JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
MINISTRY OF INDUSTRY
THE ARAB REPUBLIC OF EGYPT

Revised Feasibility Study
of
The Expansion Project
of
The El Dikheila Iron and Steel Works
in
The Arab Republic of Egypt

FINAL REPORT
(APPENDIX I)

October 1993

NKK Corporation
in association with
Kobe Steel,Ltd.

MANUFACTURING

COST SHEET (AMOUNT)

CASE 0-1

EXISTING WITHOUT ESCALATION

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- DRP -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
PELLET COST		51,253	51,253	51,253	51,253	51,253	51,253
SUB TOTAL	*	51,253	51,253	51,253	51,253	51,253	51,253
MANUFACTURING SUPPLIES COST		685	685	685	685	685	685
RAW MAT & SUPPLIES C TOTAL	**	51,938	51,938	51,938	51,938	51,938	51,938
BY-PRODUCT							
OXIDE FINES		0	0	0	0	0	0
OXIDE THICKNER		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		1,964	1,963	1,963	1,963	1,963	1,963
NATURAL GAS		17,294	17,294	17,294	17,294	17,294	17,294
O2N2		41	40	40	40	40	40
COMPRESSED AIR		208	208	208	208	208	208
WATER		585	584	583	583	583	583
UTILITIES COST TOTAL	**	20,091	20,090	20,088	20,088	20,088	20,088
VARIABLE COST TOTAL	***	72,029	72,028	72,026	72,026	72,026	72,026
FIXED COST							
LABOR COST TOTAL		684	684	684	684	684	684
DEPRECIATION TOTAL		6,153	6,136	6,136	6,134	6,136	6,136
REPAIR COST TOTAL		2,499	2,500	2,500	2,500	2,500	2,500
S REPAIR COST TOTAL		1,537	1,537	1,537	1,537	1,537	1,537
OTHER COST TOTAL		6,852	6,526	6,526	6,526	6,526	6,526
FIXED COST TOTAL	***	17,725	17,382	17,383	17,380	17,382	17,383
DRP COST TOTAL	****	89,754	89,410	89,408	89,406	89,408	89,408

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- DRP -

(UNIT : 1,000US$)

		1999	2000	2001	2002	2003	2004
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
PELLET COST		51,253	51,253	51,253	51,253	51,253	51,253
SUB TOTAL	*	51,253	51,253	51,253	51,253	51,253	51,253
MANUFACTURING SUPPLIES COST		685	685	685	685	685	685
RAW MAT & SUPPLIES C TOTAL	**	51,938	51,938	51,938	51,938	51,938	51,938
BY-PRODUCT							
OXIDE FINES		0	0	0	0	0	0
OXIDE THICKNER		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		1,963	1,963	1,938	1,926	1,959	1,959
NATURAL GAS		17,294	17,294	17,280	17,274	17,288	17,288
O2N2		40	40	32	29	38	38
COMPRESSED AIR		208	208	173	158	197	197
WATER		583	583	509	473	568	568
UTILITIES COST TOTAL	**	20,088	20,088	19,932	19,859	20,050	20,050
VARIABLE COST TOTAL	***	72,026	72,026	71,870	71,797	71,988	71,988
FIXED COST							
LABOR COST TOTAL		684	684	684	684	684	684
DEPRECIATION TOTAL		6,136	6,134	5,684	3,295	3,295	3,293
REPAIR COST TOTAL		2,500	2,500	2,485	2,478	4,998	4,998
S REPAIR COST TOTAL		0	1,537	1,537	1,537	1,537	1,537
OTHER COST TOTAL		6,526	6,526	6,495	6,479	6,524	6,524
FIXED COST TOTAL	***	15,846	17,380	16,884	14,472	17,038	17,036
DRP COST TOTAL	****	87,871	89,406	88,755	86,269	89,026	89,024

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- DRP -

(UNIT : 1,000US$)

		2005	2006	2007	2008	2009	2010
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
PELLET COST		51,253	51,253	51,253	51,253	51,253	51,253
SUB TOTAL	*	51,253	51,253	51,253	51,253	51,253	51,253
MANUFACTURING SUPPLIES COST		685	685	685	685	685	685
RAW MAT & SUPPLIES C TOTAL	**	51,938	51,938	51,938	51,938	51,938	51,938
BY-PRODUCT							
OXIDE FINES		0	0	0	0	0	0
OXIDE THICKNER		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		1,959	1,959	1,959	1,959	1,959	1,959
NATURAL GAS		17,288	17,288	17,288	17,288	17,288	17,288
O2N2		38	38	38	38	38	38
COMPRESSED AIR		197	197	197	197	197	197
WATER		568	568	568	568	568	568
UTILITIES COST TOTAL	**	20,050	20,050	20,050	20,050	20,050	20,050
VARIABLE COST TOTAL	***	71,988	71,988	71,988	71,988	71,988	71,988
FIXED COST							
LABOR COST TOTAL		684	684	684	684	684	684
DEPRECIATION TOTAL		3,312	3,295	3,295	3,293	3,312	3,295
REPAIR COST TOTAL		4,998	4,998	4,998	4,998	4,998	4,998
S REPAIR COST TOTAL		1,537	1,537	0	1,537	1,537	1,537
OTHER COST TOTAL		6,524	6,524	6,524	6,524	6,524	6,524
FIXED COST TOTAL	***	17,055	17,038	15,501	17,036	17,055	17,038
DRP COST TOTAL	****	89,043	89,026	87,489	89,024	89,043	89,026

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- DRP -

(UNIT : 1,000US$)

		2011	2012	2013	2014	2015
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
PELLET COST		51,253	51,253	51,253	51,253	51,253
SUB TOTAL	*	51,253	51,253	51,253	51,253	51,253
MANUFACTURING SUPPLIES COST		685	685	685	685	685
RAW MAT & SUPPLIES C TOTAL	**	51,938	51,938	51,938	51,938	51,938
BY-PRODUCT						
OXIDE FINES		0	0	0	0	0
OXIDE THICKNER		0	0	0	0	0
UTILITIES						
ELECTRICITY		1,959	1,959	1,959	1,959	1,959
NATURAL GAS		17,288	17,288	17,288	17,288	17,288
O2N2		38	38	38	38	38
COMPRESSED AIR		197	197	197	197	197
WATER		568	568	568	568	568
UTILITIES COST TOTAL	**	20,050	20,050	20,050	20,050	20,050
VARIABLE COST TOTAL	***	71,988	71,988	71,988	71,988	71,988
FIXED COST						
LABOR COST TOTAL		684	684	684	684	684
DEPRECIATION TOTAL		3,295	3,293	3,312	3,295	3,295
REPAIR COST TOTAL		4,998	4,998	4,998	4,998	4,998
S REPAIR COST TOTAL		1,537	1,537	1,537	1,537	0
OTHER COST TOTAL		6,524	6,524	6,524	6,524	6,524
FIXED COST TOTAL	***	17,038	17,036	17,055	17,038	15,501
DRP COST TOTAL	****	89,026	89,024	89,043	89,026	87,489

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- LCP -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
LIME STONE COST		486	486	486	486	486	486
SUB TOTAL	*	486	486	486	486	486	486
MANUFACTURING SUPPLIES COST		5	5	5	5	5	5
RAW MAT & SUPPLIES C TOTAL	**	491	491	491	491	491	491
BY-PRODUCT							
LIME FINES		0	0	0	0	0	0
LIME STONE FINES		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		57	57	57	57	57	57
NATURAL GAS		300	300	300	300	300	300
O2N2		8	8	8	8	8	8
COMPRESSED AIR		0	0	0	0	0	0
WATER		0	0	0	0	0	0
UTILITIES COST TOTAL	**	365	365	365	365	365	365
VARIABLE COST TOTAL	***	856	856	856	856	856	856
FIXED COST							
LABOR COST TOTAL		143	143	143	143	143	143
DEPRECIATION TOTAL		343	341	341	341	341	341
REPAIR COST TOTAL		157	157	157	157	157	157
S REPAIR COST TOTAL		0	118	118	118	118	0
OTHER COST TOTAL		399	358	358	358	358	358
FIXED COST TOTAL	***	1,041	1,116	1,117	1,117	1,117	999
LCP COST TOTAL	****	1,897	1,972	1,972	1,972	1,972	1,854

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- LCP -

(UNIT : 1,000US$)

		1999	2000	2001	2002	2003	2004
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
LIME STONE COST		486	486	486	486	486	486
SUB TOTAL	*	486	486	486	486	486	486
MANUFACTURING SUPPLIES COST		5	5	5	5	5	5
RAW MAT & SUPPLIES C TOTAL	**	491	491	491	491	491	491
BY-PRODUCT							
LIME FINES		0	0	0	0	0	0
LIME STONE FINES		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		57	57	56	56	57	57
NATURAL GAS		300	300	300	300	300	300
O2N2		8	8	7	6	8	8
COMPRESSED AIR		0	0	0	0	0	0
WATER		0	0	0	0	0	0
UTILITIES COST TOTAL	**	365	365	362	361	364	364
VARIABLE COST TOTAL	***	856	856	853	852	855	855
FIXED COST							
LABOR COST TOTAL		143	143	143	143	143	143
DEPRECIATION TOTAL		341	341	255	207	206	206
REPAIR COST TOTAL		157	157	156	155	313	313
S REPAIR COST TOTAL		118	118	118	118	0	118
OTHER COST TOTAL		358	358	332	319	359	358
FIXED COST TOTAL	***	1,117	1,117	1,004	942	1,021	1,139
LCP COST TOTAL	****	1,972	1,972	1,857	1,794	1,876	1,994

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- LCP -

(UNIT : 1,000US$)

		2005	2006	2007	2008	2009	2010
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
LIME STONE COST		486	486	486	486	486	486
SUB TOTAL	*	486	486	486	486	486	486
MANUFACTURING SUPPLIES COST		5	5	5	5	5	5
RAW MAT & SUPPLIES C TOTAL	**	491	491	491	491	491	491
BY-PRODUCT							
LIME FINES		0	0	0	0	0	0
LIME STONE FINES		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		57	57	57	57	57	57
NATURAL GAS		300	300	300	300	300	300
O2N2		8	8	8	8	8	8
COMPRESSED AIR		0	0	0	0	0	0
WATER		0	0	0	0	0	0
UTILITIES COST TOTAL	**	364	364	364	364	364	364
VARIABLE COST TOTAL	***	855	855	855	855	855	855
FIXED COST							
LABOR COST TOTAL		143	143	143	143	143	143
DEPRECIATION TOTAL		206	206	206	206	206	206
REPAIR COST TOTAL		313	313	313	313	313	313
S REPAIR COST TOTAL		118	118	118	0	118	118
OTHER COST TOTAL		359	359	359	358	359	359
FIXED COST TOTAL	***	1,139	1,139	1,139	1,021	1,139	1,139
LCP COST TOTAL	****	1,994	1,994	1,994	1,876	1,994	1,994

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- LCP -

(UNIT : 1,000US$)

		2011	2012	2013	2014	2015
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
LIME STONE COST		486	486	486	486	486
SUB TOTAL	*	486	486	486	486	486
MANUFACTURING SUPPLIES COST		5	5	5	5	5
RAW MAT & SUPPLIES C TOTAL	**	491	491	491	491	491
BY-PRODUCT						
LIME FINES		0	0	0	0	0
LIME STONE FINES		0	0	0	0	0
UTILITIES						
ELECTRICITY		57	57	57	57	57
NATURAL GAS		300	300	300	300	300
O2N2		8	8	8	8	8
COMPRESSED AIR		0	0	0	0	0
WATER		0	0	0	0	0
UTILITIES COST TOTAL	**	364	364	364	364	364
VARIABLE COST TOTAL	***	855	855	855	855	855
FIXED COST						
LABOR COST TOTAL		143	143	143	143	143
DEPRECIATION TOTAL		206	206	206	206	206
REPAIR COST TOTAL		313	313	313	313	313
S REPAIR COST TOTAL		118	118	0	118	118
OTHER COST TOTAL		359	358	359	359	359
FIXED COST TOTAL	***	1,139	1,139	1,021	1,139	1,139
LCP COST TOTAL	****	1,994	1,994	1,876	1,994	1,994

