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DATA FOR CRETACEOUS/TERTIARY COAL
MEASURES IN THE GRANDE CACHE AND
HINTON AREAS, ALBERTA**

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**COAL RANK (VITRINITE REFLECTANCE)
DATA FOR CRETACEOUS/TERTIARY COAL
MEASURES IN THE GRANDE CACHE
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Introduction

The data presented in this report were compiled as part of the Geological Survey of Canada's regional studies on coal rank distribution in the Rocky Mountain Front Ranges and Foothills. The data have also been used for the evaluation of maturation levels in potential source rocks in the adjacent foreland basin and to assess coalbed methane potential of the coal measures. Published papers related to these studies are listed in the reference section.

Study area, sampling and experimental

The study area encompasses approximately 22 000 km² from an area north of Grande Cache to the Hinton area to the south (Fig. 1).

Outcrop samples were obtained from exposures of coal-bearing strata in the Front Ranges and Foothills, from mine sites (Smoky River, Obed Marsh) and from old mine workings (Pocahontas, Brûle). Subsurface samples were obtained from well cuttings.

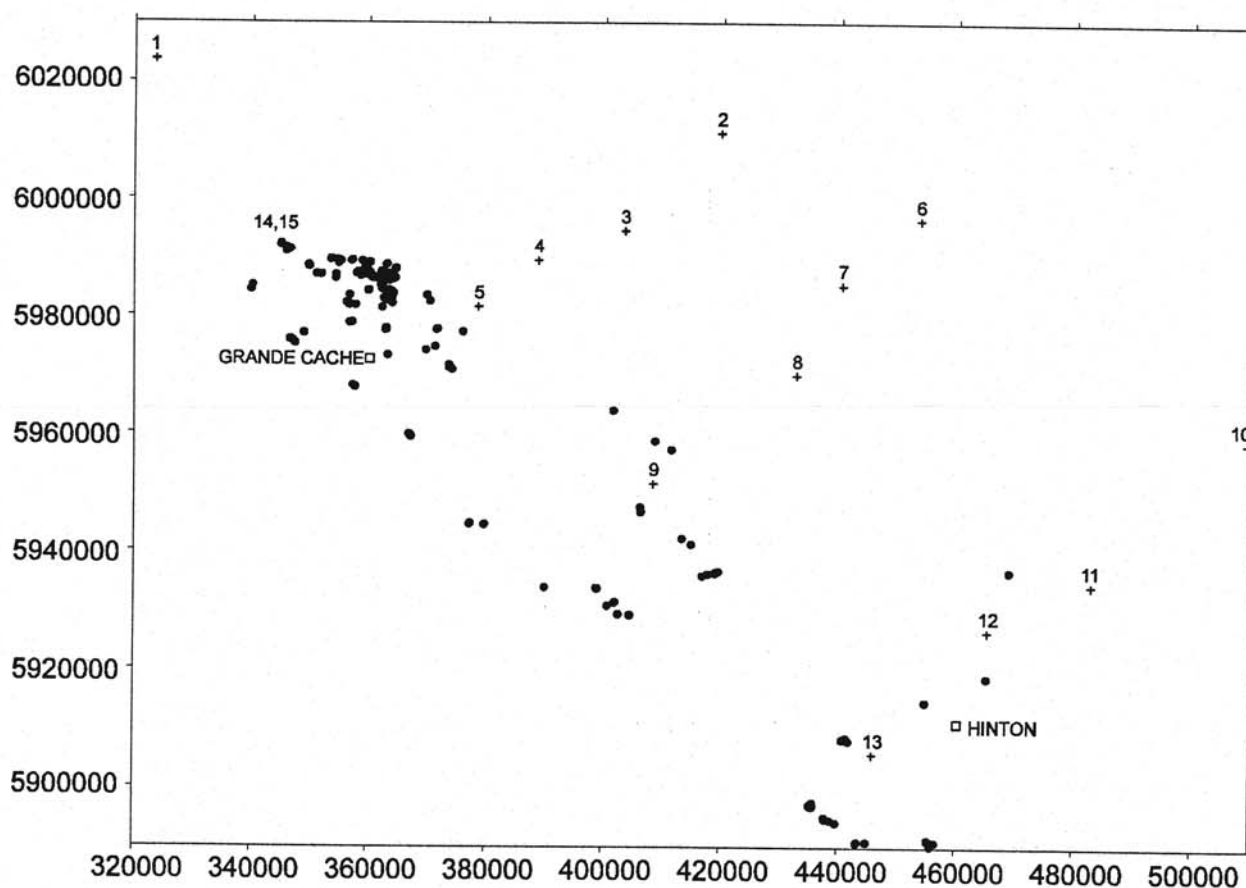


Figure 1. Study area and sample locations. Numbers refer to petroleum wells and coal exploration boreholes shown in Table 2.

Sample preparation and vitrinite reflectance measurements were carried out following standardized procedures (Bustin et al., 1989).

Data presentation

Data presented in this report total 544 vitrinite reflectance values. Table 1 lists the outcrop locations and other pertinent data roughly in a north/south pattern. Table 2 lists the vitrinite reflectances determined in subsurface samples from 13 petroleum exploration wells and two coal exploration boreholes. A legend is provided with the tables for explanation of abbreviations. The data are also available from the enclosed diskette (Excel 5.0 and ASCII files).

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Legend for Tables

Sample localities

Zone, Easting and Northing refer to UTM Grid

Sample type

g=grab sample; c=channel sample; sh=shaley; u=upper bench of seam; m=middle bench of seam; l=lower bench of seam

Sample numbering

C-Number=GSC(Calgary) curation number

Pellet Number=number assigned in GSC(Calgary) Organic Petrology Laboratories, polished pellet is stored at that location

KBA Number=Number assigned to field officer

Vitrinite reflectance data

RMAX(%)=reflectance measurements were recorded in maximum reflectance mode;
S.D.=standard deviation; N=number of measurements

ASTM rank (from vitrinite reflectance levels)

Subb.=subbituminous; HVB C=high volatile C bituminous; HVB B=high volatile C bituminous; HVB A=high volatile A bituminous; MVB=medium volatile bituminous; LVB=low volatile bituminous; SA=semi-anthracite

Table 1

Section	Sheet	Zone	Easting	Northing	Sample Type	Location, Well Reference, Section	Formation Group, Member	Seam	Thickness (m)	C-#	Pellet #	KBA Field #	Rmax% (mean)	S.D.	N	ASTM Rank
1	83L/3	11	346600	5991329	(g)	CAW RIDGE	GRANDE CACHE	4	-	108747	787/88	DH-256	1.69	0.05	50	LVB
2	83L/3	11	345944	5990972	(g)	CAW RIDGE	GRANDE CACHE	7	-	108748	788/88	215/88	1.42	0.05	50	MVB
3	83L/3	11	345018	5992000	(coalspar)	CAW RIDGE	GRANDE CACHE	11?	-	108749	789/88	216/88	1.42	0.05	50	MVB
4	83L/3	11	345082	5992042	(c)	CAW RIDGE	GRANDE CACHE	7	5.50	108750	790/88	217/88	1.60	0.04	50	LVB
4	83L/3	11	345082	5992042	(g)	CAW RIDGE	GRANDE CACHE	7	5.50	170541	791/88	217A/88	1.64	0.04	50	LVB
5	83L/3	11	345086	5992046	(c)	CAW RIDGE	GRANDE CACHE	5	1.70	170542	792/88	218/88	1.62	0.06	50	LVB
5	83L/3	11	345086	5992046	(g)	CAW RIDGE	GRANDE CACHE	5	1.70	170543	840/88	218A/88	1.65	0.04	50	LVB
6	83L/3	11	345074	5992116	(g)	CAW RIDGE	GRANDE CACHE	4	5.00	170544	793/88	219/88	1.67	0.05	50	LVB
7	83L/3	11	345088	5992143	(g)	CAW RIDGE	GRANDE CACHE	3	1.00	170545	794/88	220/88	1.73	0.05	50	LVB
8	83L/3	11	345066	5992269	(c)	CAW RIDGE	GRANDE CACHE	3	1.00	170546	795/88	221/88	1.69	0.04	50	LVB
8	83L/3	11	345066	5992269	(g)	CAW RIDGE	GRANDE CACHE	3	1.00	170547	796/88	221A/88	1.73	0.06	50	LVB
8	83L/3	11	345066	5992269	(c)	CAW RIDGE	GRANDE CACHE	3	1.10	170548	797/88	222/88	1.74	0.06	50	LVB
9	83L/3	11	345015	5992002	(c,sh)	CAW RIDGE	MOUNTAIN PARK	3	0.15	170549	798/88	223/88	1.39	0.06	50	LVB
10	83L/3	11	345937	5991564	(g)	CAW RIDGE	GRANDE CACHE	4	3.00+	120937	468/83	149/83	1.69	0.06	50	LVB
11	83L/3	11	358888	5989246	(g)	BARRETT PIT	GRANDE CACHE	4	4.00+	121106	505/83	186/83	1.68	0.06	50	LVB
12	83L/3	11	360108	5989029	(c,u)	BARRETT PIT	GRANDE CACHE	4	2.50	120943	491/83	172/83	1.55	0.06	50	LVB
12	83L/3	11	360108	5989029	(c,u,s)	BARRETT PIT	GRANDE CACHE	4	0.50	120943	492/83	173/83	1.62	0.05	50	LVB
12	83L/3	11	360108	5989029	(c,m)	BARRETT PIT	GRANDE CACHE	4	1.30	120943	493/83	174/83	1.62	0.05	50	LVB
12	83L/3	11	360108	5989029	(c,l,s)	BARRETT PIT	GRANDE CACHE	4	0.30	120943	494/83	175/83	1.62	0.05	50	LVB
12	83L/3	11	360108	5989029	(c,l,s)	BARRETT PIT	GRANDE CACHE	4	0.90	120943	495/83	176/83	1.61	0.95	50	LVB
13	83L/3	11	359240	5988920	(g)	BARRETT PIT	GRANDE CACHE	4	-	120945	500/83	181/83	1.66	0.06	50	LVB
14	83L/3	11	360204	5988983	(c,m)	BARRETT PIT	GRANDE CACHE	10	3.30	120974	497/83	178/83	1.50	0.05	50	LVB
14	83L/3	11	360204	5988983	(c,l)	BARRETT PIT	GRANDE CACHE	10	1.10	120974	496/83	177/83	1.53	0.04	50	LVB
15	83L/3	11	364418	5987800	(g,u)	MUSKEG ANTICLINE	GRANDE CACHE	4	0.30+	120941	486/83	167/83	1.51	0.04	50	LVB
16	83L/3	11	364546	5988024	(g)	MUSKEG ANTICLINE	GRANDE CACHE	4	-	120942	487/83	168/83	1.54	0.04	50	LVB
17	83L/3	11	363085	5988732	(c,u)	MUSKEG ANTICLINE	GRANDE CACHE	11	1.40	120913	488/83	169/83	1.39	0.04	50	MVB
17	83L/3	11	363085	5988732	(c,l)	MUSKEG ANTICLINE	GRANDE CACHE	11	0.85	120913	489/83	170/83	1.41	0.05	50	MVB
18	83L/3	11	362912	5988612	(g)	MUSKEG ANTICLINE	MOUNTAIN PARK	11	0.60	120989	490/83	171/83	1.37	0.06	50	MVB

