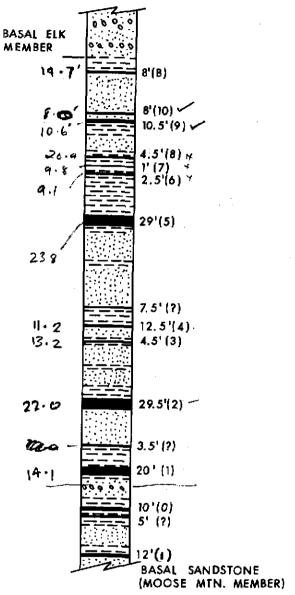
K- FERNIE RIDGE - MORRIESEY RIDGE 75(6)A

RESERVE ESTIMATE CHARTS
(& GEN. STRAT. COLUMNS.)

299

OPEN FILE



Section from Newmarch 1953.

## LEGEND

COAL

SHALE

SILTSTONE



SANDSTONE



CONGLOMERATE

COAL THICKNESS (SEAM NO.)

## KAISER RESOURCES

GENERALIZED STRATIGRAPHIC COLUMN FOR

FERNIE RIDGE

DWN : R.E. T. SCALE : 1" - 400'

DATE : MAY 1975 FIG. NO. : 12

seam seam number and seam number do not correspond with hose we know also with hose we know also with the extremales BASAL ELK MEMBER ? 10' (10U) '-25' (10 L) 11' (?) 17' (8U) 20' (8L) 7? 49'(6U)(6L) 401(4.) 52'(2) 70'(1) 60' (0) 45' (-1) TOP MOOSE MTN, MEMBER (BASAL KOOT, SANDSTONE)

### LEGEND





SANDSTONE



SHALE



CONGLOMERATE



SILTSTONE

COAL THICKNESS (SEAM NO.)

## KAISER RESOURCES

GENERALIZED STRATIGRAPHIC COLUMN FOR

MORRISSEY RIDGE

DWN: R. E.T. SCALE: 1" - 600'

DATE: MAY 1975 FIG. NO.: 13

## RESERVE ESTIMATE - (0-1500' COVER)

	ì	•		PI	гон с	) - 15°	•				PITC	H 15°-	-30°				PITC	CH 30	)°-90°				CUN	MULAT	TIVE TO	OTALS-	- RECOV	ERABLE	RESER	VES	
SEAM	AVG.	TONS IN	RESERV	E MINING METHOD	TONS RECOVERED	CALC.	AT	TONS	TONS IN	RESERVE	MINING METHOD	TONS RECOVERED	CALC.	AT TONS SP. GR WASHED	TONS IN PLACE	RESERVE CLASS.	MINING	TONS RECOVERED	CALC. /	AT TONS	OP	EN PIT		G L	JNDERGRO		VENTIONAL	UNDERGF			OTAL S SE
NAME	THICK.	PLACE (000's)	CLASS	. METHOD	RECOVERED (000's)	YIELD	SP. GR.	WASHED (000's)	TONS IN PLACE (000's)	CLASS.	METHOD	RECOVERED (000's)	YIELD	SP, GR. WASHED (000's)	PLACE (000's)	CLASS.	METHOD	RECOVERED (000's)	YIELD SF	P, GR. WASHED (000's)	PROVEN	PARTIAL EXPLOR		OJECTED	PROVEN	PARTIALLY EXPLORED	PROJECTED	PROVEN	PARTIALLY EXPLORED	I PROJECTED I	OTALS N
В	14.7	12,251	В	С	1,838	77%		1,415	4,120	В	С	618	77%	476	31,345	В	С	4,702	77%	3,620				. [		5511					5511
10	8.0	6,750	11	u	1,013	64%	. [	648	1,003	ıı	it	150	64%	96	6,496	I¢ .	ıı	974	64%	624						1,368					1,368
9	10.6	9,581	10	11	+ 1,437	85%		1,221	2,248	n	ti	<b>3</b> 37	85%	287	22,883	II.	u	3,433	85%	2,918						4,426	-				4,426
8	20.4	8,063	11	н	4,031	69%		2,782	3,423	u	. Н	1,712	69%	1,181	33,423	u	н	16,712	69%	11,531									15,494		15,494
7	9.8	3,789	a a	С	568	73%		415	3,524		С	. 529	73%	386	17,921	10	С	2,688	73%	1,962					`	2,763					2,763
6	9.1					۴									7,959	ıt	18	1,194	60%	716	_					716					716
5	23.8′	3,722	11	н	1,861	52%		968	9,656	41	н	4,828	52%	2511	41,689	. "	н	20,845	52%	10,839									14,318		14,318
4	11.2	•													8,770	11	С	1,316	58%	763						763					763
3	13.2	227	11	С	34	75%		26	6,305	II,	· c	946	75%	709	21,658	ıt	10	3,249	75%	2,437						3,172					3,172
2	22.0′	227	п	Н	114	51%		58	15,822	<b>11</b> .	Н	7,911	51%	4,035	37,263		н	18,631	51%	9,502									13,595		13,595
ı	14.1								11,389	11	С	1,709	71%	1,213	22,422	H	С	3,363	71%	2,388	·					3,601					3,601
					· · ·							, ,,,,,,,,													·			,			
		·						· · · · · · · · · · · · · · · · · · ·					1															·			<u>.</u>
										,	,																				
							<u> </u>						<u> </u>				<u> </u>														
PROVI				-		_				1.			_	; 						-										<u> </u>	
	EXPL'D	44,610		·	10,896	_		7,533	57,490			18,740	_	10,894	251,829			77,107		47,300						22,320			43,407		65,727
PROJ	ECTED ·					_				<u> </u>						· · · · · · · · · · · · · · · · · · ·	. <u>-</u>														
TOT	TALS	44,610			10,896			7,533	57,490		•	18,740		10,894	251,829			77,107		47,300	ŀ										65,727