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- SMP -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
DRI		89,754	89,410	89,408	89,406	89,408	89,408
LIME STONE		1,897	1,972	1,972	1,972	1,972	1,854
SCRAP		39,866	39,862	39,855	39,855	39,855	39,855
FESI		2,403	2,403	2,403	2,403	2,403	2,403
AL		185	185	185	185	185	185
COKE BREEZE		545	545	545	545	545	545
ELECTRODE		10,936	10,936	10,936	10,936	10,936	10,936
FURNACE BRICK		1,923	1,923	1,923	1,923	1,923	1,923
LADLE BRICK		3,600	3,600	3,600	3,600	3,600	3,600
TUNDISH BRICK		1,669	1,669	1,669	1,669	1,669	1,669
FETLING MAT		4,026	4,026	4,026	4,026	4,026	4,026
HBI		24,655	24,655	24,655	24,655	24,655	24,655
FEMN		6,801	6,801	6,801	6,801	6,801	6,801
FEV		72	72	72	72	72	72
BURNT DOLOMITE		67	67	67	67	67	67
SUB TOTAL	*	188,401	188,128	188,120	188,118	188,120	188,002
MANUFACTURING SUPLLIES COST		930	930	930	930	930	930
RAW MAT & SUPPLIES C TOTAL	**	189,331	189,058	189,050	189,048	189,050	188,932
BY-PRODUCT							
SCRAP		2,589	2,589	2,589	2,589	2,589	2,589
DUST		0	0	0	0	0	0
SLAG		0	0	0	0	0	0
SCALE SMP		0	0	0	0	0	0
WASTE BRICK		0	0	0	0	0	0
SUB TOTAL	*	2,589	2,589	2,589	2,589	2,589	2,589
UTILITIES							
ELECTRICITY		18,173	18,171	18,169	18,169	18,169	18,169
NATURAL GAS		352	352	352	352	352	352
O2N2		87	86	85	85	85	85
COMPRESSED AIR		153	153	153	153	153	153
WATER		460	460	459	459	459	459
UTILITIES COST TOTAL	**	19,226	19,222	19,218	19,218	19,218	19,218

VARIABLE COST TOTAL	***	205,968	205,691	205,679	205,677	205,679	205,561
FIXED COST							
LABOR COST TOTAL		2,311	2,311	2,311	2,311	2,311	2,311
DEPRECIATION TOTAL		11,301	11,243	11,243	11,243	11,243	11,243
REPAIR COST TOTAL		4,103	4,105	4,105	4,105	4,105	4,105
OTHER COST TOTAL		6,289	4,778	4,778	4,848	4,847	4,848
FIXED COST TOTAL	***	24,004	22,437	22,438	22,507	22,506	22,508
SMP COST TOTAL	****	229,972	228,128	228,117	228,184	228,185	228,069

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- SMP -

(UNIT : 1,000US$)

	1999	2000	2001	2002	2003	2004
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
DRI	87,871	89,406	88,755	86,269	89,026	89,024
LIME STONE	1,972	1,972	1,857	1,794	1,876	1,994
SCRAP	39,855	39,855	39,855	39,855	39,855	39,855
FESI	2,403	2,403	2,403	2,403	2,403	2,403
AL	185	185	185	185	185	185
COKE BREEZE	545	545	545	545	545	545
ELECTRODE	10,936	10,936	10,936	10,936	10,936	10,936
FURNACE BRICK	1,923	1,923	1,923	1,923	1,923	1,923
LADLE BRICK	3,600	3,600	3,600	3,600	3,600	3,600
TUNDISH BRICK	1,669	1,669	1,669	1,669	1,669	1,669
FETLING MAT	4,026	4,026	4,026	4,026	4,026	4,026
HBI	24,655	24,655	24,655	24,655	24,655	24,655
FEMN	6,801	6,801	6,801	6,801	6,801	6,801
FEV	72	72	72	72	72	72
BURNT DOLOMITE	67	67	67	67	67	67
SUB TOTAL *	186,583	188,118	187,351	184,803	187,642	187,757
MANUFACTURING SUPLLIES COST	930	930	930	930	930	930
RAW MAT & SUPPLIES C TOTAL **	187,513	189,048	188,281	185,733	188,572	188,687
BY-PRODUCT						
SCRAP	2,589	2,589	2,589	2,589	2,589	2,589
DUST	0	0	0	0	0	0
SLAG	0	0	0	0	0	0
SCALE SMP	0	0	0	0	0	0
WASTE BRICK	0	0	0	0	0	0
SUB TOTAL *	2,589	2,589	2,589	2,589	2,589	2,589
UTILITIES						
ELECTRICITY	18,169	18,169	17,937	17,823	18,128	18,128
NATURAL GAS	352	352	352	352	352	352
O2N2	85	85	68	61	81	81
COMPRESSED AIR	153	153	128	117	145	145
WATER	459	459	400	372	447	447
UTILITIES COST TOTAL **	19,218	19,218	18,885	18,724	19,153	19,153

VARIABLE COST TOTAL	***	204,142	205,677	204,577	201,868	205,135	205,250
FIXED COST							
LABOR COST TOTAL		2,311	2,311	2,311	2,311	2,311	2,311
DEPRECIATION TOTAL		11,243	11,243	8,153	6,603	6,603	6,603
REPAIR COST TOTAL		4,105	4,105	4,080	4,069	8,208	8,208
OTHER COST TOTAL		4,848	4,848	4,797	4,769	4,838	4,837
FIXED COST TOTAL	***	22,508	22,507	19,341	17,752	21,960	21,960
SMP COST TOTAL	****	226,650	228,184	223,918	219,620	227,095	227,210

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- SMP -

(UNIT : 1,000US$)

	2005	2006	2007	2008	2009	2010
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
DRI	89,043	89,026	87,489	89,024	89,043	89,026
LIME STONE	1,994	1,994	1,994	1,876	1,994	1,994
SCRAP	39,855	39,855	39,855	39,855	39,855	39,855
FESI	2,403	2,403	2,403	2,403	2,403	2,403
AL	185	185	185	185	185	185
COKE BREEZE	545	545	545	545	545	545
ELECTRODE	10,936	10,936	10,936	10,936	10,936	10,936
FURNACE BRICK	1,923	1,923	1,923	1,923	1,923	1,923
LADLE BRICK	3,600	3,600	3,600	3,600	3,600	3,600
TUNDISH BRICK	1,669	1,669	1,669	1,669	1,669	1,669
FETLING MAT	4,026	4,026	4,026	4,026	4,026	4,026
HBI	24,655	24,655	24,655	24,655	24,655	24,655
FEMN	6,801	6,801	6,801	6,801	6,801	6,801
FEV	72	72	72	72	72	72
BURNT DOLOMITE	67	67	67	67	67	67
SUB TOTAL *	187,776	187,760	186,222	187,639	187,777	187,760
MANUFACTURING SUPLLIES COST	930	930	930	930	930	930
RAW MAT & SUPPLIES C TOTAL **	188,706	188,690	187,152	188,569	188,707	188,690
BY-PRODUCT						
SCRAP	2,589	2,589	2,589	2,589	2,589	2,589
DUST	0	0	0	0	0	0
SLAG	0	0	0	0	0	0
SCALE SMP	0	0	0	0	0	0
WASTE BRICK	0	0	0	0	0	0
SUB TOTAL *	2,589	2,589	2,589	2,589	2,589	2,589
UTILITIES						
ELECTRICITY	18,128	18,128	18,128	18,128	18,128	18,128
NATURAL GAS	352	352	352	352	352	352
O2N2	81	81	81	81	81	81
COMPRESSED AIR	145	145	145	145	145	145
WATER	447	447	447	447	447	447
UTILITIES COST TOTAL **	19,153	19,153	19,153	19,153	19,153	19,153

VARIABLE COST TOTAL	***	205,270	205,253	203,715	205,132	205,270	205,253
FIXED COST							
LABOR COST TOTAL		2,311	2,311	2,311	2,311	2,311	2,311
DEPRECIATION TOTAL		6,603	6,603	6,603	6,603	6,603	6,603
REPAIR COST TOTAL		8,208	8,208	8,208	8,208	8,208	8,208
OTHER COST TOTAL		4,837	4,838	4,836	4,837	4,838	4,838
FIXED COST TOTAL	***	21,960	21,960	21,959	21,960	21,960	21,960
SMP COST TOTAL	****	227,229	227,213	225,674	227,092	227,230	227,213

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- SMP -

(UNIT : 1,000US$)

		2011	2012	2013	2014	2015
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
DRI		89,026	89,024	89,043	89,026	87,489
LIME STONE		1,994	1,994	1,876	1,994	1,994
SCRAP		39,855	39,855	39,855	39,855	39,855
FESI		2,403	2,403	2,403	2,403	2,403
AL		185	185	185	185	185
COKE BREEZE		545	545	545	545	545
ELECTRODE		10,936	10,936	10,936	10,936	10,936
FURNACE BRICK		1,923	1,923	1,923	1,923	1,923
LADLE BRICK		3,600	3,600	3,600	3,600	3,600
TUNDISH BRICK		1,669	1,669	1,669	1,669	1,669
FETLING MAT		4,026	4,026	4,026	4,026	4,026
HBI		24,655	24,655	24,655	24,655	24,655
FEMN		6,801	6,801	6,801	6,801	6,801
FEV		72	72	72	72	72
BURNT DOLOMITE		67	67	67	67	67
SUB TOTAL	*	187,760	187,757	187,658	187,760	186,223
MANUFACTURING SUPLLIES COST		930	930	930	930	930
RAW MAT & SUPPLIES C TOTAL	**	188,690	188,687	188,588	188,690	187,153
BY-PRODUCT						
SCRAP		2,589	2,589	2,589	2,589	2,589
DUST		0	0	0	0	0
SLAG		0	0	0	0	0
SCALE SMP		0	0	0	0	0
WASTE BRICK		0	0	0	0	0
SUB TOTAL	*	2,589	2,589	2,589	2,589	2,589
UTILITIES						
ELECTRICITY		18,128	18,128	18,128	18,128	18,128
NATURAL GAS		352	352	352	352	352
O2N2		81	81	81	81	81
COMPRESSED AIR		145	145	145	145	145
WATER		447	447	447	447	447
UTILITIES COST TOTAL	**	19,153	19,153	19,153	19,153	19,153

VARIABLE COST TOTAL	***	205,253	205,250	205,152	205,253	203,716
FIXED COST						
LABOR COST TOTAL		2,311	2,311	2,311	2,311	2,311
DEPRECIATION TOTAL		6,603	6,603	6,603	6,603	6,603
REPAIR COST TOTAL		8,208	8,208	8,208	8,208	8,208
OTHER COST TOTAL		4,838	4,837	4,837	4,838	4,838
FIXED COST TOTAL	***	21,960	21,959	21,959	21,960	21,960
SMP COST TOTAL	****	227,213	227,209	227,111	227,213	225,676

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- BAR -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
BAR BILLET COST		112,676	115,002	118,224	118,259	118,260	118,199
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	112,676	115,002	118,224	118,259	118,260	118,199
MANUFACTURING SUPLLIES COST		1,518	1,561	1,606	1,606	1,606	1,606
RAW MAT & SUPPLIES C TOTAL	**	114,194	116,563	119,830	119,865	119,866	119,805
BY-PRODUCT							
SCRAP COST		1,833	1,880	1,939	1,939	1,939	1,939
SCALE BAR		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		752	774	795	795	795	795
NATURAL GAS		1,423	1,464	1,505	1,505	1,505	1,505
O2N2		165	168	170	170	170	170
COMPRESSED AIR		0	0	0	0	0	0
WATER		97	100	102	102	102	102
UTILITIES COST TOTAL	**	2,438	2,505	2,573	2,573	2,573	2,573
VARIABLE COST TOTAL	***	114,799	117,188	120,464	120,499	120,499	120,439
FIXED COST							
LABOR COST TOTAL		891	891	891	891	891	891
DEPRECIATION TOTAL		3,047	3,033	3,033	3,033	3,034	3,033
REPAIR COST TOTAL		1,203	1,203	1,203	1,203	1,203	1,203
OTHER COST TOTAL		919	863	868	868	868	868
FIXED COST TOTAL	***	6,059	5,990	5,996	5,995	5,996	5,996
BAR COST TOTAL	****	120,859	123,179	126,460	126,494	126,496	126,435

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- BAR -

(UNIT : 1,000US$)

		1999	2000	2001	2002	2003	2004
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
BAR BILLET COST		117,464	118,259	116,048	113,821	117,695	117,754
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	117,464	118,259	116,048	113,821	117,695	117,754
MANUFACTURING SUPLLIES COST		1,606	1,606	1,606	1,606	1,606	1,606
RAW MAT & SUPPLIES C TOTAL	**	119,070	119,865	117,654	115,427	119,301	119,360
BY-PRODUCT							
SCRAP COST		1,939	1,939	1,939	1,939	1,939	1,939
SCALE BAR		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		795	795	785	780	793	793
NATURAL GAS		1,505	1,505	1,504	1,504	1,505	1,505
O2N2		170	170	137	123	162	162
COMPRESSED AIR		0	0	0	0	0	0
WATER		102	102	89	83	100	100
UTILITIES COST TOTAL	**	2,573	2,573	2,515	2,489	2,560	2,560
VARIABLE COST TOTAL	***	119,704	120,499	118,230	115,977	119,921	119,981
FIXED COST							
LABOR COST TOTAL		891	891	891	891	891	891
DEPRECIATION TOTAL		3,033	3,033	2,339	1,636	1,636	1,636
REPAIR COST TOTAL		1,203	1,203	1,196	1,193	2,406	2,406
OTHER COST TOTAL		868	868	841	827	868	867
FIXED COST TOTAL	***	5,996	5,995	5,267	4,547	5,801	5,800
BAR COST TOTAL	****	125,699	126,494	123,497	120,524	125,722	125,781