Table 1

Section	Sheet	Zone	Easting	Northing	Sample Type	Location, Well Reference, Section	Formation Group, Member	Seam	Thickness (m)	C-#	Pellet #	KBA Field #	Rmax% (mean)	S.D.	N	ASTM Rank
19	83L/3	11	355238	5989306	(g)	SMOKY RIVER MINE #9	GRANDE CACHE	4	7.48	121101	698/83	WL83910	1.65	0.05	50	LVB
20	83L/3	11	353520	5989520	(c)	SMOKY RIVER MINE #9	GRANDE CACHE	10	1.40	121132	453/83	136A/83	1.59	0.06	50	LVB
20	83L/3	11	353520	5989520	(c)	SMOKY RIVER MINE #9	GRANDE CACHE	10	1.40	121132	454/83	136B/83	1.59	0.06	50	LVB
20	83L/3	11	353520	5989520	(c)	SMOKY RIVER MINE #9	GRANDE CACHE	10	2.19	121132	455/83	137/83	1.56	0.05	50	LVB
21	83L/3	11	354840	5988840	(c)	SMOKY RIVER MINE #9	GRANDE CACHE	8	0.50	121121	456/83	138/83	1.58	0.06	50	LVB
21	83L/3	11	354840	5988840	(c)	SMOKY RIVER MINE #9	GRANDE CACHE	7	0.40	121121	457/83	139/83	1.67	0.06	50	LVB
21	83L/3	11	354840	5988840	(c)	SMOKY RIVER MINE #9	GRANDE CACHE	6	0.60	121121	458/83	140/83	1.66	0.05	50	LVB
22	83L/3	11	353600	5989620	(c)	SMOKY RIVER MINE #9	GRANDE CACHE	11	0.05	121122	459/83	141A/83	1.54	0.10	50	LVB
22	83L/3	11	353600	5989620	(c)	SMOKY RIVER MINE #9	GRANDE CACHE	11, base	1.45	121122	460/83	141B/83	1.54	0.10	50	LVB
23	83L/3	11	354830	5989080	(c)	SMOKY RIVER MINE #9	GRANDE CACHE	4	0.05	121122	461/83	142/83	1.63	0.06	50	LVB
24	83L/3	11	354629	5989449	(c)	SMOKY RIVER MINE #9	GRANDE CACHE	11	?	121123	462/83	143/83	1.49	0.06	50	MVB
25	83L/3	11	357180	5989393	(c)	SMOKY RIVER MINE #9	GRANDE CACHE	10	?	-	379/86	-	1.56	0.05	50	LVB
26	83L/3	11	356984	5989295	(c)	SMOKY RIVER MINE #9	GRANDE CACHE	4	?	-	380/86	-	1.69	0.05	50	LVB
27	83L/3	11	351146	5987030	(g)	SMOKY RIVER #11 MINE	GRANDE CACHE	4	0.5+	170550	830/88	254/88	1.62	0.04	50	LVB
28	83L/3	11	351192	5987028	(g)	SMOKY RIVER #11 MINE	GRANDE CACHE	4	-	108669	831/88	255/88	1.64	0.06	50	LVB
29	83L/3	11	351120	5987030	(c)	SMOKY RIVER #11 MINE	GRANDE CACHE	4,1	3.25	108670	1469/89	116/89	1.68	0.05	50	LVB
29	83L/3	11	351120	5987030	(c)	SMOKY RIVER #11 MINE	GRANDE CACHE	4,u	1.80	108671	1470/89	117/89	1.66	0.06	50	LVB
30	83L/3	11	351770	5986988	(coalspar)	SMOKY RIVER #11 MINE	CADOMIN		-	108672	832/88	256/88	1.67	0.04	50	LVB
31	83L/3	11	351815	5986986	(coalspar)	SMOKY RIVER #11 MINE	CADOMIN		-	108673	833/88	257/88	1.61	0.05	50	LVB
32	83L/3	11	351908	5987013	(c)	SMOKY RIVER #11 MINE	NIKANASSIN		0.10	108675	834/88	258/88	1.56	0.06	50	LVB
33	83L/3	11	362155	5987387	(c,u)	BARRETT ANTICLINE	GRANDE CACHE	4	2.70+	121111	479/83	160/83	1.53	0.05	50	LVB
34	83L/3	11	362210	5981370	(c,u)	BARRETT ANTICLINE	GRANDE CACHE	4	1.00+	121112	480/83	161/83	1.59	0.05	50	LVB
35	83L/3	11	362050	5987275	(c)	BARRETT ANTICLINE	GRANDE CACHE	10	2.75	120971	469/83	150/83	1.45	0.06	50	MVB
36	83L/3	11	362086	5987472	(c,m+l)	BARRETT ANTICLINE	GRANDE CACHE	10	2.20+	120972	482/83	163/83	1.44	0.05	50	MVB
37	83L/3	11	363161	5987152	(g)	BARRETT ANTICLINE	GRANDE CACHE	10	-	120973	485/83	166/83	1.46	0.05	50	MVB
38	83L/3	11	362002	5987299	(c,u)	BARRETT ANTICLINE	GRANDE CACHE	11	1.15	121110	470/83	151/83	1.43	0.04	50	MVB
38	83L/3	11	362002	5987299	(c,l)	BARRETT ANTICLINE	GRANDE CACHE	11	0.15	121110	472/83	152/83	1.42	0.04	50	MVB
39	83L/3	11	362015	5987530	(c,u)	BARRETT ANTICLINE	GRANDE CACHE	11	1.40	120912	483/83	164/83	1.34	0.05	50	MVB
39	83L/3	11	362015	5987530	(c,l)	BARRETT ANTICLINE	GRANDE CACHE	11	0.30	120912	484/83	165/83	1.41	0.05	50	MVB
40	83L/3	11	354386	5986969	(?)	SHEEP CREEK	GRANDE CACHE	4	8.00	170514	1065/88	GC3-1	1.61	0.06	50	LVB
41	83L/3	11	361306	5986273	(g,u)	SMOKY RIVER #2 MINE	GRANDE CACHE	4	1.00+	120936	452/83	135/83	1.57	0.06	50	LVB
42	83L/3	11	362050	5986623	(g,m)	SMOKY RIVER #2 MINE	GRANDE CACHE	4	1.30+	120934	451/83	134/83	1.66	0.05	50	LVB
43	83L/3	11	362134	5986750	(g,u)	SMOKY RIVER #2 MINE	GRANDE CACHE	10	-	121104	450/83	133/83	1.48	0.05	50	MVB
44	83L/3	11	361844	5986732	(c,u)	SMOKY RIVER #2 MINE	GRANDE CACHE	11	1.24	121103	448/83	131/83	1.39	0.05	50	MVB
44	83L/3	11	361844	5986732	(c,l)	SMOKY RIVER #2 MINE	GRANDE CACHE	11	0.95	121103	449/83	132/83	1.50	0.05	50	LVB

Table 1

Section	Sheet	Zone	Easting	Northing	Sample Type	Location, Well Reference, Section	Formation Group, Member	Seam	Thickness (m)	C-#	Pellet #	KBA Field #	Rmax% (mean)	S.D.	N	ASTM Rank
45	83L/3	11	360628	5986338	(g,u)	SMOKY RIVER #8 MINE	GRANDE CACHE	4	2.00+	120959	547/83	228/83	1.58	0.03	50	LVB
46	83L/3	11	360377	5986538	(g)	SMOKY RIVER #8 MINE	GRANDE CACHE	4	3.00+	120958	540/83	221/83	1.52	0.04	50	LVB
47	83L/3	11	359434	5986959	(g)	SMOKY RIVER #8 MINE	GRANDE CACHE	4	-	120949	504/83	185/83	1.65	0.04	50	LVB
48	83L/3	11	358760	5986802	(g)	SMOKY RIVER #8 MINE	GRANDE CACHE	4	-	120957	536/83	217/83	1.65	0.05	50	LVB
49	83L/3	11	357896	5987150	(g)	SMOKY RIVER #8 MINE	GRANDE CACHE	4	6.00+	120947	502/83	183/83	1.69	0.04	50	LVB
50	83L/3	11	358067	5987432	(g)	SMOKY RIVER #8 MINE	GRANDE CACHE	4	-	120948	503/83	184/83	1.70	0.04	50	LVB
51	83L/3	11	358560	5986984	(g)	SMOKY RIVER #8 MINE	GRANDE CACHE	4	-	120946	501/83	182/83	1.59	0.04	50	LVB
52	83L/3	11	358581	5986758	(g)	SMOKY RIVER #8 MINE	GRANDE CACHE	10	-	120981	537/83	218/83	1.42	0.06	50	MVB
53	83L/3	11	360468	5986577	(g)	SMOKY RIVER #8 MINE	GRANDE CACHE	11	-	120923	544/83	225/83	1.43	0.05	50	MVB
54	83L/3	11	360468	5986577	(g)	SMOKY RIVER #8 MINE	GRANDE CACHE	11	-	120923	545/83	226/83	1.43	0.05	50	MVB
55	83L/3	11	360526	5986739	(g)	SMOKY RIVER #8 MINE	GRANDE CACHE	11	-	120992	543/83	224/83	1.40	0.05	50	MVB
56	83L/3	11	359800	5987673	(g)	SMOKY RIVER #8 MINE	GRANDE CACHE	11	-	120914	498/83	179/83	1.46	0.04	50	MVB
57	83L/3	11	360205	5987287	(g)	SMOKY RIVER #8 MINE	MOUNTAIN PARK		0.60	120993	534/83	215/83	1.35	0.04	50	MVB
58	83L/3	11	360134	5986978	(g)	SMOKY RIVER #8 MINE	MOUNTAIN PARK		0.50	120994	535/83	216/83	1.33	0.04	50	MVB
59	83L/3	11	358759	5986802	(c)	SMOKY RIVER #8 MINE	GRANDE CACHE	GC No.7	0.15	120995	539/83	220/83	1.52	0.05	50	LVB
60	83L/3	11	358759	5986802	(c)	SMOKY RIVER #8 MINE	GRANDE CACHE	GC No.6	0.40	120995	538/83	219/83	1.54	0.04	50	LVB
61	83L/3	11	359224	5987977	(g)	SMOKY RIVER #8 MINE	GRANDE CACHE	4	-	120944	499/83	180/83	1.65	0.04	50	LVB
62	83L/3	11	363770	5986940	(g)	SMOKY RIVER ROADCUT E	GRANDE CACHE	11	-	108676	1466/89	112/89	1.39	0.05	50	MVB
63	83L/3	11	363690	5986930	(g)	SMOKY RIVER ROADCUT E	GRANDE CACHE	10	3.40	108677	1467/89	113/89	1.43	0.04	50	MVB
64	83L/3	11	363590	5986890	(g)	SMOKY RIVER ROADCUT E	GRANDE CACHE	4	5.08	108678	1468/89	114/89	1.61	0.06	50	LVB
65	83L/3	11	363450	5986850	(c)	SMOKY RIVER ROADCUT E	GLADSTONE		0.23	108679	1483/89	118/89	1.57	0.07	50	LVB
66	83L/3	11	363480	5986860	(c)	SMOKY RIVER ROADCUT E	GLADSTONE		0.30	108680	1484/89	119/89	1.60	0.05	50	LVB
67	83L/3	11	363480	5986860	(g)	SMOKY RIVER ROADCUT E	GLADSTONE		0.30	108681	1485/89	120/89	1.67	0.05	50	LVB
68	83L/3	11	363510	5986870	(c)	SMOKY RIVER ROADCUT E	GRANDE CACHE	3	0.40	108683	1486/89	121/89	1.53	0.05	50	LVB
69	83L/3	11	363590	5986890	(c)	SMOKY RIVER ROADCUT E	GRANDE CACHE	4,1	0.60	108684	1487/89	122/89	1.58	0.04	50	LVB
70	83L/3	11	363590	5986890	(c)	SMOKY RIVER ROADCUT E	GRANDE CACHE	4	4.30	108685	1488/89	123/89	1.63	0.04	50	LVB
71	83L/3	11	363660	5986900	(c)	SMOKY RIVER ROADCUT E	GRANDE CACHE	6	0.90	108686	1489/89	124/89	1.50	0.05	50	LVB
72	83L/3	11	363660	5986900	(c)	SMOKY RIVER ROADCUT E	GRANDE CACHE	7	0.22	108687	1490/89	125/89	1.40	0.05	50	MVB
73	83L/3	11	363660	5986900	(c)	SMOKY RIVER ROADCUT E	GRANDE CACHE		0.06	108688	1491/89	126/89	1.47	0.04	50	MVB
74	83L/3	11	363670	5986910	(c)	SMOKY RIVER ROADCUT E	GRANDE CACHE	8	0.20	108689	1492/89	127/89	1.50	0.03	50	LVB
75	83L/3	11	363690	5986930	(c)	SMOKY RIVER ROADCUT E	GRANDE CACHE	10	3.40	108690	1493/89	128/89	1.49	0.04	50	MVB
76	83L/3	11	363690	5986930	(c)	SMOKY RIVER ROADCUT E	GRANDE CACHE	10,u	0.30	108691	1495/89	129/89	1.51	0.04	50	LVB
77	83L/3	11	363690	5986930	(c)	SMOKY RIVER ROADCUT E	GRANDE CACHE	10,u	0.10	108692	1496/89	130/89	1.45	0.05	50	MVB
78	83L/3	11	363690	5986930	(c)	SMOKY RIVER ROADCUT E	GRANDE CACHE	10,u	0.40	108693	1497/89	131/89	1.49	0.04	50	MVB
79	83L/3	11	363770	5986940	(c)	SMOKY RIVER ROADCUT E	GRANDE CACHE	11,1	1.13	108694	1498/89	132/89	1.46	0.04	50	MVB
80	83L/3	11	363770	5986940	(c)	SMOKY RIVER ROADCUT E	GRANDE CACHE	11,1	0.12	204101	1499/89	133/89	1.47	0.05	50	MVB
81	83L/3	11	363770	5986940	(c)	SMOKY RIVER ROADCUT E	GRANDE CACHE	11,u	0.98	204102	1500/89	134/89	1.44	0.05	50	MVB
82	83L/3	11	363770	5986940	(c)	SMOKY RIVER ROADCUT E	GRANDE CACHE	11,u	1.00	204103	1501/89	135/89	1.41	1.05	50	MVB
83	83L/3	11	363800	5986950	(c)	SMOKY RIVER ROADCUT E	GRANDE CACHE	11,u	0.10	204104	1502/89	136/89	1.20	0.04	50	MVB
84	83L/3	11	363800	5986950	(c)	SMOKY RIVER ROADCUT E	MOUNTAIN PARK		0.20	204105	1503/89	137/89	1.36	0.03	50	MVB