NOTE: (1) Average thickness computed from observations. (ie. drill holes, adit and outcrop measurements.)

- (2)(i) Tons in place (cu. yds.) determined from : (a) Area of unmined coal.
  - (b) Average thickness as determined from (1)
- (ii) I cu.yd. of coal in place = 1·15 net tons raw.
- (iii) Stope correction applied to (2)(i)(a). (Area of unmined coal.) as follows:
- (a) For 0°-15° pitch -correction of 7½° applied to area.
- (b) For 15°-30° pitch -correction of 221/2° applied to area.
- (c) For 30°-90° pitch correction of 45° applied to area.

B - Partially Explored Reserves - (In Place) -

A - Proven Reserves - (In Place) -

Tons of coal (1-15 nt/cu.yd.) in the ground computed partially from observations generally spaced at intervals from 0.5 to 1.5 miles apart and partially from reasonable geological projections. Minimum seam thickness is 5 feet, and maximum overburden 2500 feet. Generally equivalent to "Probable" or "Indicated" in other systems of nomenclature.

C - Projected Reserves - (In Place) -

(3) Reserve Classification – Definitions for KRL property.

and under less than 2500 feet of overburden.

Tons of coal (1-15 nt/cu.yd.) in the ground where little direct evidence is available but where geological studies have indicated the continuity of the coal bearing measures. Coal seam thickness projected from adjacent areas.

Tons of coal (I-15nt/cu.yd.) in the ground computed from observations (ie. drill holes, adits, outcrops, mine workings)

spaced at intervals of 0.5 miles or less in areas of good geological continuity, with seam thickness greater than 5 feet

#### (4) Mining Method -

- H Probably better suited to hydraulic mining method. Used 50% recovery.
- C Probably suited to conventional room and pillar method. Used 15% recovery.
- R Probably suited to selective mining because of splits or proximity to other seams. Used 15% recovery.
- O-Open Pit reserve. Assumed 85% recovery.

# (5) Reserves Recoverable -

Proven Reserves (Recoverable) -

Proven Reserves (In Place) adjusted by well substantiated factors for mining and washing recovery. Partially Explored Reserves (Recoverable) —

Partially Explored Reserves (In Place) adjusted by generalized factors for mining and washing recovery.

- (6) Calculated yield (laboratory) at defined specific gravity arrived at
- by (a) bulk sample wash tests from adits and/or test pits, or (b) micro sample wash tests from adits and/or test pits.