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- BAR -

(UNIT : 1,000US$)

		2005	2006	2007	2008	2009	2010
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
BAR BILLET COST		117,764	117,756	116,958	117,693	117,765	117,756
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	117,764	117,756	116,958	117,693	117,765	117,756
MANUFACTURING SUPLLIES COST		1,606	1,606	1,606	1,606	1,606	1,606
RAW MAT & SUPPLIES C TOTAL	**	119,370	119,362	118,564	119,299	119,371	119,362
BY-PRODUCT							
SCRAP COST		1,939	1,939	1,939	1,939	1,939	1,939
SCALE BAR		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		793	793	793	793	793	793
NATURAL GAS		1,505	1,505	1,505	1,505	1,505	1,505
O2N2		162	162	162	162	162	162
COMPRESSED AIR		0	0	0	0	0	0
WATER		100	100	100	100	100	100
UTILITIES COST TOTAL	**	2,560	2,560	2,560	2,560	2,560	2,560
VARIABLE COST TOTAL	***	119,991	119,983	119,185	119,920	119,991	119,983
FIXED COST							
LABOR COST TOTAL		891	891	891	891	891	891
DEPRECIATION TOTAL		1,636	1,636	1,636	1,636	1,636	1,636
REPAIR COST TOTAL		2,406	2,406	2,406	2,406	2,406	2,406
OTHER COST TOTAL		867	868	868	867	868	868
FIXED COST TOTAL	***	5,800	5,801	5,801	5,800	5,801	5,801
BAR COST TOTAL	****	125,792	125,783	124,986	125,720	125,792	125,783

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- BAR -

(UNIT : 1,000US$)

		2011	2012	2013	2014	2015
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
BAR BILLET COST		117,756	117,754	117,703	117,756	116,959
P.BILLET COST		0	0	0	0	0
SUB TOTAL	*	117,756	117,754	117,703	117,756	116,959
MANUFACTURING SUPLLIES COST		1,606	1,606	1,606	1,606	1,606
RAW MAT & SUPPLIES C TOTAL	**	119,362	119,360	119,309	119,362	118,565
BY-PRODUCT						
SCRAP COST		1,939	1,939	1,939	1,939	1,939
SCALE BAR		0	0	0	0	0
UTILITIES						
ELECTRICITY		793	793	793	793	793
NATURAL GAS		1,505	1,505	1,505	1,505	1,505
O2N2		162	162	162	162	162
COMPRESSED AIR		0	0	0	0	0
WATER		100	100	100	100	100
UTILITIES COST TOTAL	**	2,560	2,560	2,560	2,560	2,560
VARIABLE COST TOTAL	***	119,983	119,981	119,930	119,983	119,186
FIXED COST						
LABOR COST TOTAL		891	891	891	891	891
DEPRECIATION TOTAL		1,636	1,636	1,636	1,636	1,636
REPAIR COST TOTAL		2,406	2,406	2,406	2,406	2,406
OTHER COST TOTAL		868	867	867	868	868
FIXED COST TOTAL	***	5,801	5,800	5,800	5,801	5,801
BAR COST TOTAL	****	125,783	125,781	125,730	125,783	124,987

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- ROD -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
ROD BILLET COST		111,924	111,027	111,021	111,054	111,055	110,998
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	111,924	111,027	111,021	111,054	111,055	110,998
MANUFACTURING SUPPLIES COST		1,481	1,548	1,296	1,296	1,296	1,296
RAW MAT & SUPPLIES C TOTAL	**	113,405	112,575	112,317	112,350	112,351	112,294
BY-PRODUCT							
SCRAP		1,324	1,324	1,324	1,324	1,324	1,324
SCALE ROD		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		1,329	1,329	1,329	1,329	1,329	1,329
NATURAL GAS		1,230	1,230	1,230	1,230	1,230	1,230
O2N2		27	26	26	26	26	26
COMPRESSED AIR		0	0	0	0	0	0
WATER		150	150	150	150	150	150
UTILITIES COST TOTAL	**	2,736	2,735	2,735	2,735	2,735	2,735
VARIABLE COST TOTAL	***	114,817	113,986	113,728	113,760	113,761	113,704
FIXED COST							
LABOR COST TOTAL		715	715	715	715	715	715
DEPRECIATION TOTAL		4,309	4,292	4,292	4,292	4,292	4,292
REPAIR COST TOTAL		1,395	1,396	1,396	1,396	1,396	1,396
OTHER COST TOTAL		1,119	1,074	1,069	1,069	1,069	1,069
FIXED COST TOTAL	***	7,539	7,477	7,473	7,472	7,473	7,473
ROD COST TOTAL	****	122,356	121,463	121,200	121,233	121,234	121,177

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- ROD -

(UNIT : 1,000US$)

		1999	2000	2001	2002	2003	2004
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
ROD BILLET COST		110,307	111,054	108,978	106,886	110,524	110,580
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	110,307	111,054	108,978	106,886	110,524	110,580
MANUFACTURING SUPPLIES COST		1,296	1,296	1,296	1,296	1,296	1,296
RAW MAT & SUPPLIES C TOTAL	**	111,603	112,350	110,274	108,182	111,820	111,876
BY-PRODUCT							
SCRAP		1,324	1,324	1,324	1,324	1,324	1,324
SCALE ROD		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		1,329	1,329	1,312	1,303	1,325	1,325
NATURAL GAS		1,230	1,230	1,229	1,229	1,230	1,230
O2N2		26	26	21	19	25	25
COMPRESSED AIR		0	0	0	0	0	0
WATER		150	150	131	122	146	146
UTILITIES COST TOTAL	**	2,735	2,735	2,692	2,672	2,726	2,726
VARIABLE COST TOTAL	***	113,014	113,760	111,642	109,530	113,222	113,278
FIXED COST							
LABOR COST TOTAL		715	715	715	715	715	715
DEPRECIATION TOTAL		4,292	4,292	4,312	3,082	2,699	2,699
REPAIR COST TOTAL		1,396	1,396	1,388	1,384	2,791	2,791
OTHER COST TOTAL		1,069	1,069	1,043	1,029	1,069	1,068
FIXED COST TOTAL	***	7,473	7,472	7,457	6,210	7,275	7,274
ROD COST TOTAL	****	120,486	121,233	119,099	115,740	120,496	120,552

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- ROD -

(UNIT : 1,000US$)

		2005	2006	2007	2008	2009	2010
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
ROD BILLET COST		110,590	110,582	109,833	110,523	110,590	110,582
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	110,590	110,582	109,833	110,523	110,590	110,582
MANUFACTURING SUPPLIES COST		1,296	1,296	1,296	1,296	1,296	1,296
RAW MAT & SUPPLIES C TOTAL	**	111,886	111,878	111,129	111,819	111,886	111,878
BY-PRODUCT							
SCRAP		1,324	1,324	1,324	1,324	1,324	1,324
SCALE ROD		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		1,325	1,325	1,325	1,325	1,325	1,325
NATURAL GAS		1,230	1,230	1,230	1,230	1,230	1,230
O2N2		25	25	25	25	25	25
COMPRESSED AIR		0	0	0	0	0	0
WATER		146	146	146	146	146	146
UTILITIES COST TOTAL	**	2,726	2,726	2,726	2,726	2,726	2,726
VARIABLE COST TOTAL	***	113,287	113,279	112,530	113,221	113,288	113,279
FIXED COST							
LABOR COST TOTAL		715	715	715	715	715	715
DEPRECIATION TOTAL		2,700	2,700	2,700	2,699	2,699	2,699
REPAIR COST TOTAL		2,791	2,791	2,791	2,791	2,791	2,791
OTHER COST TOTAL		1,069	1,069	1,069	1,068	1,069	1,069
FIXED COST TOTAL	***	7,275	7,276	7,275	7,274	7,275	7,275
ROD COST TOTAL	****	120,563	120,555	119,806	120,495	120,562	120,554

CASE 0-1
EXISTING WITHOUT ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- ROD -

(UNIT : 1,000US$)

		2011	2012	2013	2014	2015
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
ROD BILLET COST		110,582	110,580	110,532	110,582	109,834
P.BILLET COST		0	0	0	0	0
SUB TOTAL	*	110,582	110,580	110,532	110,582	109,834
MANUFACTURING SUPPLIES COST		1,296	1,296	1,296	1,296	1,296
RAW MAT & SUPPLIES C TOTAL	**	111,878	111,876	111,828	111,878	111,130
BY-PRODUCT						
SCRAP		1,324	1,324	1,324	1,324	1,324
SCALE ROD		0	0	0	0	0
UTILITIES						
ELECTRICITY		1,325	1,325	1,325	1,325	1,325
NATURAL GAS		1,230	1,230	1,230	1,230	1,230
O2N2		25	25	25	25	25
COMPRESSED AIR		0	0	0	0	0
WATER		146	146	146	146	146
UTILITIES COST TOTAL	**	2,726	2,726	2,726	2,726	2,726
VARIABLE COST TOTAL	***	113,279	113,278	113,230	113,279	112,531
FIXED COST						
LABOR COST TOTAL		715	715	715	715	715
DEPRECIATION TOTAL		2,699	2,699	2,699	2,699	2,699
REPAIR COST TOTAL		2,791	2,791	2,791	2,791	2,791
OTHER COST TOTAL		1,069	1,069	1,069	1,069	1,069
FIXED COST TOTAL	***	7,275	7,274	7,274	7,275	7,275
ROD COST TOTAL	****	120,554	120,552	120,504	120,554	119,806

CASE 1-1

UPDATE WITHOUT ESCALATION

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- DRP -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
PELLET COST		51,253	51,253	51,253	51,253	51,253	51,253
SUB TOTAL	*	51,253	51,253	51,253	51,253	51,253	51,253
MANUFACTURING SUPPLIES COST		685	685	685	685	685	685
RAW MAT & SUPPLIES C TOTAL	**	51,938	51,938	51,938	51,938	51,938	51,938
BY-PRODUCT							
OXIDE FINES		0	0	0	0	0	0
OXIDE THICKNER		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		1,964	1,963	1,963	2,052	1,970	1,969
NATURAL GAS		17,294	17,294	17,294	17,292	17,285	17,285
O2N2		41	40	40	84	69	69
COMPRESSED AIR		208	208	208	448	151	151
WATER		585	584	583	1,053	796	790
UTILITIES COST TOTAL	**	20,091	20,090	20,088	20,929	20,272	20,264
VARIABLE COST TOTAL	***	72,029	72,028	72,026	72,867	72,210	72,202
FIXED COST							
LABOR COST TOTAL		684	684	684	684	684	684
DEPRECIATION TOTAL		6,153	6,136	6,136	6,134	6,136	6,136
REPAIR COST TOTAL		2,499	2,500	2,500	2,023	2,022	2,022
S REPAIR COST TOTAL		1,537	1,537	1,537	1,537	1,537	1,537
OTHER COST TOTAL		6,852	6,526	6,526	6,625	6,681	6,682
FIXED COST TOTAL	***	17,725	17,382	17,383	17,002	17,060	17,061
DRP COST TOTAL	****	89,754	89,410	89,408	89,869	89,270	89,264

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- DRP -

(UNIT : 1,000US$)

		1999	2000	2001	2002	2003	2004
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
PELLET COST		51,253	51,253	51,253	51,253	51,253	51,253
SUB TOTAL	*	51,253	51,253	51,253	51,253	51,253	51,253
MANUFACTURING SUPPLIES COST		685	685	685	685	685	685
RAW MAT & SUPPLIES C TOTAL	**	51,938	51,938	51,938	51,938	51,938	51,938
BY-PRODUCT							
OXIDE FINES		0	0	0	0	0	0
OXIDE THICKNER		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		1,969	1,969	1,948	1,937	1,965	1,965
NATURAL GAS		17,285	17,285	17,272	17,266	17,280	17,280
O2N2		69	69	62	60	67	67
COMPRESSED AIR		151	151	148	146	150	150
WATER		790	790	735	708	779	779
UTILITIES COST TOTAL	**	20,264	20,264	20,164	20,117	20,242	20,242
VARIABLE COST TOTAL	***	72,202	72,202	72,102	72,055	72,180	72,180
FIXED COST							
LABOR COST TOTAL		684	684	684	684	684	684
DEPRECIATION TOTAL		6,136	6,134	5,684	3,295	3,295	3,293
REPAIR COST TOTAL		2,022	2,023	2,019	2,018	4,524	4,524
S REPAIR COST TOTAL		0	1,537	1,537	1,537	1,537	1,537
OTHER COST TOTAL		6,682	6,682	6,651	6,635	6,680	6,680
FIXED COST TOTAL	***	15,524	17,059	16,575	14,169	16,720	16,718
DRP COST TOTAL	****	87,727	89,261	88,678	86,224	88,900	88,898

