	83
2	Siltstone, calcareous, black, platy, splintery; interbedded shale, flaky, black, calcareous.	25	55
1	Mostly covered. Siltstone, hard, calcareous, platy, black.	30	30

GSC loc. 52223
Pectinids
Age: Early Jurassic

TRIASSIC

PARDONET FORMATION

Limestone, bioclastic, bluish grey; thin-bedded; brown weathering.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	GSC loc. 52238 *Monotis subcircularis* Gabb Age: Norian, *Monotis subcircularis* zone		

Section 62-7

Fernie, Monteith, and Gething Formations, north of Halfway River, Trutch map-area, British Columbia, 57°01'N, 123°14'W.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	Top of ridge		
	GETHING FORMATION		
7	Sandstone, fine-grained, cherty, siliceous, laminated, grey; thin-bedded at base, more massive at top.	30	181
6	Sandstone and siltstone, interbedded.	4	151
5	Sandstone, fine-grained, cherty, laminated to homogeneous, siliceous, grey; medium- to thick-bedded.	22	147
4	Covered.	30	125
3	Sandstone, fine-grained, well sorted, cherty, siliceous, grey, laminated; massive to thick-bedded; grey weathering; crosslaminated.	45	95
2	Covered. Slumped sandstone.	10	50
1	Sandstone, fine-grained, cherty, siliceous, laminated to homogeneous, grey; thick-bedded to massive; brown weathering.	40	40

Unit	Lithology	Thickness (feet)	Height above base (feet)
	MINNES GROUP		
	MONTEITH FORMATION		
37	Covered. Approximately.	80	448
36	Sandstone, fine-grained, brownish grey, laminated, quartzose; massive.	10	368
35	Sandstone, fine-grained; lenses of conglomerate and 2" conglomerate at top; cobbles as much as 3".	15	358
34	Sandstone, fine-grained, quartzose, brownish grey, homogeneous, calcareous; massive; grey weathering.	5	343
33	Mostly covered.	15	338
32	Sandstone, fine-grained, quartzose, brownish grey, homogeneous, calcareous; massive; grey weathering.	15	323
31	Covered.	19	308
30	Sandstone, fine-grained, quartzose, laminated to homogeneous, siliceous; massive.	12	289
	GSC loc. 52211 Lima (s. lato) sp. indet. Pecten (Entolium) sp. indet. True Belemnite (Belemnitacea) genus and species indet.		
29	Covered.	6	277
28	Sandstone, fine-grained, quartzose, siliceous, homogeneous, brownish grey; massive.	25	271
27	Covered.	19	246

Unit	Lithology	Thickness (feet)	Height above base (feet)
26	Conglomerate; not well exposed; mainly pebbles of white chert and quartz.	1	227
25	Sandstone, fine-grained, quartzose, siliceous, brown; thick-bedded to massive.	8	226
24	Covered.	8	218
23	Sandstone, fine-grained, quartzose, siliceous, brown; thick-bedded to massive.	11	210
22	Covered.	18	199
21	Sandstone, fine-grained, laminated; thin-bedded; brown weathering; thin-shale beds, 40%.	8	181
20	Sandstone, and interbedded shale; platy.	1	173
19	Sandstone, fine-grained, siliceous, laminated, dark grey; thin-bedded.	2	172
18	Mudstone, silty, dark grey; rubbly to platy; rusty weathering.	8	170
17	Sandstone, silty; platy to flaggy; interbedded siltstone and mudstone, 40% rusty weathering.	8	162
16	Siltstone, argillaceous, laminated; platy; interbedded silty shale, 50%, rusty weathering; grades into overlying unit.	15	154
15	Sandstone, silty; interbedded siltstone; platy to thin-bedded; rusty weathering.	6	139
14	Sandstone, fine-grained, brownish grey, siliceous, laminated; thin-bedded; brown weathering.	6	133
13	Sandstone, silty; platy to flaggy.	4	127

Unit	Lithology	Thickness (feet)	Height above base (feet)
12	Partly covered; interbedded siltstone and sandstone; platy.	12	123
11	Sandstone, siltstone, and shale; interbedded; beds 1"-6".	15	111
10	Siltstone and shale interbedded.	6	96
9	Sandstone, fine-grained, quartzose, silty, siliceous, ferruginous, homogeneous, brown; thin- to thick-bedded; brownish grey weathering.	32	90
8	Covered, recessive. Shale at top, more siltstone and sandstone in lower half.	22	58
7	Sandstone, fine-grained, silty, siliceous, brownish grey; flaggy to thin-bedded.	2	36
6	Siltstone and shale interbedded, grey, platy.	2	34
5	Sandstone, fine-grained, grey, siliceous; thin-bedded to platy.	3	32
4	Covered.	3	29
3	Sandstone, fine-grained, laminated, siliceous, grey.	2	26
2	Siltstone and shale interbedded; platy.	3	24
1	Sandstone, very fine grained, homogeneous, siliceous, brownish grey; thin- to thick-bedded; light brown to white weathering; ferruginous platy sandstone in middle.	21	21
	FERNIE FORMATION		
15	Sandstone, fine-grained, laminated; thin-bedded; brown weathering.	3	317

Unit	Lithology	Thickness (feet)	Height above base (feet)
14	Siltstone, argillaceous to sandy, dark grey; interbedded silty shales, 40%, platy.	13	314
13	Sandstone, fine-grained, laminated, grey; thin-bedded to platy; interbedded sandstone and shale; brown to rusty weathering.	9	301
12	Siltstone and shale interbedded; sandier at top with 2"-4" beds of sandstone; grades into overlying unit.	19	292
11	Sandstone, fine-grained, grey, laminated; brown weathering; shaly layers, 30%.	5	273
10	Siltstone, sandy, grey, laminated; platy; interbedded silty shale; sideritic concretions, reddish brown weathering.	11	268
9	Sandstone, fine-grained, laminated, crosslaminated, grey; interbedded shale and siltstone, 50%, beds 1"-1'.	10	257
8	Mudstone, silty, black; interbedded laminated siltstone; grades into overlying unit.	7	247
7	Partly covered. Mudstone to shale, silty, dark grey to black; rusty weathering.	12	240
6	Partly covered. Sandstone, fine-grained, laminated; platy; interbedded sandstone and shale; sandier at top.	12	228
5	Mostly talus covered. Shale, dark grey to black; rubbly; rusty weathering.	26	216

Unit	Lithology	Thickness (feet)	Height above base (feet)
4	Sandstone, fine-grained, quartzose, siliceous, grey; thick-bedded; rusty weathering.	5	190
3	Shale, black; rusty weathering, rubbly to flaky; mostly talus covered.	63	185
	SI 125-62 Haplophragmoides canui Cushman, 1930, fide Tappan, 1955.		
	Nordegg Member		
2	Shale, silty, black; grading upward into argillaceous siltstone with few small chert (phosphatic) nodules.	7	122
1	Covered. Talus consists of siltstone, calcareous, hard, bluish grey to black; flaggy to platy; bluish to white weathering; some shale, black, calcareous.	115	115
	TRIASSIC		
	PARDONET FORMATION		
	Limestone, dense, dark blue, platy to thin-bedded; brown weathering; fossiliferous; strong petroliferous odour.		
	GSC loc. 52240 Monotis subcircularis Gabb Age: Norian, Monotis subcircularis zone.		

Section 62-9

Fernie Formation, large anticlinal structure west of Headstone Creek, Trutch map-area, 57°03'N, 123°15'W, British Columbia.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	GETHING FORMATION		
1	Sandstone, fine-grained, calcareous, brownish grey; massive; light brown weathering; 6" of fine conglomerate on top, some cobbles as much as 2".	5	5
	MONTEITH FORMATION		
6	Sandstone, fine-grained; interbedded shale, platy, dark grey.	25	100
5	Sandstone, fine-grained, siliceous, dark grey; flaggy.	7	75
4	Covered.	10	68
3	Sandstone, fine-grained, siliceous, hard, dark grey; thin-bedded; grey weathering.	6	58
2	Sandstone and shale interbedded; beds 2"-4"; grades into overlying unit. Partly covered.	23	52
1	Sandstone, fine-grained, laminated to homogeneous, quartzose, siliceous; thin- to thick-bedded; brownish grey weathering; some thin beds of siltstone and shale.	29	29
	FERNIE FORMATION		
21	Siltstone, sandy, laminated, grey; thin-bedded to flaggy; rusty weathering.	8	439
20	Covered.	65	431
19	Sandstone, fine-grained, laminated, thin- to thick-bedded. Mostly covered.	10	366

Unit	Lithology	Thickness (feet)	Height above base (feet)
18	Mudstone, silty and interbedded siltstone. Partly covered.	45	356
17	Sandstone, fine-grained, siliceous, hard, laminated, grey; thin- to medium-bedded; brownish grey weathering.	10	311
16	Shale, platy, dark grey; interbedded siltstone (40%); sandier at top with 2"-3" beds of some fine-grained laminated sandstone.	14	301
15	Sandstone, fine-grained, quartzose, finely laminated, hard, siliceous; thin interbeds of siltstone and shale (40%).	15	287
14	Mudstone, silty; blocky; brown weathering.	4	272
13	Sandstone, fine-grained, laminated, siliceous, grey; brownish grey weathering.	1	268
12	Mudstone, silty; rubbly to blocky; rusty weathering; sideritic concretions.	2	267
11	Covered.	78	265
10	Talus covered. Shale, black; rubbly to flaky; rusty weathering.	30	187
9	Mostly covered. Shale as below.	20	157
8	Shale, black; flaky to rubbly; rusty weathering.	5	137
	SI 179-62 ? <u>Dentalina</u> sp.		
7	Covered.	28	132

Unit	Lithology	Thickness (feet)	Height above base (feet)
	Nordegg Member		
6	Siltstone, hard, calcareous, argillaceous, black, phosphatic, splintery.	1	104
5	Covered.	14	103
4	Shale, silty; grading upward into siltstone, argillaceous, black, calcareous, hard; platy to flaggy; few beds of very fine grained sandstone at top; bluish white weathering.	30	89
3	Siltstone, calcareous, black, argillaceous, hard, platy, grey weathering; interbedded shale, black, calcareous; siltier at top with 2"-3" beds of laminated siltstone.	34	59
2	Partly covered. Some platy siltstone and shale; black, calcareous.	7	25
	GSC loc. 52224 Pectinids Age: Early Jurassic		
1	Covered.	18	18
	TRIASSIC		
	PARDONET FORMATION		
	Limestone, bluish grey, bioclastic, brown weathering.		
	GSC loc. 52242 *Monotis subcircularis* Gabb Age: Norian, *Monotis subcircularis* zone.		

Section 62-10

Fernie, Monteith and Beattie Peaks Formations, and (?) younger beds, Halfway River map-area, British Columbia, 56°55'N, 123°18'W.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	Top of ridge.		
	GETHING FORMATION		
1	Sandstone, fine-grained, cherty, laminated; massive; beds of coarse-grained sandstone and conglomerate; pebbles as much as 1".		
	MINNES GROUP		
	BEATTIE PEAKS FORMATION and (?) YOUNGER BEDS		
96	Partly covered and recessive; interbedded siltstone and shale with some sandstone.	40	1,452
95	Sandstone, fine-grained; thick-bedded; light brown weathering.	5	1,412
94	Covered. Much platy siltstone in talus.	80	1,407
93	Sandstone, fine-grained; platy.	3	1,327
92	Mudstone and siltstone; interbedded; black; platy.	20	1,324
91	Sandstone, fine-grained, laminated; flaggy; brown weathering.	3	1,304
90	Covered.	45	1,301
89	Sandstone, fine-grained, laminated, grey; rusty brown weathering.	2	1,256
88	Siltstone to mudstone; sandier at top; bedded.	11	1,254

Unit	Lithology	Thickness (feet)	Height above base (feet)
87	Mostly covered. Mudstone in talus.	32	1,243
86	Sandstone, fine-grained, grey, laminated, slightly calcareous, ferruginous; thick-bedded.	28	1,211
85	Siltstone, argillaceous, to mudstone at base; upper part mostly covered.	25	1,183
84	Sandstone, medium-grained, grey, calcareous, laminated, ferruginous; brown weathering.	4	1,158
83	Mostly covered. Some siltstone and medium-grained sandstone.	24	1,154
82	Sandstone, medium-grained, grey, laminated, crosslaminated; massive; grey weathering; slightly calcareous and ferruginous.	13	1,130
81	Sandstone, fine-grained, laminated, calcareous, ferruginous.	4	1,117
80	Covered.	35	1,113
79	Sandstone, fine-grained, laminated, ferruginous, calcareous; massive; grey weathering.	11	1,078
78	Covered.	63	1,067
77	Siltstone, argillaceous, dark grey; bedded.	15	1,004
76	Covered and recessive.	20	989
75	Sandstone, fine-grained, laminated, grey; massive; grey weathering.	27	969
74	Partly covered. Sandstone, fine-grained; thick-bedded.	11	942

Unit	Lithology	Thickness (feet)	Height above base (feet)
73	Sandstone, as above; massive; thin, lenticular conglomerate at base; some pebbles of black chert.	17	931
72	Sandstone, fine-grained, cherty, homogeneous, grey, slightly calcareous; massive; grey weathering.	16	914
71	Mostly covered. Some shale and sandstone.	36	898
70	Sandstone, fine-grained, well sorted, grey, cherty, slightly calcareous; massive; grey weathering.	68	862
69	Talus covered.	45	794
68	Siltstone, argillaceous; some mudstone; rusty weathering; bedded.	28	749
67	Siltstone, argillaceous; interbedded mudstone; some fine-grained, laminated sandstone at top.	12	721
66	Siltstone, sandy, argillaceous, grading into argillaceous sandstone, laminated; beds 1"-2"; some interbedded shale.	18	709
65	Mudstone, rubbly to blocky; rusty weathering; grades into overlying beds.	14	691
64	Mudstone, silty, rusty weathering; grading upwards into sandy siltstone with 2"-1' beds of fine-grained sandstone near top.	13	677
63	Sandstone, fine-grained, laminated, siliceous.	5	664
62	Mudstone, very silty; grading upward into argillaceous siltstone.	14	659

Unit	Lithology	Thickness (feet)	Height above base (feet)
61	Siltstone, sandy, argillaceous, grey; blocky to bedded; rusty weathering.	19	645
60	Sandstone, fine-grained, laminated, siliceous; rusty brown weathering.	2	626
59	Siltstone, argillaceous, sandy; rusty weathering; interbedded mudstone at top; sandier at top.	13	624
58	Mudstone.	1	611
57	Siltstone, sandy; blocky; rusty weathering.	14	610
56	Siltstone, argillaceous, and mudstone; rusty weathering; grades into overlying beds.	13	596
55	Sandstone, fine-grained, siliceous laminated; brownish weathering; channel-fill.	3	583
	GSC loc. 52204 Belemnitacea (true belemnites), genus and species indet.		
54	Siltstone and shale, silty; grading upward into interbedded sandstone and siltstone; beds 1"-2"; sandstone, very fine-grained, argillaceous, laminated, grey; unit weathers rusty.	26	580
53	Mudstone, silty; grades into argillaceous siltstone with some sandstone at top; bedded.	23	554
52	Sandstone, fine-grained, laminated, grey, siliceous; thick-bedded; brown weathering.	4	531
51	Sandstone; some shale-pebble conglomerate.	1	527

