

Grum Fick LPT (2 pages)

Fero and Grum Ores/odics.

Combined Ores/odics - Col II

006347

Year	Waste - Cr. Yds (000s)			Ore - Short Tons (000s)				
	Fero	Grum	Total	Source	Tons	Pb	Zn	Coal
1980	4,473	3,820	15,293	Fero	3,752	3.2	5.2	8.2
1981	11,298	5,273	16,571	Fero	3,791	2.8	7.9	7.7
1982	11297	7,500	18,797	Fero	1,811	2.7	4.5	7.2
				Grum	1,930	3.8	6.2	10.0
					3,741	3.3	5.4	8.7
1983	⁶⁴³⁸ 8041	7,500	15,541	Fero	1,811	3.3	4.8	8.1
				Grum	1,930	3.9	5.5	9.9
					3,741	3.35	5.2	8.55
1984	³⁹²² 4205	7,500	11,705	Fero	1,811	3.3	4.65	7.95
				Grum	1,930	3.3	5.2	8.6
					3,741	3.3	5.0	8.3
1985	⁴³⁵⁴ 4517	3,726	8,243	Fero	1,811	3.0	4.2	7.2
				Grum	1,930	3.2	5.2	9.4
					3,741	3.1	4.7	7.8
1986	⁴⁷⁵⁶ 3950	3,726	7,676	Fero	1,811	2.8	4.1	6.9
				Grum	1,930	2.9	4.7	7.6
					3,741	2.85	4.4	7.3
1987	³⁹⁸⁵ 2944	3,726	6,670	Fero	1,811	2.96	4.0	6.96
				Grum	1,930	3.1	5.1	8.2
					3,741	3.0	4.6	7.6
1988	³⁰⁵⁰ 2488	1,420	3,908	Fero	1,811	2.5	4.4	6.9
				Grum	1,930	2.7	4.5	7.2
					3,741	2.6	4.45	7.05

1989	³⁰⁵⁰ 923	396	2319	Faro 1,811	2.9	4.6	7.5
				Grum 1,930	3.1	5.0	8.1
				3,741	3.0	4.8	7.8
1990	⁴⁸³ 651	—	651	Faro 3,741	2.6	4.2	6.8
1991	[—] 808	—	808	Faro 3,741	2.5	4.5	7.0

64106
63595

~~MINIMUM STRIPINGS~~ REQUIRED TO DEVELOP

~~1990~~

SOURCE OF FEED GRADES FOR
FARO DEPOSIT ORIGINATING FROM
AUGUST-78 INVENTORY.
NO CORRECTIONS APPLIED

~~29,463 2.83 4.56~~

LPT

(2 pages)

Fero and Grum Orebodies.

Combined Orebodies - Case II

Year	West - Cu Yds (000's)			Source	Ore - Short Tons (000's)			
	Fero	Grum	Total		Tons	Pb	Zn	Coab
1980	11,473	3,820	15,293	Fero	3,752	3.0	5.2	8.2
1981	11,298	5,273	16,571	Fero	3,741	2.8	4.9	7.7
1982	11,297	7,500	18,797	Fero	1,811	2.7	4.5	7.2
				Grum	1,930	3.8	6.2	10.0
					3,741	3.3	5.4	8.7
1983	8041	7,500	15541	Fero	1,811	3.3	4.8	8.1
				Grum	1,930	(8.1) ^{34?}	5.5	9.9
					3,741	3.35	5.2	8.55
1984	4205	7,500	11705	Fero	1,811	3.3	4.5	7.95
				Grum	1,930	3.3	5.2	8.6
					3,741	3.3	5.0	8.3
1985	4517	3,726	8243	Fero	1,811	3.0	4.2	7.2
				Grum	1,930	3.2	5.2	8.4
					3,741	3.1	4.7	7.8
1986	3950	3,726	7676	Fero	1,811	2.8	4.1	6.9
				Grum	1,930	2.9	4.7	7.6
					3,741	2.85	4.4	7.3
1987	2944	3,726	6670	Fero	1,811	2.96	4.0	6.96
				Grum	1,930	3.1	5.1	8.2
					3,741	3.0	4.6	7.6
1988	2488	1,420	3908	Fero	1,811	2.5	4.4	6.9
				Grum	1,930	2.7	4.5	7.2
					3,741	2.6	4.45	7.05

1989	1923	396	2319	Feas	1,811	2.9	4.6	7.5
				Grum	1,930	3.1	5.0	8.1
					3,741	3.0	4.8	7.8
1990	651	-	651	Feas	3,741	2.6	4.2	6.8
1991	808	-	808	Feas	3,741	2.5	4.5	7.0