Table 1

Section	Sheet	Zone	Easting	Northing	Sample Type	Location, Well Reference, Section	Formation Group, Member	Seam	Thickness (m)	C-#	Pellet #	KBA Field #	Rmax% (mean)	S.D.	N	ASTM Rank
71	83L/3	11	363800	5986950	(c,sh)	SMOKY RIVER ROADCUT E	MOUNTAIN PARK		0.80	204106	1504/89	138/89	1.36	0.04	50	MVB
71	83L/3	11	363800	5986950	(c)	SMOKY RIVER ROADCUT E	MOUNTAIN PARK		0.07	204107	1505/89	139/89	1.25	0.03	50	MVB
71	83L/3	11	363800	5986950	(c)	SMOKY RIVER ROADCUT E	MOUNTAIN PARK		0.15	204108	1506/89	140/89	1.18	0.03	50	MVB
72	83L/3	11	363830	5986960	(c)	SMOKY RIVER ROADCUT E	MOUNTAIN PARK		0.60	204109	1507/89	141/89	1.31	0.06	50	MVB
72	83L/3	11	363830	5986960	(g)	SMOKY RIVER ROADCUT E	MOUNTAIN PARK		0.60	204110	1508/89	141A/89	1.33	0.04	50	MVB
73	83L/3	11	363563	5985985	(c,u)	SMOKY RIVER RR CUT	GRANDE CACHE	4	0.95	120924	338/83	26/83	1.54	0.07	50	LVB
73	83L/3	11	363563	5985985	(c,m)	SMOKY RIVER RR CUT	GRANDE CACHE	4	1.70	120924	339/83	27/83	1.60	0.06	50	LVB
73	83L/3	11	363563	5985985	(c,l)	SMOKY RIVER RR CUT	GRANDE CACHE	4	2.15	120924	340/83	28/83	1.62	0.06	50	LVB
74	83L/3	11	364046	5986162	(g,m)	SMOKY RIVER RR CUT	GRANDE CACHE	4	-	120925	344/83	32/83	1.53	0.06	50	LVB
75	83L/3	11	364178	5986249	(c,u)	SMOKY RIVER RR CUT	GRANDE CACHE	4	1.15	120926	345/83	33/83	1.53	0.06	50	LVB
75	83L/3	11	364178	5986249	(c,m)	SMOKY RIVER RR CUT	GRANDE CACHE	4	3.00	120926	346/83	34/83	1.53	0.05	50	LVB
75	83L/3	11	364178	5986249	(c,l)	SMOKY RIVER RR CUT	GRANDE CACHE	4	1.35	120926	347/83	35/83	1.57	0.04	50	LVB
76	83E/14	11	362369	5985660	(g,m)	SMOKY RIVER RR CUT	GRANDE CACHE	4	-	120927	354/83	42/83	1.58	0.05	50	LVB
77	83L/3	11	364253	5986291	(g)	SMOKY RIVER RR CUT	GRANDE CACHE	10	-	120963	348/83	36/83	1.43	0.05	50	MVB
78	83E/14	11	362256	5985385	(g)	SMOKY RIVER RR CUT	GRANDE CACHE	10	-	120964	374/83	62/83	1.51	0.06	50	LVB
79	83L/3	11	363514	5985914	(g)	SMOKY RIVER RR CUT	GRANDE CACHE	10	-	120962	341/83	21/83	1.41	0.04	50	MVB
80	83L/3	11	362336	5985403	(c,u)	SMOKY RIVER RR CUT	GRANDE CACHE	11	1.25	120904	358/83	46/83	1.44	0.04	50	MVB
80	83L/3	11	362336	5985403	(c,u)	SMOKY RIVER RR CUT	GRANDE CACHE	11	1.15	120904	357/83	45/83	1.38	0.05	50	MVB
80	83L/3	11	362336	5985403	(c,m)	SMOKY RIVER RR CUT	GRANDE CACHE	11	0.20	120904	356/83	44/83	1.42	0.05	50	MVB
80	83L/3	11	362336	5985403	(c,l)	SMOKY RIVER RR CUT	GRANDE CACHE	11	0.75	120904	355/83	43/83	1.46	0.05	50	MVB
80	83L/3	11	362336	5985403	(c,u)	SMOKY RIVER RR CUT	GRANDE CACHE	11	1.30	120904	362/83	50/83	1.50	0.04	50	LVB
80	83L/3	11	362336	5985403	(c,u)	SMOKY RIVER RR CUT	GRANDE CACHE	11	1.10	120904	361/83	49/83	1.46	0.04	50	MVB
80	83L/3	11	362336	5985403	(c,m)	SMOKY RIVER RR CUT	GRANDE CACHE	11	0.20	120904	360/83	48/83	1.42	0.06	50	MVB
80	83L/3	11	362336	5985403	(c,l)	SMOKY RIVER RR CUT	GRANDE CACHE	11	1.30	120904	359/83	47/83	1.49	0.04	50	MVB
81	83L/3	11	364338	5986349	(c,u)	SMOKY RIVER RR CUT	GRANDE CACHE	11	1.50	120902	349/83	37/83	1.42	0.07	50	MVB
81	83L/3	11	364338	5986349	(c,l)	SMOKY RIVER RR CUT	GRANDE CACHE	11	1.00	120902	350/83	38/83	1.44	0.05	50	MVB
82	83L/3	11	363510	5985884	(c,u)	SMOKY RIVER RR CUT	GRANDE CACHE	11	0.40	120901	343/83	31/83	1.45	0.04	50	MVB
82	83L/3	11	363510	5985884	(c,l)	SMOKY RIVER RR CUT	GRANDE CACHE	11	0.68	120901	342/83	30/83	1.42	0.05	50	MVB
83	83E/14	11	361938	5985154	(c)	SMOKY RIVER RR CUT	NIKANASSIN		0.40	121107	372/83	60/83	1.75	0.05	50	LVB
83	83E/14	11	361938	5985154	(c)	SMOKY RIVER RR CUT	NIKANASSIN		0.20	121107	373/83	61/83	1.62	0.06	50	LVB
84	83L/3	11	363471	5985971	(c)	SMOKY RIVER RR CUT	GRANDE CACHE	GC No.8	0.76	120987	402/83	90/83	1.50	0.05	50	LVB
85	83L/3	11	364434	5986387	(c)	SMOKY RIVER RR CUT	MOUNTAIN PARK		0.40	120984	351/83	39/83	1.29	0.03	50	MVB
86	83L/3	11	354369	5986363	(c)	SMOKY RIVER RR CUT	MOUNTAIN PARK		1.00	120985	352/83	40/83	1.27	0.04	50	MVB
87	83E/14	11	359969	5984307	(c,u)	SMOKY RIVER ROADCUT W	GRANDE CACHE	4	1.10	120933	444/83	127/83	1.53	0.05	50	LVB
87	83E/14	11	359969	5984307	(c,m)	SMOKY RIVER ROADCUT W	GRANDE CACHE	4	2.14	120933	445/83	128/83	1.45	0.06	50	MVB
87	83E/14	11	359969	5984307	(c,l)	SMOKY RIVER ROADCUT W	GRANDE CACHE	4	5.25	120933	446/83	129/83	1.57	0.06	50	LVB
88	83E/14	11	359882	5984216	(g)	SMOKY RIVER ROADCUT W	GRANDE CACHE	10	-	120970	443/83	126/83	1.48	0.05	50	MVB