Unit	Lithology	Thickness (feet)	Height above base (feet)
50	Mudstone, silty; some siltstone, argillaceous, laminated.	5	526
49	Sandstone, fine-grained, laminated, grey, siliceous; thick-bedded; lenticular channel-fill; brown weathering.	4	521
48	Siltstone, sandy, argillaceous; some channel fill.	19	517
47	Sandstone, fine-grained, laminated, grey; rusty brown weathering.	2	498
46	Siltstone, argillaceous, sandy; interbedded mudstone, 25%; grading into sandstone, argillaceous, fine-grained, laminated, beds 1"-3".	22	496
45	Sandstone, fine-grained, laminated.	1	474
44	Mudstone, silty; blocky to platy; grading into argillaceous siltstone with some laminated sandstone beds (1"-2") at top; striped appearance.	18	473
43	Sandstone, fine-grained, laminated, grey; interbedded shale, 40%, beds 2"-6".	10	455
42	Sandstone, fine-grained, lenticular.	4	445
41	Mudstone, very silty; grading upward into argillaceous siltstone and sandstone, fine-grained, laminated; bedded.	13	441
40	Sandstone, fine-grained, laminated, grey; thick-bedded; rusty brown weathering.	5	428
39	Siltstone, argillaceous, blocky to bedded; mottling; dark grey.	8	423

Unit	Lithology	Thickness (feet)	Height above base (feet)
38	Siltstone, sandy, laminated to sandstone, argillaceous, dark grey; bedded; channel-fill sandstone, 25%.	30	415
37	Sandstone, fine-grained, laminated, grey, siliceous, hard; thick-bedded; brown weathering; some silty shale and argillaceous siltstone.	6	385
36	Siltstone, sandy, to sandstone, argillaceous, laminated, dark grey; blocky to bedded.	4	379
35	Sandstone, fine-grained; thick-bedded; brown weathering.	3	375
34	Siltstone, sandy, laminated, to sandstone, argillaceous, bedded.	8	372
33	Sandstone and siltstone; channel-fill and lenticular bodies.	5	364
32	Siltstone, sandy, argillaceous, bedded; grades into fine-grained sandstone; some channel-fill.	13	359
31	Sandstone, fine-grained, laminated, siliceous, hard; brown weathering.	5	346
30	Siltstone, very argillaceous; blocky to massive; dark grey; rusty weathering.	7	341
29	Sandstone, fine-grained, laminated, siliceous, grey; rusty brown weathering; thick-bedded; channel-fill structures, 5' thick; shale and siltstone, 40%, between channels.	21	334
28	Sandstone, fine-grained, laminated, siliceous, grey; brown weathering.	2	313
27	Siltstone, sandy, argillaceous, laminated; blocky to flaggy; grades into argillaceous sandstone at top.	22	311

Unit	Lithology	Thickness (feet)	Height above base (feet)
26	Sandstone, fine-grained, laminated; channel-fill.	3	289
25	Mudstone, rubbly; rusty weathering.	5	286
24	Siltstone, argillaceous; blocky; grading into sandstone, very argillaceous, laminated; some lenticular sandstone, fine-grained.	14.5	281
23	Sandstone, fine-grained, laminated, brown weathering.	1.5	266.5
	GSC loc. 52221 Belemnitacea (true belemnites) genus and species indet. Inoceramus? sp. indet.		
22	Mudstone, silty; blocky; rusty weathering; grades into siltstone, argillaceous, blocky to flaggy; some interbedded shale.	21	265
21	Sandstone, fine-grained, grey; thick-bedded; brown weathering.	5	244
20	Siltstone, very argillaceous; blocky; very sandy and flaggy in lower half.	10	239
19	Sandstone, fine-grained, siliceous; thick-bedded; light brown weathering.	1.5	229
18	Mudstone, silty; blocky; rusty weathering.	7.5	227.5
17	Siltstone, very argillaceous; blocky; sandy and laminated at top.	13	220
16	Sandstone, fine-grained, grey, siliceous; thick-bedded; rusty brown weathering.	5	207
15	Mudstone, silty, to siltstone, argillaceous, dark grey; blocky.	15	202

Unit	Lithology	Thickness (feet)	Height above base (feet)
14	Sandstone, fine-grained, grey, laminated, siliceous; brown weathering.	3	187
13	Siltstone, argillaceous, to mudstone; dark grey.	6	184
12	Siltstone, argillaceous; some mudstone; three beds, each 1' thick with fossils, sandstone, laminated, orange weathering; thin-bedded.	12	178
11	Shale, platy, silty; grading upward into interbedded sandstone and shale, 50%; few thin beds of shell debris.	15	166
10	Sandstone, brown, laminated, highly fossiliferous.	3.5	151
	GSC loc. 52200 *Buchia* n. sp. aff. *inflata* (Toula)		
9	Siltstone, argillaceous to sandy; few thin beds of shell debris.	11.5	147.5
8	Sandstone, fine-grained, siliceous, laminated; some interbedded siltstone, argillaceous, dark grey.	4	136
	GSC loc. 52218 *Buchia* n. sp. aff. *inflata* (Toula) *Acroteuthis* cf. *A. subquadratus* (Roemer)		
7	Mudstone, silty, to siltstone, argillaceous, dark grey, flaggy; sandier at top; beds 1"-3".	20	132
6	Covered.	10	112
5	Siltstone, sandy, argillaceous, dark grey, laminated; some sandstone, especially at top.	18	102

Unit	Lithology	Thickness (feet)	Height above base (feet)
4	Sandstone, fine-grained, laminated, grey, silty; interbedded siltstone and shale (40%); beds 2"-1'.	18	84
	GSC loc. 52197 Acroteuthis sp. indet. ?		
3	Shale, silty; platy; thin siltstone layers.	5	66
2	Sandstone, fine-grained, finely laminated, black; platy to thin-bedded; some interbedded shale.	3	61
1	Covered.	58	58
	MONTEITH FORMATION		
	Unit 2		
25	Sandstone, fine-grained, laminated to homogeneous; somewhat silty with some platy siltstone and shale at base; cleaner and laminated at top; grey weathering.	15	599
24	Sandstone, fine-grained, laminated to homogeneous, siliceous, dark grey; thin-bedded; grey weathering.	35	584
23	Sandstone, fine-grained, platy to flaggy; some interbedded siltstone and sandstone.	16	549
22	Covered.	5	533
21	Sandstone, fine-grained, laminated to homogeneous, siliceous, brownish grey; thick-bedded; grey weathering.	12	528
20	Mostly covered. Interbedded siltstone and shale; platy.	55	516

Unit	Lithology	Thickness (feet)	Height above base (feet)
19	Sandstone, fine-grained; flaggy; brownish grey.	8	461
18	Sandstone, fine-grained, laminated; ferruginous, brownish grey, calcareous; thin- to thick-bedded; grey weathering; cleaner at top.	69	453
17	Interbedded sandstone and siltstone; not well exposed.	6	384
16	Sandstone, fine-grained, laminated, siliceous, grey; thin-bedded but massive appearance; grey weathering.	10	378
15	Sandstone, fine-grained, laminated, brown, ferruginous; some interbedded siltstone; brown weathering.	13	368
14	Covered. Some interbedded siltstone and mudstone.	19	355
	Unit 1 (?)		
13	Sandstone, fine-grained, laminated, brownish grey, siliceous; thick-bedded to massive; light brown weathering.	14	336
12	Mudstone, silty, black; some interbedded siltstone, platy.	5	322
11	Sandstone, fine-grained, laminated, brown; brown weathering.	10	317
10	Covered.	24	307
9	Sandstone, fine-grained, laminated, grey; thin-bedded.	7	283
8	Mostly covered. Interbedded mudstone and siltstone; some sandstone.	36	276

Unit	Lithology	Thickness (feet)	Height above base (feet)
7	Sandstone, fine-grained, laminated, quartzose, siliceous; thin- to thick-bedded; better sorted at top.	49	240
6	Covered. Some interbedded siltstone and shale.	60	191
5	Sandstone, fine-grained, laminated, ferruginous, calcareous, brown; thick-bedded; grey to brown weathering.	17	131
4	Covered. Interbedded mudstone and siltstone.	50	114
3	Sandstone, fine-grained, quartzose, grey, siliceous, hard, ferruginous; thick-bedded; grey weathering.	12	64
2	Covered.	17	52
1	Sandstone, fine-grained, quartzose, siliceous, hard, grey; thick-bedded to massive; grey to rusty weathering; thin layers of coarse-grained sandstone at top.	35	35
	FERNIE FORMATION		
16	Sandstone, fine-grained, laminated, siliceous, grey; interbedded siltstone and shale, 30%, rusty weathering; flaggy to thin-bedded.	15	321
15	Shale, silty, dark grey; platy; rusty weathering; some thin siltstone at top; grades into overlying unit.	11	306
14	Sandstone, fine-grained, laminated, grey, siliceous, rusty weathering; interbedded siltstone and shale, 40%.	11	295

Unit	Lithology	Thickness (feet)	Height above base (feet)
13	Siltstone and shale interbedded; dark grey, platy; rusty weathering; some platy sandstone; grades into overlying unit.	13	284
12	Sandstone, fine-grained, quartzose, hard, siliceous, laminated; beds 2"-6"; interbedded siltstone and shale, 40%, platy; more sand near top.	6	271
11	Shale and siltstone, 40%; thinly interbedded; platy; rusty weathering.	10	265
10	Sandstone, fine-grained, laminated; platy; crosslaminated.	2	255
	Unit 3		
9	Mudstone, silty; platy; rusty weathering; few thin sideritic concretions; mostly talus covered; few inches of sandy glauconitic mudstone (Unit 4) near top.	44	253
8	Talus covered. Shale, much as below; reddish sideritic concretions.	55	209
	SI 198-62 Haplophragmoides spp. Haplophragmoides canui Cushman, 1930, fide Tappan, 1955 Trochammina spp. ? Psamminopelta sp. ? Reophax sp. Ammobaculites sp. cf. A. barrowensis Tappan, 1955 ? Proteonina sp. Age: Callovian		
7	Talus covered. Mudstone, silty, black; blocky; glauconitic in lower 10'.	44	154

Unit	Lithology	Thickness (feet)	Height above base (feet)
	SI 197-62 Haplophragmoides canui Cushman, 1930 fide Tappan, 1955 Haplophragmoides spp. Trochammina sp. ? Bathysiphon sp. Ammodiscus cf. A. orbis (Lalicker) fide Tappan, 1955 Ammodiscus sp. ? Ammodiscus-Glomospirella sp. Ammobaculites cf. A. Succinctus Crespin, 1963 ? Ammobaculoides sp. Glomospira pattoni Tappan, 1955 Spiroplectammina sp. cf. Tappan, 1955 Proteonina-Saccammina spp. indet. Age: Callovian		
6	Mostly talus covered. Siltstone, black, rubbly, glauconitic.	3	110
	SI 196-62 ? Diatoms		
	Unit 2		
5	Mostly covered. Shale, black, rubbly to papery; rusty weathering.	23	107
	Nordegg Member		
4	Siltstone, argillaceous, blocky, calcareous, phosphatic.	1	84
3	Siltstone, argillaceous, black, laminated, calcareous; brownish grey weathering.	4	83
2	Shale, silty, black, calcareous; platy; some platy siltstone.	14	79

Unit	Lithology	Thickness (feet)	Height above base (feet)
1	Mostly covered. Siltstone, calcareous, black, hard; shale, calcareous, black, platy to papery.	65	65
	TRIASSIC		
	PARDONET FORMATION		
	Limestone, bioclastic, bluish grey, thin-bedded; highly fossiliferous.		
	GSC loc. 52239, 65936 *Monotis subcircularis* Gabb Age: Norian, *Monotis subcircularis* zone.		

Section 62-11

Fernie, Monteith, and Beattie Peaks and (?) younger beds, western flank of westernmost syncline containing Cretaceous rocks, 56°51'N, 123°21'W, Halfway River map-area, British Columbia.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	GETHING FORMATION		
2	Conglomerate; pebbles averaging 1/4"; sandy matrix.	1	90
1	Sandstone, fine-grained, laminated, brownish grey, calcareous; massive; grey weathering.	89	89
	MINNES GROUP		
	BEATTIE PEAKS FORMATION and (?) YOUNGER BEDS		
15	Covered.	165	1,520

Unit	Lithology	Thickness (feet)	Height above base (feet)
14	Sandstone, fine-grained, brownish grey, laminated.	3	1,355
13	Covered.	80	1,352
12	Sandstone, fine-grained, laminated, brownish grey; platy.	24	1,272
11	Covered.	29	1,248
10	Sandstone, fine-grained, calcareous, brownish grey; thin-bedded.	22	1,219
9	Covered.	15	1,197
8	Sandstone, fine-grained, calcareous, brownish grey, laminated, ferruginous; massive to thick-bedded; brown weathering.	20	1,182
7	Covered.	17	1,162
6	Sandstone, fine-grained, brownish grey.	10	1,145
5	Covered.	160	1,135
4	Sandstone, fine-grained, brownish grey, siliceous, homogeneous; massive.	7	975
3	Covered.	70	968
2	Sandstone, fine-grained, quartzose, siliceous, white; thick-bedded.	8	898
1	Covered.	890	890

GSC loc. 52216 (about 150 feet above base)
Buchia n. sp. aff. *inflata* (Toula)
Belemnitacea (true belemnites) genus and species indet.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	The following section, obtained across gully on next ridge north, is more completely exposed than the foregoing. The description starts at the base of the Gething Formation.		
33	Covered.	7	578
32	Sandstone, fine-grained, brown; thick-bedded.	2	571
31	Sandstone, fine-grained, laminated, calcareous, cherty; platy; siltstone at top.	6	569
30	Covered, recessive.	20	563
29	Sandstone and mudstone interbedded; poorly exposed; more sandstone at top.	13	543
28	Sandstone, as below.	3	530
27	Covered, recessive.	17	527
26	Sandstone, fine-grained, laminated, brown, calcareous, thin-bedded; brown weathering; few thin silty intervals.	20	510
25	Covered, recessive.	75	490
24	Sandstone, fine-grained, laminated, brown, calcareous; thin-bedded; brown weathering.	7	415
23	Covered.	14	408
22	Sandstone, fine-grained, laminated, brown; thin-bedded.	3	394
21	Mostly covered, recessive; some siltstone and mudstone at base.	84	391

Unit	Lithology	Thickness (feet)	Height above base (feet)
20	Sandstone, fine-grained, laminated, brown, thin-bedded.	2	307
19	Covered.	5	305
18	Sandstone, fine-grained, laminated; calcareous brown, ferruginous; crossbedded; brown weathering; weathers in stacks of plates.	14	300
17	Mudstone, silty, dark olive brown, blocky; thin beds of siltstone, argillaceous, olive brown.	34	286
16	Sandstone, fine-grained, laminated, calcareous, brown; thin-bedded at top; weathers in stacks of plates; ripple-marks.	19	252
15	Covered.	14	233
14	Sandstone, fine-grained, laminated to homogeneous, calcareous, brown; thin- to thick-bedded; brownish grey weathering.	29	219
13	Sandstone, fine-grained, laminated, brown; calcareous; thick-bedded; brown weathering.	3	190
12	Covered.	15	187
11	Sandstone, fine-grained, laminated, calcareous, brown; thick-bedded.	7	172
10	Covered.	24	165
9	Mudstone, silty dark olive brown, blocky; some siltstone, argillaceous, olive brown.	15	141
8	Covered, recessive.	50	126

Unit	Lithology	Thickness (feet)	Height above base (feet)
7	Sandstone, fine-grained, laminated, slightly calcareous, brown; flaggy; brown weathering.	20	76
6	Covered.	14	56
5	Sandstone, fine-grained, homogeneous to laminated, brown, cherty; thin-bedded, becoming thick-bedded at top; brown weathering.	15	42
4	Covered.	9	27
3	Sandstone, fine-grained, homogeneous to laminated, brown, cherty; calcareous; weathering in stacks of plates.	10	18
2	Covered.	5	8
1	Sandstone, fine-grained, homogeneous to laminated, brown, cherty; thin-bedded; brown weathering.	3	3
	Underlain by long covered interval, equivalent mostly to unit 1 of 890 feet in preceding description.		