AREA: Fernie Ridge TABLE Nº

## RESERVE ESTIMATE - (1500'- 2500' COVER)

ľ				PIT	CH O	-15°				PITC	H 15°-	- 30°				PITO	CH 30°	-90	•			CUMULA	TIVE TO	OTALS — F	RECOVE	ERABLE R	ESERVES		
M AVG	, TONS	S IN F	RESERVE I	MINING	TONS	CALC. AT YIELD SP. G	TONS	TONS IN	RESERVE	MINING METHOD	TONS	CALC.	T TONS	TONS IN	RESERVE	MINING	TONS	CALC.	AT TONS	OPE	N PIT MI						IND HYDRAULI	С	T
E THIC		ACE 00's)	CLASS.	METHOD	RECOVERED (000's)	YIELD SP. G	GR. WA'SHED (000's)	PLACE (000's)	CLASS.	METHOD	RECOVERED (000's)	YIELD SP	GR. WASHED (000's)	TONS IN PLACE (000's)	CLASS.	MINING METHOD	RECOVERED (000's)	YIELD	SP. GR. WASHED (000's)	PROVEN	PARTIALLY EXPLORED	PROJECTED	PROVEN	PARTIALLY PEXPLORED	PROJECTED	PROVEN PA	ARTIALLY PROJECT	TOTAL (0000's TONS CLE	S
14.7	24,17	74	8	С	3,626	77%	2,792	15,641	В	С	2,346	77%	1,806	12,219	8	С	1,833	77%	1,412		•			6,010	,			6,010	ï
8.0	14,24	42			2,136	64%	1,367	4,101	μ .	11	615	64%	394	463	n	n	70	64%	45			•		1,806		,		1,806	•
10.6	15,61	510	11		2,342 ·	85%	1,991	10,556		"	1,583	85%	1,345	9,833	11	11	1,475	85%	1,254					4,590				4,590	•
20.4	15,17	79	18	Н	7,589	69 <b>%</b>	5,236	4,063	It	. н	2,032	69%	1,402	25,952	н	н	12,976	69%	8,954					·		1	15,592	15,592	•
9.8	7,29	92	"	С	1,094	73%	799	1,681	11	С	252	73%	184	14,332	It	С	2,150	73%	1,569					2,552				2,552	-
9.1						<u> </u>								6,906		С	1,0 36	60%	622					622				622	_
23.8	12,35	551	41	Н	6,176	52%	3,212	5,793	10	н.	2,896	52%	1,506	32,800		н.	16,400	52%	8,528						·	13	3,246	13,246	
11.2								<u> </u>			,			8,608	r "	С	1,291	58%	749					749				749	_
13.2	5,42	and the second s	11	С	813	75%	610	4,674		С	701	75%	526	15,997	. 40	С	2,400	75%	1,800					2,936				2,936	_
22.0		07	ti .	H	3,554	51%	1,813	8,479	. 11	н	4,239	51%	2,162	18,104	<b>34</b>	н	9,052	51%	4,616							1	8,591	8,591	
14-1	3,07	77		C	462	71%	328	6,033	"	С	905	71%	643	15,729	н	С	2,359	71%	1,675					2,646				2,646	
<del></del>																								` .					
		×													<u> </u>	-													
<b>_</b>				·										•	-										.			:	
<u> </u>																													_
EN			ŧ							ļ																			_
EXPL'	7045	,453			27,792	4	18,148	61,021	_	-	15,569	_	9,968	160,943			51,042		31,224					21,911		3	37,429	59,340	<del></del>
ECTED	· · · · · · · · · · · · · · · · · · ·																	· · · · ·											
rals	104,4	453			27,792		18,148	61,0'21			15,569		9,968	160,943	:		51,042		31,224									59,340	

NOTE: (1) Average thickness computed from observations. (ie. drill holes, adit and outcrop measurements.)

(2)(i) Tons in place (cu. yds.) determined from : (a) Area of unmined coal.

(b) Average thickness as determined from (1)

- (ii) I cu.yd. of coal in place = 1.15 net tons raw.
- (iii) Slope correction applied to (2)(i)(a). (Area of unmined coal.) as follows:
- (a) For 0°-15° pitch -correction of 7½° applied to area.
- (b) For 15°-30° pitch -correction of 22 1/2° applied to area.
- (c) For 30°-90° pitch correction of 45° applied to grea.
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- (3) Reserve Classification Definitions for KRL property.
- A Proven Reserves (In Place) 🗼

Tons of coal (1·15nt/cu.yd.) in the ground computed from observations (ie. drill holes, adits, outcrops, mine workings) spaced at intervals of 0.5 miles or less in areas of good geological continuity, with seam thickness greater than 5 feet and under less than 2500 feet of overburden.

B - Partially Explored Reserves - (In Place) -

Tons of coal (1·15 nt/cu.yd.) in the ground computed partially from observations generally spaced at intervals from 0.5 to 1.5 miles apart and partially from reasonable geological projections. Minimum seam thickness is 5 feet, and maximum overburden 2500 feet. Generally equivalent to "Probable" or "Indicated" in other systems of nomenclature.

C - Projected Reserves - (in Place) -

Tons of coal (1-15 nt/cu.yd.) in the ground where little direct evidence is available but where geological studies have indicated the continuity of the coal bearing measures. Coal seam thickness projected from adjacent areas.

- H Probably better suited to hydraulic mining method. Used 50% recovery.
- C Probably suited to conventional room and pillar method. Used 15% recovery.
- R Probably suited to selective mining because of splits or proximity to other seams. Used 15% recovery.
- 0 Open Pit reserve. Assumed 85% recovery.
- (5) Reserves Recoverable -

Proven Reserves (Recoverable) -

Proven Reserves (In Place) adjusted by well substantiated factors for mining and washing recovery.

Partially Explored Reserves (Recoverable) —

Partially Explored Reserves (In Place) adjusted by generalized factors for mining and washing recovery.