~~MINIMUM STRIPPING REQUIRED TO DEVELOP~~

~~TOTAL ORE SCHEDULE 22,400,000 OUNCS~~
~~21,970,000 OUNCS~~

September 1, 1978

MINE LIFE ORE RESERVES

(000's)

EXCLUDING ZONE 2

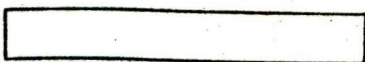
PHASE	IV		V		VI		VII		VIII		IX		X		XI		XII		XIII		TOTAL		
	SDT	%Pb/%Zn	SDT	%Pb/%Zn	SDT	%Pb/%Zn	SDT	%Pb/%Zn	SDT	%Pb/%Zn	SDT	%Pb/%Zn	SDT	%Pb/%Zn	SDT	%Pb/%Zn	SDT	%Pb/%Zn	SDT	%Pb/%Zn			
2870																	54	3.1/3.9			54	3.1/3.9	
2850																	31	2.5/5.5			31	2.5/5.5	
2830					13	2.3/4.9											43	2.3/4.2			56	2.3/4.4	
2810					81	1.9/4.1											31	2.5/4.8			112	2.1/4.3	
2790					80	1.8/4.8											130	3.1/6.5			210	2.6/5.9	
2770					91	2.3/6.0											114	3.2/5.0	15	3.1/4.8	220	2.8/5.4	
2750					100	2.0/5.1											227	2.5/3.7	5	2.4/5.0	332	2.3/4.1	
2730			86	3.0/5.0	142	2.4/4.6											127	1.4/3.6	32	1.5/3.6	387	2.1/4.3	
2710			971	3.4/5.4	241	2.0/4.2	63	2.4/4.2									117	2.4/4.5	190	2.3/3.7	1,582	2.9/4.9	
2690			1236	3.4/5.6	378	3.3/5.6	150	2.3/4.8									39	1.5/3.9	3	2.0/3.0	1,806	3.2/5.5	
2670			1042	3.5/5.5	363	4.1/6.2	92	1.6/3.2									152	1.7/3.5			1,649	3.4/5.3	
2650	56	3.4/5.6	723	3.0/5.5	473	3.7/6.2	90	2.3/3.0									228	2.4/4.9			1,570	3.1/5.5	
2630			443	2.6/5.8	499	2.6/4.4	219	2.0/3.7	110	1.3/3.4	14	1.3/3.2					83	1.9/2.8			1,368	2.3/4.6	
2610			269	2.9/5.3	485	2.4/4.0	258	2.6/4.8	80	1.4/3.6	32	1.3/3.1					425	3.0/5.4			1,549	2.6/4.7	
2590					279	2.2/4.6	141	2.3/5.4	172	1.5/3.8	19	2.0/4.2	13	2.0/2.5			332	3.3/5.1	38	2.8/5.8	994	2.5/4.8	
2570							119	1.9/4.9	65	1.4/3.7	76	2.4/3.4	144	3.5/4.7	49	2.3/3.6	403	3.5/4.9	134	2.6/4.2	990	2.9/4.5	
2550							145	3.8/6.4	155	2.2/3.7	202	2.4/3.9	354	2.9/3.5	103	2.9/3.9	394	2.2/3.6	260	2.5/4.0	1,613	2.6/4.0	
2530							88	4.0/5.0	366	2.8/5.2	456	3.4/5.1	280	3.3/4.2	237	2.5/3.5	318	2.8/3.5	237	3.4/4.5	1,982	3.1/4.5	
2510									502	3.1/4.4	494	3.6/5.1	383	3.2/4.4	399	2.5/3.8	550	2.7/3.9	245	3.0/5.1	2,573	3.0/4.4	
2490									442	3.7/5.1	337	3.8/5.0	247	3.2/5.0	300	2.7/4.0	639	1.8/3.7	223	1.9/4.4	2,188	2.8/4.4	
2470									400	3.3/4.8	679	3.4/4.4	369	3.1/4.4	472	3.1/4.1	492	3.2/5.0	338	3.0/5.5	2,750	3.2/4.6	
2450												859	3.2/4.7	338	2.5/3.2	327	2.9/3.8	712	2.9/4.7	318	2.7/5.3	2,554	2.9/4.5
2430												667	3.3/5.0	290	2.9/4.2	313	3.4/4.6	524	2.8/4.3	243	2.6/5.0	2,037	3.0/4.6
2410												253	2.4/3.6			447	2.6/4.5	364	2.8/4.6	276	2.2/4.0	1,370	2.5/4.3
2390												164	2.7/4.1			375	2.6/4.4	276	2.2/4.1	164	2.2/4.2	979	2.4/4.2
2370																				586	2.1/4.1	586	2.1/4.1
2350																				280	2.1/4.1	280	2.1/4.1
	56	3.4/5.6	4770	3.3/5.5	3225	2.8/5.0	1365	2.5/4.6	2292	2.8/4.5	4252	3.2/4.6	2418	3.0/4.1	3052	2.8/4.1	6805	2.7/4.4	3587	2.5/4.5	31,822	2.8/4.6	