The remainder of the following section is continuous with Unit 1 of 890 feet in first section of Beattie Peaks and younger beds.

MONTEITH FORMATION

Unit 2

11	Sandstone, fine-grained, ferruginous, siliceous, brown, homogeneous; thin- to thick-bedded; grey weathering.	113	977
10	Sandstone, fine-grained, siliceous; flaggy to platy; grading into overlying unit.	10	864

Unit	Lithology	Thickness (feet)	Height above base (feet)
9	Sandstone, fine-grained, brownish grey, siliceous; thick-bedded; grey weathering.	54	854
8	Covered.	4	800
7	Sandstone, fine-grained, brownish grey, homogeneous, siliceous; thick-bedded; grey to brown weathering.	22	796
6	Covered.	15	774
5	Sandstone, fine-grained, homogeneous, siliceous; thick-bedded; grey to brown weathering.	15	759
4	Covered.	65	744
	Unit 1		
3	Sandstone, fine-grained, quartzose, grey; thin-bedded; brownish grey weathering.	6	679
2	Partly covered. Sandstone, fine-grained; thin-bedded, and some shale.	48	673
1	Covered.	625	625
	FERNIE FORMATION		
7	Shale, rubbly. Poorly exposed.	53	346
6	Covered.	48	293
	Unit 3		
5	Shale, black; rubbly to slightly blocky; rusty weathering.	43	245

Unit	Lithology	Thickness (feet)	Height above base (feet)
4	Shale, black; papery to flaky or rubbly; slightly rusty weathering.	53	202
3	Siltstone to mudstone; blocky, glauconitic; rusty weathering.	3	149
	Nordegg Member		
2	Mostly covered. Black, calcareous platy siltstone and shale. Shale in upper 20 feet-Unit 2?	145	146
1	Breccia, calcareous; comminuted fossil fragments, sand; interbedded with calcareous black siltstone.	1	1
	TRIASSIC		
	PARDONET FORMATION		
	Limestone		
	GSC loc. 52244 Monotis cf. ochotica (Keyserling) Age: Norian		

Section 62-12

Fernie, Monteith, and Gething Formations, east flank of syncline, south of Halfway River, Halfway River map-area, British Columbia, 56°56'N, 123°14'W.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	Top of ridge.		
	GETHING FORMATION		
12	Sandstone, fine-grained, homogeneous, brownish grey; thick-bedded; grey weathering.	30	348

Unit	Lithology	Thickness (feet)	Height above base (feet)
11	Siltstone and shale interbedded; brown; platy.	35	318
10	Sandstone, fine-grained, homogeneous, brownish grey; thick-bedded; grey weathering.	12	283
9	Siltstone, argillaceous, platy.	2	271
8	Sandstone, fine-grained, quartzitic, grey; thick-bedded.	28	269
7	Sandstone, fine-grained, homogeneous, brownish grey to grey; thick-bedded to massive; grey weathering; about 15' of medium-grained sandstone about 20' below top.	95	241
6	Covered.	5	146
5	Sandstone, fine-grained, cherty, laminated, crosslaminated; thick-bedded to massive; grey weathering.	44	141
4	Covered.	14	97
3	Sandstone, fine-grained, cherty, laminated, crosslaminated, grey; thick-bedded; grey weathering; partly covered at top.	29	83
2	Covered.	24	54
1	Sandstone, fine-grained, laminated, calcareous, cherty, grey; thick-bedded to massive; grey weathering.	30	30
	MINNES GROUP		
	MONTEITH FORMATION		
10	Covered.	60	628

Unit	Lithology	Thickness (feet)	Height above base (feet)
9	Mudstone, silty, brownish grey; platy.	8	568
8	Sandstone, very fine grained, laminated, brown; platy; brown weathering.	2	560
7	Covered.	325	558
6	Sandstone, fine-grained, homogeneous, siliceous, grey; thick-bedded; brownish grey weathering.	52	233
5	Covered.	19	181
4	Sandstone, fine-grained, laminated to homogeneous, siliceous, grey; thin-bedded; brown weathering.	27	162
3	Siltstone, sandy, laminated; platy; rusty weathering; grading into sandstone at top, platy to flaggy.	23	135
2	Siltstone, sandy, laminated; grading upward into sandstone, fine-grained, laminated; flaggy to thin-bedded; better sorted at top.	39	112
1	Sandstone, fine-grained, laminated to homogeneous, siliceous, thin-bedded at base, becoming thick-bedded to massive near top; grey weathering; some thin-bedded sandstone at top.	73	73
	FERNIE FORMATION		
27	Siltstone and mudstone interbedded; platy; rusty weathering.	12	499
26	Sandstone, fine-grained, silty, siliceous, laminated; thin-bedded; interbedded siltstone and shale, 30%.	28	487
25	Siltstone, argillaceous, laminated; platy; rusty weathering; some sandstone at top.	10	459

Unit	Lithology	Thickness (feet)	Height above base (feet)
24	Sandstone and shale, interbedded; sandstone, fine-grained, silty, laminated, siliceous, grey; rusty brown weathering.	15	449
23	Siltstone and shale interbedded; platy; rusty weathering.	10	434
22	Sandstone, fine-grained, laminated, brown; brown weathering.	2	424
21	Mudstone, silty; blocky; grading upward into interbedded siltstone and mudstone; siltstone, sandy, laminated, platy, rusty weathering.	23	422
20	Siltstone and sandstone (40%) interbedded; rusty weathering; beds 1/2"-2"; thin coarse-grained sandstone at top.	7	399
19	Sandstone, fine-grained, laminated; thin-bedded.	4	392
18	Siltstone, very argillaceous; platy to blocky; rusty weathering.	6	388
17	Sandstone, very fine grained, siliceous, homogeneous, brownish grey; thick-bedded; grey to brownish grey weathering.	16	382
16	Sandstone and siltstone interbedded; platy.	2	366
15	Sandstone, fine-grained, siliceous, dark grey, homogeneous; thick-bedded.	5	364
14	Mudstone, rubbly at base, becoming blocky toward top; rusty weathering; grading upward into interbedded siltstone and sandstone, laminated; beds 1"-3"; a few small channel structures.	29	359

Unit	Lithology	Thickness (feet)	Height above base (feet)
13	Sandstone, coarse-grained, quartzose, brownish grey; becoming brownish weathering.	1	330
12	Sandstone, fine-grained, laminated, crosslaminated, grey; beds 1/2"-3"; rusty brown weathering; interbedded shale, 25%.	9	329
11	Siltstone, argillaceous; blocky; grading upward into sandstone, fine-grained, silty, laminated, dark grey; platy; some interbedded shale; rusty weathering.	11	320
10	Sandstone, fine-grained, laminated; thin-bedded; brown weathering; some thin beds of silty mudstone.	4	309
9	Shale, rubbly; rusty weathering; grading upward into argillaceous siltstone with some thin sandstone at top.	29	305
8	Covered.	42	276
7	Mudstone, black; rusty weathering.	7	234
	SI 243-62 Trochammina sp. Haplophragmoides spp. Haplophragmoides cf. H. barrowensis Tappan ? Reophax sp. Ammobaculites alaskensis Tappan ? Spiroplectammina sp. Glomospirella sp. Ammobaculites cf. A. succinctus Crespin, 1963 Globulina cf. G. topagorukensis Tappan, 1955 Age: Callovian		
6	Covered, recessive.	67	227

Unit	Lithology	Thickness (feet)	Height above base (feet)
5	Mostly covered. Talus of flaky to rubbly shale, rusty weathering.	70	160
	SI 242-62 Haplophragmoides sp.		
	Nordegg Member		
4	Mostly covered. Siltstone, argillaceous, calcareous, black; flaggy; some nodular chert.	45	90
	GSC loc. 52229 Pectinids (undescribed) Age: Probably Early Jurassic		
3	Siltstone and shale (30%) as above.	15	45
2	Siltstone, argillaceous, black, calcareous, splintery to platy; and interbedded shale.	10	30
1	Covered.	20	20
	TRIASSIC		
	PARDONET FORMATION		
	Limestone, bioclastic; thick-bedded; fossiliferous.		
	GSC loc. 52232 Monotis subcircularis Gabb Age: Norian, Monotis subcircularis zone.		

Section 62-13

Fernie, Monteith, and Beattie Peaks and (?) younger beds, west flank of anticline, south of Chowade River, Halfway River map-area, British Columbia, 56°40'N, 123°04'W.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	GETHING FORMATION		
3	Sandstone, medium- to coarse-grained; massive; grey weathering.	23	46
2	Covered.	13	23
1	Sandstone, medium- to coarse-grained; some conglomeratic lenses; massive; crossbedded.	10	10
	MINNES GROUP		
	BEATTIE PEAKS FORMATION and (?) YOUNGER BEDS		
	Unit 3		
80	Covered.	85	1,580
79	Sandstone, fine-grained, homogeneous, siliceous, brownish grey, ferruginous; massive.	18	1,495
78	Covered.	45	1,477
77	Sandstone, fine-grained, quartzose, white, siliceous; thin-bedded to platy; grey weathering.	27	1,432
76	Covered.	10	1,405
75	Sandstone, fine-grained; platy; brown.	2	1,395
74	Covered.	9	1,393
73	Sandstone, fine-grained, slightly calcareous; platy; brown weathering.	5	1,384
72	Mudstone and siltstone, interbedded.	4	1,379
71	Sandstone, fine-grained, brown, argillaceous at base; platy; grades upward into thick-bedded sandstone.	17	1,375

Unit	Lithology	Thickness (feet)	Height above base (feet)
70	Sandstone, fine-grained, brown, laminated, cherty, slightly calcareous; massive; grey weathering.	23	1,358
69	Covered.	9	1,335
68	Sandstone, fine-grained, brown, laminated.	2	1,326
67	Covered.	4	1,324
66	Sandstone, medium- to coarse-grained, cherty, grey, laminated, siliceous; thick-bedded; grey weathering.	5	1,320
65	Covered.	7	1,315
64	Sandstone, fine-grained, brown; flaggy; grey weathering.	5	1,308
63	Siltstone and shale; platy; rusty weathering.	9	1,303
62	Sandstone, fine-grained, brown, cross-laminated; flaggy; crossbedded.	10	1,294
61	Covered.	2	1,284
60	Sandstone, fine-grained; platy.	3	1,282
59	Mudstone, olive-brown; rubbly.	6	1,279
58	Sandstone, fine-grained, laminated; platy; brown weathering.	7	1,273
57	Covered.	32	1,266
56	Sandstone, fine-grained, brownish grey, ferruginous; platy; brown weathering.	6	1,234
55	Covered.	9	1,228
54	Sandstone, fine-grained, grey, argillaceous at base; thin-bedded; grey weathering.	12	1,219

Unit	Lithology	Thickness (feet)	Height above base (feet)
53	Covered.	7	1,207
52	Sandstone, as above.	8	1,200
51	Covered.	12	1,192
50	Sandstone, platy; brown weathering.	7	1,180
49	Sandstone, fine-grained, homogeneous, siliceous, dark grey; massive; grey weathering; argillaceous and thin-bedded at base.	20	1,173
48	Covered.	13	1,153
47	Sandstone, fine- to medium-grained, laminated to homogeneous, cherty, grey, calcareous; thick-bedded; grey weathering.	10	1,140
46	Sandstone, fine-grained, laminated; platy.	4	1,130
45	Sandstone, fine-grained; reddish brown weathering.	5	1,126
44	Sandstone, fine-grained, laminated; platy; light brown weathering.	2	1,121
43	Covered.	9	1,119
42	Sandstone, fine-grained; platy.	10	1,110
41	Covered. Approximately.	85	1,100
40	Sandstone, fine-grained; platy.	2	1,015
39	Covered.	20	1,013
38	Sandstone, fine-grained, laminated, calcareous, brown; platy.	4	993
37	Covered.	15	989

Unit	Lithology	Thickness (feet)	Height above base (feet)
36	Sandstone, fine-grained; platy.	1	974
35	Covered.	9	973
	Unit 2		
34	Sandstone, fine-grained, laminated, very calcareous; massive to thick-bedded; grey to brown weathering; few pebbles and some coarse-grained sandstone at top.	10	964
33	Covered.	12	954
32	Sandstone, fine-grained, brown, laminated, calcareous.	2	942
31	Covered.	11	940
30	Sandstone, fine-grained, brown, laminated, calcareous; thick-bedded; brown weathering.	6	929
29	Covered.	6	923
28	Sandstone, fine-grained, laminated, brownish grey, calcareous; thin-bedded to flaggy; brownish grey weathering.	19	917
27	Covered.	9	898
26	Sandstone, fine-grained, brown, laminated.	7	889
25	Partly covered. Some platy sandstone.	7	882
24	Sandstone, as above.	5	875
23	Covered.	23	870
22	Sandstone, fine-grained, brown, laminated, very calcareous, crosslaminated; platy; brown weathering.	9	847

Unit	Lithology	Thickness (feet)	Height above base (feet)
21	Covered.	15	838
20	Sandstone, fine-grained, brown, laminated, very calcareous, cherty; crosslaminated; platy; brown weathering.	5	823
19	Covered.	10	818
18	Sandstone, fine-grained.	1	808
17	Covered.	8	807
16	Sandstone, fine-grained, laminated, brownish grey, calcareous; brownish grey weathering; massive, becoming platy at top.	34	799
15	Partly covered. Sandstone, fine-grained, laminated, flaggy to thin-bedded; some recessive intervals.	44	765
	GSC loc. 52217 Buchia n. sp. aff. B. inflata (Toula) Acroteuthis ? sp. indet.		
14	Sandstone, fine-grained, laminated, calcareous; flaggy to thin-bedded; grey weathering; weathers in stacks of plates.	18	721
	Unit 1		
13	Covered. Approximately.	575	703
12	Mudstone and interbedded siltstone; platy.	20	128
	GSC loc. 52207 Buchia n. sp. aff. B. inflata (Toula) (common) Buchia aff. B. crassicollis Keyserling s. str. (rare)		