(6) Calculated yield (laboratory) at defined specific gravity arrived at

by (a) bulk sample wash tests from adits and/or test pits,

or (b) micro sample wash tests from adits and/or test pits.

AREA: Fernie Ridge TABLE Nº

# RESERVE ESTIMATE - (+2500' COVER)

				PIT	rch c	) -15°			···	PITC	H 15°-	- 30°					PITC	;H 30'	,-90°	•			CUMULA	TIVE TO	OTALS-	- RECOVI	ERABLE	RESER	 √ES		
SEAM NAME	AVG.	TONS IN PLACE	RESER	VE MINING	TONS	CALC. AT	TONS	TONS IN	RESERVE	MINING	TONS	CALC. AT	то	NS	TONS IN	RESERVE	MINING	TONS	CALC	AT TONS	OP	EN PIT MI				VENTIONAL					
NAME	THICK.	PLACE (000's)	CLAS	S, METHOD	RECOVERED (000's)	YIELD SP. GR.	<b>WASHED</b> (000's)	PLACE (000's)	CLASS.	METHOD	RECOVERED (000's)	YIELD SP.	GR. WAS	HED	PLACE (000's)	CLASS.	MINING METHOD	RECOVERED (000's)	CALC. YIELD SE	P. GR. WASHED (000's)	PROVEN	PARTIALLY EXPLORED	PROJECTED	PROVEN	PARTIALLY EXPLORED	PROJECTED	1.	PARTIALLY EXPLORED	PROJECTED	TOTALS	S SEAM NAME
В	14.7	2,577	<u>c</u>	С	387	77%	298	2,304	С	С	346	77%	2	66	956	С	С	143	77%	110					,	674			1	674	В
10	8.0										· · · · · · · · · · · · · · · · · · ·										·				•						10
9	10.6	6,557	11	11	984	85%	836	3,792	le le	**	569	85%	41	84	1,328	**	14	199	8 5%	169						1,489				1,489	9
8	20 4	36,176	ıi .	н	18,088	69%	12,481	26,747	"	- н	13,374	69%	9,2	28	15,532	11	Н	7,766	69%	5,358							,		27,067	27,067	8
7	9.8′	21,403	- "	С	3,211	73%	2,344	11,295	it	C	1,694	73%	1,2	36	11,641	**	С	1,746	73%	1,275						4,855				4,855	7
6	9.1	579		11	87	60%	52	3,323	n 、	u	498	60%	2	99	10,765	#1	10	1,615	60%	969		<u> </u>			······	1,320			<u> </u>	1,320	
5	23.8′	58,360	H	н	29,180	52%	15,174	32,873	. 60	н	16,437	52%	8,54	47	44,384	14	н	22,192	52%	11,540									35,261	35,261	- 5
4	11-2	¥				,		7,807	it	С	1,171	58%	6	79	12,953	11	С	1,943	58%	1,127						1,806				1,806	4
3	13.2	34,772	, r u	С	5,216	75%	3,912	19,035	16	u	2,855	75%	2,1	41	28,433	11	11	4,265	75%	3,199						9,252			_ <del></del>	9,252	+ -
2	22.0	55,194	11	н	27,597	51%	14,075	39,150	18	н	19,575	51%	9,9	83	56,823	11	н	28,412	51%	14,490			<u></u>			, , , , , ,	·.		38,548	38,548	- 3
1	14 1	40,244	μ	С	6,037	71%	4,286	21,087	11	С	3,163	71%	2,2	46	43,586	н	С	6,538	71%	4,642					<u> </u>	11,174				<del>'</del>	-
						,					· · · · · · · · · · · · · · · · · · ·													-		13,17 4				11,174	
•										•																			<u> </u>		
															•			<u> </u>													-
							-	······································		75		et.'				<u>`</u>				3		*					<del>                                     </del>	<u> </u>		-	_
PROVI	EN	,	-									3								:										<del></del>	
PART.	EXPL'D		7			7			1				·				<u> </u>						-			1		<u> </u>	· i	<del></del>	$\dashv$
PROJI	ECTED .	255,862			90,787	<b>1</b> ·	53,458	167,413			59,682		35,10	9	226,401	3.5	-	74,819		42,879			·	1		30,570	1		100,876	131,446	-
ТОТ	rals	255,862			90,787		~ 52.450	1			<b>50</b> 600		<del></del>						<u></u>		·		<u></u>	<u> </u>						131,770	
		200,002		i_	30,101		53,458	167,413			59,682		35,10	78	226,401			74,819		42,879									,	131,446	

NOTE: (1) Average thickness computed from observations. (ie. drill holes, adit and outcrop measurements.)

(2)(i) Tons in place (cu. yds.) determined from (a) Area of unmined coal.