Table 1

Section	Sheet	Zone	Easting	Northing	Sample Type	Location, Well Reference, Section	Formation Group, Member	Seam	Thickness (m)	C-#	Pellet #	KBA Field #	Rmax% (mean)	S.D.	N	ASTM Rank
89	83E/14	11	362787	5984148	(c,u)	GOAT CLIFFS	GRANDE CACHE	4	2.70	121108	381/83	69/83	1.52	0.05	50	LVB
89	83E/14	11	362787	5984148	(c,u)	GOAT CLIFFS	GRANDE CACHE	4	0.70	121108	380/83	68/83	1.53	0.06	50	LVB
89	83E/14	11	362787	5984148	(c,m)	GOAT CLIFFS	GRANDE CACHE	4	1.00	121108	379/83	67/83	1.47	0.03	50	MVB
89	83E/14	11	362787	5984148	(c,l)	GOAT CLIFFS	GRANDE CACHE	4	1.00	121108	378/83	66/83	1.54	0.04	50	LVB
89	83E/14	11	362787	5984148	(c,l)	GOAT CLIFFS	GRANDE CACHE	4	0.50	121108	377/83	65/83	1.62	0.05	50	LVB
90	83E/14	11	362140	5984432	(g,s)	GOAT CLIFFS	GRANDE CACHE	4	2.05+	120928	375/83	63/83	1.60	0.05	50	LVB
91	83E/14	11	363472	5984198	(g)	GOAT CLIFFS	GRANDE CACHE	4	-	120955	530/83	211/83	1.57	0.04	50	LVB
92	83E/14	11	363692	5983918	(g)	GOAT CLIFFS	GRANDE CACHE	4	-	120953	528/83	209/83	1.55	0.06	50	LVB
93	83E/14	11	363387	5983272	(g)	GOAT CLIFFS	GRANDE CACHE	4	-	120930	397/83	85/83	1.51	0.04	50	LVB
94	83E/14	11	363459	5983101	(g)	GOAT CLIFFS	GRANDE CACHE	4	-	120932	399/83	87/83	1.53	0.04	50	LVB
95	83E/14	11	363440	5983147	(g)	GOAT CLIFFS	GRANDE CACHE	4	-	120931	398/83	86/83	1.55	0.06	50	LVB
96	83E/14	11	363556	5983292	(g)	GOAT CLIFFS	GRANDE CACHE	4	-	120929	396/83	84/83	1.52	0.06	50	LVB
97	83E/14	11	363652	5982754	(g,m)	GOAT CLIFFS	GRANDE CACHE	4	-	120952	518/83	199/83	1.47	0.08	50	MVB
98	83E/14	11	362672	5982963	(g)	GOAT CLIFFS	GRANDE CACHE	4	7.00+	120951	511/83	192/83	1.53	0.06	50	LVB
99	83E/14	11	363415	5984295	(g)	GOAT CLIFFS	GRANDE CACHE	10	-	120980	531/83	212/83	1.40	0.04	50	MVB
100	83E/14	11	363385	5983717	(g)	GOAT CLIFFS	GRANDE CACHE	10	-	120965	385/83	73/83	1.44	0.04	50	MVB
101	83E/14	11	363522	5983577	(g)	GOAT CLIFFS	GRANDE CACHE	10	2.00+	120966	386/83	74/83	1.44	0.05	50	MVB
102	83E/14	11	363698	5983484	(c,u)	GOAT CLIFFS	GRANDE CACHE	10	1.00	120907	392/83	70/83	1.39	0.05	50	MVB
102	83E/14	11	363698	5983484	(c,l)	GOAT CLIFFS	GRANDE CACHE	10	2.40	120967	391/83	79/83	1.43	0.05	50	MVB
103	83E/14	11	369808	5983415	(c,l)	GOAT CLIFFS	GRANDE CACHE	10	1.00+	120968	393/83	81/83	1.45	0.04	50	MVB
104	83E/14	11	364128	5983779	(g)	GOAT CLIFFS	GRANDE CACHE	10	-	121109	523/83	204/83	1.35	0.05	50	MVB
105	83E/14	11	363716	5983114	(g)	GOAT CLIFFS	GRANDE CACHE	10	-	120969	400/83	88/83	1.38	0.04	50	MVB
106	83E/14	11	363852	5982871	(g)	GOAT CLIFFS	GRANDE CACHE	10	-	120977	520/83	201/83	1.40	0.05	50	MVB
107	83E/14	11	363058	5982627	(c,u)	GOAT CLIFFS	GRANDE CACHE	10	0.45	120975	508/83	189/83	1.42	0.05	50	MVB
107	83E/14	11	363058	5982627	(c,m)	GOAT CLIFFS	GRANDE CACHE	10	0.10	120975	507/83	188/83	1.42	0.04	50	MVB
107	83E/14	11	363058	5982627	(c,l)	GOAT CLIFFS	GRANDE CACHE	10	2.70	120975	506/83	187/83	1.45	0.05	50	MVB
108	83E/14	11	362498	5982952	(g)	GOAT CLIFFS	GRANDE CACHE	10	-	120976	516/83	197/83	1.43	0.06	50	MVB
109	83E/14	11	363416	5984314	(g)	GOAT CLIFFS	GRANDE CACHE	11	-	120921	532/83	213/83	1.38	0.04	50	MVB
110	83E/14	11	363401	5983753	(c,u)	GOAT CLIFFS	GRANDE CACHE	11	0.45	120907	382/83	70/83	1.40	0.05	50	MVB
110	83E/14	11	363401	5983753	(c,m)	GOAT CLIFFS	GRANDE CACHE	11	0.40	120907	383/83	71/83	1.40	0.04	50	MVB
110	83E/14	11	363401	5983753	(c,l)	GOAT CLIFFS	GRANDE CACHE	11	0.50	120907	384/83	72/83	1.39	0.05	50	MVB
111	83E/14	11	363533	5983610	(c,u)	GOAT CLIFFS	GRANDE CACHE	11	1.25	120908	387/83	75/83	1.40	0.04	50	MVB
111	83E/14	11	363533	5983610	(c,l)	GOAT CLIFFS	GRANDE CACHE	11	1.50	120908	388/83	76/83	1.40	0.04	50	MVB
111	83E/14	11	363533	5983610	(c,l)	GOAT CLIFFS	GRANDE CACHE	11	0.40	120908	389/83	77/83	1.36	0.05	50	MVB
111	83E/14	11	363533	5983610	(c,l)	GOAT CLIFFS	GRANDE CACHE	11	1.00	120908	390/83	78/83	1.38	0.04	50	MVB
112	83E/14	11	363850	5983392	(g)	GOAT CLIFFS	GRANDE CACHE	11	-	120909	394/83	82/83	1.39	0.04	50	MVB
113	83E/14	11	364134	5983758	(g)	GOAT CLIFFS	GRANDE CACHE	11	-	120919	524/83	205/83	1.39	0.04	50	MVB
114	83E/14	11	364122	5983701	(g)	GOAT CLIFFS	GRANDE CACHE	11	-	120918	522/83	203/83	1.35	0.05	50	MVB
115	83E/14	11	363803	5984099	(g)	GOAT CLIFFS	GRANDE CACHE	11	-	120920	525/83	206/83	1.37	0.04	50	MVB
116	83E/14	11	363777	5983124	(g)	GOAT CLIFFS	GRANDE CACHE	11	-	120910	401/83	89/83	1.34	0.04	50	MVB

Table 1

Section	Sheet	Zone	Easting	Northing	Sample Type	Location, Well Reference, Section	Formation Group, Member	Seam	Thickness (m)	C-#	Pellet #	KBA Field #	Rmax% (mean)	S.D.	N	ASTM Rank
117	83E/14	11	363938	5982079	(g,l)	GOAT CLIFFS	GRANDE CACHE	11	-	120917	521/83	202/83	1.32	0.04	50	MVB
118	83E/14	11	363062	5982593	(g)	GOAT CLIFFS	GRANDE CACHE	11	-	120915	509/83	190/83	1.38	0.04	50	MVB
119	83E/14	11	362456	5982899	(g)	GOAT CLIFFS	GRANDE CACHE	11	-	120976	517/83	198/83	1.36	0.06	50	MVB
120	83E/14	11	363731	5983986	(g)	GOAT CLIFFS	GRANDE CACHE	GC No.8	-	120992	527/83	208/83	1.51	0.04	50	LVB
121	83E/14	11	363623	5983240	(g)	GOAT CLIFFS	GRANDE CACHE	GC No.8	-	121105	395/83	83/83	1.50	0.04	50	LVB
122	83E/14	11	363692	5982768	(g)	GOAT CLIFFS	GRANDE CACHE	GC No.8	0.50	120991	519/83	200/83	1.34	0.07	50	MVB
123	83E/14	11	362578	5982973	(c)	GOAT CLIFFS	GRANDE CACHE	GC No.8	0.75	120990	512/83	193/83	1.40	0.05	50	MVB
123	83E/14	11	362578	5982973	(c)	GOAT CLIFFS	GRANDE CACHE	GC No.7	0.75	120990	513/83	194/83	1.48	0.04	50	MVB
123	83E/14	11	362578	5982973	(c)	GOAT CLIFFS	GRANDE CACHE	GC No.6	0.60	120990	514/83	195/83	1.53	0.05	50	LVB
123	83E/14	11	362578	5982973	(c)	GOAT CLIFFS	GRANDE CACHE	GC ?	0.50	120990	515/83	196/83	1.39	0.05	50	MVB
125	83E/14	11	363539	5984046	(g)	GOAT CLIFFS	GRANDE CACHE	4	-	120954	529/83	210/83	1.62	0.05	50	LVB
126	83E/14	11	356673	5983419	(g)	SMOKY RIVER #7 MINE	GRANDE CACHE	3	-	120961	699/83	WLST.988	1.68	0.07	50	LVB
127	83E/14	11	356678	5983364	(g)	SMOKY RIVER #7 MINE	GRANDE CACHE	4	-	120960	700/83	WLST.989	1.60	0.05	50	LVB
128	83E/14	11	356572	5981904	(g)	MOUNT HAMELL	GRANDE CACHE	4	-	204111	799/88	224/88	1.72	0.03	50	LVB
129	83E/14	11	357710	5981776	(c)	MOUNT HAMELL	GRANDE CACHE	3	1.44	204112	800/88	225/88	1.69	0.05	50	LVB
129	83E/14	11	357710	5981776	(c)	MOUNT HAMELL	GRANDE CACHE	3	0.40	204113	801/88	226/88	1.67	0.04	50	LVB
129	83E/14	11	357710	5981776	(c)	MOUNT HAMELL	GRANDE CACHE	3	0.05	204114	802/88	227/88	1.71	0.05	50	LVB
129	83E/14	11	357710	5981776	(c)	MOUNT HAMELL	GRANDE CACHE	3	0.08	204115	803/88	228/88	1.78	0.06	50	LVB
129	83E/14	11	357710	5981776	(c)	MOUNT HAMELL	GRANDE CACHE	3	0.05	204116	804/88	229/88	1.78	0.05	50	LVB
129	83E/14	11	357710	5981776	(c)	MOUNT HAMELL	GRANDE CACHE	3	0.14	204117	805/88	230/88	1.71	0.04	50	LVB
129	83E/14	11	357710	5981776	(c)	MOUNT HAMELL	GRANDE CACHE	3	0.11	204118	806/88	231/88	1.70	0.05	50	LVB
129	83E/14	11	357710	5981776	(c)	MOUNT HAMELL	GRANDE CACHE	3	0.40	204119	807/88	232/88	1.71	0.06	50	LVB
129	83E/14	11	357710	5981776	(c)	MOUNT HAMELL	GRANDE CACHE	3	0.14	204120	808/88	233/88	1.74	0.06	50	LVB
129	83E/14	11	357710	5981776	(c)	MOUNT HAMELL	GRANDE CACHE	3	0.07	204121	809/88	234/88	1.72	0.06	50	LVB
130	83E/14	11	356689	5981777	(c)	MOUNT HAMELL	GRANDE CACHE	4	3.50	204122	810/88	235/88	1.72	0.04	50	LVB
130	83E/14	11	356689	5981777	(g)	MOUNT HAMELL	GRANDE CACHE	4	3.50	204123	811/88	236/88	1.76	0.07	50	LVB
131	83E/14	11	356467	5981939	(c)	MOUNT HAMELL	GRANDE CACHE	8	1.30	204124	812/88	237/88	1.62	0.05	50	LVB
132	83E/14	11	356437	5981955	(c)	MOUNT HAMELL	GRANDE CACHE	?	0.20	204125	813/88	238/88	1.61	0.04	50	LVB
133	83E/14	11	356379	5982019	(c)	MOUNT HAMELL	GRANDE CACHE	10,l	1.60	204126	814/88	239/88	1.49	0.06	50	MVB
133	83E/14	11	356379	5982019	(c)	MOUNT HAMELL	GRANDE CACHE	10,u	1.70	204127	815/88	240/88	1.59	0.06	50	LVB
134	83E/14	11	356503	5982059	(g)	MOUNT HAMELL	GRANDE CACHE	6	2.00+	204128	816/88	241/88	1.50	0.04	50	LVB
135	83E/14	11	356534	5982089	(c)	MOUNT HAMELL	GRANDE CACHE	6	0.75	204129	817/88	242/88	1.57	0.04	50	LVB
136	83E/14	11	356293	5982160	(coalspar)	MOUNT HAMELL	MOUNTAIN PARK		-	204130	818/88	243/88	1.51	0.04	50	LVB
137	83E/14	11	356173	5982195	(c,sh)	MOUNT HAMELL	MOUNTAIN PARK		0.46	204131	819/88	244/88	1.40	0.06	50	MVB
137	83E/14	11	356173	5982195	(c)	MOUNT HAMELL	MOUNTAIN PARK		0.16	204132	820/88	245/88	1.42	0.05	50	MVB
137	83E/14	11	356173	5982195	(c)	MOUNT HAMELL	MOUNTAIN PARK		0.40	204133	821/88	246/88	1.47	0.04	50	MVB
138	83E/14	11	356700	5978750	(g)	MOUNT HAMELL	GRANDE CACHE		0.50	204134	822/88	247/88	1.19	0.05	50	MVB