Unit	Lithology	Thickness (feet)	Height above base (feet)
11	Sandstone and interbedded siltstone; laminated; platy to flaggy.	6	108
10	Mudstone and interbedded siltstone; dark grey.	5	102
9	Sandstone, fine-grained; interbedded with argillaceous siltstone, platy.	6	97
8	Mudstone and interbedded argillaceous siltstone; platy; grey.	21	91
7	Sandstone, fine-grained, laminated.	2	70
6	Mudstone, black to grey; platy; some interbedded laminated siltstone.	10	68
5	Sandstone, fine-grained, laminated, siliceous, grey; interbedded siltstone and shale, 30%.	8	58
4	Mudstone, dark grey, silty; interbedded sandv siltstone, 40%; few beds of very fine grained sandstone, laminated.	33	50
3	Sandstone, fine-grained, laminated, siliceous, brownish grey; thin-bedded.	3	17
2	Siltstone, argillaceous, black; blocky; interbedded sandstone, argillaceous, very fine grained.	7	14
1	Covered.	7	7
	MONTEITH FORMATION		
	Unit 2		
28	Sandstone, fine-grained, quartzose, siliceous; thick-bedded; layers of coarse-grained sandstone; lenticular conglomerate with black chert pebbles along slope.	14	685

Unit	Lithology	Thickness (feet)	Height above base (feet)
27	Sandstone, fine-grained, quartzose; lenses and streaks of conglomerate; quartz and chert pebbles, white, black, 1/4"-1/2".	4	671
26	Sandstone, fine-grained, laminated; thin- to thick-bedded.	28	667
25	Sandstone, argillaceous, black, fine-grained; massive; grey weathering; better sorted at top.	70	639
24	Sandstone, fine-grained, quartzose, dark brownish grey, siliceous, homogeneous to slightly laminated; massive; grey weathering.	21	569
23	Recessive.	4	548
22	Sandstone, fine-grained, quartzose, homogeneous to slightly laminated, siliceous, dark brownish grey; massive; grey weathering.	113	544
21	Sandstone, fine-grained, laminated, crosslaminated, siliceous, thin-bedded to flaggy; brownish grey; brownish grey weathering.	19	431
20	Sandstone, argillaceous, to siltstone; platy.	4	412
19	Sandstone, fine-grained, laminated, crosslaminated, siliceous, grey; flaggy to thin-bedded; some wavy bedding; grey weathering; slightly coarser at top.	24	408
18	Mudstone, silty, dark grey; platy; grading upward into siltstone, argillaceous and sandy.	23	384

Unit	Lithology	Thickness (feet)	Height above base (feet)
	Unit 1		
17	Sandstone, fine-grained, quartzose, brownish grey, siliceous; thin- to thick-bedded; grey weathering.	37	361
16	Siltstone and sandstone, laminated (not all accessible).	80	324
15	Sandstone, thick-bedded to massive; (inaccessible).	20	244
14	Sandstone, fine-grained, laminated, beds 1/2"-1"; interbedded siltstone and shale, 30%.	25	224
13	Siltstone, argillaceous at base; platy; grades upward into interbedded sandstone and siltstone; beds 2"-4".	19	199
12	Sandstone, fine-grained, laminated; massive to thick-bedded; grey weathering.	5	180
11	Siltstone and shale interbedded (inaccessible).	33	175
10	Sandstone, fine-grained, grey; some siltstone, 20%; thin-bedded.	9	142
9	Sandstone, fine-grained, grey laminated; interbedded siltstone, 30%; beds 2"-6".	14	133
8	Siltstone, argillaceous, dark grey; some fine-grained sandstone and mudstone (mostly inaccessible).	70	119
7	Sandstone, fine-grained, laminated; thick-bedded.	12	49
6	Siltstone and interbedded sandstone.	1	37
5	Sandstone, fine-grained, laminated, grey.	2	36

Unit	Lithology	Thickness (feet)	Height above base (feet)
4	Siltstone and interbedded sandstone.	1	34
3	Sandstone, fine-grained, laminated, grey; thin-bedded.	3	33
2	Sandstone, silty, laminated; platy; siltstone, 25%; beds 1/2"-2".	25	30
1	Sandstone, fine-grained, laminated, grey, siliceous; thick-bedded.	5	5
	FERNIE FORMATION		
	Unit 6		
24	Sandstone, fine-grained, and siltstone; laminated; some mudstone at base.	7	595
23	Sandstone, argillaceous; poorly bedded; 6" coarse-grained sandstone and conglomerate at base.	6	588
22	Siltstone, sandy to sandstone, very fine grained, laminated, grey, siliceous; platy; beds 1/2"-1", few 4" beds of sandstone; rusty brown weathering.	25	582
21	Mudstone, silty; blocky; rusty weathering.	8	557
20	Sandstone, coarse-grained, conglomeratic; small pebbles of white and black chert, maximum 1 1/2".	1	549
19	Sandstone, fine-grained, grey, siliceous, laminated; thin-bedded; grey weathering.	2	548
	Unit 5		
18	Siltstone, argillaceous, platy; interbedded shale at base, rusty weathering; sandier towards top and interbedded with 1"-3" beds of silty, laminated, fine-grained sandstone.	24	546

Unit	Lithology	Thickness (feet)	Height above base (feet)
17	Mudstone, dark grey to black, rusty weathering; rubbly to blocky.	27	522
16	Siltstone, argillaceous; becoming sandy and laminated toward top; rusty weathering; bedded.	13	495
15	Mudstone, black; rubbly, becoming blocky at top; rusty weathering.	32	482
	Unit 4		
14	Mudstone, blocky; rusty weathering; 6" hard, silty bed at top.	16	450
13	Siltstone, argillaceous, glauconitic.	1	434
	Unit 3		
12	Mudstone, rubbly at base; grading upward into siltstone, argillaceous, blocky, dark grey, rusty weathering.	46	433
11	Mudstone, dark grey to black; rubbly to blocky; rusty weathering.	38	387
10	Covered. Talus of shale.	24	349
9	Shale, dark grey to black; rubbly; rusty weathering.	27	325
8	Shale, black, rubbly, rusty weathering; rare sideritic layer.	30	298
7	Shale, black, rubbly, rusty weathering; few sideritic layers 2"-6"; siltier at top.	63	268
6	Shale, dark grey to black; rubbly; rusty weathering.	45	205

Unit	Lithology	Thickness (feet)	Height above base (feet)
	Unit 2 (?) and Nordegg Member		
5	Covered. Shale, rubbly, exposed up gully to south.	90	160
	(contact of Nordegg Member is probably within this interval)		
4	Shale, black, calcareous; platy; siltier at top.	23	70
3	Partly covered. Siltstone and shale as below.	30	47
2	Siltstone, calcareous, bluish grey, laminated; thin- to thick-bedded; brownish grey weathering.	5	17
1	Siltstone, black, calcareous; shale, platy.	12	12
	TRIASSIC		
	PARDONET FORMATION		
	Limestone, bioclastic, bluish grey; thick-bedded; brown weathering.		
	GSC loc. 52236 *Monotis subcircularis* Gabb Age: Norian, *Monotis subcircularis* zone.		

Section 62-14

Fernie and Monteith Formations, syncline west of Mount Stearns, Trutch map-area, British Columbia, 57°02'N, 123°26'W.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	Top of ridge.		
	BEATTIE PEAKS FORMATION		
3	Covered, recessive.	145	153
	GSC loc. 52212 Buchia n. sp. aff. inflata (Toula) Acroteuthis sp. indet.		
	GSC loc. 52198 This collection was obtained farther along ridge from beds lying within Beattie Peaks Formation, probably at about same stratigraphic position. Buchia cf. sublaevis (Keyserling)		
2	Sandstone, fine-grained, laminated, thin-bedded to flaggy.	4	8
1	Covered.	4	4
	MONTEITH FORMATION		
	Unit 2		
36	Sandstone, fine-grained, laminated, brown; thin-bedded; brown weathering; 1" conglomerate at top.	18	558
35	Covered. Shale at base.	32	540
34	Sandstone, fine-grained, brownish grey, laminated; thick-bedded.	24	508
33	Mostly covered. Siltstone and mudstone.	20	484
32	Sandstone, fine-grained, laminated; thick-bedded.	13	464

Unit	Lithology	Thickness (feet)	Height above base (feet)
31	Sandstone, fine-grained, laminated, brown, siliceous; thin- to thick-bedded; interbedded platy shale, 50%.	30	451
30	Covered.	5	421
29	Sandstone, fine-grained, laminated, siliceous, brownish grey; thin-bedded; brownish grey weathering; carbonaceous at top.	21	416
28	Siltstone and interbedded mudstone; platy; some beds of fine-grained laminated sandstone.	24	395
27	Sandstone, fine-grained, laminated; brownish grey; thin-bedded.	3	371
26	Sandstone and siltstone interbedded; grading upward into thin-bedded sandstone.	9	368
25	Sandstone, fine-grained, argillaceous; thin-bedded to flaggy; brownish grey weathering.	10	359
24	Siltstone and shale, interbedded; platy.	4	349
23	Sandstone, fine-grained, homogeneous, grey; thin-bedded.	19	345
22	Sandstone, interbedded siltstone and mudstone; beds 2"-6".	11	326
21	Sandstone, fine-grained, flaggy.	1	315
20	Mudstone, silty, dark grey; grading upward into argillaceous siltstone; platy to flaggy; some thin beds of sandstone.	37	314
	Unit 1		
19	Sandstone, fine-grained, grey, homogeneous, brownish grey; flaggy to thin-bedded (mostly inaccessible).	40	277

Unit	Lithology	Thickness (feet)	Height above base (feet)
18	Mudstone and interbedded siltstone; platy.	4	237
17	Sandstone, fine-grained, grey, siliceous; thick-bedded; brown weathering; some thin beds of mudstone.	12	233
16	Siltstone and mudstone; platy; brown weathering.	10	221
15	Sandstone, fine-grained; thin-bedded to flaggy.	5	211
14	Mudstone, silty; platy; interbedded siltstone, 25%; becoming siltier at top with some 2"-3" beds of fine-grained sandstone.	29	206
13	Sandstone, silty; flaggy, laminated, dark grey; some interbedded siltstone and shale.	15	177
12	Sandstone, fine-grained, homogeneous, grey; thick-bedded; brown weathering.	5	162
11	Sandstone, fine-grained, laminated; thick-bedded; interbedded siltstone and shale, 30%.	12	157
10	Siltstone and mudstone, interbedded; platy to flaggy.	7	145
9	Sandstone, fine-grained, laminated to homogeneous; brownish grey; some interbedded siltstone.	3	138
8	Mudstone, silty, dark grey; rubbly.	6	135
7	Mudstone and interbedded siltstone (40%); becoming sandier at top; platy to flaggy.	15	129
6	Siltstone and interbedded mudstone; flaggy.	14	114

Unit	Lithology	Thickness (feet)	Height above base (feet)
5	Sandstone, fine-grained, laminated, grey; flaggy to thin-bedded; interbedded siltstone and shale, 30%; sandier at top.	11	100
4	Partly covered. Mudstone and siltstone; grading upward into interbedded sandstone and siltstone.	25	89
3	Sandstone, very fine grained, homogeneous, ferruginous, brown; thick-bedded to massive.	14	64
2	Mudstone, silty, and some siltstone.	25	50
1	Sandstone, fine-grained, siliceous, thick-bedded; some interbedded siltstone.	25	25
	FERNIE FORMATION		
16	Sandstone and siltstone (40%); beds 2"-6".	5	791
15	Siltstone and interbedded mudstone; becoming siltier at top with some beds of sandstone.	17	786
14	Sandstone and interbedded siltstone, 40%; platy to flaggy; grading into sandstone at top.	18	769
13	Mudstone, silty at base; platy; grades into overlying unit.	29	751
12	Siltstone and interbedded shale.	9	722
11	Mudstone, silty; rubbly; rusty weathering; grades into overlying unit.	25	713
10	Siltstone and interbedded shale; platy to flaggy.	6	688

Unit	Lithology	Thickness (feet)	Height above base (feet)
9	Sandstone and siltstone; sandstone, fine-grained, quartzose, laminated; beds 2"-6".	7	682
8	Mudstone, silty, dark grey; blocky to platy; becoming siltier at top and grading into overlying unit.	24	675
7	Sandstone, medium- to coarse-grained; lenses and streaks of fine, quartzose conglomerate; rusty brown weathering.	3	651
6	Partly covered. Shale, rubbly; rusty weathering; some sideritic concretions in upper part.	265	648
5	Shale, dark grey to black; rubbly; rusty weathering.	45	383
4	Covered. Some rusty weathering, rubbly shale at 115'.	200	338
	Nordegg Member		
3	Shale, black, calcareous, silty; platy.	5	138
2	Siltstone, very calcareous, black; thick-bedded.	3	133
1	Covered.	130	130
	TRIASSIC		
	PARDONET FORMATION		
	Limestone, bluish grey, dense, thick-bedded; brownish weathering.		

Section 62-15

Fernie and Monteith Formations, between Cypress and Chowade River, peak with elevation 6,596', Halfway River map-area, British Columbia, 56°48'N, 123°05'W.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	Top of ridge.		
	GSC Localities:		
	The following collections were taken from talus similar to Beattie Peaks lithology lying on uppermost beds of Monteith conglomerate. Beattie Peaks strata occur on back slope and the fossils presumably come from beds near the base.		
	GSC loc. 52220 *Buchia* n. sp. aff. *B. inflata* (Toula) (common) *Buchia* aff. *B. crassicollis* (Keyserling) s. str. (rare)		
	GSC loc. 46516 *Buchia* n. sp. aff. *B. inflata* (Toula) *Buchia* cf. *B. keyserlingi* (Trautschold) *Buchia* cf. *B. sublaevis* (Keyserling) *Acroteuthis* sp. indet. *Cylindroteuthis*? sp. indet.		
	MONTEITH FORMATION		
	Unit 2		
25	Sandstone, fine-grained, massive; cobbles 2"-3" at top.	125-150 (approx.)	718
24	Sandstone, fine-grained; siliceous; massive; partly covered.	50	568
23	Sandstone, fine-grained, grey; massive; grey weathering; partly covered.	85	518
22	Covered.	6	433

Unit	Lithology	Thickness (feet)	Height above base (feet)
21	Sandstone, brown, homogeneous, laminated; massive.	5	427
20	Covered.	15	422
19	Sandstone, fine-grained, quartzose, brown, siliceous; thick-bedded; grey weathering.	6	407
18	Talus covered. Mudstone, brownish grey; blocky.	17	401
	Unit 1		
17	Conglomerate; pebbles average 1/4", quartz, quartzite; white; some black chert.	3	384
16	Sandstone, fine-grained, laminated, silty, at base; platy; grey weathering.	40	381
15	Sandstone, fine-grained, thin- to thick-bedded (mostly inaccessible).	50	341
14	Sandstone, fine-grained, homogeneous, quartzose, medium grey; massive to thick-bedded; grey weathering.	45	291
13	Mudstone, very silty; grading upward into interbedded siltstone and mudstone with thin beds of sandstone at top.	49	246
12	Siltstone and interbedded shale; inaccessible.	15	197
11	Sandstone, fine-grained, laminated; thin- to thick-bedded; some interbedded siltstone and shale.	19	182
10	Sandstone, with interbedded siltstone, 30%, and shale, 30%; platy.	10	163
9	Sandstone, fine-grained; thick-bedded.	12	153