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- DRP -

(UNIT : 1,000US$)

		2005	2006	2007	2008	2009	2010
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
PELLET COST		51,253	51,253	51,253	51,253	51,253	51,253
SUB TOTAL	*	51,253	51,253	51,253	51,253	51,253	51,253
MANUFACTURING SUPPLIES COST		685	685	685	685	685	685
RAW MAT & SUPPLIES C TOTAL	**	51,938	51,938	51,938	51,938	51,938	51,938
BY-PRODUCT							
OXIDE FINES		0	0	0	0	0	0
OXIDE THICKNER		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		1,965	1,965	1,965	1,965	1,965	1,965
NATURAL GAS		17,280	17,280	17,280	17,280	17,280	17,280
O2N2		67	67	67	67	67	67
COMPRESSED AIR		150	150	150	150	150	150
WATER		779	779	779	779	779	779
UTILITIES COST TOTAL	**	20,242	20,242	20,242	20,242	20,242	20,242
VARIABLE COST TOTAL	***	72,180	72,180	72,180	72,180	72,180	72,180
FIXED COST							
LABOR COST TOTAL		684	684	684	684	684	684
DEPRECIATION TOTAL		3,312	3,295	3,295	3,293	3,312	3,295
REPAIR COST TOTAL		4,524	4,524	4,524	4,524	4,524	4,524
S REPAIR COST TOTAL		1,537	1,537	0	1,537	1,537	1,537
OTHER COST TOTAL		6,680	6,680	6,680	6,680	6,680	6,680
FIXED COST TOTAL	***	16,737	16,720	15,183	16,718	16,737	16,720
DRP COST TOTAL	****	88,917	88,900	87,363	88,898	88,917	88,900

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- DRP -

(UNIT : 1,000US$)

		2011	2012	2013	2014	2015
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
PELLET COST		51,253	51,253	51,253	51,253	51,253
SUB TOTAL	*	51,253	51,253	51,253	51,253	51,253
MANUFACTURING SUPPLIES COST		685	685	685	685	685
RAW MAT & SUPPLIES C TOTAL	**	51,938	51,938	51,938	51,938	51,938
BY-PRODUCT						
OXIDE FINES		0	0	0	0	0
OXIDE THICKNER		0	0	0	0	0
UTILITIES						
ELECTRICITY		1,959	1,965	1,965	1,965	1,965
NATURAL GAS		17,280	17,280	17,280	17,280	17,280
O2N2		55	66	66	66	66
COMPRESSED AIR		105	145	145	145	145
WATER		670	768	768	768	768
UTILITIES COST TOTAL	**	20,069	20,224	20,224	20,224	20,224
VARIABLE COST TOTAL	***	72,007	72,162	72,162	72,162	72,162
FIXED COST						
LABOR COST TOTAL		684	684	684	684	684
DEPRECIATION TOTAL		3,295	3,293	3,312	3,295	3,295
REPAIR COST TOTAL		4,532	4,525	4,525	4,525	4,525
S REPAIR COST TOTAL		1,537	1,537	1,537	1,537	0
OTHER COST TOTAL		6,680	6,678	6,679	6,679	6,679
FIXED COST TOTAL	***	16,727	16,717	16,736	16,720	15,183
DRP COST TOTAL	****	88,735	88,880	88,899	88,882	87,345

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- LCP -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
LIME STONE COST		486	486	486	449	767	767
SUB TOTAL	*	486	486	486	449	767	767
MANUFACTURING SUPPLIES COST		5	5	5	5	8	8
RAW MAT & SUPPLIES C TOTAL	**	491	491	491	454	775	775
BY-PRODUCT							
LIME FINES		0	0	0	0	0	0
LIME STONE FINES		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		57	57	57	55	90	90
NATURAL GAS		300	300	300	277	473	473
O2N2		8	8	8	16	23	22
COMPRESSED AIR		0	0	0	0	0	0
WATER		0	0	0	0	0	0
UTILITIES COST TOTAL	**	365	365	365	348	586	586
VARIABLE COST TOTAL	***	856	856	856	802	1,361	1,361
FIXED COST							
LABOR COST TOTAL		143	143	143	143	143	143
DEPRECIATION TOTAL		343	341	341	341	341	341
REPAIR COST TOTAL		157	157	157	127	127	127
S REPAIR COST TOTAL		0	118	118	118	118	0
OTHER COST TOTAL		399	358	358	384	426	427
FIXED COST TOTAL	***	1,041	1,116	1,117	1,112	1,154	1,037
LCP COST TOTAL	****	1,897	1,972	1,972	1,914	2,515	2,398

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- LCP -

(UNIT : 1,000US$)

		1999	2000	2001	2002	2003	2004
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
LIME STONE COST		767	767	767	767	767	767
SUB TOTAL	*	767	767	767	767	767	767
MANUFACTURING SUPPLIES COST		8	8	8	8	8	8
RAW MAT & SUPPLIES C TOTAL	**	775	775	775	775	775	775
BY-PRODUCT							
LIME FINES		0	0	0	0	0	0
LIME STONE FINES		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		90	90	89	88	90	90
NATURAL GAS		473	473	473	473	473	473
O2N2		22	22	20	19	22	22
COMPRESSED AIR		0	0	0	0	0	0
WATER		0	0	0	0	0	0
UTILITIES COST TOTAL	**	586	586	582	580	585	585
VARIABLE COST TOTAL	***	1,361	1,361	1,357	1,356	1,360	1,360
FIXED COST							
LABOR COST TOTAL		143	143	143	143	143	143
DEPRECIATION TOTAL		341	341	255	207	206	206
REPAIR COST TOTAL		127	127	127	127	284	284
S REPAIR COST TOTAL		118	118	118	118	0	118
OTHER COST TOTAL		427	426	401	387	427	427
FIXED COST TOTAL	***	1,155	1,155	1,043	982	1,060	1,177
LCP COST TOTAL	****	2,516	2,516	2,400	2,337	2,419	2,537

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- LCP -

(UNIT : 1,000US$)

		2005	2006	2007	2008	2009	2010
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
LIME STONE COST		767	767	767	767	767	767
SUB TOTAL	*	767	767	767	767	767	767
MANUFACTURING SUPPLIES COST		8	8	8	8	8	8
RAW MAT & SUPPLIES C TOTAL	**	775	775	775	775	775	775
BY-PRODUCT							
LIME FINES		0	0	0	0	0	0
LIME STONE FINES		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		90	90	90	90	90	90
NATURAL GAS		473	473	473	473	473	473
O2N2		22	22	22	22	22	22
COMPRESSED AIR		0	0	0	0	0	0
WATER		0	0	0	0	0	0
UTILITIES COST TOTAL	**	585	585	585	585	585	585
VARIABLE COST TOTAL	***	1,360	1,360	1,360	1,360	1,360	1,360
FIXED COST							
LABOR COST TOTAL		143	143	143	143	143	143
DEPRECIATION TOTAL		206	206	206	206	206	206
REPAIR COST TOTAL		284	284	284	284	284	284
S REPAIR COST TOTAL		118	118	118	0	118	118
OTHER COST TOTAL		427	427	427	427	427	427
FIXED COST TOTAL	***	1,177	1,178	1,177	1,059	1,178	1,178
LCP COST TOTAL	****	2,537	2,537	2,537	2,419	2,537	2,537

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- LCP -

(UNIT : 1,000US$)

		2011	2012	2013	2014	2015
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
LIME STONE COST		767	767	767	767	767
SUB TOTAL	*	767	767	767	767	767
MANUFACTURING SUPPLIES COST		8	8	8	8	8
RAW MAT & SUPPLIES C TOTAL	**	775	775	775	775	775
BY-PRODUCT						
LIME FINES		0	0	0	0	0
LIME STONE FINES		0	0	0	0	0
UTILITIES						
ELECTRICITY		89	90	90	90	90
NATURAL GAS		473	473	473	473	473
O2N2		18	22	22	22	22
COMPRESSED AIR		0	0	0	0	0
WATER		0	0	0	0	0
UTILITIES COST TOTAL	**	580	584	584	584	584
VARIABLE COST TOTAL	***	1,356	1,359	1,359	1,359	1,359
FIXED COST						
LABOR COST TOTAL		143	143	143	143	143
DEPRECIATION TOTAL		206	206	206	206	206
REPAIR COST TOTAL		284	284	284	284	284
S REPAIR COST TOTAL		118	118	0	118	118
OTHER COST TOTAL		427	425	425	425	425
FIXED COST TOTAL	***	1,178	1,176	1,058	1,176	1,176
LCP COST TOTAL	****	2,533	2,535	2,417	2,535	2,535

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- SMP -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
DRI		89,754	89,410	89,408	89,869	89,270	89,264
LIME STONE		1,897	1,972	1,972	1,914	2,515	2,398
SCRAP		39,866	39,862	39,855	41,831	96,032	96,023
FESI		2,403	2,403	2,403	2,020	2,917	2,917
AL		185	185	185	164	250	250
COKE BREEZE		545	545	545	1,046	2,537	2,537
ELECTRODE		10,936	10,936	10,936	9,790	15,183	15,183
FURNACE BRICK		1,923	1,923	1,923	1,647	2,385	2,385
LADLE BRICK		3,600	3,600	3,600	3,614	6,331	6,331
TUNDISH BRICK		1,669	1,669	1,669	1,479	2,258	2,258
FETLING MAT		4,026	4,026	4,026	3,242	4,753	4,753
HBI		24,655	24,655	24,655	19,643	25,308	25,308
FEMN		6,801	6,801	6,801	5,699	8,205	8,205
FEV		72	72	72	58	78	78
BURNT DOLOMITE		67	67	67	55	79	79
SUB TOTAL	*	188,401	188,128	188,120	182,071	258,101	257,968
MANUFACTURING SUPLLIES COST		930	930	930	824	1,258	1,258
RAW MAT & SUPPLIES C TOTAL	**	189,331	189,058	189,050	182,895	259,359	259,226
BY-PRODUCT							
SCRAP		2,589	2,589	2,589	2,294	3,512	3,512
DUST		0	0	0	0	0	0
SLAG		0	0	0	0	0	0
SCALE SMP		0	0	0	0	0	0
WASTE BRICK		0	0	0	0	0	0
SUB TOTAL	*	2,589	2,589	2,589	2,294	3,512	3,512
UTILITIES							
ELECTRICITY		18,173	18,171	18,169	15,775	20,982	20,973
NATURAL GAS		352	352	352	318	500	500
O2N2		87	86	85	158	200	199
COMPRESSED AIR		153	153	153	2,197	2,502	2,502
WATER		460	460	459	771	953	946
UTILITIES COST TOTAL	**	19,226	19,222	19,218	19,218	25,137	25,120

VARIABLE COST TOTAL	***	205,968	205,691	205,679	199,820	280,985	280,834
FIXED COST							
LABOR COST TOTAL		2,311	2,311	2,311	3,082	3,082	3,082
DEPRECIATION TOTAL		11,301	11,243	11,243	13,406	16,435	16,435
REPAIR COST TOTAL		4,103	4,105	4,105	5,160	5,159	5,159
OTHER COST TOTAL		6,289	4,778	4,778	5,376	5,623	5,625
FIXED COST TOTAL	***	24,004	22,437	22,438	27,024	30,298	30,301
SMP COST TOTAL	****	229,972	228,128	228,117	226,843	311,283	311,135

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- SMP -

(UNIT : 1,000US$)