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139	83E/14	11	339980	5984460	(g)	HORN CREEK	GRANDE CACHE	7?	-	204135	1460/89	107/89	1.38	0.06	50	MVB
139	83E/14	11	339980	5984380	(g)	HORN CREEK	GRANDE CACHE	4?	-	204136	1461/89	108/89	1.39	0.05	50	MVB
140	83E/14	11	340160	5985140	(g)	HORN CREEK	GRANDE CACHE		-	204137	1462/89	109/89	1.21	0.04	50	MVB
141	83E/14	11	362873	5977832	(g)	GRANDE MOUNTAIN	GRANDE CACHE	3	-	120998	548/83	229/83	1.52	0.04	50	LVB
142	83E/14	11	362934	5977629	(g)	GRANDE MOUNTAIN	GRANDE CACHE	4	-	120999	549/83	230/83	**1.40	0.09	50	MVB
143	83E/14	11	362779	5977553	(g)	GRANDE MOUNTAIN	GRANDE CACHE	10	-	121000	550/83	231/83	1.35	0.05	50	MVB
144	83E/14	11	357120	5978840	(g)	GUSTAVS FLATS	GATES		2.00	104038	789/82	97/82	1.61	0.07	50	LVB
145	83E/14	11	346560	5975900	(g)	AMBLER MOUNTAIN WEST	GRANDE CACHE	3	-	204138	1454/89	101/89	1.26	0.09	50	MVB
146	83E/14	11	346680	5975920	(c)	AMBLER MOUNTAIN WEST	GRANDE CACHE	7	7.00+	204139	1455/89	102/89	1.19	0.05	50	MVB
146	83E/14	11	346680	5975920	(g)	AMBLER MOUNTAIN WEST	GRANDE CACHE	7	7.00+	204140	1456/89	103/89	1.19	0.04	50	MVB
147	83E/14	11	347040	5975660	(c)	AMBLER MOUNTAIN WEST	GRANDE CACHE	3	1.90	204141	1457/89	104/89	1.23	0.04	50	MVB
147	83E/14	11	347040	5975660	(g)	AMBLER MOUNTAIN WEST	GRANDE CACHE	3	1.90	204142	1458/89	105/89	1.28	0.05	50	MVB
148	83E/14	11	347440	5975240	(g)	AMBLER MOUNTAIN WEST	GRANDE CACHE	4?	-	204143	1459/89	106/89	1.13	0.05	50	MVB
149	83E/14	11	348890	5977040	(g)	AMBLER MOUNTAIN WEST	GRANDE CACHE	3	0.30	204144	1463/89	110/89	1.17	0.06	50	MVB
150	83E/14	11	348940	5977000	(g)	AMBLER MOUNTAIN WEST	GRANDE CACHE	4	-	204145	1464/89	111/89	1.12	0.03	50	MVB
151	83E/15	11	371380	5977600	(c)	SUSA CREEK	NIKANASSIN		0.20	204146	835/88	259/88	1.58	0.04	50	LVB
152	83E/15	11	371580	5977740	(coalspar)	SUSA CREEK	GLADSTONE	2?	-	204147	836/88	260/88	1.20	0.05	50	MVB
153	83E/15	11	371520	5977680	(c)	SUSA CREEK	GLADSTONE		0.25	204148	837/88	261/88	1.33	0.06	50	MVB
153	83E/15	11	371520	5977680	(coalspar)	SUSA CREEK	GLADSTONE		-	204149	838/88	262/88	1.23	0.03	50	MVB
154	83E/9	11	406225	5947425	(c)	MOON CREEK	GRANDE CACHE		0.02	204150	777/88	204/88	1.69	0.05	50	LVB
155	83E/9	11	406300	5946625	(c)	MOON CREEK	GRANDE CACHE		1.20	208501	778/88	205/88	1.86	0.06	50	LVB
155	83E/9	11	406300	5946625	(c)	MOON CREEK	GRANDE CACHE		0.45	208502	779/88	206/88	1.85	0.06	50	LVB
155	83E/9	11	406300	5946625	(c)	MOON CREEK	GRANDE CACHE		1.80	208503	780/88	207/88	1.87	0.05	50	LVB
155	83E/9	11	406300	5946625	(c)	MOON CREEK	GRANDE CACHE		0.20	208504	781/88	208/88	1.81	0.04	50	LVB
155	83E/9	11	406300	5946625	(c)	MOON CREEK	GRANDE CACHE		0.50	208505	782/88	209/88	1.86	0.05	50	LVB
155	83E/9	11	406300	5946625	(c)	MOON CREEK	GRANDE CACHE		0.20	208506	783/88	210/88	1.85	0.05	50	LVB
155	83E/9	11	406300	5946625	(c)	MOON CREEK	GRANDE CACHE		1.00	208507	784/88	211/88	1.80	0.05	50	LVB
156	83E/15	11	370280	5982450	(g)	MUSKEG RIVER	DUNVEGAN		-	195640	1047/91	WL91/3	1.04	0.04	50	HVB A
157	83E/15	11	375920	5977240	(g)	MUSKEG RIVER	CARDIUM		0.05	208509	1471/89	142/89	0.64	0.04	50	HVB B
158	83E/15	11	369600	5974100	(c)	ABBOTT CREEK	GRANDE CACHE	4	1.50	193582	1045/91	WL91/1	1.32	0.05	50	MVB
158	83E/15	11	369600	5974100	(c)	ABBOTT CREEK	GRANDE CACHE	4	2.50	193582	1046/91	WL91/2	1.31	0.06	50	MVB

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159	83E/14	11	363175	5973236	(c)	VICTOR LAKE	GRANDE CACHE	3	1.25+	121102	466/83	147/83	1.41	0.05	50	MVB
160	83E/14	11	363145	5973228	(c)	VICTOR LAKE	GRANDE CACHE	4	1.40+	121102	467/83	148/83	**1.33	0.08	50	MVB
161	83E/15	11	371180	5974700	(g)	STERNE CREEK	GATES		3.00+	208512	839/88	263/88	1.32	0.03	50	MVB
162	83E/15	11	374080	5970820	(c)	STERNE CREEK	GRANDE CACHE	11?	0.70	208513	1473/89	179/89	1.26	0.04	50	MVB
162	83E/15	11	374080	5970820	(g)	STERNE CREEK	GRANDE CACHE	11?	0.70	208514	1474/89	179A/89	1.33	0.05	50	MVB
162	83E/15	11	374080	5970820	(c)	STERNE CREEK	GRANDE CACHE		10.00	208515	1475/89	180/89	1.20	0.04	50	MVB
163	83E/15	11	373700	5971420	(c)	STERNE CREEK	GRANDE CACHE		2.20	208516	1476/89	181/89	1.49	0.05	50	MVB
164	83E/15	11	373640	5971480	(c)	STERNE CREEK	GRANDE CACHE		1.00	208517	1477/89	182/89	1.43	0.04	50	MVB
165	83E/15	11	373560	5971200	(c)	STERNE CREEK	GRANDE CACHE	10	1.50	208518	1478/89	183/89	1.28	0.04	50	MVB
165	83E/15	11	373560	5971200	(g)	STERNE CREEK	GRANDE CACHE	10	1.50	208519	1479/89	183A/89	1.29	0.04	50	MVB
165	83E/15	11	373560	5971200	(c)	STERNE CREEK	GRANDE CACHE	10,u	0.20	208520	1480/89	184/89	1.36	0.04	50	MVB
166	83E/15	11	373540	5971540	(g)	STERNE CREEK	GRANDE CACHE	4	1.00	208521	1481/89	185/89	1.37	0.05	50	MVB
167	83E/14	11	357200	5968075	(g,sh)	SULPHUR RIVER	GLADSTONE		1.00	208522	823/88	248/88	1.21	0.04	50	MVB
167	83E/14	11	357200	5968075	(c)	SULPHUR RIVER	GLADSTONE		1.20	208523	824/88	249/88	1.34	0.04	50	MVB
167	83E/14	11	357200	5968075	(g)	SULPHUR RIVER	GLADSTONE		-	208524	825/88	249A/88	1.37	0.03	50	MVB
168	83E/14	11	357600	5967850	(c)	SULPHUR RIVER	GRANDE CACHE	3,l	1.30	208525	826/88	250/88	1.29	0.04	50	MVB
168	83E/14	11	357600	5967850	(c)	SULPHUR RIVER	GRANDE CACHE	3,u	1.30	208526	827/88	251/88	1.23	0.04	50	MVB
169	83E/14	11	357600	5967865	(g)	SULPHUR RIVER	GRANDE CACHE	1	1.00	208527	828/88	252/88	1.23	0.04	50	MVB
170	83E/14	11	357600	5967900	(g)	SULPHUR RIVER	GRANDE CACHE	4	4.00	208528	829/88	253/88	1.19	0.05	50	MVB
171	83E/14	11	367120	5959360	(c)	SULPHUR RIVER	GRANDE CACHE	3	1.60	208529	1443/89	91/89	1.31	0.06	50	MVB
171	83E/14	11	367120	5959360	(c)	SULPHUR RIVER	GRANDE CACHE	4	3.60	208530	1444/89	92/89	1.30	0.05	50	MVB
171	83E/14	11	367120	5959360	(c)	SULPHUR RIVER	GRANDE CACHE	4	0.40	208531	1445/89	92A/89	1.26	0.05	50	MVB
172	83E/14	11	366700	5959800	(c)	SULPHUR RIVER	GRANDE CACHE	4	0.38	208532	1446/89	93/89	1.24	0.05	50	MVB
172	83E/14	11	366700	5959800	(c)	SULPHUR RIVER	GRANDE CACHE		0.43	208533	1448/89	95/89	1.30	0.05	50	MVB
172	83E/14	11	366700	5959800	(c)	SULPHUR RIVER	GRANDE CACHE		0.81	208534	1449/89	96/89	1.28	0.04	50	MVB
173	83E/14	11	366880	5959700	(c)	SULPHUR RIVER	GRANDE CACHE		0.60	208535	1450/89	97/89	1.13	0.04	50	MVB
173	83E/14	11	366880	5959700	(c)	SULPHUR RIVER	GRANDE CACHE		0.12	208536	1451/89	98/89	1.22	0.03	50	MVB
174	83E/14	11	366920	5959440	(c)	SULPHUR RIVER	GRANDE CACHE	4	1.50+	208537	1452/89	99/89	1.28	0.05	50	MVB
174	83E/14	11	366920	5959440	(c)	SULPHUR RIVER	GRANDE CACHE	4	0.25	208538	1453/89	100/89	1.25	0.04	50	MVB
175	83E/16	11	408640	5958640	(c)	BERLAND RIVER	COALSPUR		0.05	208539	785/88	212/88	0.59	0.05	50	HVB B
176	83E/16	11	411460	5957200	(c)	BERLAND RIVER	COALSPUR		1.00	208540	786/88	213/88	0.63	0.02	50	HVB B
177	83E/16	11	401600	5963840	(g)	HENDRICKSON CREEK	COALSPUR		0.50	208541	1482/89	186/89	0.68	0.03	50	HVB B
178	83E/10	11	379600	5944400	(g)	SOUTH MUSKEG RIVER	NIKANASSIN		-	208542	757/88	185/88	1.34	0.06	50	MVB
179	83E/10	11	379700	5944500	(g,sh)	SOUTH MUSKEG RIVER	NIKANASSIN		-	208543	758/88	186/88	1.45	0.06	50	MVB
180	83E/10	11	377200	5944675	(g)	SOUTH MUSKEG RIVER	GRANDE CACHE		5.00	208544	759/88	187/88	0.98	0.03	50	HVB A
181	83E/10	11	377100	5944500	(g)	SOUTH MUSKEG RIVER	GRANDE CACHE		-	208545	760/88	188/88	0.88	0.05	50	HVB A