Unit	Lithology	Thickness (feet)	Height above base (feet)
8	Siltstone and interbedded mudstone; some sandstone.	30	141
7	Sandstone, fine-grained, laminated, grey; thick-bedded.	5	111
6	Interbedded sandstone 60%, siltstone, and shale; platy to thin-bedded; rusty weathering; sandier at top.	33	106
5	Sandstone, fine-grained, laminated, grey, light brown weathering; thick-bedded.	9	73
4	Partly covered. Interbedded siltstone and mudstone.	11	64
3	Sandstone, fine-grained, laminated, grey; thick-bedded; light brown weathering; some siltstone.	25	53
2	Partly covered. Interbedded sandstone and siltstone.	8	28
1	Sandstone, fine-grained, becoming medium-grained at top, medium to brownish grey, siliceous; massive; brown weathering.	20	20
	FERNIE FORMATION		
	Unit 6		
36	Sandstone, fine-grained, quartzose, laminated, siliceous, grey; grey weathering; thin interbeds of siltstone and mudstone.	10	482
35	Siltstone, sandy, laminated; grading upward into sandstone, laminated, platy; some interbedded mudstone.	15	472

Unit	Lithology	Thickness (feet)	Height above base (feet)
34	Sandstone, fine-grained, brownish grey, siliceous, laminated; interbedded siltstone and mudstone, 30%; beds 4"-1"; shaly in upper 10'.	26	457
33	Sandstone, medium- to coarse-grained, homogeneous, grey; rusty brown weathering.	2	431
32	Sandstone and mudstone interbedded, beds 2"-6"; sandstone, fine-grained, brownish grey, siliceous; yellow weathering.	6	429
31	Mudstone, silty; grading upward into siltstone, sandy, rusty weathering.	10	423
30	Sandstone, fine-grained, laminated, siliceous, grey; rusty weathering; beds 4"-1'; interbedded siltstone and shale, 35%.	8	413
	Unit 5		
29	Mudstone, silty, rubbly; grading into interbedded siltstone and mudstone at top; rusty weathering.	23	405
28	Mudstone, rubbly, rusty weathering; siltier at top with 1' of coarse-grained argillaceous sandstone.	10	382
	Unit 4		
27	Mudstone, very silty; blocky; rusty weathering.	3	372
26	Mudstone, rubbly to blocky, rusty weathering; few sideritic beds.	43	369
25	Siltstone, argillaceous, glauconitic.	1	326

Unit	Lithology	Thickness (feet)	Height above base (feet)
	Unit 3		
24	Mudstone, blocky; rusty weathering; some siltstone.	30	325
23	Mudstone, black, rubbly to blocky; grey weathering; sulphurous at base, becoming rusty weathering at top.	52	295
22	Mudstone, black; rubbly; grey weathering; highly sulphurous.	20	243
21	Mudstone, rubbly, black; rusty weathering; yellow efflorescence.	20	223
20	Mudstone, rubbly, black; rusty weathering; yellow efflorescence; thin bentonite at top.	32	203
19	Mudstone, rubbly; rusty weathering; becoming blocky toward top and grading into siltstone, argillaceous; few hard beds at top.	15	171
	Unit 2		
18	Shale, platy to flaky at base, calcareous; grading upward into rubbly, rusty weathering mudstone with yellow efflorescence.	23	156
	Nordegg Member		
17	Siltstone, dark grey; phosphatic and cherty layer at top.	2	133
16	Shale, dark grey, platy; brown to rust weathering.	6	131
15	Mudstone, dark grey to black; rubbly; rusty weathering; grades into phosphatic siltstone at top.	6	125

Unit	Lithology	Thickness (feet)	Height above base (feet)
14	Shale and siltstone interbedded; black, calcareous; platy; hard 4"-6" cherty, phosphatic beds.	12	119
13	Siltstone, calcareous, black, hard; platy.	4	107
	GSC Loc. 52227 Arniotites sp. fragments of pelecypods Age: Sinemmurian		
12	Shale, silty; 4"-6" beds of phosphatic siltstone.	12	103
11	Limestone, argillaceous, dense.	2	91
10	Shale, silty, black, calcareous; platy; 1' argillaceous limestone in middle.	4	89
9	Limestone, argillaceous, dense, hard; underlain by 1' shale.	2	85
8	Shale, black, calcareous, platy; grading upward into platy siltstone, calcareous.	4	83
7	Shale, silty, black, calcareous; platy; grading into platy siltstone, calcareous.	4	79
6	Siltstone and shale, black, calcareous; grading upward into flaggy siltstone at top.	16	75
5	Siltstone and interbedded shale, black, calcareous; platy; grading upward into siltstone, platy to flaggy.	25	59
4	Siltstone, black, calcareous; platy to flaggy.	10	34
3	Mostly covered. Siltstone and shale in talus.	19	24

Unit	Lithology	Thickness (feet)	Height above base (feet)
2	Poorly exposed. Some shale and fine breccia at top with large nodules of black chert.	2	5
1	Shale, silty, black, calcareous; platy; overlain by sandy limestone, grey laminated.	3	3
	Contact not exposed.		
	TRIASSIC		
	PARDONET FORMATION		
	Limestone, dense, bluish grey; thick-bedded; fossiliferous; brown weathering.		
	GSC Loc. 52245 *Monotis subcircularis* Gabb Age: Norian, *Monotis subcircularis* zone.		

Section 62-16

Fernie and Gething Formations, south of Nevis Creek, Trutch map-area, British Columbia, 57°20'N, 123°23'W.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	Top of ridge.		
	GETHING FORMATION		
5	Sandstone, as below with some beds of conglomerate. Partly covered.	150 (approx.)	401
4	Sandstone, fine-grained, laminated, grey; thick-bedded to massive.	120 (approx.)	251

Unit	Lithology	Thickness (feet)	Height above base (feet)
3	Shale, brown, rubbly.	5	131
2	Sandstone, fine-grained, laminated at base, homogeneous at top; thick-bedded to massive.	61	126
1	Sandstone, fine-grained, quartzose, siliceous, homogeneous, greyish white; thick-bedded to massive; grey weathering.	65	65
	MINNES GROUP		
	MONTEITH FORMATION		
24	Covered, recessive.	35	356
23	Sandstone, fine-grained, brownish grey, slightly calcareous; rusty brown weathering; thick-bedded.	33	321
22	Mudstone, dark grey; blocky; some interbedded sandstone.	14	288
21	Sandstone, fine-grained, brown; thick-bedded; rusty weathering.	4	274
20	Mudstone, dark grey; blocky.	5	270
19	Sandstone, fine-grained, laminated to homogeneous, brownish grey; thick-bedded to massive, slightly calcareous; rusty brown to grey weathering.	21	265
18	Mudstone, dark grey; rubbly to blocky; covered in upper part.	15	244
17	Sandstone, fine-grained, laminated, brownish grey, calcareous; thick-bedded to massive; rusty to grey weathering.	35	229
16	Mudstone, dark grey, blocky; rusty weathering.	1	194

Unit	Lithology	Thickness (feet)	Height above base (feet)
15	Sandstone, fine- to medium-grained, slightly laminated, grey; thick-bedded to massive; slightly calcareous; rusty to grey weathering.	12	193
14	Mostly covered. Mudstone, blocky, dark grey to black.	46	181
13	Sandstone, fine-grained, grey siliceous; thick-bedded; rusty to grey weathering.	12	135
12	Covered.	30	123
11	Mudstone, rubbly to blocky; dark grey.	10	93
10	Sandstone, fine-grained, laminated, light brownish grey; thick-bedded; siliceous; brown weathering.	21	83
9	Siltstone, sandy, dark grey; platy; some interbedded mudstone.	9	62
8	Mudstone, dark grey; rubbly.	3	53
7	Sandstone, fine-grained, laminated; platy to flaggy; rusty brown weathering.	2.5	50
6	Mudstone, dark grey; rubbly; dark grey; rusty weathering.	1.5	47.5
5	Sandstone, fine-grained, quartzose, siliceous, light brownish grey; rusty weathering.	5	46
4	Mudstone, rubbly; rusty weathering.	2	41
3	Sandstone, fine-grained, quartzose, light brownish grey; thick-bedded.	15	39
2	Mudstone, silty; rusty weathering.	1	24
1	Sandstone, fine-grained, quartzose, laminated to homogeneous, light brownish grey; thin-bedded at base		

Unit	Lithology	Thickness (feet)	Height above base (feet)
	with some siltstone; more thickly bedded at top; siliceous, ferruginous; light brown weathering.	23	23
	FERNIE FORMATION		
25	Shale and interbedded siltstone, 25%, black; platy, rusty weathering.	17	346
24	Shale and interbedded siltstone, 30%; platy; rusty weathering; capped by 2' of argillaceous siltstone, blocky.	16	329
23	Shale, black; rubbly; rusty weathering; yellow efflorescense; talus covered.	28	313
22	Shale, much as below; talus covered.	25	285
21	Shale, black; rubbly; slightly rusty weathering; yellow efflorescence; siltier at top.	39	260
20	Shale, black, rubbly; slightly rusty weathering; siltier at top; few thin beds of siltstone.	47	221
19	Shale, black, platy, calcareous; some thin platy siltstone, 25%; some large concretions.	24	174
18	Shale, black, slightly calcareous; rubbly; slightly rusty weathering.	4	150
	Nordegg Member		
17	Siltstone, laminated, calcareous, black, phosphatic; brown weathering; beds 1"-2".	3	146
16	Shale, black, calcareous, silty.	1	143

Unit	Lithology	Thickness (feet)	Height above base (feet)
15	Siltstone, laminated, calcareous, black; some calcareous shale; 1"-2" beds.	3	142
14	Shale, black, calcareous; fissile.	1	139
13	Siltstone, black, calcareous, phosphatic; some black, calcareous, platy shale.	2	138
12	Shale, black; platy; calcareous; interbedded siltstone, 25%; platy to platy.	12	136
	GSC Loc. 52222 Pectinids Age: Early Jurassic		
11	Mostly covered. Platy shale and siltstone, black, calcareous.	25	124
10	Siltstone, platy to flaggy.	1	99
9	Partly covered. Shale and siltstone, calcareous, black; platy.	16	98
8	Siltstone, argillaceous, calcareous, laminated; platy.	1	82
7	Shale and interbedded siltstone; calcareous, black; platy.	2	81
6	Siltstone, calcareous, phosphatic, laminated; flaggy; grey weathering.	1	79
5	Shale and siltstone interbedded; siltier at top, black, calcareous; platy.	18	78
	GSC Loc. 52231 Pectinids Age: Early Jurassic		
4	Shale, flaky; rusty weathering; yellow efflorescence.	1	60

Unit	Lithology	Thickness (feet)	Height above base (feet)
3	Shale, black, calcareous; platy; interbedded with siltstone (25%) towards top.	39	59
2	Sandstone, very fine grained, dark grey, calcareous.	1	20
1	Mostly covered. Shale and siltstone interbedded; calcareous, black, platy.	19	19
	TRIASSIC		
	PARDONET FORMATION		
	Limestone, dense, bluish grey; fossiliferous; brown weathering; capped by bone bed.		
	GSC Loc. 52234 Monotis scutiformis pinensis Westermann Age: Norian, probably Himavatites zone.		

Section 64-7

Fernie and Monteith Formations, Trutch map-area, British Columbia, syncline north of Trimble Lake, 57°19'N, 123°33'W.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	GETHING FORMATION		
	Top of ridge.		
11	Conglomerate, massive; grey weathering; pebbles, 1/4"-1/2"; matrix of sandstone.	75	480
10	Sandstone, fine- to medium-grained, grey; thick-bedded.	75	405

Unit	Lithology	Thickness (feet)	Height above base (feet)
9	Sandstone, fine- to medium-grained, grey; thick-bedded; grey weathering; conglomerate at top.	39	330
8	Sandstone, fine-grained, laminated; platy to thick-bedded; partly talus covered.	80	291
7	Sandstone, fine-grained, laminated; thick-bedded to massive; some recessive covered intervals.	69	211
6	Covered. Appears to be mainly sandstone.	30	142
5	Sandstone, fine-grained; thick-bedded; recessive at base.	19	112
4	Sandstone, fine-grained; platy.	8	93
3	Covered.	8	85
2	Sandstone, fine-grained, grey, siliceous; massive to thick-bedded; conglomeratic in upper 1'.	36	77
1	Sandstone, fine-grained, laminated, siliceous; thick-bedded to massive; grey weathering.	41	41
	MINNES GROUP		
	MONTEITH FORMATION		
68	Covered.	10	977
67	Sandstone, fine-grained, laminated; platy; brown weathering.	16	967
66	Covered.	10	951
65	Sandstone, fine-grained, laminated; platy; grey weathering.	20	941

Unit	Lithology	Thickness (feet)	Height above base (feet)
64	Covered.	50	921
63	Sandstone, fine-grained, laminated to homogeneous; grey; flaggy to thick-bedded; grey weathering; few streaks of fine conglomerate.	24	871
62	Mudstone, dark grey to black; rubbly to blocky.	8	847
61	Sandstone, fine-grained, laminated to homogeneous, siliceous; some inter-bedded shale.	6	839
60	Covered. Some mudstone and siltstone.	60	833
59	Sandstone, fine-grained, homogeneous, siliceous, grey; thick-bedded; brown weathering.	10	773
58	Covered.	15	763
57	Mudstone, dark grey; platy; some inter-bedded siltstone; few concretions.	17	748
56	Sandstone, fine-grained, laminated, grey; flaggy; brownish grey weathering.	2	731
55	Partly covered. Siltstone and mud-stone, interbedded; few concretions, reddish brown weathering.	35	729
54	Mostly covered. Mudstone and some siltstone.	18	694
53	Mudstone, dark grey, rubbly; inter-bedded siltstone, 40%.	25	676
52	Covered.	8	651
51	Siltstone, argillaceous, laminated, grey; platy.	5	643
50	Covered.	9	638

Unit	Lithology	Thickness (feet)	Height above base (feet)
49	Sandstone, fine-grained, laminated.	1	629
48	Mudstone, rubbly; some interbedded siltstone.	5	628
47	Siltstone, argillaceous, laminated, grey; platy; wavy bedding; brownish grey weathering.	27	623
46	Mudstone, silty, dark grey; rubbly to blocky.	20	596
45	Siltstone, sandy, platy, brownish grey; brown weathering; thinly interbedded shale, 20%.	4	576
44	Mudstone, dark grey, silty, rubbly; 6" sandstone in middle.	9	572
43	Mudstone and siltstone interbedded; siltstone, argillaceous to sandy, platy, brownish grey weathering; few concretionary layers; 5' of channel sandstone at top.	19	563
42	Mudstone, silty, dark grey, rubbly to blocky; interbedded siltstone, 30%, platy, argillaceous; many lenticular channel sandstones, 2'-4' thick.	36	544
41	Sandstone, fine-grained, laminated, siliceous; thick-bedded; brownish grey weathering.	3	508
40	Siltstone, very argillaceous, greyish brown; platy to poorly bedded; some interbedded shale.	13	505
39	Mudstone, silty; rubbly, becoming platy at top.	20	492
38	Sandstone and siltstone interbedded, platy to flaggy; brown weathering.	3	472