	1999	2000	2001	2002	2003	2004
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
DRI	87,727	89,261	88,678	86,224	88,900	88,898
LIME STONE	2,516	2,516	2,400	2,337	2,419	2,537
SCRAP	96,023	96,023	96,023	96,023	96,023	96,023
FESI	2,917	2,917	2,917	2,917	2,917	2,917
AL	250	250	250	250	250	250
COKE BREEZE	2,537	2,537	2,537	2,537	2,537	2,537
ELECTRODE	15,183	15,183	15,183	15,183	15,183	15,183
FURNACE BRICK	2,385	2,385	2,385	2,385	2,385	2,385
LADLE BRICK	6,331	6,331	6,331	6,331	6,331	6,331
TUNDISH BRICK	2,258	2,258	2,258	2,258	2,258	2,258
FETLING MAT	4,753	4,753	4,753	4,753	4,753	4,753
HBI	25,308	25,308	25,308	25,308	25,308	25,308
FEMN	8,205	8,205	8,205	8,205	8,205	8,205
FEV	78	78	78	78	78	78
BURNT DOLOMITE	79	79	79	79	79	79
SUB TOTAL *	256,549	258,083	257,384	254,868	257,626	257,741
MANUFACTURING SUPLLIES COST	1,258	1,258	1,258	1,258	1,258	1,258
RAW MAT & SUPPLIES C TOTAL **	257,807	259,341	258,642	256,126	258,884	258,999
BY-PRODUCT						
SCRAP	3,512	3,512	3,512	3,512	3,512	3,512
DUST	0	0	0	0	0	0
SLAG	0	0	0	0	0	0
SCALE SMP	0	0	0	0	0	0
WASTE BRICK	0	0	0	0	0	0
SUB TOTAL *	3,512	3,512	3,512	3,512	3,512	3,512
UTILITIES						
ELECTRICITY	20,973	20,973	20,745	20,633	20,932	20,932
NATURAL GAS	500	500	499	499	499	499
O2N2	199	199	180	172	194	194
COMPRESSED AIR	2,502	2,502	2,444	2,418	2,484	2,484
WATER	946	946	880	848	933	933
UTILITIES COST TOTAL **	25,120	25,120	24,748	24,570	25,043	25,043

VARIABLE COST TOTAL	***	279,415	280,950	279,879	277,184	280,415	280,530
FIXED COST							
LABOR COST TOTAL		3,082	3,082	3,082	3,082	3,082	3,082
DEPRECIATION TOTAL		16,435	16,435	13,345	11,795	11,795	11,795
REPAIR COST TOTAL		5,159	5,160	5,151	5,149	9,266	9,266
OTHER COST TOTAL		5,625	5,624	5,573	5,546	5,614	5,614
FIXED COST TOTAL	***	30,301	30,300	27,151	25,571	29,757	29,757
SMP COST TOTAL	****	309,716	311,250	307,030	302,755	310,172	310,287

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- SMP -

(UNIT : 1,000US$)

		2005	2006	2007	2008	2009	2010
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
DRI		88,917	88,900	87,363	88,898	88,917	88,900
LIME STONE		2,537	2,537	2,537	2,419	2,537	2,537
SCRAP		96,023	96,023	96,023	96,023	96,023	96,023
FESI		2,917	2,917	2,917	2,917	2,917	2,917
AL		250	250	250	250	250	250
COKE BREEZE		2,537	2,537	2,537	2,537	2,537	2,537
ELECTRODE		15,183	15,183	15,183	15,183	15,183	15,183
FURNACE BRICK		2,385	2,385	2,385	2,385	2,385	2,385
LADLE BRICK		6,331	6,331	6,331	6,331	6,331	6,331
TUNDISH BRICK		2,258	2,258	2,258	2,258	2,258	2,258
FETLING MAT		4,753	4,753	4,753	4,753	4,753	4,753
HBI		25,308	25,308	25,308	25,308	25,308	25,308
FEMN		8,205	8,205	8,205	8,205	8,205	8,205
FEV		78	78	78	78	78	78
BURNT DOLOMITE		79	79	79	79	79	79
SUB TOTAL	*	257,760	257,744	256,206	257,623	257,761	257,744
MANUFACTURING SUPLLIES COST		1,258	1,258	1,258	1,258	1,258	1,258
RAW MAT & SUPPLIES C TOTAL	**	259,018	259,002	257,464	258,881	259,019	259,002
BY-PRODUCT							
SCRAP		3,512	3,512	3,512	3,512	3,512	3,512
DUST		0	0	0	0	0	0
SLAG		0	0	0	0	0	0
SCALE SMP		0	0	0	0	0	0
WASTE BRICK		0	0	0	0	0	0
SUB TOTAL	*	3,512	3,512	3,512	3,512	3,512	3,512
UTILITIES							
ELECTRICITY		20,932	20,932	20,932	20,932	20,932	20,932
NATURAL GAS		499	499	499	499	499	499
O2N2		194	194	194	194	194	194
COMPRESSED AIR		2,484	2,484	2,484	2,484	2,484	2,484
WATER		933	933	933	933	933	933
UTILITIES COST TOTAL	**	25,043	25,043	25,043	25,043	25,043	25,043

VARIABLE COST TOTAL	***	280,549	280,533	278,995	280,412	280,550	280,533
FIXED COST							
LABOR COST TOTAL		3,082	3,082	3,082	3,082	3,082	3,082
DEPRECIATION TOTAL		11,795	11,795	11,795	11,795	11,795	11,795
REPAIR COST TOTAL		9,266	9,266	9,266	9,266	9,266	9,266
OTHER COST TOTAL		5,614	5,614	5,613	5,614	5,614	5,614
FIXED COST TOTAL	***	29,756	29,757	29,756	29,757	29,757	29,757
SMP COST TOTAL	****	310,306	310,290	308,751	310,169	310,307	310,290

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- SMP -

(UNIT : 1,000US$)

		2011	2012	2013	2014	2015
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
DRI		88,735	88,880	88,899	88,882	87,345
LIME STONE		2,533	2,535	2,417	2,535	2,535
SCRAP		96,023	96,023	96,023	96,023	96,023
FESI		2,917	2,917	2,917	2,917	2,917
AL		250	250	250	250	250
COKE BREEZE		2,537	2,537	2,537	2,537	2,537
ELECTRODE		15,183	15,183	15,183	15,183	15,183
FURNACE BRICK		2,385	2,385	2,385	2,385	2,385
LADLE BRICK		6,331	6,331	6,331	6,331	6,331
TUNDISH BRICK		2,258	2,258	2,258	2,258	2,258
FETLING MAT		4,753	4,753	4,753	4,753	4,753
HBI		25,308	25,308	25,308	25,308	25,308
FEMN		8,205	8,205	8,205	8,205	8,205
FEV		78	78	78	78	78
BURNT DOLOMITE		79	79	79	79	79
SUB TOTAL	*	257,574	257,721	257,622	257,724	256,187
MANUFACTURING SUPLLIES COST		1,258	1,258	1,258	1,258	1,258
RAW MAT & SUPPLIES C TOTAL	**	258,832	258,979	258,880	258,982	257,445
BY-PRODUCT						
SCRAP		3,512	3,512	3,512	3,512	3,512
DUST		0	0	0	0	0
SLAG		0	0	0	0	0
SCALE SMP		0	0	0	0	0
WASTE BRICK		0	0	0	0	0
SUB TOTAL	*	3,512	3,512	3,512	3,512	3,512
UTILITIES						
ELECTRICITY		20,864	20,925	20,925	20,925	20,925
NATURAL GAS		499	499	499	499	499
O2N2		159	191	191	191	191
COMPRESSED AIR		1,743	2,410	2,410	2,410	2,410
WATER		802	920	920	920	920
UTILITIES COST TOTAL	**	24,068	24,945	24,945	24,945	24,945

VARIABLE COST TOTAL	***	279,388	280,413	280,314	280,415	278,878
FIXED COST						
LABOR COST TOTAL		3,082	3,082	3,082	3,082	3,082
DEPRECIATION TOTAL		10,742	9,267	9,267	9,267	9,267
REPAIR COST TOTAL		9,285	11,544	11,544	11,544	11,544
OTHER COST TOTAL		5,614	5,612	5,612	5,613	5,613
FIXED COST TOTAL	***	28,722	29,504	29,503	29,504	29,504
SMP COST TOTAL	****	308,110	309,916	309,817	309,920	308,383

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- BAR -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
BAR BILLET COST		112,676	115,002	118,224	127,698	119,264	119,207
P.BILLET COST		0	0	0	5,717	0	0
SUB TOTAL	*	112,676	115,002	118,224	133,415	119,264	119,207
MANUFACTURING SUPLLIES COST		1,518	1,561	1,606	1,605	1,605	1,605
RAW MAT & SUPPLIES C TOTAL	**	114,194	116,563	119,830	135,020	120,869	120,812
BY-PRODUCT							
SCRAP COST		1,833	1,880	1,939	1,939	1,939	1,939
SCALE BAR		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		752	774	795	831	798	798
NATURAL GAS		1,423	1,464	1,505	1,505	1,505	1,505
O2N2		165	168	170	356	296	294
COMPRESSED AIR		0	0	0	0	0	0
WATER		97	100	102	185	140	139
UTILITIES COST TOTAL	**	2,438	2,505	2,573	2,878	2,738	2,736
VARIABLE COST TOTAL	***	114,799	117,188	120,464	135,958	121,668	121,608
FIXED COST							
LABOR COST TOTAL		891	891	891	891	891	891
DEPRECIATION TOTAL		3,047	3,033	3,033	3,033	3,034	3,033
REPAIR COST TOTAL		1,203	1,203	1,203	974	974	974
OTHER COST TOTAL		919	863	868	1,018	932	924
FIXED COST TOTAL	***	6,059	5,990	5,996	5,915	5,830	5,822
BAR COST TOTAL	****	120,859	123,179	126,460	141,873	127,498	127,430

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- BAR -

(UNIT : 1,000US$)

		1999	2000	2001	2002	2003	2004
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
BAR BILLET COST		118,663	119,251	117,634	115,996	118,838	118,882
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	118,663	119,251	117,634	115,996	118,838	118,882
MANUFACTURING SUPLLIES COST		1,605	1,605	1,605	1,605	1,605	1,605
RAW MAT & SUPPLIES C TOTAL	**	120,268	120,856	119,239	117,601	120,443	120,487
BY-PRODUCT							
SCRAP COST		1,939	1,939	1,939	1,939	1,939	1,939
SCALE BAR		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		798	798	789	785	796	796
NATURAL GAS		1,505	1,505	1,503	1,503	1,504	1,504
O2N2		294	294	266	254	287	287
COMPRESSED AIR		0	0	0	0	0	0
WATER		139	139	129	124	137	137
UTILITIES COST TOTAL	**	2,736	2,736	2,687	2,666	2,725	2,725
VARIABLE COST TOTAL	***	121,065	121,653	119,987	118,328	121,228	121,273
FIXED COST							
LABOR COST TOTAL		891	891	891	891	891	891
DEPRECIATION TOTAL		3,033	3,033	2,339	1,636	1,636	1,636
REPAIR COST TOTAL		974	974	972	972	2,178	2,178
OTHER COST TOTAL		924	924	897	884	924	923
FIXED COST TOTAL	***	5,822	5,821	5,099	4,382	5,629	5,628
BAR COST TOTAL	****	126,886	127,474	125,087	122,710	126,857	126,901

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- BAR -

(UNIT : 1,000US$)

		2005	2006	2007	2008	2009	2010
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
BAR BILLET COST		118,889	118,883	118,293	118,837	118,890	118,883
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	118,889	118,883	118,293	118,837	118,890	118,883
MANUFACTURING SUPLLIES COST		1,605	1,605	1,605	1,605	1,605	1,605
RAW MAT & SUPPLIES C TOTAL	**	120,494	120,488	119,898	120,442	120,495	120,488
BY-PRODUCT							
SCRAP COST		1,939	1,939	1,939	1,939	1,939	1,939
SCALE BAR		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		796	796	796	796	796	796
NATURAL GAS		1,504	1,504	1,504	1,504	1,504	1,504
O2N2		287	287	287	287	287	287
COMPRESSED AIR		0	0	0	0	0	0
WATER		137	137	137	137	137	137
UTILITIES COST TOTAL	**	2,725	2,725	2,725	2,725	2,725	2,725
VARIABLE COST TOTAL	***	121,280	121,273	120,684	121,227	121,280	121,273
FIXED COST							
LABOR COST TOTAL		891	891	891	891	891	891
DEPRECIATION TOTAL		1,636	1,636	1,636	1,636	1,636	1,636
REPAIR COST TOTAL		2,178	2,178	2,178	2,178	2,178	2,178
OTHER COST TOTAL		924	924	924	923	924	924
FIXED COST TOTAL	***	5,629	5,629	5,629	5,628	5,629	5,629
BAR COST TOTAL	****	126,908	126,902	126,313	126,856	126,909	126,902

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- BAR -

(UNIT : 1,000US$)