(b) Average thickness as determined from (1)

- (ii) I cu.yd. of coal in place = 1·15 net tons raw.
- (iii) Slope correction applied to (2)(i)(a). (Area of unmined coal.) as follows:
- (a) For 0°-15° pitch -correction of 7½° applied to area.
- (b) For 15°-30° pitch -correction of 221/2° applied to area.
- (c) For 30°-90° pitch correction of 45° applied to area.

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- (3) Reserve Classification Definitions for KRL property.
- A Proven Reserves (In Place) -

Tons of coal (I-15nt/cu.yd.) in the ground computed from observations (ie. drill holes, adits, outcrops, mine workings) spaced at intervals of 0-5 miles or less in areas of good geological continuity, with seam thickness greater, than 5 feet and under less than 2500 feet of overburden.

B - Partially Explored Reserves - (In Place) -

Tons of coal (1-15 nt/cu.yd.) in the ground computed partially from observations generally spaced at intervals from 0-5 to 1-5 miles apart and partially from reasonable geological projections. Minimum seam thickness is 5 feet, and maximum overburden 2500 feet. Generally equivalent to "Probable" or "Indicated" in other systems of nomenclature.

C - Projected Reserves - (In Place) -

Tons of coal (1-15 nt/cu.yd.) in the ground where little direct evidence is available but where geological studies have indicated the continuity of the coal bearing measures. Coal seam thickness projected from adjacent areas.

- (4) Mining Method -
- H Probably better suited to hydraulic mining method. Used 50 % recovery.
- C Probably suited to conventional room and pillar method. Used 15% recovery.
- R Probably suited to selective mining because of splits or proximity to other seams.

  Used 15% recovery.
- 0 Open Pit reserve. Assumed 85% recovery.
- (5) Reserves Recoverable —

Proven Reserves (Recoverable) -

Proven Reserves (In Place) adjusted by well substantiated factors for mining and washing recovery.

Partially Explored Reserves (Recoverable) -

Partially Explored Reserves (In Place) adjusted by generalized factors for mining and washing recovery.

- (6) Calculated yield (laboratory) at defined specific gravity arrived at by (a) bulk sample wash tests from adits and/or test pits.
  - or (b) micro sample wash tests from adits and/or test pits.

(3)

AREA: Fernie Ridge

## RESERVE ESTIMATE - (0-1500' COVER)

				PIT	CH C	) - 15°			,		PITC	H 15°-	- 30°		·	P	ITCH 30	)°-90	)•				CUMULA	TIVE TO	OTALS-	- RECOVE	ERABLE	RESER	VES		<del></del>
SEAM A	AVG.	TONS IN	RESERVE	MINING	TONS RECOVERED	CALC.	AT	TONS	TONS IN PLACE	RESERVE	MINING METHOD	TONS RECOVERED	CALC. AT YIELD SP. GR.	TONS	TONS IN	RESERVE MIN	ING TONS	CALC.	AT	TONS	OPE	N PIT MI				VENTIONAL					T
NAME TH	,	(000's)	CLASS,	METHOD	(000's)		P. GR.	WASHED (000's)	PLACE (000's)	CLASS.	METHOD	RECOVERED (000's)	YIELD SP. GR.	TONS WASHED (000's)	PLACE (000's)	RESERVE MIN	TONS RECOVERE (000's)	YIELD	SP. GR.	WASHED (000's)	PROVEN	PARTIALLY EXPLORED		PROVEN	PARTIALLY EXPLORED	PROJECTED			PROJECTED	TOTALS	INAMI
	14.7	6,694	B	C	1,004	77%		773		· · · · · · · · · · · · · · · · · · ·					,					,					713					773	13
<b>-</b>	7.6	3,513	<del></del>		527	45%		237	1,892	В	С	284	45 %	128											365		·····			365	10
9	Heli	4,902		u	735	85%		625	10,849	11	11	1627	85 %	1,383																2,008	9
8	7.2	792	14	"	119	70%		83	1,646		)I	247	70%	173										· · · · · · · · · · · · · · · · ·	2,008					256	-
7	l6·7 <sup>′</sup>	,							4,404	18		661	60%	397									<del></del>	•	256		·			397	7
6	7.9′								4,050	, н	44	608	83%	505											397						+ -
5	12.2							,	22,453	41	11	3,368	85%	2,863					_			,	<del></del>		<u> 505</u>					505	6
4	I3·6 <sup>′</sup>	,							12,766	11	u	,915	74%	1,417											2,863					2,863	-
	31.4	3,507	В	н	1,754	72%		1,263	84,888	it	н	42,444	72%	30,560				<del> </del>							1,417			71.007		1,417	4
2	18·0 <sup>′</sup>	2,753	10	С	413	79%		326	74,486	.,	С	11,173	79%	8,827				·					<del></del>					31,823		31,823	3
1 2	23.7	1,425	11	н	712	76%		541	94,796	. (t	Н	47,398	76%	36,022											9,153					9,153	2
		· · · · · · · · · · · · · · · · · · ·										<u> </u>		· · · · · · · · · · · · · · · · · · ·	<u> </u>				<del> </del>					ļ				36,563		36,563	
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PROVEN								<u> </u>		_	·			<u> </u>	<u> </u>	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		1				·				
PART. EXI	PL'D	23,586	-	ļ-	5,264	-		3,848	312,230	-	}	109,725	- <del> </del>	82,275		-	<del></del>	_			<u> </u>		<u> </u>			-					<u> </u>
PROJECT		•	-	<b> </b>	<del></del>	†	-		- <b>, - , - ,</b>	-	-		<del>-</del>	02,270		-		_	-					1	17,737		•	68,386		86,123	1
<del></del>									· · · · · · · · · · · · · · · · · · ·	<del> </del>				·										<u> </u>							<u> </u>
TOTAL		23,586			5,264			3,848	312,230	_		109,725		82,275												•				86,123	, ,