Unit	Lithology	Thickness (feet)	Height above base (feet)
37	Mudstone, silty, dark grey; rubbly; some interbedded siltstone.	11	469
36	Mudstone and siltstone, interbedded.	7	458
35	Mudstone, silty; rubbly to platy.	15	451
34	Sandstone, as above.	3	436
33	Mudstone, silty; platy.	3	433
32	Mudstone and siltstone, interbedded; striped appearance.	4	430
31	Sandstone, fine-grained, thick-bedded; siliceous; ripple-marks.	4	426
30	Mudstone, rubbly; some concretions.	8	422
29	Sandstone, fine-grained, siliceous; brown weathering.	4	414
28	Mudstone and siltstone (40%); platy, striped appearance.	14	410
27	Sandstone, fine-grained; siliceous; thick-bedded; brown weathering.	5	396
26	Mudstone, silty, blocky; interbedded sandstone and siltstone (30%); some small channel sandstones.	30	391
25	Sandstone, fine-grained, grey, siliceous; brown weathering.	2	361
24	Shale, rubbly, black; some thin siltstones and sandstones; becoming much sandier at top.	15	359
23	Siltstone, and sandstone (40%) interbedded, argillaceous, grey; platy; some concretions.	9	344

Unit	Lithology	Thickness (feet)	Height above base (feet)
22	Mudstone, silty; blocky; much siltier at top; some orange weathering concretions; tracks and trails.	12	335
21	Siltstone, argillaceous, sandy; sandstone, fine-grained, laminated; thin-bedded; brown weathering; some mudstone.	9	323
20	Mudstone, rubbly to platy; becoming much siltier at top, dark grey; some channel sandstone; large concretions and siltstone at top.	23	314
19	Siltstone, argillaceous, dark grey, laminated; irregularly bedded; interbedded silty mudstone; concretions.	10	291
18	Mudstone, dark grey, rubbly to blocky.	7	281
17	Mudstone, silty, dark grey; platy to blocky; grading upward into argillaceous laminated siltstone, poorly bedded; 2' laminated sandstone near top; concretions.	10	274
16	Mudstone, silty; grading upward into siltstone, argillaceous, poorly bedded; some sandstone and concretions.	9	264
15	Sandstone, fine-grained, argillaceous; medium-bedded; brownish grey weathering.	2	255
14	Covered.	15	253
13	Sandstone, fine-grained, siliceous; thick-bedded; ripple-marks.	8	238
12	Shale, black, silty; blocky.	4	230

Unit	Lithology	Thickness (feet)	Height above base (feet)
11	Sandstone, fine-grained, siliceous; brown; thick-bedded; concretionary; few shaly intervals.	15	226
10	Covered.	55	211
9	Sandstone, fine-grained, laminated; platy to flaggy.	9	156
8	Covered.	40	147
7	Sandstone, fine-grained, argillaceous, grey; medium-bedded to flaggy; grey to rust weathering; some shaly intervals.	19	107
6	Covered.	19	88
5	Sandstone, fine-grained; platy to flaggy.	5	69
4	Covered.	10	64
3	Sandstone, very fine grained, dark grey; slightly laminated; platy to flaggy; grey weathering.	9	54
2	Covered.	28	45
1	Sandstone, fine-grained, argillaceous, black; platy; grey weathering.	17	17
	FERNIE FORMATION		
1	Mostly covered. Few beds of black shale (Nordegg) are present in gully.	350	350
	Contact not exposed.		
	TRIASSIC		
	PARDONET FORMATION		
	Limestone, fossiliferous to dense; brown-weathering.		

Section 64-8

Monteith Formation, north of Mount Stearns, Trutch map-area, British Columbia, 57°06'N, 123°29'W.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	GETHING FORMATION		
	Top of ridge, end of exposure.		
8	Sandstone, fine-grained, homogeneous, grey to brown; thick-bedded; grey weathering.	30	431
7	Covered.	33	401
6	Sandstone, medium- to coarse-grained, homogeneous, grey; massive to thick-bedded; grey weathering.	30	368
5	Covered.	90	338
4	Sandstone, fine-grained, laminated to homogeneous, grey, massive to thick-bedded; light brown to brownish grey weathering; some conglomerate.	35	248
3	Covered.	175	213
2	Conglomerate, massive; grey weathering; pebbles, 1/8"-1/2"; some matrix of sandstone.	1	38
1	Sandstone, fine-grained, laminated to homogeneous, grey; massive to thick-bedded; light brown weathering; some fine conglomerate.	37	37
	MINNES GROUP		
	BEATTIE PEAKS FORMATION		
1	Covered, recessive.	237	237

Unit	Lithology	Thickness (feet)	Height above base (feet)
	MONTEITH FORMATION		
74	Sandstone, fine-grained, laminated, siliceous, grey; thick-bedded to massive.	22	827
73	Covered.	47	805
72	Sandstone, argillaceous, laminated, brownish grey; siltstone, 40%, platy to flaggy; becoming sandier at top.	32	758
71	Mudstone, very silty, to siltstone, argillaceous; becoming siltier at top; few concretions.	25	726
70	Sandstone, fine-grained, laminated, brownish grey; thin-bedded to flaggy; interbedded siltstone and shale, 50%.	11	701
69	Covered.	14	700
68	Sandstone, fine-grained, homogeneous, brownish grey; medium-bedded; some mudstone.	5	686
67	Partly covered. Mudstone, platy; grading upward into argillaceous siltstone.	48	681
66	Mudstone, very silty, and siltstone, 50% argillaceous, platy; brownish grey weathering; striped appearance.	18	633
65	Mudstone, silty, brownish grey; rubbly to blocky; interbedded siltstone, 40%.	20	615
64	Sandstone, fine-grained, laminated, grey; thin-bedded.	3	595
63	Mudstone, silty, brownish grey; blocky.	5	592
62	Covered.	60	587

Unit	Lithology	Thickness (feet)	Height above base (feet)
61	Sandstone, fine-grained, homogeneous to laminated, brownish grey; thick-bedded; brownish grey weathering; lenses into siltstone; channel sandstone.	7	527
60	Mudstone, dark grey, hard, rubbly to flaky; some interbedded sandstone, fine-grained; becoming very sandy toward top.	27	520
59	Sandstone, fine-grained, laminated, grey; thick-bedded to platy; brown weathering; some channel sandstone.	17	493
58	Siltstone, argillaceous, dark grey; blocky to platy; some channel sandstone.	7	476
57	Covered.	10	469
56	Siltstone and mudstone, interbedded; platy.	8	459
55	Mudstone, rubbly to flaky, hard, dark grey; grey weathering.	27	451
54	Mudstone, silty, dark grey; blocky; interbedded siltstone, 30%; some sandstone at top.	10	424
53	Siltstone, sandy to argillaceous; some channel sandstone, 10%, and mudstone 25%.	15	414
52	Sandstone, fine-grained, laminated, grey, siliceous; brown weathering; some interbedded mudstone; channel sandstone.	4	399
51	Siltstone, argillaceous; wavy bedding; interbedded mudstone, dark grey, blocky.	12	395
50	Mudstone, dark grey; rubbly.	7	383

Unit	Lithology	Thickness (feet)	Height above base (feet)
49	Sandstone, fine-grained, laminated, siliceous; brown weathering.	3	376
48	Siltstone and mudstone, interbedded.	2	373
47	Sandstone, as above.	1	371
46	Mudstone, silty, blocky; some channel sandstone.	6	370
45	Sandstone, fine-grained, laminated to homogeneous, siliceous, grey; thick-bedded; brown weathering; some channel-fill at top and some mudstone.	8	364
44	Mudstone, dark grey, rubbly.	3	356
43	Mudstone, rubbly at base; becoming siltier and blocky at top with argillaceous siltstone.	29	353
42	Sandstone, fine-grained, laminated, grey; brown-weathering; beds 1"-3"; interbedded siltstone and mudstone, 30%; striped appearance; channel sandstone.	19	324
41	Mudstone, silty, dark grey; blocky interbedded argillaceous siltstone, 30%; grades into overlying unit.	15	305
40	Sandstone, fine-grained, laminated; channel sandstone; grades laterally into siltstone, argillaceous.	3	290
39	Mudstone, silty, brownish grey; blocky.	6	287
38	Siltstone, argillaceous, mottled; brownish grey.	1	281
37	Mudstone, dark grey; rubbly; some thin argillaceous siltstone.	17	280
36	Siltstone, sandy, argillaceous; interbedded mudstone, 40%; row of concretions at top.	5	263

Unit	Lithology	Thickness (feet)	Height above base (feet)
35	Mudstone, dark grey; rubbly; few concretions.	8	258
34	Siltstone and mudstone, interbedded.	4	250
33	Mudstone, rubbly, dark grey; brownish grey weathering; few orange-weathering concretions.	7	246
32	Siltstone and interbedded mudstone, 50%; rusty weathering.	5	239
31	Mudstone, brownish grey; rubbly; some siltstone and sandstone; beds 1"-2".	11	234
30	Siltstone, sandy, argillaceous; some channel sandstone; few concretions.	15	223
29	Sandstone, fine-grained, laminated, grey; interbedded siltstone, 40%.	3	208
28	Siltstone, argillaceous; platy; mudstone, 30%.	8	205
27	Sandstone, very argillaceous, silty; wavy bedding.	4	197
26	Sandstone, fine-grained, laminated, grey, siliceous, slightly calcareous; medium-bedded.	2	193
25	Mudstone, silty, dark grey; siltstone, 25%, argillaceous, laminated; few concretions.	10	191
24	Siltstone, argillaceous; some interbedded sandstone.	3	181
23	Sandstone and mudstone interbedded; sandstone, fine-grained, laminated; mudstone, silty, dark grey; beds 1"-3".	9	178
22	Mudstone, silty; rubbly to blocky; few layers of argillaceous siltstone.	12	169

Unit	Lithology	Thickness (feet)	Height above base (feet)
21	Sandstone, fine-grained, laminated, grey; flaggy to thin-bedded; brownish grey weathering; interbedded mudstone, 40%.	14	157
20	Mudstone, silty, dark grey, blocky; some sandstone.	10	143
19	Sandstone, fine-grained, laminated, siliceous; thin- to thick-bedded; brown to rusty weathering; interbedded mudstone.	17	133
18	Mudstone, silty, dark grey; blocky to platy; siltier at top.	4	116
17	Sandstone, fine-grained, laminated, grey; channel sandstone; some mudstone.	6	112
16	Mudstone, silty, dark grey; blocky.	4	106
15	Sandstone, fine-grained, laminated, grey; flaggy; brown to rusty weathering.	5	102
14	Mudstone, silty; rubbly to blocky.	7	97
13	Sandstone, fine-grained, laminated, grey; interbedded mudstone, 40%.	9	90
12	Mudstone, silty, dark grey, brownish grey weathering; some siltstone.	4	81
11	Sandstone, fine-grained, laminated, grey.	4	77
10	Mudstone, silty, brownish grey; very silty at top; some concretions.	8	73
9	Sandstone, fine-grained, laminated, grey; thick-bedded; brownish grey weathering; channel sandstone; mudstone, 50%, silty, blocky.	13	65

Unit	Lithology	Thickness (feet)	Height above base (feet)
8	Mudstone, rubbly, dark grey; grading upward into argillaceous siltstone; few concretions.	12	52
7	Sandstone, fine-grained, laminated, grey; grey to brown weathering; silty at base; thick-bedded; some channel-fill.	10	40
6	Sandstone, fine-grained, laminated, rusty weathering; channel sandstone; interbedded mudstone and siltstone, 40%.	9	30
5	Mudstone, silty, dark grey; blocky to platy; some platy sandstone.	4	21
4	Sandstone, fine-grained, laminated, grey; siliceous; thick-bedded; brownish grey weathering; channel sandstone.	1	17
3	Mudstone and siltstone interbedded; some platy channel sandstone.	3	16
2	Sandstone, fine-grained, laminated to homogeneous, siliceous; channel sandstone; concretionary.	3	13
1	Siltstone, argillaceous to sandy; platy to flaggy; wavy bedding; tracks and trails.	10	10
	FERNIE FORMATION		
	Shales, not exposed. For Nordegg Member, see Section 64-9.		

Section 64-9

Nordegg Member, north of Mount Stearns, Trutch map-area, British Columbia, 57°06'N, 123°29'W.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	NORDEGG MEMBER		
	End of exposure.		
22	Nodule, calcareous, dense, black, light grey weathering; 7' long.	3	209
21	Shale and siltstone interbedded; phosphatic chert.	7	206
20	Concretionary bed; grey weathering.	1	199
19	Shale.	1	198
18	Bentonite with some shale.	0.5	197
17	Limestone, dense, dark bluish grey; phosphatic chert.	1	196.5
16	Shale, black, calcareous; papery; siltier at top.	4	195.5
15	Breccia; sandy matrix; chert fragments.	0.5	191.5
14	Shale, black, calcareous; papery.	11	191
13	Siltstone, to limestone, silty, dense, black, laminated; large concretion, 1' x 4'.	3	180
12	Partly covered. Shale, platy, to siltstone, black, calcareous.	25	177
11	Siltstone, calcareous, black; grey weathering; thick-bedded; thin shale bed in middle.	14	152
10	Shale, black, calcareous; platy; grey to light yellow weathering.	11	138
9	Shale, black, calcareous; platy; to siltstone, argillaceous, limy.	15	127

Unit	Lithology	Thickness (feet)	Height above base (feet)
8	Siltstone, highly calcareous to limestone, silty, black, laminated; flaggy to thin-bedded; grey weathering.	5	112
7	Shale, black, calcareous; platy to papery; grey weathering.	9	107
6	Limestone, very argillaceous, black, dense; phosphatic chert nodules.	5	98
5	Shale, very silty, to siltstone, platy, highly calcareous, black.	17	93
4	Siltstone, calcareous, dark grey to black, grey weathering; interbedded shale as above.	7	76
3	Shale, black, calcareous, platy to papery; light grey weathering.	44	69
2	Partly covered. Shale, platy, black, calcareous; some limy beds.	24	25
1	Breccia, calcareous; sandy matrix; fragments of limestone, shells, and chert.	1	1
	TRIASSIC		
	PARDONET FORMATION		
	Limestone, fossiliferous to dense; brown weathering.		