		2011	2012	2013	2014	2015
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
BAR BILLET COST		118,048	118,740	118,702	118,741	118,152
P.BILLET COST		0	0	0	0	0
SUB TOTAL	*	118,048	118,740	118,702	118,741	118,152
MANUFACTURING SUPLLIES COST		1,605	1,605	1,605	1,605	1,605
RAW MAT & SUPPLIES C TOTAL	**	119,653	120,345	120,307	120,346	119,757
BY-PRODUCT						
SCRAP COST		1,939	1,939	1,939	1,939	1,939
SCALE BAR		0	0	0	0	0
UTILITIES						
ELECTRICITY		794	796	796	796	796
NATURAL GAS		1,504	1,504	1,504	1,504	1,504
O2N2		235	282	282	282	282
COMPRESSED AIR		0	0	0	0	0
WATER		118	135	135	135	135
UTILITIES COST TOTAL	**	2,650	2,717	2,717	2,717	2,717
VARIABLE COST TOTAL	***	120,364	121,123	121,085	121,124	120,535
FIXED COST						
LABOR COST TOTAL		891	891	891	891	891
DEPRECIATION TOTAL		1,636	1,636	1,636	1,636	1,636
REPAIR COST TOTAL		2,182	2,179	2,179	2,179	2,179
OTHER COST TOTAL		923	922	922	922	922
FIXED COST TOTAL	***	5,632	5,627	5,627	5,628	5,628
BAR COST TOTAL	****	125,996	126,750	126,712	126,752	126,163

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- ROD -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
ROD BILLET COST		111,924	111,027	111,021	100,430	184,681	192,866
P.BILLET COST		0	0	0	4,562	0	0
SUB TOTAL	*	111,924	111,027	111,021	104,992	184,681	192,866
MANUFACTURING SUPPLIES COST		1,481	1,548	1,296	2,553	2,667	2,667
RAW MAT & SUPPLIES C TOTAL	**	113,405	112,575	112,317	107,545	187,348	195,533
BY-PRODUCT							
SCRAP		1,324	1,324	1,324	1,100	2,176	2,270
SCALE ROD		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		1,329	1,329	1,329	1,138	2,089	2,181
NATURAL GAS		1,230	1,230	1,230	1,009	1,924	2,010
O2N2		27	26	26	45	71	74
COMPRESSED AIR		0	0	0	0	0	0
WATER		150	150	150	260	467	484
UTILITIES COST TOTAL	**	2,736	2,735	2,735	2,452	4,550	4,749
VARIABLE COST TOTAL	***	114,817	113,986	113,728	108,897	189,722	198,011
FIXED COST							
LABOR COST TOTAL		715	715	715	961	961	961
DEPRECIATION TOTAL		4,309	4,292	4,292	5,543	7,294	7,294
REPAIR COST TOTAL		1,395	1,396	1,396	2,138	2,137	2,137
OTHER COST TOTAL		1,119	1,074	1,069	1,181	1,380	1,390
FIXED COST TOTAL	***	7,539	7,477	7,473	9,823	11,772	11,783
ROD COST TOTAL	****	122,356	121,463	121,200	118,720	201,495	209,794

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- ROD -

(UNIT : 1,000US$)

		1999	2000	2001	2002	2003	2004
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
ROD BILLET COST		191,986	192,937	190,321	187,671	192,268	192,340
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	191,986	192,937	190,321	187,671	192,268	192,340
MANUFACTURING SUPPLIES COST		2,667	2,667	2,667	2,667	2,667	2,667
RAW MAT & SUPPLIES C TOTAL	**	194,653	195,604	192,988	190,338	194,935	195,007
BY-PRODUCT							
SCRAP		2,270	2,270	2,270	2,270	2,270	2,270
SCALE ROD		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		2,181	2,181	2,157	2,146	2,177	2,177
NATURAL GAS		2,010	2,010	2,008	2,008	2,009	2,009
O2N2		74	74	67	64	72	72
COMPRESSED AIR		0	0	0	0	0	0
WATER		484	484	450	434	477	477
UTILITIES COST TOTAL	**	4,749	4,749	4,683	4,651	4,736	4,736
VARIABLE COST TOTAL	***	197,132	198,083	195,400	192,719	197,401	197,472
FIXED COST							
LABOR COST TOTAL		961	961	961	961	961	961
DEPRECIATION TOTAL		7,294	7,294	7,314	6,084	5,701	5,701
REPAIR COST TOTAL		2,137	2,138	2,134	2,133	3,534	3,534
OTHER COST TOTAL		1,390	1,389	1,363	1,350	1,390	1,389
FIXED COST TOTAL	***	11,783	11,782	11,772	10,528	11,585	11,585
ROD COST TOTAL	****	208,914	209,865	207,173	203,247	208,986	209,057

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- ROD -

(UNIT : 1,000US$)

		2005	2006	2007	2008	2009	2010
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
ROD BILLET COST		192,352	192,341	191,388	192,267	192,352	192,341
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	192,352	192,341	191,388	192,267	192,352	192,341
MANUFACTURING SUPPLIES COST		2,667	2,667	2,667	2,667	2,667	2,667
RAW MAT & SUPPLIES C TOTAL	**	195,019	195,008	194,055	194,934	195,019	195,008
BY-PRODUCT							
SCRAP		2,270	2,270	2,270	2,270	2,270	2,270
SCALE ROD		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		2,177	2,177	2,177	2,177	2,177	2,177
NATURAL GAS		2,009	2,009	2,009	2,009	2,009	2,009
O2N2		72	72	72	72	72	72
COMPRESSED AIR		0	0	0	0	0	0
WATER		477	477	477	477	477	477
UTILITIES COST TOTAL	**	4,736	4,736	4,736	4,736	4,736	4,736
VARIABLE COST TOTAL	***	197,484	197,474	196,520	197,399	197,484	197,474
FIXED COST							
LABOR COST TOTAL		961	961	961	961	961	961
DEPRECIATION TOTAL		5,702	5,702	5,702	5,701	5,701	5,701
REPAIR COST TOTAL		3,534	3,534	3,534	3,534	3,534	3,534
OTHER COST TOTAL		1,389	1,390	1,389	1,389	1,390	1,390
FIXED COST TOTAL	***	11,586	11,586	11,586	11,585	11,585	11,585
ROD COST TOTAL	****	209,070	209,060	208,106	208,984	209,070	209,059

CASE 1-1
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- ROD -

(UNIT : 1,000US$)

		2011	2012	2013	2014	2015
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
ROD BILLET COST		190,991	192,110	192,049	192,112	191,159
P.BILLET COST		0	0	0	0	0
SUB TOTAL	*	190,991	192,110	192,049	192,112	191,159
MANUFACTURING SUPPLIES COST		2,667	2,667	2,667	2,667	2,667
RAW MAT & SUPPLIES C TOTAL	**	193,658	194,777	194,716	194,779	193,826
BY-PRODUCT						
SCRAP		2,270	2,270	2,270	2,270	2,270
SCALE ROD		0	0	0	0	0
UTILITIES						
ELECTRICITY		2,170	2,176	2,176	2,176	2,176
NATURAL GAS		2,009	2,009	2,009	2,009	2,009
O2N2		59	71	71	71	71
COMPRESSED AIR		0	0	0	0	0
WATER		410	470	470	470	470
UTILITIES COST TOTAL	**	4,649	4,727	4,727	4,727	4,727
VARIABLE COST TOTAL	***	196,036	197,234	197,172	197,236	196,283
FIXED COST						
LABOR COST TOTAL		961	961	961	961	961
DEPRECIATION TOTAL		5,123	4,314	4,314	4,314	4,314
REPAIR COST TOTAL		3,542	4,782	4,782	4,782	4,782
OTHER COST TOTAL		1,389	1,388	1,388	1,388	1,388
FIXED COST TOTAL	***	11,015	11,446	11,445	11,446	11,446
ROD COST TOTAL	****	207,051	208,680	208,618	208,682	207,729

CASE 0-2

EXISTING WITH ESCALATION

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- DRP -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
PELLET COST		52,791	54,902	57,098	58,412	58,412	58,412
SUB TOTAL	*	52,791	54,902	57,098	58,412	58,412	58,412
MANUFACTURING SUPPLIES COST		716	747	780	780	780	780
RAW MAT & SUPPLIES C TOTAL	**	53,507	55,649	57,878	59,192	59,192	59,192
BY-PRODUCT							
OXIDE FINES		0	0	0	0	0	0
OXIDE THICKNER		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		2,034	2,130	2,231	2,293	2,293	2,293
NATURAL GAS		17,811	18,520	19,257	19,698	19,698	19,698
O2N2		41	41	41	42	42	42
COMPRESSED AIR		210	214	218	220	220	220
WATER		594	606	618	626	626	626
UTILITIES COST TOTAL	**	20,690	21,511	22,365	22,879	22,879	22,879
VARIABLE COST TOTAL	***	74,196	77,160	80,243	82,070	82,070	82,070
FIXED COST							
LABOR COST TOTAL		709	745	782	805	805	805
DEPRECIATION TOTAL		6,153	6,136	6,136	6,134	6,136	6,136
REPAIR COST TOTAL		2,572	2,673	2,777	2,840	2,840	2,840
S REPAIR COST TOTAL		1,583	1,646	1,712	1,752	1,752	1,752
OTHER COST TOTAL		6,871	6,577	6,613	6,621	6,621	6,622
FIXED COST TOTAL	***	17,888	17,777	18,021	18,153	18,155	18,155
DRP COST TOTAL	****	92,084	94,937	98,265	100,223	100,225	100,225

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- DRP -

(UNIT : 1,000US$)

		1999	2000	2001	2002	2003	2004
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
PELLET COST		58,412	58,412	58,412	58,412	58,412	58,412
SUB TOTAL	*	58,412	58,412	58,412	58,412	58,412	58,412
MANUFACTURING SUPPLIES COST		780	780	780	780	780	780
RAW MAT & SUPPLIES C TOTAL	**	59,192	59,192	59,192	59,192	59,192	59,192
BY-PRODUCT							
OXIDE FINES		0	0	0	0	0	0
OXIDE THICKNER		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		2,293	2,293	2,267	2,255	2,293	2,293
NATURAL GAS		19,698	19,698	19,684	19,678	19,695	19,695
O2N2		42	42	34	30	41	41
COMPRESSED AIR		220	220	186	171	215	215
WATER		626	626	552	516	612	612
UTILITIES COST TOTAL	**	22,879	22,879	22,723	22,650	22,855	22,855
VARIABLE COST TOTAL	***	82,070	82,070	81,915	81,842	82,046	82,046
FIXED COST							
LABOR COST TOTAL		805	805	805	805	805	805
DEPRECIATION TOTAL		6,136	6,134	5,684	3,295	3,295	3,293
REPAIR COST TOTAL		2,840	2,840	2,825	2,819	5,691	5,691
S REPAIR COST TOTAL		0	1,752	1,752	1,752	1,752	1,752
OTHER COST TOTAL		6,622	6,621	6,591	6,574	6,626	6,626
FIXED COST TOTAL	***	16,403	18,153	17,657	15,245	18,169	18,167
DRP COST TOTAL	****	98,473	100,223	99,571	97,086	100,215	100,213

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- DRP -

(UNIT : 1,000US$)

		2005	2006	2007	2008	2009	2010
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
PELLET COST		58,412	58,412	58,412	58,412	58,412	58,412
SUB TOTAL	*	58,412	58,412	58,412	58,412	58,412	58,412
MANUFACTURING SUPPLIES COST		780	780	780	780	780	780
RAW MAT & SUPPLIES C TOTAL	**	59,192	59,192	59,192	59,192	59,192	59,192
BY-PRODUCT							
OXIDE FINES		0	0	0	0	0	0
OXIDE THICKNER		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		2,293	2,293	2,293	2,293	2,293	2,293
NATURAL GAS		19,695	19,695	19,695	19,695	19,695	19,695
O2N2		41	41	41	41	41	41
COMPRESSED AIR		215	215	215	215	215	215
WATER		612	612	612	612	612	612
UTILITIES COST TOTAL	**	22,855	22,855	22,855	22,855	22,855	22,855
VARIABLE COST TOTAL	***	82,046	82,046	82,046	82,046	82,046	82,046
FIXED COST							
LABOR COST TOTAL		805	805	805	805	805	805
DEPRECIATION TOTAL		3,312	3,295	3,295	3,293	3,312	3,295
REPAIR COST TOTAL		5,691	5,691	5,691	5,691	5,691	5,691
S REPAIR COST TOTAL		1,752	1,752	0	1,752	1,752	1,752
OTHER COST TOTAL		6,626	6,626	6,626	6,626	6,626	6,626
FIXED COST TOTAL	***	18,186	18,169	16,417	18,167	18,186	18,169
DRP COST TOTAL	****	100,232	100,215	98,463	100,213	100,232	100,215

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- DRP -

(UNIT : 1,000US$)