NOTE: (1) Average thickness computed from observations. (ie. drill holes, adit and outcrop measurements.) (2)(i) Tons in place (cu. yds.) determined from (a) Area of unmined coal.

(b) Average thickness as determined from (1)

- (ii) I cu.yd. of coal in place = 1.15 net tons raw.
- (iii) Slope correction applied to (2)(i)(a). (Area of unmined coal.) as follows:
- (a) For 0°-15° pitch -correction of 7½° applied to area.
- (b) For 15°-30° pitch -correction of 221/2° applied to area.
- (c) For 30°-90° pitch correction of 45° applied to area.

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- (3) Reserve Classification Definitions for KRL property.
- A Proven Reserves (In Place) -

Tons of coal (I-15 nt/cu.yd.) in the ground computed from observations (ie. drill holes, adits, outcrops, mine workings) spaced at intervals of 0.5 miles or less in areas of good geological continuity, with seam thickness greater than 5 feet and under less than 2500 feet of overburden.

B - Partially Explored Reserves - (In Place) -

Tons of coal (1-15 nt/cu.yd.) in the ground computed partially from observations generally spaced at intervals from 0.5 to 1.5 miles apart and partially from reasonable geological projections. Minimum seam thickness is 5 feet, and maximum overburden 2500 feet. Generally equivalent to "Probable" or "Indicated" in other systems of nomenclature.

C - Projected Reserves - (In Place) -

Tons of coal (1-15 nt/cu.yd.) in the ground where little direct evidence is available but where geological studies have indicated the continuity of the coal bearing measures. Coal seam thickness projected from adjacent areas.

- H Probably better suited to hydraulic mining method. Used 50 % recovery.
- C Probably suited to conventional room and pillar method. Used 15% recovery.
- R Probably suited to selective mining because of splits or proximity to other seams. Used 15% recovery.
- 0 Open Pit reserve. Assumed 85% recovery.
- (5) Reserves Recoverable -

Proven Reserves (Recoverable) -

Proven Reserves (In Place) adjusted by well substantiated factors for mining and washing recovery.

Partially Explored Reserves (Recoverable) —

Partially Explored Reserves (in Place) adjusted by generalized factors for mining and washing recovery.

- (6) Calculated yield (laboratory) at defined specific gravity arrived at
- by (a) bulk sample wash tests from adits and/or test pits,
- or (b) micro sample wash tests from adits and/or test pits.