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182	83F/11	11	469000	5936600	(g)	OBED MARSH MINE	OBED	1				BL 51	0.46		50?	SUBB
183	83E/10	11	390050	5933800	(g,t)	SOUTH BERLAND RIVER	GRANDE CACHE		10.00	208547	761/88	189/88	0.86	0.04	50	HVB A
183	83E/10	11	390050	5933800	(g,b)	SOUTH BERLAND RIVER	GRANDE CACHE		10.00	208548	762/88	190/88	0.82	0.03	50	HVB A
183	83E/10	11	390050	5933800	(g)	SOUTH BERLAND RIVER	GRANDE CACHE		10.00	208549	763/88	191/88	0.85	0.07	50	HVB A
184	83E/10	11	398860	5933720	(c)	THOREAU CREEK PASS	GRANDE CACHE		5.00	208550	764/88	192/88	1.17	0.04	50	MVB
185	83E/10	11	398980	5933600	(c)	THOREAU CREEK PASS	GRANDE CACHE		3.00	208551	765/88	193/88	1.02	0.03	50	HVB A
185	83E/10	11	398980	5933600	(c)	THOREAU CREEK PASS	GRANDE CACHE		3.50	208552	766/88	194/88	1.06	0.03	50	HVB A
186	83E/9	11	400760	5930700	(g,d)	THOREAU CREEK	GRANDE CACHE		9.00	208553	767/88	195/88	1.01	0.03	50	HVB A
187	83E/9	11	401920	5931260	(g)	THOREAU CREEK	GRANDE CACHE		-	208554	768/88	196/88	0.97	0.03	50	HVB A
188	83E/9	11	402000	5931360	(c)	THOREAU CREEK	GRANDE CACHE		9.00	208555	769/88	197/88	0.97	0.04	50	HVB A
189	83E/9	11	404540	5929120	(g,w)	CARSON CREEK	GATES		-	208556	2109/87	212/87	0.78	0.05	50	HVB A
190	83E/9	11	404560	5929200	(g,w)	CARSON CREEK	GATES		-	208557	2110/87	213/87	0.88	0.05	50	HVB A
191	83E/9	11	404440	5929160	(g,w)	CARSON CREEK	GATES		-	208558	2111/87	214/87	0.89	0.05	50	HVB A
192	83E/9	11	402580	5929300	(g)	FOLD CREEK	GATES		-	208559	2112/87	215/87	0.92	0.06	50	HVB A
193	83E/9	11	402580	5929280	(g)	FOLD CREEK	GATES		10.00	208560	2113/87	216/87	0.94	0.04	50	HVB A
194	83E/9	11	419180	5936430	(g)	MOBERLY CREEK	GRANDE CACHE		-	208561	1268/89	MO-1	1.62	0.05	50	LVB
195	83E/9	11	416840	5935800	(g)	MOBERLY CREEK	GRANDE CACHE		-	208562	1269/89	MO-6	1.71	0.04	50	LVB
196	83E/9	11	417750	5936130	(g)	MOBERLY CREEK	GRANDE CACHE		-	208563	1270/89	MO-7	1.68	0.03	50	LVB
197	83E/9	11	418950	5936250	(g)	MOBERLY CREEK	GRANDE CACHE		-	208564	1271/89	MO-8	1.62	0.05	50	LVB
198	83E/9	11	413300	5942100	(g)	MOBERLY CREEK	GRANDE CACHE		0.05	208565	1272/89	MO-15A	1.63	0.04	50	LVB
199	83E/9	11	414900	5941100	(g)	MOBERLY CREEK	GRANDE CACHE		-	208566	1273/89	MO-17	1.68	0.04	50	LVB
200	83E/9	11	419550	5936530	(g)	MOBERLY CREEK	GRANDE CACHE		-	208567	1274/89	MO-20	1.69	0.04	50	LVB
201	83F/5	11	454785	5914500	(c)	ATHABASCA R, ENTRANCE	BRAZEAU		0.20	208568	405/90	88/89	0.63	0.05	50	HVB B
201	83F/5	11	454785	5914500	(c)	ATHABASCA R, ENTRANCE	BRAZEAU		0.13	208569	406/90	89/89	0.57	0.04	25	HVB B
202	83F/5	11	454835	5914485	(c,sh)	ATHABASCA R, ENTRANCE	BRAZEAU		0.40	208570	407/90	90/89	0.65	0.04	50	HVB B
203	83F/5	11	465240	5918640	(g,d)	HINTON JASPER COAL LTD	COALSPUR		-	208571	1472/89	143/89	0.64	0.04	50	HVB B
204	83F/5	11	441400	5908440	(c)	SCOVIL CREEK	GATES		0.20	208572	1972/87	118/87	1.58	0.07	50	LVB
205	83F/5	11	441240	5908400	(g)	SCOVIL CREEK	MOUNTAIN PARK		-	208573	1973/87	119/87	1.52	0.07	50	LVB
206	83F/5	11	440720	5908140	(c)	SCOVIL CREEK	GATES		0.50	208574	1974/87	120/87	1.39	0.04	50	MVB
207	83F/5	11	440800	5908180	(g,sh)	SCOVIL CREEK	GRANDE CACHE		0.20	208575	1975/87	121/87	1.33	0.05	50	MVB

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208	83F/5	11	441800	5907920	(g,d)	BRULE MINES	GRANDE CACHE		-	208576	1976/87	122/87	1.57	0.05	50	LVB
209	83F/4	11	435760	5897060	(g)	MOOSEHORN BASIN	GRANDE CACHE		1.50	208577	1075/90	34/90	1.39	0.05	50	MVB
210	83F/4	11	435780	5896900	(c)	MOOSEHORN BASIN	GRANDE CACHE		0.50	208578	1076/90	35/90	1.63	0.05	50	LVB
211	83F/4	11	435800	5897000	(c)	MOOSEHORN BASIN	GRANDE CACHE		0.50	208579	1077/90	36/90	1.43	0.05	25	MVB
212	83F/4	11	435600	5896900	(g)	MOOSEHORN BASIN	GRANDE CACHE		-	208580	1078/90	37/90	1.43	0.06	50	MVB
213	83F/4	11	435520	5896900	(g)	MOOSEHORN BASIN	GRANDE CACHE		-	208581	1079/90	38/90	1.39	0.04	50	MVB
214	83F/4	11	435460	5896980	(g)	MOOSEHORN BASIN	GRANDE CACHE		~2.00	208582	1080/90	39/90	1.42	0.05	50	MVB
215	83F/4	11	435400	5897050	(g)	MOOSEHORN BASIN	GRANDE CACHE		2.50	208583	1081/90	40/90	1.42	0.06	50	MVB
216	83F/4	11	435280	5897100	(c)	MOOSEHORN BASIN	GRANDE CACHE		1.50	208584	1082/90	41/90	1.43	0.05	50	MVB
217	83F/4	11	435400	5897200	(c)	MOOSEHORN BASIN	GRANDE CACHE		1.00	208585	1083/90	42/90	1.31	0.06	50	MVB
218	83F/4	11	435680	5897420	(g)	MOOSEHORN BASIN	GRANDE CACHE		0.40	208586	1084/90	43/90	1.43	0.05	50	MVB
218	83F/4	11	435680	5897420	(c)	MOOSEHORN BASIN	GRANDE CACHE		0.40	208587	1085/90	44/90	1.47	0.04	50	MVB
219	83F/4	11	435760	5897480	(g)	MOOSEHORN BASIN	GRANDE CACHE		-	208588	1086/90	45/90	1.48	0.05	50	MVB
220	83F/4	11	438700	5894600	(c)	POCAHONTAS	GLADSTONE		0.30	121247	1003/87	67/87	1.59	0.06	50	LVB
221	83F/4	11	437840	5895040	(g,d)	POCAHONTAS	GRANDE CACHE		-	121247	1004/87	68A/87	1.62	0.04	50	LVB
221	83F/4	11	437840	5895040	(g,d)	POCAHONTAS	GRANDE CACHE		-	121247	1005/87	68B/87	1.63	0.06	50	LVB
222	83F/4	11	437960	5894800	(g,d)	POCAHONTAS	GRANDE CACHE		-	121247	1006/87	69/87	1.60	0.04	50	LVB
223	83F/4	11	443380	5890950	(c)	MORRIS CREEK	GLADSTONE		0.10	208592	1070/90	29/90	1.91	0.05	50	LVB
224	83F/4	11	443220	5890820	(c)	MORRIS CREEK	NIKANASSIN		0.27	208593	1071/90	30/90	1.86	0.04	50	LVB
225	83F/4	11	439720	5894160	(c)	MORRIS CREEK	NIKANASSIN		0.20	208594	1072/90	31/90	1.86	0.05	50	LVB
226	83F/4	11	444920	5890960	?	VILLENEUVE CREEK	NIKANASSIN		?	-	K15/92 KBC2/90		1.90	0.12	49	LVB
227	83F/4	11	456540	5890880	(c)	FOLDING MOUNTAIN	GRANDE CACHE		2.00	208595	770/88	198/88	1.45	0.06	50	MVB
228	83F/4	11	455640	5891040	(g)	FOLDING MOUNTAIN	GRANDE CACHE		0.01	208596	771/88	199/88	1.48	0.05	50	MVB
228	83F/4	11	455640	5891040	(c)	FOLDING MOUNTAIN	GRANDE CACHE	JEWEL	0.93	208597	772/88	200/88	1.50	0.05	50	LVB
228	83F/4	11	455640	5891040	(g)	FOLDING MOUNTAIN	GRANDE CACHE	JEWEL	0.93	208598	773/88	200A/88	1.53	0.04	50	LVB
229	83F/4	11	455850	5890340	(g,u)	FOLDING MOUNTAIN	NIKANASSIN		4.00	208599	774/88	201/88	1.61	0.05	50	LVB
230	83F/4	11	455320	5891290	(g)	FOLDING MOUNTAIN	GRANDE CACHE	JEWEL	2.00	208600	776/88	202/88	1.53	0.06	50	LVB
231	83L/3	11	349900	5988371	(c)	SR NO.12 MINE SOUTH A	GRANDE CACHE	4	4.34			2/93	4			
232	83L/3	11	349773	5988572	(c)	SR NO.12 MINE SOUTH A	GRANDE CACHE	4	6.51			3/93	4			
233	83L/3	11	349698	5988525	(c)	SR NO.12 MINE SOUTH A	GRANDE CACHE	5,l	0.44			4/93	5,l			
233	83L/3	11	349698	5988525	(c)	SR NO.12 MINE SOUTH A	GRANDE CACHE	5,u	0.90			5/93	5,u			
234	83L/3	11	349684	5988522	(c)	SR NO.12 MINE SOUTH A	GRANDE CACHE	6	1.60			6/93	6			
235	83L/3	11	349816	5988336	(c)	SR NO.12 MINE SOUTH A	GRANDE CACHE	7	3.30			7/93	7			