		2011	2012	2013	2014	2015
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
PELLET COST		58,412	58,412	58,412	58,412	58,412
SUB TOTAL	*	58,412	58,412	58,412	58,412	58,412
MANUFACTURING SUPPLIES COST		780	780	780	780	780
RAW MAT & SUPPLIES C TOTAL	**	59,192	59,192	59,192	59,192	59,192
BY-PRODUCT						
OXIDE FINES		0	0	0	0	0
OXIDE THICKNER		0	0	0	0	0
UTILITIES						
ELECTRICITY		2,293	2,293	2,293	2,293	2,293
NATURAL GAS		19,695	19,695	19,695	19,695	19,695
O2N2		41	41	41	41	41
COMPRESSED AIR		215	215	215	215	215
WATER		612	612	612	612	612
UTILITIES COST TOTAL	**	22,855	22,855	22,855	22,855	22,855
VARIABLE COST TOTAL	***	82,046	82,046	82,046	82,046	82,046
FIXED COST						
LABOR COST TOTAL		805	805	805	805	805
DEPRECIATION TOTAL		3,295	3,295	3,293	3,312	3,295
REPAIR COST TOTAL		5,691	5,691	5,691	5,691	5,691
S REPAIR COST TOTAL		1,752	1,752	1,752	1,752	0
OTHER COST TOTAL		6,626	6,626	6,626	6,626	6,626
FIXED COST TOTAL	***	18,169	18,169	18,167	18,186	16,417
DRP COST TOTAL	****	100,215	100,215	100,213	100,232	98,463

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- LCP -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
LIME STONE COST		504	529	556	572	572	572
SUB TOTAL	*	504	529	556	572	572	572
MANUFACTURING SUPPLIES COST		6	6	6	6	9	9
RAW MAT & SUPPLIES C TOTAL	**	510	535	562	578	581	581
BY-PRODUCT							
LIME FINES		0	0	0	0	0	0
LIME STONE FINES		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		59	61	64	66	66	66
NATURAL GAS		309	321	334	342	342	342
O2N2		9	9	8	9	9	9
COMPRESSED AIR		0	0	0	0	0	0
WATER		0	0	0	0	0	0
UTILITIES COST TOTAL	**	376	391	407	416	416	416
VARIABLE COST TOTAL	***	886	926	969	994	997	997
FIXED COST							
LABOR COST TOTAL		148	156	163	168	168	168
DEPRECIATION TOTAL		343	341	341	341	341	341
REPAIR COST TOTAL		161	168	174	178	178	178
S REPAIR COST TOTAL		0	123	128	131	131	0
OTHER COST TOTAL		404	370	378	381	381	381
FIXED COST TOTAL	***	1,056	1,157	1,184	1,199	1,199	1,068
LCP COST TOTAL	****	1,942	2,084	2,153	2,193	2,197	2,066

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- LCP -

(UNIT : 1,000US$)

		1999	2000	2001	2002	2003	2004
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
LIME STONE COST		572	572	572	572	572	572
SUB TOTAL	*	572	572	572	572	572	572
MANUFACTURING SUPPLIES COST		9	9	9	9	9	9
RAW MAT & SUPPLIES C TOTAL	**	581	581	581	581	581	581
BY-PRODUCT							
LIME FINES		0	0	0	0	0	0
LIME STONE FINES		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		66	66	65	65	66	66
NATURAL GAS		342	342	341	341	342	342
O2N2		9	9	7	6	8	8
COMPRESSED AIR		0	0	0	0	0	0
WATER		0	0	0	0	0	0
UTILITIES COST TOTAL	**	416	416	414	413	416	416
VARIABLE COST TOTAL	***	997	997	995	993	997	997
FIXED COST							
LABOR COST TOTAL		168	168	168	168	168	168
DEPRECIATION TOTAL		341	341	253	207	206	206
REPAIR COST TOTAL		178	178	177	177	357	357
S REPAIR COST TOTAL		131	131	131	131	0	131
OTHER COST TOTAL		381	381	355	342	387	387
FIXED COST TOTAL	***	1,199	1,199	1,084	1,025	1,118	1,249
LCP COST TOTAL	****	2,197	2,196	2,079	2,018	2,115	2,246

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- LCP -

(UNIT : 1,000US$)

		2005	2006	2007	2008	2009	2010
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
LIME STONE COST		572	572	572	572	572	572
SUB TOTAL	*	572	572	572	572	572	572
MANUFACTURING SUPPLIES COST		9	9	9	9	9	9
RAW MAT & SUPPLIES C TOTAL	**	581	581	581	581	581	581
BY-PRODUCT							
LIME FINES		0	0	0	0	0	0
LIME STONE FINES		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		66	66	66	66	66	66
NATURAL GAS		342	342	342	342	342	342
O2N2		8	8	8	8	8	8
COMPRESSED AIR		0	0	0	0	0	0
WATER		0	0	0	0	0	0
UTILITIES COST TOTAL	**	416	416	416	416	416	416
VARIABLE COST TOTAL	***	997	997	997	997	997	997
FIXED COST							
LABOR COST TOTAL		168	168	168	168	168	168
DEPRECIATION TOTAL		206	206	206	206	206	206
REPAIR COST TOTAL		357	357	357	357	357	357
S REPAIR COST TOTAL		131	131	131	0	131	131
OTHER COST TOTAL		387	387	387	387	387	387
FIXED COST TOTAL	***	1,249	1,249	1,249	1,118	1,249	1,249
LCP COST TOTAL	****	2,246	2,246	2,246	2,115	2,246	2,246

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- LCP -

(UNIT : 1,000US$)

		2011	2012	2013	2014	2015
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
LIME STONE COST		572	572	572	572	572
SUB TOTAL	*	572	572	572	572	572
MANUFACTURING SUPPLIES COST		9	9	9	9	9
RAW MAT & SUPPLIES C TOTAL	**	581	581	581	581	581
BY-PRODUCT						
LIME FINES		0	0	0	0	0
LIME STONE FINES		0	0	0	0	0
UTILITIES						
ELECTRICITY		66	66	66	66	66
NATURAL GAS		342	342	342	342	342
O2N2		8	8	8	8	8
COMPRESSED AIR		0	0	0	0	0
WATER		0	0	0	0	0
UTILITIES COST TOTAL	**	416	416	416	416	416
VARIABLE COST TOTAL	***	997	997	997	997	997
FIXED COST						
LABOR COST TOTAL		168	168	168	168	168
DEPRECIATION TOTAL		206	206	206	206	206
REPAIR COST TOTAL		357	357	357	357	357
S REPAIR COST TOTAL		131	131	0	131	131
OTHER COST TOTAL		387	387	387	387	387
FIXED COST TOTAL	***	1,249	1,249	1,118	1,249	1,249
LCP COST TOTAL	****	2,246	2,246	2,115	2,246	2,246

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- SMP -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
DRI		92,084	94,937	98,265	100,223	100,225	100,225
LIME STONE		1,942	2,084	2,153	2,193	2,197	2,066
SCRAP		41,239	43,127	45,104	46,303	46,303	46,303
FESI		2,493	2,618	2,749	2,829	2,829	2,829
AL		192	201	211	217	217	217
COKE BREEZE		566	594	624	642	642	642
ELECTRODE		11,264	11,715	12,184	12,464	12,464	12,464
FURNACE BRICK		1,981	2,060	2,143	2,192	2,192	2,192
LADLE BRICK		3,708	3,856	4,011	4,103	4,103	4,103
TUNDISH BRICK		1,719	1,788	1,860	1,902	1,902	1,902
FETLING MAT		4,147	4,313	4,485	4,589	4,589	4,589
HBI		25,395	26,411	27,467	28,099	28,099	28,099
FEMN		7,005	7,286	7,577	7,751	7,751	7,751
FEV		75	77	81	82	82	82
BURNT DOLOMITE		69	73	76	79	79	79
SUB TOTAL	*	193,879	201,141	208,988	213,668	213,673	213,542
MANUFACTURING SUPLLIES COST		971	1,014	1,059	1,059	1,059	1,059
RAW MAT & SUPPLIES C TOTAL	**	194,850	202,155	210,047	214,727	214,732	214,601
BY-PRODUCT							
SCRAP		2,687	2,821	2,962	3,048	3,048	3,048
DUST		0	0	0	0	0	0
SLAG		0	0	0	0	0	0
SCALE SMP		0	0	0	0	0	0
WASTE BRICK		0	0	0	0	0	0
SUB TOTAL	*	2,687	2,821	2,962	3,048	3,048	3,048
UTILITIES							
ELECTRICITY		18,820	19,711	20,646	21,217	21,217	21,217
NATURAL GAS		362	377	392	409	421	421
O2N2		88	88	88	89	89	89
COMPRESSED AIR		155	158	161	162	162	162
WATER		467	477	486	493	493	493
UTILITIES COST TOTAL	**	19,893	20,811	21,773	22,369	22,381	22,381

VARIABLE COST TOTAL	***	212,056	220,144	228,858	234,048	234,065	233,935
FIXED COST							
LABOR COST TOTAL		2,398	2,518	2,644	2,721	2,721	2,721
DEPRECIATION TOTAL		11,301	11,243	11,243	11,243	11,243	11,243
REPAIR COST TOTAL		4,223	4,390	4,561	4,665	4,665	4,665
OTHER COST TOTAL		6,353	4,967	5,098	5,321	5,320	5,321
FIXED COST TOTAL	***	24,276	23,118	23,546	23,949	23,948	23,950
SMP COST TOTAL	****	236,332	243,262	252,404	257,997	258,013	257,884

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- SMP -

(UNIT : 1,000US$)

		1999	2000	2001	2002	2003	2004
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
DRI		98,473	100,223	99,571	97,086	100,215	100,213
LIME STONE		2,197	2,196	2,079	2,018	2,115	2,246
SCRAP		46,303	46,303	46,303	46,303	46,303	46,303
FESI		2,829	2,829	2,829	2,829	2,829	2,829
AL		217	217	217	217	217	217
COKE BREEZE		642	642	642	642	642	642
ELECTRODE		12,464	12,464	12,464	12,464	12,464	12,464
FURNACE BRICK		2,192	2,192	2,192	2,192	2,192	2,192
LADLE BRICK		4,103	4,103	4,103	4,103	4,103	4,103
TUNDISH BRICK		1,902	1,902	1,902	1,902	1,902	1,902
FETLING MAT		4,589	4,589	4,589	4,589	4,589	4,589
HBI		28,099	28,099	28,099	28,099	28,099	28,099
FEMN		7,751	7,751	7,751	7,751	7,751	7,751
FEV		82	82	82	82	82	82
BURNT DOLOMITE		79	79	79	79	79	79
SUB TOTAL	*	211,921	213,671	212,902	210,356	213,582	213,710
MANUFACTURING SUPLLIES COST		1,059	1,059	1,059	1,059	1,059	1,059
RAW MAT & SUPPLIES C TOTAL	**	212,980	214,730	213,961	211,415	214,641	214,769
BY-PRODUCT							
SCRAP		3,048	3,048	3,048	3,048	3,048	3,048
DUST		0	0	0	0	0	0
SLAG		0	0	0	0	0	0
SCALE SMP		0	0	0	0	0	0
WASTE BRICK		0	0	0	0	0	0
SUB TOTAL	*	3,048	3,048	3,048	3,048	3,048	3,048
UTILITIES							
ELECTRICITY		21,217	21,217	20,984	20,870	21,217	21,217
NATURAL GAS		421	421	421	420	421	421
O2N2		89	89	72	65	87	87
COMPRESSED AIR		162	162	137	126	159	159
WATER		493	493	434	406	481	481
UTILITIES COST TOTAL	**	22,381	22,381	22,048	21,887	22,365	22,365

VARIABLE COST TOTAL	***	232,314	234,063	232,961	230,254	233,958	234,087
FIXED COST							
LABOR COST TOTAL		2,721	2,721	2,721	2,721	2,721	2,721
DEPRECIATION TOTAL		11,243	11,243	8,153	6,603	6,603	6,603
REPAIR COST TOTAL		4,665	4,665	4,640	4,629	9,346	9,346
OTHER COST TOTAL		5,321	5,321	5,270	5,242	5,320	5,320
FIXED COST TOTAL	***	23,950	23,949	20,784	19,194	23,990	23,989
SMP COST TOTAL	****	256,263	258,012	253,745	249,448	257,948	258,076

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- SMP -

(UNIT : 1,000US$)