K = 6481.5 @ 3.50 T/BCY

Bench _____

Page _____ of _____

O R E						O R E							
Ore Block	Area Units	Tons (A.U. x K)	Grade			Remarks	Ore Block	Area Units	Tons (A.U. x K)	Grade			Remarks
			Pb	Zn	Comb					Pb	Zn	Comb	
		<u>1985</u>						<u>1985</u>					
IX	3430	483,000	3.3	5.0		IX	3450	260,000	3.2	4.7			
IX	3410	253,000	2.4	3.6		IX	3430	667,000	3.3	5.0			
IX	3390	164,000	2.7	4.1									
X	3590	13,000	2.0	2.5		X	3570	130,000	2.0	2.5			
X	3570	144,000	3.5	4.7		X	3570	144,000	3.5	4.7			
X	3550	354,000	2.9	3.5		X	3550	354,000	2.9	3.5			
X	3530	280,000	3.3	4.2		X	3530	280,000	3.3	4.2			
X	3510	184,000	3.2	4.4		X	3510	93,000	3.2	4.4			
		1,875,000	3.0	4.2	✓			1,811,000	3.21	4.47			
		<u>1986</u>						<u>1986</u>					
X	3510	199,000	3.2	4.4		X	3510	290,000	3.2	4.4			
X	3490	247,000	3.2	5.0		X	3490	247,000	3.2	5.0			
X	3470	369,000	3.1	4.4		X	3470	369,000	3.1	4.4			
X	3570	49,000	2.3	3.6		X	3450	338,000	2.5	3.2			
XI	3550	103,000	2.9	3.9		X	3430	290,000	2.9	4.2			
XI	3530	237,000	2.5	3.5		IX	3410	253,000	2.4	3.6			
XI	3510	399,000	2.5	3.8		XI	3570	24,000	2.3	3.6			
XI	3490	266,000	2.7	4.0									
		1,869,000	2.8	4.1	✓			1,811,000	2.88	4.10		✓	
		<u>1987</u>						<u>1987</u>					
XI	3490	34,000	2.7	4.0		XI	3570	25,000	2.3	3.6			
XI	3470	472,000	3.1	4.1		XI	3550	103,000	2.9	3.9			
X	3450	338,000	2.5	3.2		XI	3530	237,000	2.5	3.5			
XI	3450	327,000	2.9	3.8		XI	3510	399,000	2.5	3.8			
X	3430	290,000	2.9	4.2		XI	3490	300,000	2.7	4.0			
XI	3430	313,000	3.4	4.6		XI	3470	472,000	3.1	4.1			
XII	3870	54,000	3.1	3.9		XI	3450	295,000	2.9	3.8			
XII	3850	31,000	2.5	5.5									
		1,859,000	2.96	4.0	✓			1,811,000	2.77	3.87		✓	
Total						Total							



K = 6481.5 @ 3.50 T/DCY

Bench _____

Page _____ of _____

O R E						O R E							
Ore Block	Area Units	Tons (A.U. x K)	Grade			Remarks	Ore Block	Area Units	Tons (A.U. x K)	Grade			Remarks
			Pb	Zn	Comb					Pb	Zn	Comb	
		1988						1988					
							XI	3450	52000	29	38		
							XI	3430	313000	34	46		
XI	3410	477,000	2.6	4.5			XI	3410	477000	26	45		
XI	3830	43,000	2.3	4.2			XII	3870	54000	31	39		
XII	3810	31,000	2.5	4.8			XII	3850	31000	25	55		
XI	3390	375,000	2.6	4.4			XII	3830	43000	23	42		
XII	3700	130,000	3.1	6.5			XII	3810	31000	25	48		
XII	3770	114,000	3.2	5.0			XII	3790	130000	31	65		
XII	3750	221,000	2.5	3.7			XII	3770	114000	32	50		
XII	3730	127,000	1.4	3.6			XII	3750	227000	25	37		
XII	3710	117,000	2.4	4.5			XII	3730	127000	14	36		
XII	3690	39,000	1.5	3.9			XII	3710	117000	24	45		
XII	3670	152,000	1.7	3.5			XII	3690	39000	15	39		
XII	3650	41,000	2.4	4.9			XII	3670	56000	17	35		
		1867000	2.5	4.4		✓		1811000	266	4.46			
		1989						1989					
							XII	3670	96000	17	35		
XII	3650	187,000	2.4	4.9			XII	3650	228000	24	49		
XII	3630	83,000	1.9	2.8			XII	3630	83000	19	28		
XII	3610	425,000	3.0	5.4			XII	3610	425000	30	54		
XII	3590	332,000	3.3	5.1			XII	3590	332000	33	51		
XII	3570	403,000	3.5	4.9			XII	3570	403000	35	49		
XII	3550	394,000	2.2	3.6			XII	3550	244000	22	36		
XII	3530	46,000	2.8	3.5									
		1870000	2.9	4.6		✓		1811000	2.86	4.71			
Total						Total							