TABLE Nº

AREA: Morrissey Ridge TABLE Nº:47

## RESERVE ESTIMATE - (1500'- 2500' COVER)

	, ,	•	:	PITCH	0 -	-15°		n Maria - Maria Andrew Maria Andrew A			PITC	H 15°-	- 30°	•		,	PIT	TCH 30	0°-90	,•				CUMULA	TIVE TO	OTALS-	- RECOV	ERABLE	RESER	ves	
SEAM	AVG.	TONS IN	RESERVE MINI	NG TO	NS C	ALC.	АТ	TONS	TONS IN	RESERVE	MINING	TONS	CALC.	AT	TONS	TONS IN	RESERVE MININ	G TONS	CALC	АТ	TONS	ОР	EN PIT MI	NING	UNDERGRO	OUND CON	VENTIONAL	UNDERGE	OUND HY	DRAULIC	SEA
NAME	AVG. THICK.	PLACE (000's)	CLASS. METH	IOD RECO		ALC. ELD S	SP. GR.	<b>WASHED</b> (000's)	TONS IN PLACE (000's)	CLASS.	MINING METHOD	TONS RECOVERED (000's)	YIELD	AT SP, GR.	WASHED (000's)	TONS IN PLACE (000's)	RESERVE MININ CLASS. METHO	DD RECOVERE (000's)	YIELD	SP. GR.	WASHED (000's)	PROVEN	PARTIALLY EXPLORED	PROJECTED	PROVEN	PARTIALLY EXPLORED	PROJECTED	PROVEN	PARTIALLY EXPLORED	PROJECTED (000's TO	TALS SEA
В	14.7	1,642	В	24	16	77%		189				# ==														189					189 B
10	7.6	1,201	<b>m</b> !	•	30	45		81	2,495	В	С	374	45%	6	168			· · ·	· .							249				2	249 10
9	11:1	15,755		2,3	53 ·	85		2,008	20,633	•	•	3,095	85		2,631										-,-	4,639			,	4,6	39 9
8	7.2	4,429	<b>1</b> • • • • • • • • • • • • • • • • • • •	' 6	54	70		465	4,328	•	<b>ed</b>	649	70		454									,		919					919 8
7	16.7	<b>6,4</b> 57	•	90	88	60		581	3,511		•	527	60		316											897					897 7
6	7.9	2,267	n :	34	10	83		282	6,585	М	18	988	83		820											1,102				l,i	102 6
5	12 2	2,704	16	4	6	85		345	14,174	•	et	2,126	85		1,807											2,152			٠	2,	152 5
4	13.6′			-					7,750	14	10	1,163	74		861											861				•	361 4
3	31:4	11,115	" 1	5,5	58	72		4,002	49,045	*	н	24,522	72		17,656														21,658	21,6	658 3
2	18.0'	19,703		2,9	55	79		2,334	38,803	, **	С	5,821	79		4,599											6,933				6,9	933 2
1	23.7	16,127	"	8,0	53	76		6,128	56,904	38	Н	28,452	76		21,623														27,751	27,	751 1
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PART.	-	81,400	; 	21,7			-	16,415	204,228			67,717			50,935	• <del>•••••</del>						<del>-</del>				17,941			49,409	67,	350
PROJE	CTED ·							<u></u>					<u></u>																		
тот	ALS	81,400	e I	21,74	3			16,415	204,228		-	67,717			50,935					Ī										67,3	350

NOTE: (1) Average thickness computed from observations. (ie. drill holes, adit and outcrop measurements.) (2)(i) Tons in place (cu. yds.) determined from (a) Area of unmined coal.

- (b) Average thickness as determined from (1)
- (ii) I cu.yd. of coal in place = 1.15 net tons raw.
- (iii) Slope correction applied to (2)(i)(a). (Area of unmined coal.) as follows:
- (a) For 0°-15° pitch -correction of 7½° applied to area.
- (b) For 15°-30° pitch -correction of 221/2° applied to area.
- (c) For 30°-90° pitch correction of 45° applied to area.

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(3) Reserve Classification – Definitions for KRL property.

A - Proven Reserves - (In Place) -

Tons of coal (I-15nt/cu.yd.) in the ground computed from observations (ie. drill holes, adits, outcrops, mine workings) spaced at intervals of 0.5 miles or less in areas of good geological continuity, with seam thickness greater than 5 feet and under less than 2500 feet of overburden.

B - Partially Explored Reserves - (In Place) -

Tons of coal (1-15 nt/cu.yd.) in the ground computed partially from observations generally spaced at intervals from 0.5 to 1.5 miles apart and partially from reasonable geological projections. Minimum seam thickness is 5 feet, and maximum overburden 2500 feet. Generally equivalent to "Probable" or "Indicated" in other systems of nomenclature.

C - Projected Reserves - (In Place) -

Tons of coal (1·15 nt/cu.yd.) in the ground where little direct evidence is available but where geological studies have indicated the continuity of the coal bearing measures. Coal seam thickness projected from adjacent areas.

(4) Mining Method -

- H Probably better suited to hydraulic mining method. Used 50 % recovery.
- C Probably suited to conventional room and pillar method. Used 15% recovery.
- R- Probably suited to selective mining because of splits or proximity to other seams. Used 15% recovery.
- O Open Pit reserve. Assumed 85% recovery.
- (5) Reserves Recoverable --

Proven Reserves (Recoverable) -

Proven Reserves (In Place) adjusted by well substantiated factors for mining and washing recovery.

Partially Explored Reserves (Recoverable) —

Partially Explored Reserves (In Place) adjusted by generalized factors for mining and washing recovery.

(6) Calculated yield (laboratory) at defined specific gravity arrived at

by (a) bulk sample wash tests from adits and/or test pits, or (b) micro sample wash tests from adits and/or test pits.