Section 64-11

Fernie, Monteith, and Beattie Peaks Formations, south of Halfway River, Halfway River map-area, British Columbia, 56°55'N, 123°15'W.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	GETHING FORMATION		
	Top of ridge.		
	Sandstone, fine-grained, grey, siliceous; thick-bedded.		
	BEATTIE PEAKS FORMATION		
11	Covered. Approximately.	450	596
10	Mudstone, silty, dark grey; some sandstone.	23	146
9	Sandstone, fine-grained, laminated, ferruginous, brown.	2	123
8	Mudstone, silty, blocky.	7	121
7	Sandstone, fine-grained, brown.	2	114
6	Mudstone, silty, blocky.	18	112
5	Coquina.	4	94
	GSC Loc. 66029 *Buchia* n. sp. aff. *B. inflata* (Toula)		
4	Mudstone, silty, dark grey.	2	90
3	Sandstone, fine-grained, laminated, brown; brown weathering.	2	88
2	Mudstone, very silty; argillaceous, siltstone at top; few thin beds of coquina.	26	86
1	Mudstone, argillaceous, black; blocky; some siltstone and few thin sandstones.	60	60
	MONTEITH FORMATION		
32	Conglomerate; pebbles 1/4"-1/2", sandy matrix.	1	451

Unit	Lithology	Thickness (feet)	Height above base (feet)
31	Sandstone, fine-grained, grey, siliceous; quartzose; thick-bedded; grey weathering.	25	450
30	Siltstone and interbedded mudstone; very sandy at top.	6	425
29	Sandstone, fine-grained, laminated, siliceous; thick-bedded.	19	419
28	Mudstone, silty; blocky.	3	400
27	Sandstone, grey, siliceous; thick-bedded.	9	397
26	Sandstone and mudstone, interbedded; very sandy at top.	5	388
25	Sandstone, very argillaceous at base, better sorted at top.	7	383
24	Sandstone, fine-grained, laminated, siliceous; thick-bedded; thin shale at base.	25	376
23	Sandstone, as above; grey to greyish brown weathering.	33	351
22	Mudstone, very silty; reworked; shale pebbles.	4	318
21	Sandstone, fine-grained, laminated, siliceous, quartzose, white to grey; thick-bedded; light grey weathering.	18	314
20	Mudstone, black, silty; siltier at top; some channel sandstones.	39	296
19	Sandstone, fine-grained, laminated, siliceous, quartzose; flaggy with mudstone at base, grading upward into thick-bedded sandstone.	11	257
18	Sandstone, as above; interbedded siltstone and mudstone, 25%; beds 6"-2'.	17	246

Unit	Lithology	Thickness (feet)	Height above base (feet)
17	Sandstone, fine-grained, laminated, siliceous; flaggy, becoming thick-bedded at top; some mudstone in lower half.	9	229
16	Sandstone, fine-grained, laminated, siliceous, grey; brownish grey weathering; thick-bedded.	8	220
15	Sandstone, fine-grained, siliceous, quartzose, laminated, grey; flaggy; some silty mudstone and siltstone in basal 10'.	20	212
14	Sandstone, fine-grained, laminated, siliceous; thick-bedded; some shale at base.	15	192
13	Sandstone, and mudstone interbedded; beds 6"-1'.	8	177
	Small fault; sandstone and some mudstone; units 11 and 12 are repeated (total of 23').		
12	Sandstone, fine-grained, laminated, siliceous, quartzose; thick-bedded; some mudstone.	16	169
11	Mudstone and siltstone, 30%; platy; rusty weathering.	38	153
10	Sandstone and siltstone, 50%; thin-bedded.	6	115
9	Mudstone, and siltstone, 50%; platy; rusty weathering.	7	109
8	Sandstone, fine-grained, laminated, siliceous; thick-bedded; some siltstone and shale at base.	17	102
7	Mudstone and siltstone, platy; sandstone, 20%, in 2"-6" beds.	15	85

Unit	Lithology	Thickness (feet)	Height above base (feet)
6	Mudstone and siltstone, 40%.	14	70
5	Sandstone, fine-grained, grey, siliceous, thin-bedded; argillaceous at base.	7	56
4	Siltstone, sandy, and mudstone; some channel sandstone.	16	49
3	Sandstone, fine-grained, laminated, siliceous, thin- to thick-bedded.	7	33
2	Siltstone, sandy, and interbedded mudstone.	8	26
1	Sandstone, fine-grained, laminated, siliceous, quartzose, grey; thick-bedded; grey to brown weathering.	18	18
	FERNIE FORMATION		
14	Partly covered. Interbedded mudstone and siltstone; becoming sandier toward top.	23	420
13	Mudstone and siltstone, interbedded; striped appearance.	8	397
12	Mudstone, black, sandy, glauconitic.	2	389
11	Mudstone, black, silty, and siltstone; topped by sandy, pebbly mudstone.	4	387
10	Mudstone, dark grey, platy to blocky; interbedded platy siltstone, 30%, siltier toward top.	26	383
9	Covered. Approximately.	225	357
	Nordegg Member		
8	Shale and siltstone interbedded; platy; poorly exposed.	16	132

Unit	Lithology	Thickness (feet)	Height above base (feet)
7	Mudstone, phosphatic, black.	1	116
6	Shale, black, calcareous; platy; grey weathering.	3	115
5	Limestone, argillaceous to silty, bluish grey, dense; yellowish grey weathering; 18" phosphatic mudstone in middle.	3	112
4	Shale, black, calcareous; platy; grey weathering.	10	109
3	Limestone, black, sandy; grey weathering.	1	99
2	Shale and siltstone, calcareous, black; platy; silvery grey weathering.	28	98
1	Covered.	70	70
	TRIASSIC		
	PARDONET FORMATION		
	Limestone, highly fossiliferous, platy.		
	GSC Loc. 65930 *Monotis subcircularis* Gabb Age: Upper Norian, *subcircularis* zone.		

Section 64-12

Beattie Peaks Formation, south of Cypress Creek, west flank of syncline, Halfway River map-area, British Columbia.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	GETHING FORMATION?		
	Sandstone, fine-grained, grey, siliceous; massive; grey weathering.		

Unit	Lithology	Thickness (feet)	Height above base (feet)
	Contact is abrupt with some angularity; uppermost beds of Beattie Peaks are truncated by massive sandstone.		
	BEATTIE PEAKS FORMATION		
112	Covered at base; mudstone, silty at top.	12	1,126
111	Sandstone, fine-grained; thick-bedded; light brown weathering.	3	1,114
110	Covered.	15	1,111
109	Sandstone, fine-grained, laminated, grey, slightly calcareous; thick- to poorly bedded; grey weathering.	12	1,096
108	Mudstone, blocky, dark grey, rusty weathering.	1	1,084
107	Sandstone, fine-grained, laminated; poorly bedded; grey weathering.	14	1,083
106	Mudstone, dark grey; blocky; rusty weathering.	3	1,069
105	Sandstone, fine-grained, laminated; thick-bedded to platy.	5	1,066
104	Partly covered. Mudstone, blocky.	16	1,061
103	Mudstone, silty; blocky to platy; some channel sandstone.	23	1,045
102	Sandstone, fine-grained, brownish grey, slightly calcareous; thick-bedded to massive; dark brownish grey weathering.	9	1,022
101	Poorly exposed. Mudstone, silty; blocky to platy; some channel sandstone.	28	1,013

Unit	Lithology	Thickness (feet)	Height above base (feet)
100	Sandstone, fine-grained, laminated, grey, slightly calcareous; light brown weathering.	2	985
99	Mudstone, rubbly to blocky; dark grey; rusty weathering; some siltstone.	15	983
98	Mudstone, silty; becoming siltier and grading upward into siltstone, argillaceous, platy.	13	968
97	Sandstone, fine-grained, laminated, grey; poorly bedded; light brown weathering.	5	955
96	Mudstone, dark grey, silty; some siltstone.	4	950
95	Sandstone, fine-grained; thickens to 3' upslope; channel sandstone.	1	946
94	Mudstone, silty, dark grey; platy to blocky.	6	945
93	Sandstone, fine-grained, grey, slightly calcareous; poorly bedded; grey weathering.	8	939
92	Mudstone, dark grey, silty; rusty weathering.	6	931
91	Sandstone, fine-grained, laminated, grey, slightly calcareous; thick-bedded.	4	925
90	Mudstone, silty, to siltstone, argillaceous, platy.	6	921
89	Sandstone, fine-grained, laminated, grey, slightly calcareous; thin-bedded; brown weathering; channel sandstone; shell debris; interbedded mudstone, 30%.	7	915

Unit	Lithology	Thickness (feet)	Height above base (feet)
88	Mudstone, rubbly, dark grey; some siltstone.	10	908
87	Sandstone, fine-grained, laminated, grey, slightly calcareous; thick-bedded to platy; rusty brown weathering; channel sandstone.	7	898
86	Mudstone, silty, rubbly to platy; dark grey weathering.	9	891
85	Sandstone, fine-grained, laminated, grey, slightly calcareous; thick-bedded; light brown to brownish grey weathering.	4	882
84	Mudstone, dark grey; rubbly to platy; some interbedded siltstone.	13	878
83	Sandstone, fine-grained, laminated, grey, slightly calcareous; thick-bedded; brown weathering.	7	865
82	Mudstone, dark grey; rubbly to blocky; interbedded siltstone becomes more abundant toward top; some channel sandstone.	32	858
81	Sandstone, fine-grained, grey to brownish grey; slightly calcareous; thick-bedded; brownish grey weathering.	8	826
80	Sandstone, fine-grained, laminated, grey; rusty brown weathering; beds 6"-1'; interbedded mudstone and siltstone, 50%.	11	818
79	Mudstone, silty; blocky to platy; interbedded siltstone; becoming sandier toward top.	14	807
78	Sandstone, fine-grained, laminated, grey; thin-bedded; light rusty brown weathering.	3	793

Unit	Lithology	Thickness (feet)	Height above base (feet)
77	Mudstone, silty, dark grey; blocky to platy; numerous channel sandstones, fine-grained, laminated, grey, light brown weathering; 2"-4' thick, 4'-10' long, lenticular.	32	790
76	Sandstone, fine-grained, laminated, grey; rusty brown weathering; channel sandstone; interbedded shale and siltstone, 40%, platy.	13	758
75	Mudstone, dark grey; rubbly; slightly rusty weathering.	6	745
74	Mudstone, dark to brownish grey; platy; interbedded platy siltstone, 50%; some small channel sandstone.	17	739
73	Mudstone, dark to brownish grey, silty; blocky to platy; some channel sandstone, especially at top.	20	722
72	Sandstone, fine-grained, laminated; platy; rusty brown weathering.	2.5	702
71	Mudstone, dark grey, silty; blocky to platy.	17	699.5
70	Sandstone, fine-grained, laminated; brown.	1	682.5
69	Mudstone, dark grey, silty; platy.	6	681.5
68	Sandstone, fine-grained, laminated; rusty brown weathering; interbedded siltstone and shale, 50%; sandstone increases toward top; beds 6"-2'.	13	675.5
67	Sandstone, fine-grained, laminated, siliceous, grey; rusty brown weathering.	4	662.5
66	Mudstone, dark grey, silty; blocky to platy; siltier at top.	8	658.5

Unit	Lithology	Thickness (feet)	Height above base (feet)
65	Sandstone, fine-grained, laminated, grey; light rusty brown weathering.	2	650.5
64	Mudstone, silty; blocky to platy; worm reworked; some siltstone and channel sandstone.	16	648.5
63	Sandstone, fine-grained, laminated, grey; light rusty brown weathering.	2.5	632.5
	GSC Loc. 66030 Acroteuthis? sp. indet.		
62	Mudstone, blocky; platy siltstone increasing to 50% at top; some sandstone.	18	630
61	Sandstone, fine-grained, laminated, grey; thick-bedded; light rusty brown weathering.	3	612
60	Mudstone, dark grey; rubbly to blocky; worm marked; some interbedded siltstone, rusty weathering; numerous channel sandstones, fine-grained, laminated, grey, light rusty brown weathering.	18	609
59	Sandstone, fine-grained, grey, laminated; brown weathering; channel sandstone; increases to 6'-7' up and down slope at expense of underlying beds.	3	591
58	Mudstone, rubbly at base, blocky to platy at top; siltstone, platy, increases to 60% at top; striped appearance.	28	588
57	Sandstone, fine-grained, well indurated; abundant belemnites in pyritized shell debris.	2.5	560

Unit	Lithology	Thickness (feet)	Height above base (feet)
	GSC Loc. 65925 *Acroteuthis* ex aff. *A. lateralis* (Phillips).		
56	Mudstone, rubbly to blocky; siltstone 40%.	10	557.5
55	Sandstone, as above.	2	547.5
54	Mudstone, dark grey, rubbly; interbedded siltstone, 20%, rusty weathering.	7	545.5
53	Sandstone, fine-grained, laminated, grey; rusty brown weathering.	1.5	538.5
52	Siltstone, sandy; interbedded mudstone, 30%, silty, increasing to 70%; beds 1"-4"; worm marked; some sandstone toward top.	25	537
51	Mudstone, dark grey; rubbly to blocky.	10	512
50	Sandstone, fine-grained, laminated; rusty brown weathering; channel sandstone.	2	502
49	Mudstone, silty; blocky to platy; siltier at top.	14	500
48	Mudstone, brownish grey; rubbly at base; siltier at top, grading into siltstone, flaggy; few concretions.	17	486
47	Mudstone, silty, brownish grey; worm marked; interbedded siltstone, laminated, argillaceous, brownish grey, platy to flaggy, 30%.	11	469
46	Siltstone, argillaceous; platy; rusty brown weathering.	1	458
45	Mudstone, grey, blocky; some siltstone.	6	457

Unit	Lithology	Thickness (feet)	Height above base (feet)
44	Sandstone, fine-grained, laminated, grey; weathering brown.	2	451
43	Mudstone, silty, blocky.	3	449
42	Sandstone, fine-grained, laminated, grey; brown weathering.	1	446
41	Mudstone and siltstone, interbedded, grey, platy; worm marked.	6	445
40	Sandstone and siltstone, 50%; laminated; flaggy; rusty weathering.	17	439
39	Siltstone, argillaceous; very sandy at top; thin-bedded; dark grey weathering.	4	422
38	Mudstone, silty, dark grey; blocky; some siltstone, 20%.	10	418
37	Mudstone, silty; blocky at base; some platy siltstone and sandstone at top; thin layer of shell debris.	24	408
36	Mudstone, blocky at base; becoming platy and silty at top; some channel sandstone and shell debris.	19	384
35	Mudstone, silty, grey; platy; interbedded siltstone, sandy, 30%; some shell debris.	17	365
34	Siltstone, sandy, laminated; some sandstone; few thin layers of shell debris.	7	348
33	Sandstone, fine-grained, laminated, grey; some beds of shell debris.	3	341
32	Mudstone.	1	338
31	Coquina.	2	337

Unit	Lithology	Thickness (feet)	Height above base (feet)
	GSC Loc. 65922 Buchia n. sp. aff. B. inflata (Toula) Acroteuthis? sp. indet.		
30	Sandstone, fine-grained, grey, siliceous; light rusty brown weathering.	4	335
29	Mudstone, grey; rubbly to platy.	2	331
28	Sandstone, fine-grained, laminated, grey; interbedded siltstone and mudstone, 40%; shell debris.	4	329
27	Mudstone, platy; some interbedded siltstone.	4	325
26	Siltstone, sandy, platy to flaggy; interbedded mudstone, light rusty brown weathering; striped appearance.	5	321
25	Mudstone, silty, dark grey; platy to blocky; interbedded laminated siltstone, 30%; grades into overlying unit.	9	316
24	Covered.	4	307
23	Siltstone, argillaceous, brownish grey; platy to flaggy; worm markings; some mudstone and sandstone.	9	303
22	Covered.	12	294
21	Mudstone, silty; rubbly to blocky; siltier at top with some laminated siltstone.	16	282
20	Sandstone, argillaceous, grey; thin-bedded.	5	266
	GSC Loc. 65923 Buchia sp. indet. Acroteuthis? sp. indet.		