ORE RESERVES ZONE

K = 5481.5 @ 3.50 T/BCY

Bench _____

Page _____ of _____

O R E						O R E							
Ore Block	Area Units	Tons (A.U. x K)	Grade			Remarks	Ore Block	Area Units	Tons (A.U. x K)	Grade			Remarks
			Pb	Zn	Comb					Pb	Zn	Comb	
		1990						1790					
XII	3530	272,000	28	35		XII	3550	150,000	22	36			
XII	3510	550,000	27	39		XII	3530	318,000	28	35			
XIII	3770	15,000	31	48		XII	3510	550,000	27	39			
XII	3750	5,000	24	51.0		XII	3490	639,000	18	37			
XII	3730	32,000	15	36		XII	3470	492,000	32	50			
XII	3710	190,000	23	37		XII	3450	712,000	29	47			
XIII	3690	3,000	20	30		XII	3430	524,000	28	43			
XII	3490	639,000	18	37		XII	3410	356,000	28	46			
XII	3590	38,000	28	58				3741,000	266	424			
XIII	3570	134,000	26	42				1991					
XII	3470	492,000	32	50									
XII	3450	712,000	29	47									
XII	3430	524,000	28	43									
XII	3550	123,000	25	40									
		3729,000	26	42		✓		1991					
		1991					XII	3410	8,000	28	46		
XII	3550	137,000	25	40			IX	3390	164,000	27	41		
XIII	3530	237,000	34	45			XI	3390	375,000	26	44		
XIV	3510	245,000	30	51			XII	3390	276,000	22	41		
XII	3490	223,000	19	44			XIII	3770	15,000	31	48		
XII	3470	338,000	30	55			XIII	3750	5,000	24	50		
XIII	3450	518,000	27	53				3730	32,000	15	36		
XII	3430	243,000	26	50				3710	190,000	23	37		
XII	3410	364,000	28	46				3690	3,000	21	31		
XIII	3410	276,000	23	40				3590	38,000	28	58		
XIV	3390	276,000	22	41				3570	134,000	26	42		
XIII	3390	164,000	22	42				3550	260,000	25	40		
XIII	3370	586,000	21	41				3530	237,000	34	45		
XII	3350	280,000	21	41				3510	245,000	30	51		
		3687,000						3490	223,000	19	44		
			25	4.5		✓		3470	338,000	30	55		
								3450	318,000	27	53		
								3430	243,000	26	50		
								3410	276,000	22	40		
Total							Total	3390	164,000	22	42	←	
								3370	197,000	21	41		

Page Total

3741000 2,55 4.52

3741000 2,55 4.52

FARO

1982 → 21,970 2.846
4.43

78- 943,00 3.2149

79- 3,741,250 3.3151

80 3,751,500 3.052

81. 3,741,250 2.849

Zone 2:- 3,230,000 3.4 51

35,052 2.855
4.650

*
ANVIL VCR

ANVIL ENG FARO

DEC 13/78

ATTN J F OLK

RE WASTE TO BE REMOVED (000) BCY - CASE 11

YEAR	FARO	GRUM	TOTAL
----	----	----	----
1980	11,473	3,820	15,293
1981	11,298	5,273	16,571
1982	11,297	7,500	18,797
1983	8,041	7,500	15,541
1984	4,205	7,500	11,705
1985	4,517	3,726	8,243
1986	3,950	3,726	7,676
1987	2,944	3,726	6,670
1988	2,488	1,420	3,908
1989	1,923	396	2,319
1990	651	-	651
1991	808	-	808
-----	-----	-----	-----
TOTAL	63,595	44,587	108,182 BCY