AREA: Morrissey Ridge TABLE Nº

AREA: Morrissey Ridge TABLE Nº: 48

# RESERVE ESTIMATE - (+2500' COVER)

			•	PI	TCH C	o — 15	•				PIT	СН	15°—	30°		1			PITO	CH 30	oe-ec	)°				CUMUL	ATIVE T	OTALS-	- RECOV	'ERABLE	RESER	/ES	•	,
0500	,,,, l	TONS IN	DECEDVE	MINING	TONS	CALC	Ι <sub>ΔΤ</sub>	TONS	TONS IN	RESE	EVE MININ	G TO	ONS	CALC	Δτ τ	ONS	TONS IN	RESERVE	FMINING	TONS	CALC	ΔΤ	TONS	OP	EN PIT M	INING	UNDERGR	OUND CON	VENTIONAL	UNDERGI	ROUND HY	DRAULIC		SEAM
SEAM NAME	AVG. THICK	TONS IN PLACE (000's)	RESERVE CLASS.	METHOD	TONS RECOVERED (000's)	YIELD	SP. GR.	TONS WASHED (000's)	TONS IN PLACE (000's)	CLAS	SS. METHO	D RECO	VERED (0)'s)	CALC. YIELD	SP. GR. WA	ONS SHED 100's)	TONS IN PLACE (000's)	CLASS.	METHOD	TONS RECOVERE (000's)	D YIELD	SP. GR.	WASHED (000's)	PROVEN	PARTIALLY EXPLORED		PROVEN	PARTIALLY EXPLORED	PROJECTED	PROVEN	PARTIALLY EXPLORED	PROJECTED	TOTALS	NAME
В													·		1	,			<u> </u>					<u> </u>					1			<u></u>		8
10						2 p			·		·								<u> </u>															10
9	114	1,812	С	С	272 .	85 9	6	231			-																		231				231	9
8	7.2'	990	*	35	149	70 9	<b>6</b>	104				,																	104				104	8
7	16:7'								2,833	С	С	4	25			255								].			•		255				255	7
6	7.9'	3,448	, 14	· al	517	839	6	429	1,184	all		•	178			148							-						577				577	6
5	12.2'	38,972		18	5,846	85?	6	4,969	28,752	•	. it	4,	313	85%	3	,666		-											8,635				8,635	5
4	13.6'	2,267	**	10	340	749	6	252	14,095	я		2,	114	74%	1	,564													1,816				1,816	4
3	31.4	92,805	н	н	46,403	729	6	33,410	101,449	10	Н	50,7	24	72%	36	5,521														<u> </u>		69,931	69,931	3
2	18-0'	147,136	и	С	22,070	799	ж.	17,435	81,324	11	С	12,1	99	79%	9	,637								·	·		,		27,072				27,072	2
	23.7	189,086	•	н	94,543	769	<b>k</b>	71,853	105,067	99	н	52,5	33	76%	1	,925	-		1			1										111,778	111,778	+ -
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PART. E			<b>-</b>   .	,																									†					† !
	ŀ	476,516		·	170,140	7		128,863	334,704			122,4	86	•	9	91,716		1						1	<u> </u>				38,690	1	-	181,709	220,399	† '
		476,516			170,140			128,863	334,704			122,4				1,716										•	<u> </u>			· · · · · · · · · · · · · · · · · · ·		.′		

NOTE: (1) Average thickness computed from observations. (ie. drill holes, adit and outcrop measurements.) (2)(i) Tons in place (cu.yds.) determined from (a) Area of unmined coal.

(b) Average thickness as determined from (1)

- (ii) I cu.yd. of coal in place = 1·15 net tons raw.
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- (b) For 15°-30° pitch -correction of 22 1/2° applied to area.
- (c) For 30°-90° pitch correction of 45° applied to area.

(3) Reserve Classification - Definitions for KRL property.

- A Proven Reserves (In Place) -
- Tons of coal (I·15nt/cu.yd.) in the ground computed from observations (ie. drill holes, adits, outcrops, mine workings) spaced at intervals of 0.5 miles or less in areas of good geological continuity, with seam thickness greater than 5 feet and under less than 2500 feet of overburden.
- B Partially Explored Reserves (in Place) -

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C - Projected Reserves - (In Place) -

Tons of coal (1-15 nt/cu.yd.) in the ground where little direct evidence is available but where geological studies have indicated the continuity of the coal bearing measures. Coal seam thickness projected from adjacent areas.

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- O-Open Pit reserve. Assumed 85% recovery.
- (5) Reserves Recoverable -

Proven Reserves (Recoverable) -

Proven Reserves (in Place) adjusted by well substantiated factors for mining and washing recovery.

Partially Explored Reserves (Recoverable) -

Partially Explored Reserves (In Place) adjusted by generalized factors for mining and washing recovery.

(6) Calculated yield (laboratory) at defined specific gravity arrived at

by (a) bulk sample wash tests from adits and/or test pits,

or (b) micro sample wash tests from adits and/or test pits.

AREA Morrissey Ridge TABLE Nº .

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