Table 2

Section	Sheet	Zone	Easting	Northing	Sample Type	Location, Well, Reference, Section	Formation, Group	Depth (m)	Seam	Thickness (m)	Pellet #	C-#	KBA Field #	Rmax% (mean)	S.D.	ASTM N RANK
1	83L/5	11	323500	6023550	(w)	C.S. et al SHERMAN 11-3-62-12 W6	GATES	2535	-	-	C-188313	44/83	-	1.74	0.07	50 LVB
1	1	11	323500	6023550			GATES	2608	-	-	C-188313	45/83	-	1.74	0.07	50 LVB
1	1	11	323500	6023550			GATES	2727	-	-	C-188313	46/83	-	1.94	0.09	50 LVB
1	1	11	323500	6023550			GATES	2778	-	-	C-188313	47/83	-	1.97	0.09	50 LVB
1	1	11	323500	6023550			GETHING	2907	-	-	C-188313	47/83	-	1.99	0.13	50 LVB
1	1	11	323500	6023550			GETHING	2940	-	-	C-188313	49/83	-	2.12	0.14	50 SA
1	1	11	323500	6023550			GETHING	2998	-	-	C-188313	50/83	-	2.08	0.14	50 SA
1	1	11	323500	6023550			MINNES	3315	-	-	C-188313	51/83	-	2.29	0.18	50 SA
2	83L/1	11	419700	6011200	(w)	UNO TEX E.HERMES 7-4-61-2 W5	WAPITI	12	-	-	C-98974	554/89	-	0.60	0.04	50 HVB B
2	2	11	419700	6011200			WAPITI	226	-	-	C-98974	555/89	-	0.62	0.03	50 HVB B
2	2	11	419700	6011200			WAPITI	296	-	-	C-98974	556/89	-	0.63	0.05	50 HVB B
2	2	11	419700	6011200			WAPITI	433	-	-	C-98974	557/89	-	0.67	0.05	50 HVB B
2	2	11	419700	6011200			WAPITI	472	-	-	C-98974	558/89	-	0.72	0.06	50 HVB B
2	2	11	419700	6011200			WAPITI	536	-	-	C-98974	559/89	-	0.71	0.05	25 HVB A
2	2	11	419700	6011200			WAPITI	896	-	-	C-98974	560/89	-	0.70	0.04	50 HVB B
2	2	11	419700	6011200			WAPITI	1085	-	-	C-98974	561/89	-	0.74	0.04	50 HVB A
2	2	11	419700	6011200			WAPITI	1259	-	-	C-98974	562/89	-	0.73	0.04	50 HVB A
2	2	11	419700	6011200			WAPITI	1484	-	-	C-98974	563/89	-	0.74	0.04	25 HVB A
2	2	11	419700	6011200			WAPITI	1628	-	-	C-98974	564/89	-	0.75	0.05	50 HVB A
2	2	11	419700	6011200			GATES	2911	-	-	C-98974	565/89	-	1.06	0.05	50 HVB A
2	2	11	419700	6011200			GATES	2926	-	-	C-98974	566/89	-	1.16	0.04	50 MVB
2	2	11	419700	6011200			GATES	2972	-	-	C-98974	567/89	-	1.21	0.04	50 MVB
2	2	11	419700	6011200			GATES	2999	-	-	C-98974	568/89	-	1.22	0.04	50 MVB
2	2	11	419700	6011200			GATES	3066	-	-	C-98974	569/89	-	1.28	0.04	50 MVB
2	2	11	419700	6011200			GETHING	3188	-	-	C-98974	570/89	-	1.23	0.02	50 MVB
2	2	11	419700	6011200			GETHING	3225	-	-	C-98974	571/89	-	1.23	0.02	50 MVB
2	2	11	419700	6011200			GETHING	3255	-	-	C-98974	572/89	-	1.30	0.08	50 MVB
3	83L/1	11	403500	5994500	(w)	CAN OXY BOLTON	WAPITI	415	-	-	C-98973	464/89	-	0.72	0.03	50 HVB A
3	3	11	403500	5994500			WAPITI	466	-	-	C-98973	465/89	-	0.81	0.02	50 HVB A
3	3	11	403500	5994500		16 11 59 4 W6	WAPITI	524	-	-	C-98973	466/89	-	0.76	0.03	50 HVB A
3	3	11	403500	5994500			WAPITI	564	-	-	C-98973	467/89	-	0.78	0.02	50 HVB A
3	3	11	403500	5994500			WAPITI	594	-	-	C-98973	468/89	-	0.76	0.04	50 HVB A
3	3	11	403500	5994500			WAPITI	728	-	-	C-98973	469/89	-	0.78	0.03	50 HVB A
3	3	11	403500	5994500			WAPITI	783	-	-	C-98973	470/89	-	0.81	0.03	50 HVB A
3	3	11	403500	5994500			WAPITI	893	-	-	C-98973	471/89	-	0.76	0.04	50 HVB A
3	3	11	403500	5994500			WAPITI	997	-	-	C-98973	472/89	-	0.81	0.03	50 HVB A

Table 2

Section	Sheet	Zone	Easting	Northing	Sample Type	Location, Well, Reference, Section	Formation, Group	Depth (m)	Seam	Thickness (m)	Pellet #	KBA Field #	Rmax% (mean)	S.D.	N RANK
3		11	403500	5994500			WAPITI	1201		-	C-98973 473/89	-	0.90	0.03	50 HVB A
3		11	403500	5994500			WAPITI	1237		-	C-98973 474/89	-	0.82	0.03	50 HVB A
3		11	403500	5994500			WAPITI	1361		-	C-98973 475/89	-	0.93	0.03	50 HVB A
3		11	403500	5994500			WAPITI	1527		-	C-98973 476/89	-	0.96	0.05	50 HVB A
3		11	403500	5994500			WAPITI	1579		-	C-98973 477/89	-	0.92	0.04	50 HVB A
3		11	403500	5994500			WAPITI	1929		-	C-98973 478/89	-	0.87	0.05	50 HVB A
3		11	403500	5994500			WAPITI	2022		-	C-98973 479/89	-	0.92	0.05	50 HVB A
3		11	403500	5994500			FALHER	3399		-	C-98973 480/89	-	1.67	0.03	50 LVB
3		11	403500	5994500			FALHER	3444		-	C-98973 481/89	-	1.83	0.04	50 LVB
3		11	403500	5994500			FALHER	3505		-	C-98973 482/89	-	1.79	0.02	50 LVB
3		11	403500	5994500			FALHER	3528		-	C-98973 483/89	-	1.75	0.06	25 LVB
3		11	403500	5994500			GETHING	3606		-	C-98973 484/89	-	1.81	0.04	50 LVB
3		11	403500	5994500			GETHING	3645		-	C-98973 485/89	-	1.91	0.03	50 LVB
3		11	403500	5994500			GETHING	3676		-	C-98973 486/89	-	1.90	0.03	50 LVB
3		11	403500	5994500			GETHING	3700		-	C-98973 487/89	-	1.66	0.08	50 LVB
3		11	403500	5994500			GETHING	3700		-	C-98973 487/89	-	1.77	0.08	50 LVB
															(2 populat'ns)
4	83L/2	11	388800	5989400	(w)	AMMIN FINDLEY	WAPITI	690		-	C-98971 515/89	-	0.75	0.03	50 HVB A
4		11	388800	5989400			WAPITI	770		-	C-98971 516/89	-	0.85	0.03	25 HVB A
4		11	388800	5989400		10 29 58 5 W6	WAPITI	860		-	C-98971 517/89	-	0.91	0.05	25 HVB A
4		11	388800	5989400			WAPITI	945		-	C-98971 518/89	-	0.82	0.04	50 HVB A
4		11	388800	5989400			WAPITI	1000		-	C-98971 519/89	-	0.73	0.04	50 HVB A
4		11	388800	5989400			WAPITI	1375		-	C-98971 520/89	-	0.77	0.03	50 HVB A
4		11	388800	5989400			PADDY-CAD	3605		-	C-98971 521/89	-	1.72	0.06	50 LVB
4		11	388800	5989400			FALHER	3675		-	C-98971 522/89	-	1.91	0.04	50 LVB
4		11	388800	5989400			FALHER	3740		-	C-98971 523/89	-	2.00	0.03	50 LVB
4		11	388800	5989400			FALHER	3790		-	C-98971 524/89	-	1.98	0.05	50 LVB
4		11	388800	5989400			GETHING	3875		-	C-98971 525/89	-	1.97	0.06	50 LVB
4		11	388800	5989400			GETHING	3930		-	C-98971 526/89	-	2.11	0.09	50 SA
4		11	388800	5989400			GETHING	3975		-	C-98971 527/89	-	2.04	0.05	50 LVB
4		11	388800	5989400			MINNES	4025		-	C-98971 528/89	-	1.86	0.08	50 LVB
4		11	388800	5989400			MINNES	4085		-	C-98971 529/89	-	2.03	0.07	50 LVB
5	83E/15	11	378600	5981500	(w)	PCP et al. FINDLEY	WAPITI	299		-	C-98972 496/89	-	0.83	0.03	50 HVB A
5		11	378600	5981500			CARDIUM	1006		-	C-98972 495/89	-	0.77	0.03	50 HVB A
5		11	378600	5981500		10 32 57 6 W6	GATES	2076		-	C-98972 497/89	-	1.30	0.04	50 MVB
5		11	378600	5981500			GATES	2112		-	C-98972 498/89	-	1.37	0.04	50 MVB
5		11	378600	5981500			GATES	2173		-	C-98972 499/89	-	1.43	0.03	50 MVB

Table 2

Section	Sheet	Zone	Easting	Northing	Sample Type	Location, Well, Reference, Section	Formation, Group	Depth (m)	Seam	Thickness (m)	C-#	Pellet #	KBA Field #	Rmax% (mean)	S.D.	ASTM N RANK
5	5	11	378600	5981500			GATES	2228		-	C-98972	500/89	-	1.53	0.04	50 LVB
5	5	11	378600	5981500			GATES	2292		-	C-98972	501/89	-	1.69	0.05	50 LVB
5	5	11	378600	5981500			GETHING	2420		-	C-98972	502/89	-	1.62	0.06	50 LVB
5	5	11	378600	5981500			GETHING	2478		-	C-98972	503/89	-	1.54	0.06	50 LVB
5	5	11	378600	5981500			NIKANASSIN	2533		-	C-98972	504/89	-	1.67	0.04	50 LVB
5	5	11	378600	5981500			GETHING	2542		-	C-98972	505/89	-	1.63	0.04	50 LVB
5	5	11	378600	5981500			GETHING	2577		-	C-98972	506/89	-	1.43	0.06	50 LVB
5	5	11	378600	5981500			NIKANASSIN	2618		-	C-98972	507/89	-	1.63	0.04	50 LVB
6	83K/4	11	453650	5996400	(w)	AMMIN	WAPITI	460		-	C-173659	775/89	-	0.66	0.07	50 HVB B
6	6	11	453650	5996400		BERLAND RIVER	WAPITI	543		-	C-173659	776/89	-	0.61	0.05	50 HVB B
6	6	11	453650	5996400			WAPITI	597		-	C-173659	777/89	-	0.70	0.05	50 HVB B
6	6	11	453650	5996400		10 20 59 25 W5	WAPITI	649		-	C-173659	778/89	-	0.63	0.05	50 HVB B
6	6	11	453650	5996400			WAPITI	692		-	C-173659	779/89	-	0.71	0.03	50 HVB A
		11	453650	5996400			WAPITI	874		-	C-173659	216/93	-	0.64	0.03	25 HVB B
6	6	11	453650	5996400			WAPITI	1106		-	C-173659	782/89	-	0.82	0.03	50 HVB A
6	6	11	453650	5996400			WAPITI	1375		-	C-173659	783/89	-	0.73	0.05	50 HVB A
6	6	11	453650	5996400			WAPITI	1530		-	C-173659	784/89	-	0.76	0.04	50 HVB A
6	6	11	453650	5996400			WAPITI	1779		-	C-173659	785/89	-	0.89	0.05	50 HVB A
		11	453650	5996400			WAPITI	2804		-	C-173659	218/93	-	0.96	0.05	25 HVB A
		11	453650	5996400			WAPITI	2901		-	C-173659	219/93	-	1.15	0.05	50 MVB
7	83K/4	11	440400	5985200	(w)	PANCAN et al.	WAPITI	480		-	C-173660	616/89	-	0.80	0.02	50 HVB A
7	7	11	440400	5985200		BERLRW	WAPITI	580		-	C-173660	617/89	-	0.81	0.02	50 HVB A
7	7	11	440400	5985200			WAPITI	635		-	C-173660	618/89	-	0.79	0.03	50 HVB A
7	7	11	440400	5985200		5 14 58 27 W5	WAPITI	735		-	C-173660	619/89	-	0.79	0.02	50 HVB A
7	7	11	440400	5985200			WAPITI	880		-	C-173660	620/89	-	0.81	0.02	50 HVB A
7	7	11	440400	5985200			WAPITI	1025		-	C-173660	622/89	-	0.80	0.02	50 HVB A
7	7	11	440400	5985200			WAPITI	1125		-	C-173660	623/89	-	0.92	0.03	50 HVB A
7	7	11	440400	5985200			WAPITI	1275		-	C-173660	624/89	-	0.93	0.05	50 HVB A
7	7	11	440400	5985200			WAPITI	1315		-	C-173660	625/89	-	0.87	0.03	25 HVB A
7	7	11	440400	5985200			FALHER	2930		-	C-173660	628/89	-	1.45	0.17	25 MVB
7	7	11	440400	5985200			FALHER	2960		-	C-173660	629/89	-	1.52	0.03	25 LVB
7	7	11	440400	5985200			FALHER	3010		-	C-173660	630/89	-	1.60	0.03	50 LVB
7	7	11	440400	5985200			FALHER	3053		-	C-173660	632/89	-	1.69	0.04	50 LVB
7	7	11	440400	5985200			GETHING	3150		-	C-173660	634/89	-	1.72	0.03	50 LVB
7	7	11	440400	5985200			GETHING	3180		-	C-173660	635/89	-	1.66	0.03	25 LVB
7	7	11	440400	5985200			GETHING	3215		-	C-173660	636/89	-	1.74	0.04	25 LVB