D GREGOIRE

TLX 036-8-316

CC J DEVITT
P TAGGART

*
ANVIL VCR

ANVIL ENG FARO

*
ANVIL VCR

ANVIL ENG FARO

DEC 11/78

ATTN T H BIGGS

GRADES FOR LEAD AND ZINC IN THE OXIDIZED STOCKPILE = 2.8/4.8

GRADES FOR THE 600 DST AVAILABLE ORE FOR 1992 = 2.1/4.1

D GREGOIRE

*
ANVIL VCR

ANVIL ENG FARO

ANVIL VCR

ANVIL ENG FARO

DEC 8/78

ATTN TOM BIGGS

CC PETER TAGGART

RE FARO AND GRUM OREBODIES - COMBINED OREBODIES - CASE II

ORE - SHORT TONS (000'S)

YEAR	SOURCE	TONS	PB	ZN	COMB.
1980	FARO	3,752	3.0	5.2	8.2
1981	FARO	3,741	2.8	4.9	7.7
1982	FARO	1,811	2.7	4.5	7.2
	GRUM	1,930	3.8	6.2	10.0
		-----	---	---	-----
		3,741	3.3	5.4	8.7
1983	FARO	1,811	3.3	4.8	8.1
	GRUM	1,930			
		1,930	3.4	5.5	8.9
		-----	---	---	-----
		3,741	3.35	5.2	8.55
1984	FARO	1,811	3.3	4.65	7.95
	GRUM	1,930	3.3	5.3	8.6
		-----	---	---	-----
		3,741	3.3	5.0	8.3
1985	FARO	1,811	3.0	4.2	7.2
	GRUM	1,930			
		1,930	3.2	5.2	8.4
		-----	---	---	-----
		3,741	3.1	4.7	7.8
1986	FARO	1,811	2.8	4.1	6.9
		1,930	2.9	4.7	7.6
		-----	---	---	-----
		3,741	2.85	4.4	7.3

1987	FARO	1,811	2.96	4.0	6.96
	GRUM	1,930	3.1	5.1	8.2
		-----	-----	-----	-----
		3,741	3.0	4.6	7.6
1988	FARO	1,811	2.5	4.4	6.9
	GRUM	1,930	2.7	4.5	7.2
		-----	-----	-----	-----
		3,741	2.6	4.45	7.05
1989	FARO	1,811	2.9	4.6	7.5
	GRUM	1,930	3.1	5.0	8.1
		-----	-----	-----	-----
	*	3,741	3.0	4.8	7.8
1990	FARO	3,741	2.6	4.2	6.8
1991	FARO	3,741	2.5	4.5	7.0

SOURCE OF FEED GRADES FOR FARO DEPOSIT ORIGINATING FROM AUGUST, 1978 INVENTORY. NO CORRECTIONS APPLIED.

THE OXIDIZED STOCKPILE WAS NOT USED IN THE ABOVE SCHEDULE.

D GREGOIRE

TLX 036-8-316

59.: I MESSED UP THE TONS IN 1983 AND 1985 SAME FITXX FIGURES AND SAME TOTAL AS ABOVE AND BELOW

CHEERS, MARY

*
ANVIL VCR

ANVIL EMC FARO

SEPT-1-78 ORE INVENTORY

FARO 1 '83	=	31,822,000 S.O.T.
ZONE 2	=	3,232,000
OXY StockPile	=	1,745,000
		<hr/>
		36,799,000
— 1978 (SEPT-DEC)		1,250,000
— OXY StockPile		1,745,000
— 1979		3,741,000
— 1980		3,752,000
— 1981		3,741,000
		<hr/>

TO BE SCHEDULED 22,570,000

OURS TO END OF 1991 = 22,400,000
 1980-1991 JFO EN 21,770,000

DIFF 600,000 TO BE MINED IN 1992

~~TO BE CHECKED =~~
~~DIFFERENCE BETWEEN TWO INVENTORIES~~
~~31,822,000 S.O.T. 31,746,000 S.O.T.~~

~~CALL DA FAST~~

64,000 SOT FROM STOCK PILE
 MINED IN SEPT-78 NOT IN
 IN INVENTORY



PRODUCTION PARAMETERS FOR FARGO DEPOSIT

1982 → 10250 S.D.T./DAY ORE
31821 B.C.Y./DAY WASTE
 34750 B.C.Y./DAY TOTAL PRODUCTION

1983 → 4962 S.D.T./DAY ORE
 2762 B.C.Y./DAY WASTE 5 YD SHOVELS
30,570 B.C.Y./DAY WASTE 15 YDS SHOVELS
 34750 B.C.Y./DAY TOTAL PRODUCTION

JAN

NOV

OCT-31

NOV-30

13