Unit	Lithology	Thickness (feet)	Height above base (feet)
19	Mudstone, rubbly at base, becoming platy and silty toward top; interbedded sandy siltstone at top, 30%, platy to flaggy.	15	261
18	Siltstone, sandy, dark grey; poorly bedded; light brown weathering.	2	246
17	Mudstone, brownish grey; rubbly to blocky; interbedded siltstone, 30%, laminated, platy; some channel sandstone.	18	244
16	Sandstone, fine-grained, laminated; platy; rusty brown weathering.	2	226
15	Mudstone, silty, grey; few thin lenses of siltstone, grey weathering.	5	224
14	Mudstone, silty, grey; platy; some channel sandstone, fine-grained, lenticular, rusty brown weathering.	5	219
13	Mudstone, blocky, silty, grey; interbedded sandstone, 50%, fine-grained, laminated, grey; platy; worm markings.	15	214
12	Mudstone, silty, grey; blocky to platy; grading upward into interbedded sandstone and mudstone; sandstone, 30%, fine-grained, laminated, thin-bedded, grey.	11	199
11	Sandstone, fine-grained, laminated, grey; platy to thin-bedded; brown weathering; some interbedded mudstone, 20%.	5	188
10	Mudstone, silty, grey, mottled.	2	183
9	Sandstone, fine-grained, laminated, grey; platy to thin-bedded; brownish grey weathering; interbedded siltstone and mudstone, 20%.	14	181

Unit	Lithology	Thickness (feet)	Height above base (feet)
8	Mudstone, very silty, grey; blocky to platy; mottled; siltstone, 30%, and some fine-grained laminated sandstone.	9	167
7	Sandstone, fine-grained, laminated, grey; platy to thin-bedded; siltstone and mudstone, 30%, platy.	14	158
6	Mudstone, very silty; siltstone, laminated, grey platy; some sandstone at top.	20	144
5	Sandstone, silty, laminated, grey; platy to thin-bedded; some siltstone, platy, dark grey.	7	124
4	Mudstone, very silty, dark grey; platy; some laminated siltstone.	5	117
3	Sandstone, fine-grained, laminated, grey; platy to thin-bedded; brown weathering.	7	112
2	Mudstone, very silty, blocky; brownish grey weathering.	5	105
1	Covered. Approximately.	100	100
	MONTEITH FORMATION		
	Sandstone, exposed along ridge above gully.		

Section 64-13

Fernie and Monteith Formations, south of Halfway River, Halfway River map-area, British Columbia, 56°51'N, 123°19'W.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	BEATTIE PEAKS FORMATION		
	Mudstone, silty, black, and interbedded		

Unit	Lithology	Thickness (feet)	Height above base (feet)
	MONTEITH FORMATION		
19	Sandstone, fine-grained, siliceous, quartzose; thick-bedded; some shaly beds near base.	65	529
18	Sandstone, fine-grained, siliceous; laminated; thick-bedded.	95	464
17	Partly covered. Mudstone, silty, platy; some siltstone; unit of thick-bedded sandstone in middle.	80	369
16	Partly covered. Three units of thick-bedded sandstone separated by recessive covered intervals.	90	289
15	Mudstone, platy; some siltstone and sandstone.	49	199
14	Sandstone, fine-grained, laminated, grey; thick-bedded.	6	150
13	Sandstone, fine-grained, grey; platy to flaggy; interbedded mudstone, 30%.	7	144
12	Sandstone, fine-grained, laminated, grey, thick-bedded; grey weathering.	9	137
11	Mudstone, and sandstone, 40%, fine-grained; platy to flaggy.	10	128
10	Sandstone, fine-grained, flaggy; some mudstone.	7	118
9	Siltstone and interbedded mudstone.	5	111
8	Sandstone, fine-grained, laminated; flaggy; grey weathering.	3	106
7	Mudstone, and platy sandstone, 40%.	3	103
6	Sandstone, fine-grained, laminated, grey, siliceous.	2	100

Unit	Lithology	Thickness (feet)	Height above base (feet)
5	Siltstone, and platy mudstone, 50%.	18	98
4	Sandstone, laminated; platy brownish grey weathering.	5	80
3	Mudstone, dark grey; platy.	12	75
2	Siltstone, sandy; platy; grey weathering.	8	63
1	Partly covered. Fine-grained, thick-bedded sandstone at top.	55	55
	FERNIE FORMATION (For microfauna, see Table 1, Part A)		
	Unit 6		
29	Mudstone, silty; platy; interbedded platy siltstone, 40%; sandier at top with some sandstone.	36	732
28	Sandstone, fine-grained, laminated; platy to flaggy; some platy siltstone and mudstone.	18	696
27	Mudstone, platy; rusty weathering; some platy siltstone.	10	678
26	Sandstone, fine-grained, laminated, platy; some mudstone.	5	668
25	Mostly covered. Mudstone with interbedded platy siltstone; some sandstone.	75	663
24	Sandstone, fine-grained, grey, laminated; thick-bedded; grey weathering.	4	588
23	Covered.	12	584
22	Sandstone, fine-grained; platy to thin-bedded.	4	572
21	Covered.	40	568

Unit	Lithology	Thickness (feet)	Height above base (feet)
20	Sandstone, fine-grained, laminated, platy to thin-bedded; some interbedded mudstone.	15	528
19	Partly covered. Mudstone, blocky; becoming siltier at top with some interbedded sandstone and shale.	50	513
	SI 424-64, Microfauna.		
18	Sandstone, medium-grained, grey to greenish grey, very argillaceous at base; glauconitic.	2	463
	Unit 5		
17	Mostly covered. Mudstone, silty.	20	461
16	Siltstone and mudstone, platy.	5	441
15	Mudstone, silty; blocky to platy; black; rusty weathering.	45	436
	SI 422-64, Microfauna.		
14	Mudstone, black; blocky to rubbly; slightly rusty weathering; topped by 6" concretionary bed.	54	391
	SI 419-64, 420-64, 421-64, Microfauna.		
	Unit 4		
13	Mudstone, very sandy, with small pebbles; glauconitic.	1	337
	SI 418-64, Microfauna.		
	Unit 3		
12	Mudstone, hard, flaky to rubbly, black; rusty weathering.	29	336
	SI 417-64, Microfauna.		

Unit	Lithology	Thickness (feet)	Height above base (feet)
11	Mudstone, very silty; some platy siltstone.	3	307
10	Shale to mudstone, hard, dark grey; flaky to rubbly; rusty weathering.	22	304
	SI 416-64, Microfauna.		
9	Mudstone, rubbly, black; rusty weathering; several bentonite seams.	15	282
	SI 415-64, Microfauna.		
8	Mudstone, black, rubbly; few concretionary layers; few thin bentonite seams.	51	267
	SI 411-64, 412-64, 413-64, 414-64, Microfauna.		
7	Mudstone, black, greenish weathering; glauconitic.	3	216
	SI 410-64, Microfauna.		
6	Mudstone, rubbly, black; rusty weathering; few concretions.	17	213
	SI 408-64, 409-64, Microfauna.		
5	Mudstone, rubbly; rusty weathering; few concretions and concretionary layer at top.	13	196
	SI 407-64, Microfauna.		
4	Mudstone, black, rubbly; blocky, glauconitic mudstone at top.	7	183
	SI 406-64, Microfauna.		
3	Mudstone to shale, black, rubbly; yellow efflorescence; rusty weathering; glauconitic at base.	21	176

Unit	Lithology	Thickness (feet)	Height above base (feet)
	SI 404-64, 405-64, Microfauna.		
	Unit 2		
2	Mostly covered. Shale, black, flaky; yellow efflorescence.	20	155
	Nordegg Member		
1	Mostly talus covered. Black calcareous shale and platy siltstone; some phosphatic mudstone; traces of breccia at base.	135	135
	Contact not exposed.		
	TRIASSIC		
	PARDONET FORMATION		
	Limestone, dense to bioclastic.		
	GSC Loc. 65932 *Gryphaea* sp. *Monotis subcircularis* Gabb Age: Upper Norian, *subcircularis* zone.		

Section 64-14

Fernie and Monteith Formations, east flank of syncline, north of Besa River, Trutch map-area, British Columbia, 57°30'N, 123°35'W.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	GETHING FORMATION		
	Top of ridge.		
3	Sandstone, fine- to medium-grained, grey siliceous; thick-bedded; grey weathering.	30	215

Unit	Lithology	Thickness (feet)	Height above base (feet)
2	Mostly covered; appears to be mainly sandstone.	65	185
1	Sandstone, fine-grained, grey; thick-bedded; grey weathering; few thin recessive intervals.	120	120
	Contact is not exposed but definite angularity is visible between Gething and Monteith sandstones.		
	MONTEITH FORMATION		
57	Covered.	11	501
56	Sandstone, fine-grained, grey; light rusty weathering, flaggy to thin-bedded.	6	490
55	Mostly covered. Mudstone, blocky; rusty weathering.	26	484
54	Sandstone, fine-grained; few layers of medium-grained sandstone, grey.	3	458
53	Sandstone, fine-grained, laminated, siliceous, brownish grey; brown weathering.	4	455
52	Covered.	10	451
51	Sandstone, fine-grained, laminated, siliceous, grey; rusty brown weathering.	6	441
50	Sandstone and mudstone; channel sandstone; beds 6"-2'.	5	435
49	Mudstone, black to dark grey; rubbly.	4	430

Unit	Lithology	Thickness (feet)	Height above base (feet)
48	Sandstone, fine-grained, laminated, some mudstone.	2	426
47	Mudstone, dark grey; rubbly.	2	424
46	Sandstone, fine-grained, laminated, brownish grey.	3	422
45	Mudstone, silty; blocky; few thin siltstones toward top.	9	419
44	Siltstone, sandy; platy to flaggy; mudstone dark grey.	8	410
43	Sandstone, fine-grained, laminated, siliceous, grey; thick-bedded.	4	402
42	Mudstone and siltstone, 40%; concretions at top.	3	398
41	Sandstone, fine-grained, grey.	6	395
40	Mudstone, silty, dark grey.	4	389
39	Mudstone and sandstone, platy.	3	385
38	Sandstone, fine-grained, grey; massive; grey weathering.	5	382
37	Mudstone, dark grey; blocky to platy; interbedded siltstone; rusty weathering; striped appearance.	24	377
36	Sandstone, fine-grained, laminated, brownish grey; brownish grey weathering; channel sandstone.	3	353
35	Mudstone, blocky; interbedded siltstone, platy, dark grey; channel sandstone, 10%, fine-grained, laminated; concretions at top.	43	350

Unit	Lithology	Thickness (feet)	Height above base (feet)
34	Mudstone, silty, dark grey, blocky; grading upward into argillaceous, laminated siltstone; few channel sandstones.	29	307
33	Sandstone, fine-grained, laminated, siliceous brownish grey.	2	278
32	Mudstone, silty, dark grey, blocky; siltier toward top; worm markings.	13	276
31	Sandstone, very argillaceous, flaggy; some channel sandstone.	2	263
30	Mudstone, silty, blocky; several small channel sandstones.	10	261
29	Mudstone, silty, dark grey; siltstone, laminated, dark grey; platy; several channel sandstones, 2'-4', fine-grained siliceous, grey to brownish grey.	21	251
28	Sandstone, fine-grained, laminated, siliceous; channel sandstone.	2	230
27	Mudstone and siltstone; blocky to platy; few concretions; two units of channel sandstone, 2'-3' thick.	22	228
26	Sandstone, fine-grained, laminated, siliceous; grey; grey weathering.	3	206
25	Mudstone, dark grey, rubbly; rusty weathering; concretionary layer in middle; 1 1/2" concretionary channel-fill at top.	12	203
24	Sandstone, fine-grained, laminated, grey, siliceous; brownish grey weathering; channel sandstone.	5	191
23	Mudstone, rubbly; some interbedded siltstone; large concretions at top.	8	186

Unit	Lithology	Thickness (feet)	Height above base (feet)
22	Sandstone, very argillaceous and silty, dark grey; flaggy.	8	178
21	Mudstone, rubbly; several channel sandstones; some concretions.	25	170
20	Mudstone, rubbly at base, becoming silty and blocky at top; 3 units of channel sandstone, 2'-5' thick, fine-grained; laminated, rusty brown weathering.	21	145
19	Sandstone, fine-grained, laminated, grey, siliceous; thick-bedded; rusty brown weathering; channel sandstone.	5	124
18	Mudstone, silty, dark grey; siltstone, platy; few concretions.	8	119
17	Sandstone, fine-grained, laminated to homogeneous; thin- to thick-bedded; brownish grey to rusty weathering; channel sandstone, lensing out into mudstone and siltstone, 30%.	7	111
16	Mudstone, blocky, dark grey; platy siltstone.	3	104
15	Sandstone, fine-grained, laminated; channel sandstone.	3	101
14	Mudstone, argillaceous; blocky; siltstone, platy; some concretions.	9	98
13	Sandstone, fine-grained, laminated, grey; thick-bedded; brownish grey to rusty weathering.	5	89
12	Mudstone and siltstone, dark grey; platy to flaggy; some channel sandstone.	6	84
11	Sandstone, fine-grained, laminated, grey; thick-bedded; rusty brown weathering; slightly crossbedded.	5	78

Unit	Lithology	Thickness (feet)	Height above base (feet)
10	Siltstone and mudstone; dark grey; platy; some concretions and thin sandstones.	6	73
9	Sandstone, fine-grained, laminated, grey; flaggy; brownish grey weathering; channel sandstone.	2	67
8	Mudstone, as above.	6	65
7	Sandstone, as above.	1	59
6	Mudstone, silty; blocky; dark grey; some concretions.	3	58
5	Sandstone, fine-grained, laminated to homogeneous, grey; greyish brown weathering.	3	55
4	Mudstone, silty, dark grey; blocky; some reddish brown weathering concretions.	6	52
3	Sandstone, fine-grained, laminated to homogeneous, grey; thick-bedded to massive; brownish grey to rust weathering.	31	46
2	Sandstone, fine-grained, slightly argillaceous; flaggy to thin-bedded; dark rust weathering.	10	15
1	Sandstone, fine- to coarse-grained; grey; thick-bedded; rusty brown weathering; some small pebbles.	5	5

GSC Loc. 65920
Acroteuthis sp. indet.
Pecten (*Entolium*) sp. indet.
Nucula (s. lato) sp. indet.
Astarte (s. lato) ? sp. indet.

Unit	Lithology	Thickness (feet)	Height above base (feet)
	FERNIE FORMATION		
10	Partly covered. Mudstone, dark grey, rubbly to blocky; rusty weathering.	64	247
9	Siltstone, argillaceous, black, slightly calcareous.	1	183
8	Shale, black, papery to platy at top; rusty weathering.	16	182
7	Shale, black, papery to flaky, rusty weathering; yellow efflorescence; platy at top.	16	166
	Nordegg Member		
6	Shale, calcareous; platy; phosphatic lenses at top. In gully to south, Nordegg shales are capped by 1' of sandstone with fragments of chert nodules and small pebbles.	7	150
5	Mudstone, phosphatic, black.	2	143
4	Shale, platy.	2	141
3	Shale, black, calcareous; papery to platy; grading upward into interbedded siltstone and shale, platy, silvery grey weathering.	29	139
2	Siltstone, platy, very calcareous, black; shale, 40%, black, calcareous, platy; silvery grey weathering.	25	110
1	Partly covered. Shale, black, calcareous; flaky to platy; siltstone, argillaceous, black, calcareous. In gully to south, base is marked by 1' of sandstone with black chert nodules.	85	85

Unit	Lithology	Thickness (feet)	Height above base (feet)
	TRIASSIC		
	PARDONET FORMATION		
	Limestone; numerous fossiliferous beds.		
	GSC Loc. 65935 *Monotis* sp., cf. *M. pinensis* Westermann and *M. daonelliformis* Kiparisova *Halobia* sp. *Placites* sp. *Steinmannites* sp. *Buchites* sp. *Himavatites* sp. Age: Middle Norian, *columbianus* zone.		