Table 2

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8	83E/16	11	432700	5969900	(w)	HB	WAPITI	348.05		-	C-173657	789/89	-	0.78	0.02	50	HVBA
8		11	432700	5969900		CABIN CREEK	WAPITI	454		-	C-173657	796/89	-	0.73	0.02	50	HVBA
8		11	432700	5969900			WAPITI	485		-	C-173657	790/89	-	0.74	0.03	50	HVBA
8		11	432700	5969900		1 35 56 1 W6	WAPITI	530		-	C-173657	791/89	-	0.78	0.02	50	HVBA
8		11	432700	5969900			WAPITI	875		-	C-173657	793/89	-	0.78	0.02	50	HVBA
8		11	432700	5969900			WAPITI	908		-	C-173657	794/89	-	0.87	0.03	50	HVBA
8		11	432700	5969900			WAPITI	957		-	C-173657	795/89	-	0.74	0.04	50	HVBA
8		11	432700	5969900			WAPITI	1286		-	C-173657	797/89	-	0.82	0.02	50	HVBA
8		11	432700	5969900			WAPITI	1414		-	C-173657	798/89	-	0.90	0.03	50	HVBA
8		11	432700	5969900			WAPITI	1871		-	C-173657	799/89	-	0.91	0.04	50	HVBA
8		11	432700	5969900			WAPITI	1899		-	C-173657	800/89	-	1.03	0.07	50	HVBA
8		11	432700	5969900			FALHER	3240		-	C-173657	801/89	-	1.56	0.03	50	LVB
8		11	432700	5969900			FALHER	3289		-	C-173657	802/89	-	1.62	0.07	50	LVB
8		11	432700	5969900			FALHER	3322		-	C-173657	803/89	-	1.68	0.03	50	LVB
8		11	432700	5969900			FALHER	3359		-	C-173657	804/89	-	1.72	0.06	50	LVB
8		11	432700	5969900			FALHER	3420		-	C-173657	805/89	-	1.90	0.03	50	LVB
8		11	432700	5969900			GETHING	3527		-	C-173657	807/89	-	1.88	0.07	50	LVB
8		11	432700	5969900			GETHING	3584		-	C-173657	808/89	-	1.74	0.09	50	LVB
9	83E/9	11	408400	5951400	(w)	SHELL	CARDIUM	963		-	C-173655	855/89	-	0.86	0.04	50	HVBA
9		11	408400	5951400		CABIN CREEK	GATES	2554		-	C-173655	856/89	-	1.44	0.04	50	MVB
9		11	408400	5951400			GATES	2606		-	C-173655	857/89	-	1.38	0.03	25	MVB
9		11	408400	5951400		4 9 55 3 W6	GATES	2749		-	C-173655	858/89	-	1.51	0.04	50	LVB
9		11	408400	5951400			GATES	2792		-	C-173655	859/89	-	1.56	0.06	50	LVB
9		11	408400	5951400			GATES	2950		-	C-173655	860/89	-	1.63	0.05	50	LVB
9		11	408400	5951400			GATES	3030		-	C-173655	861/89	-	1.62	0.04	50	LVB
9		11	408400	5951400			GATES	3057		-	C-173655	862/89	-	1.83	0.03	50	LVB
9		11	408400	5951400			GLADSTONE	3164		-	C-173655	863/89	-	1.65	0.06	50	LVB
9		11	408400	5951400			GLADSTONE	3298		-	C-173655	864/89	-	1.78	0.01	5	LVB
9		11	408400	5951400			GLADSTONE	3310		-	C-173655	865/89	-	1.80	0.05	50	LVB
9		11	408400	5951400			GLADSTONE	3356		-	C-173655	866/89	-	1.91	0.09	25	LVB
10	83F/15	11	509350	5958550	(w)	FINA PAN AM HB	WAPITI/BR.	563		-	C-173651	585/89	-	0.64	0.05	50	HVB B
10		11	509350	5958550		MARLBORO	WAPITI/BR.	758		-	C-173651	586/89	-	0.65	0.05	50	HVB B
10		11	509350	5958550			WAPITI/BR.	1032		-	C-173651	587/89	-	0.67	0.09	50	HVB B
10		11	509350	5958550		7 26 55 20 W5	WAPITI/BR.	1480		-	C-173651	588/89	-	0.78	0.07	26	HVB A
10		11	509350	5958550			WAPITI/BR.	1590		-	C-173651	589/89	-	0.66	0.06	49	HVB B

Table 2

Section	Sheet	Zone	Easting	Northing	Sample Type	Location, Well, Reference, Section	Formation, Group	Depth (m)	Seam	Thickness (m)	Pellet #	KBA Field #	Rmax% (mean)	S.D.	N RANK
10		11	509350	5958550			GATES	2608		-	C-173651 590/89	-	1.18	0.06	58 MVB
10		11	509350	5958550			GATES	2645		-	C-173651 591/89	-	1.24	0.05	63 MVB
10		11	509350	5958550			GLADSTONE	2733		-	C-173651 592/89	-	1.18	0.07	58 MVB
10		11	509350	5958550			GLADSTONE	2794		-	C-173651 593/89	-	1.23	0.06	45 MVB
11	83F/12	11	482950	5934250	(w)	DOMO OBED	BRAZEAU	430		-	C-173668 139/90	-	0.70	0.08	70 HVB B
11		11	482950	5934250			BRAZEAU	485		-	C-173668 140/90	-	0.66	0.06	70 HVB B
11		11	482950	5934250		6 12 53 23 W5	BRAZEAU	625		-	C-173668 153/90	-	0.62	0.07	55 HVB B
11		11	482950	5934250			BRAZEAU	800		-	C-173668 141/90	-	0.69	0.06	62 HVB B
11		11	482950	5934250			BRAZEAU	845		-	C-173668 142/90	-	0.73	0.05	57 HVB A
11		11	482950	5934250			BRAZEAU	2055		-	C-173668 143/90	-			
11		11	482950	5934250			BLAIRMORE	3030		-	C-173668 146/90	-	1.54	0.07	47 LVB
11		11	482950	5934250			BLAIRMORE	2990		-	C-173668 147/90	-	1.64	0.11	48 LVB
11		11	482950	5934250			BLAIRMORE	3125		-	C-173668 148/90	-			
11		11	482950	5934250			BLUESKY	3155		-	C-173668 149/90	-	1.70	0.08	60 LVB
12	83F/5	11	465350	5926400	(w)	CDN-SUP ET AL.	BRAZEAU	390		-	C-173700 37/90	-	0.63	0.05	65 HVB B
12		11	465350	5926400		HINTON	BRAZEAU	420		-	C-173700 38/90	-	0.73	0.04	53 HVB A
12		11	465350	5926400			BRAZEAU	485		-	C-173700 39/90	-	0.78	0.04	50 HVB A
12		11	465350	5926400		7 18 52 24 W5	BRAZEAU	720		-	C-173700 40/89	-	0.80	0.02	50 HVB A
12		11	465350	5926400			BRAZEAU	965		-	C-173700 41/90	-	0.83	0.04	50 HVB A
12		11	465350	5926400			BRAZEAU	1080		-	C-173700 42/90	-	0.72	0.05	56 HVB A
12		11	465350	5926400			BRAZEAU	1370		-	C-173700 43/90	-	0.84	0.05	43 HVB A
12		11	465350	5926400			BRAZEAU	1575		-	C-173700 44/90	-	0.85	0.06	64 HVB A
12		11	465350	5926400			BRAZEAU	1675		-	C-173700 45/90	-	0.90	0.09	60 HVB A
12		11	465350	5926400			BRAZEAU	1755		-	C-173700 46/90	-	0.84	0.08	50 HVB A
12		11	465350	5926400			LEA PARK	2515		-	C-173700 47/90	-	1.63	0.08	13 LVB
12		11	465350	5926400			BLACKSTONE	3110		-	C-173700 48/90	-	1.98	0.11	19 LVB
12		11	465350	5926400			NOTIKEWIN	3460		-	C-173700 50/90	-	2.02	0.10	54 SA
12		11	465350	5926400			FALHER	3520		-	C-173700 51/90	-	2.29	0.09	45 SA
12		11	465350	5926400			FALHER	3540		-	C-173700 52/90	-	2.43	0.09	50 SA
12		11	465350	5926400			FALHER	3565		-	C-173700 53/90	-	2.48	0.09	45 SA
12		11	465350	5926400			WIL/BLSKY	3635		-	C-173700 54/90	-	2.42	0.13	41 SA
12		11	465350	5926400			NIKANASSIN	3810		-	C-173700 56/90	-	2.02	0.12	51 LVB
13	83F/5	11	445850	5905650	(w)	PACIFIC ET AL.	GATES	381		-	C-173652 601/89	-	1.26	0.07	55 MVB
13		11	445850	5905650		BRULE	GATES	491		-	C-173652 602/89	-	1.43	0.05	49 MVB
13		11	445850	5905650			GATES	576		-	C-173652 603/89	-	1.61	0.04	65 LVB

Table 2

Section	Sheet	Zone	Easting	Northing	Sample Type	Location, Well, Reference, Section	Formation, Group	Depth (m)	Seam	Thickness (m)	C-#	Pellet #	KBA Field #	Rmax% (mean)	S.D.	ASTM N RANK
13		11	445850	5905650		7 12 50 27 W5	TORRENS M.	600		-	C-173652	604/89	-	1.41	0.11	43 MVB
13		11	445850	5905650			GLADSTONE	725		-	C-173652	605/89	-	1.38	0.08	12 MVB
13		11	445850	5905650			GLADSTONE	780		-	C-173652	606/89	-	1.64	0.04	9 LVB
13		11	445850	5905650			GLADSTONE	823		-	C-173652	607/89	-	1.64	0.15	8 LVB
13		11	445850	5905650			NIKANASSIN	875		-	C-173652	608/89	-	1.57	0.06	58 LVB
14	83L/3	11	346600	5991321	(c,c)	CAW RIDGE 20-88-256	GRANDE CACHE	28	4	10.20	-	722/88	-	1.68	0.05	50 LVB
15	83L/3	11	346688	5991202	(c,c)	CAW RIDGE 20-88-257	GRANDE CACHE	46	5	1.60	-	723/88	-	1.61	0.06	50 LVB
15		11	346688	5991202			GRANDE CACHE	43	6	1.40	-	724/88	-	1.56	0.05	50 LVB
15		11	346688	5991202			GRANDE CACHE	39	7	3.10	-	725/88	-	1.62	0.05	50 LVB
15		11	346688	5991202			GRANDE CACHE	38	8	0.60	-	726/88	-	1.58	0.05	50 LVB