	2005	2006	2007	2008	2009	2010
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
DRI	100,232	100,215	98,463	100,213	100,232	100,215
LIME STONE	2,246	2,246	2,246	2,115	2,246	2,246
SCRAP	46,303	46,303	46,303	46,303	46,303	46,303
FESI	2,829	2,829	2,829	2,829	2,829	2,829
AL	217	217	217	217	217	217
COKE BREEZE	642	642	642	642	642	642
ELECTRODE	12,464	12,464	12,464	12,464	12,464	12,464
FURNACE BRICK	2,192	2,192	2,192	2,192	2,192	2,192
LADLE BRICK	4,103	4,103	4,103	4,103	4,103	4,103
TUNDISH BRICK	1,902	1,902	1,902	1,902	1,902	1,902
FETLING MAT	4,589	4,589	4,589	4,589	4,589	4,589
HBI	28,099	28,099	28,099	28,099	28,099	28,099
FEMN	7,751	7,751	7,751	7,751	7,751	7,751
FEV	82	82	82	82	82	82
BURNT DOLOMITE	79	79	79	79	79	79
SUB TOTAL *	213,730	213,713	211,961	213,579	213,730	213,713
MANUFACTURING SUPLLIES COST	1,059	1,059	1,059	1,059	1,059	1,059
RAW MAT & SUPPLIES C TOTAL **	214,789	214,772	213,020	214,638	214,789	214,772
BY-PRODUCT						
SCRAP	3,048	3,048	3,048	3,048	3,048	3,048
DUST	0	0	0	0	0	0
SLAG	0	0	0	0	0	0
SCALE SMP	0	0	0	0	0	0
WASTE BRICK	0	0	0	0	0	0
SUB TOTAL *	3,048	3,048	3,048	3,048	3,048	3,048
UTILITIES						
ELECTRICITY	21,217	21,217	21,217	21,217	21,217	21,217
NATURAL GAS	421	421	421	421	421	421
O2N2	87	87	87	87	87	87
COMPRESSED AIR	159	159	159	159	159	159
WATER	481	481	481	481	481	481
UTILITIES COST TOTAL **	22,365	22,365	22,365	22,365	22,365	22,365

VARIABLE COST TOTAL	***	234,106	234,089	232,337	233,956	234,106	234,089
FIXED COST							
LABOR COST TOTAL		2,721	2,721	2,721	2,721	2,721	2,721
DEPRECIATION TOTAL		6,603	6,603	6,603	6,603	6,603	6,603
REPAIR COST TOTAL		9,346	9,346	9,346	9,346	9,346	9,346
OTHER COST TOTAL		5,320	5,320	5,319	5,320	5,320	5,320
FIXED COST TOTAL	***	23,989	23,990	23,988	23,989	23,990	23,990
SMP COST TOTAL	****	258,095	258,079	256,325	257,945	258,096	258,079

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- SMP -

(UNIT : 1,000US$)

	2011	2012	2013	2014	2015
VARIABLE COST					
RAW MATERIAL & SUPPLIES					
DRI	100,215	100,215	100,213	100,232	98,463
LIME STONE	2,246	2,246	2,115	2,246	2,246
SCRAP	46,303	46,303	46,303	46,303	46,303
FESI	2,829	2,829	2,829	2,829	2,829
AL	217	217	217	217	217
COKE BREEZE	642	642	642	642	642
ELECTRODE	12,464	12,464	12,464	12,464	12,464
FURNACE BRICK	2,192	2,192	2,192	2,192	2,192
LADLE BRICK	4,103	4,103	4,103	4,103	4,103
TUNDISH BRICK	1,902	1,902	1,902	1,902	1,902
FETLING MAT	4,589	4,589	4,589	4,589	4,589
HBI	28,099	28,099	28,099	28,099	28,099
FEMN	7,751	7,751	7,751	7,751	7,751
FEV	82	82	82	82	82
BURNT DOLOMITE	79	79	79	79	79
SUB TOTAL *	213,713	213,712	213,580	213,730	211,961
MANUFACTURING SUPLLIES COST	1,059	1,059	1,059	1,059	1,059
RAW MAT & SUPPLIES C TOTAL **	214,772	214,771	214,639	214,789	213,020
BY-PRODUCT					
SCRAP	3,048	3,048	3,048	3,048	3,048
DUST	0	0	0	0	0
SLAG	0	0	0	0	0
SCALE SMP	0	0	0	0	0
WASTE BRICK	0	0	0	0	0
SUB TOTAL *	3,048	3,048	3,048	3,048	3,048
UTILITIES					
ELECTRICITY	21,217	21,217	21,217	21,217	21,217
NATURAL GAS	421	421	421	421	421
O2N2	87	87	87	87	87
COMPRESSED AIR	159	159	159	159	159
WATER	481	481	481	481	481
UTILITIES COST TOTAL **	22,365	22,365	22,365	22,365	22,365

VARIABLE COST TOTAL	***	234,089	234,089	233,956	234,106	232,337
FIXED COST						
LABOR COST TOTAL		2,721	2,721	2,721	2,721	2,721
DEPRECIATION TOTAL		6,603	6,603	6,603	6,603	6,603
REPAIR COST TOTAL		9,346	9,346	9,346	9,346	9,346
OTHER COST TOTAL		5,320	5,319	5,319	5,320	5,320
FIXED COST TOTAL	***	23,990	23,989	23,989	23,990	23,990
SMP COST TOTAL	****	258,079	258,077	257,945	258,096	256,327

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- BAR -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
BAR BILLET COST		115,793	122,631	130,812	133,710	133,719	133,652
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	115,793	122,631	130,812	133,710	133,719	133,652
MANUFACTURING SUPLLIES COST		1,632	1,754	1,883	1,883	1,883	1,883
RAW MAT & SUPPLIES C TOTAL	**	117,425	124,385	132,695	135,593	135,602	135,535
BY-PRODUCT							
SCRAP COST		1,901	2,048	2,218	2,282	2,282	2,282
SCALE BAR		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		771	831	895	920	920	920
NATURAL GAS		1,466	1,568	1,676	1,715	1,715	1,715
O2N2		167	171	176	177	177	177
COMPRESSED AIR		0	0	0	0	0	0
WATER		99	104	109	110	110	110
UTILITIES COST TOTAL	**	2,502	2,674	2,855	2,921	2,921	2,921
VARIABLE COST TOTAL	***	118,025	125,011	133,332	136,232	136,240	136,173
FIXED COST							
LABOR COST TOTAL		924	970	1,019	1,049	1,049	1,049
DEPRECIATION TOTAL		3,047	3,033	3,033	3,033	3,034	3,033
REPAIR COST TOTAL		1,238	1,287	1,337	1,368	1,368	1,368
OTHER COST TOTAL		941	916	955	980	980	981
FIXED COST TOTAL	***	6,150	6,207	6,344	6,429	6,430	6,430
BAR COST TOTAL	****	124,176	131,218	139,676	142,661	142,671	142,603

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- BAR -

(UNIT : 1,000US$)

		1999	2000	2001	2002	2003	2004
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
BAR BILLET COST		132,812	133,718	131,506	129,279	133,685	133,751
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	132,812	133,718	131,506	129,279	133,685	133,751
MANUFACTURING SUPLLIES COST		1,883	1,883	1,883	1,883	1,883	1,883
RAW MAT & SUPPLIES C TOTAL	**	134,695	135,601	133,389	131,162	135,568	135,634
BY-PRODUCT							
SCRAP COST		2,282	2,282	2,282	2,282	2,282	2,282
SCALE BAR		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		920	920	909	905	920	920
NATURAL GAS		1,715	1,715	1,713	1,713	1,714	1,714
O2N2		177	177	144	130	174	174
COMPRESSED AIR		0	0	0	0	0	0
WATER		110	110	97	91	107	107
UTILITIES COST TOTAL	**	2,921	2,921	2,864	2,838	2,916	2,916
VARIABLE COST TOTAL	***	135,333	136,240	133,971	131,718	136,201	136,267
FIXED COST							
LABOR COST TOTAL		1,049	1,049	1,049	1,049	1,049	1,049
DEPRECIATION TOTAL		3,033	3,033	2,339	1,636	1,636	1,636
REPAIR COST TOTAL		1,368	1,368	1,360	1,357	2,740	2,740
OTHER COST TOTAL		981	980	953	940	985	985
FIXED COST TOTAL	***	6,430	6,429	5,701	4,981	6,410	6,409
BAR COST TOTAL	****	141,763	142,669	139,672	136,699	142,611	142,677

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- BAR -

(UNIT : 1,000US$)

		2005	2006	2007	2008	2009	2010
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
BAR BILLET COST		133,761	133,752	132,844	133,683	133,761	133,752
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	133,761	133,752	132,844	133,683	133,761	133,752
MANUFACTURING SUPLLIES COST		1,883	1,883	1,883	1,883	1,883	1,883
RAW MAT & SUPPLIES C TOTAL	**	135,644	135,635	134,727	135,566	135,644	135,635
BY-PRODUCT							
SCRAP COST		2,282	2,282	2,282	2,282	2,282	2,282
SCALE BAR		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		920	920	920	920	920	920
NATURAL GAS		1,714	1,714	1,714	1,714	1,714	1,714
O2N2		174	174	174	174	174	174
COMPRESSED AIR		0	0	0	0	0	0
WATER		107	107	107	107	107	107
UTILITIES COST TOTAL	**	2,916	2,916	2,916	2,916	2,916	2,916
VARIABLE COST TOTAL	***	136,277	136,269	135,360	136,200	136,278	136,269
FIXED COST							
LABOR COST TOTAL		1,049	1,049	1,049	1,049	1,049	1,049
DEPRECIATION TOTAL		1,636	1,636	1,636	1,636	1,636	1,636
REPAIR COST TOTAL		2,740	2,740	2,740	2,740	2,740	2,740
OTHER COST TOTAL		985	985	985	985	985	985
FIXED COST TOTAL	***	6,410	6,410	6,410	6,409	6,410	6,410
BAR COST TOTAL	****	142,687	142,679	141,770	142,609	142,688	142,679

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- BAR -

(UNIT : 1,000US$)

		2011	2012	2013	2014	2015
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
BAR BILLET COST		133,752	133,752	133,663	133,761	132,844
P.BILLET COST		0	0	0	0	0
SUB TOTAL	*	133,752	133,752	133,683	133,761	132,844
MANUFACTURING SUPLLIES COST		1,883	1,883	1,883	1,883	1,883
RAW MAT & SUPPLIES C TOTAL	**	135,635	135,635	135,566	135,644	134,727
BY-PRODUCT						
SCRAP COST		2,282	2,282	2,282	2,282	2,282
SCALE BAR		0	0	0	0	0
UTILITIES						
ELECTRICITY		920	920	920	920	920
NATURAL GAS		1,714	1,714	1,714	1,714	1,714
O2N2		174	174	174	174	174
COMPRESSED AIR		0	0	0	0	0
WATER		107	107	107	107	107
UTILITIES COST TOTAL	**	2,916	2,916	2,916	2,916	2,916
VARIABLE COST TOTAL	***	136,269	136,268	136,199	136,278	135,361
FIXED COST						
LABOR COST TOTAL		1,049	1,049	1,049	1,049	1,049
DEPRECIATION TOTAL		1,636	1,636	1,636	1,636	1,636
REPAIR COST TOTAL		2,740	2,740	2,740	2,740	2,740
OTHER COST TOTAL		985	985	985	985	985
FIXED COST TOTAL	***	6,410	6,410	6,409	6,410	6,410
BAR COST TOTAL	****	142,679	142,678	142,609	142,688	141,771

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- ROD -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
ROD BILLET COST		115,020	118,393	122,842	125,564	125,572	125,509
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	115,020	118,393	122,842	125,564	125,572	125,509
MANUFACTURING SUPPLIES COST		1,618	1,690	1,765	1,765	1,765	1,765
RAW MAT & SUPPLIES C TOTAL	**	116,638	120,083	124,607	127,329	127,337	127,274
BY-PRODUCT							
SCRAP		1,374	1,443	1,515	1,559	1,559	1,559
SCALE ROD		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		1,376	1,441	1,510	1,551	1,551	1,551
NATURAL GAS		1,267	1,317	1,370	1,401	1,401	1,401
O2N2		27	27	27	27	27	27
COMPRESSED AIR		0	0	0	0	0	0
WATER		153	156	159	161	161	161
UTILITIES COST TOTAL	**	2,823	2,941	3,065	3,141	3,141	3,141
VARIABLE COST TOTAL	***	118,086	121,581	126,157	128,911	128,919	128,856
FIXED COST							
LABOR COST TOTAL		742	779	818	842	842	842
DEPRECIATION TOTAL		4,309	4,292	4,292	4,292	4,292	4,292
REPAIR COST TOTAL		1,436	1,493	1,551	1,586	1,586	1,586
OTHER COST TOTAL		1,149	1,145	1,182	1,207	1,207	1,207
FIXED COST TOTAL	***	7,637	7,709	7,843	7,927	7,927	7,927
ROD COST TOTAL	****	125,723	129,290	134,001	136,838	136,846	136,783

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- ROD -

(UNIT : 1,000US$)

		1999	2000	2001	2002	2003	2004
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
ROD BILLET COST		124,720	125,571	123,494	121,403	125,540	125,602
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	124,720	125,571	123,494	121,403	125,540	125,602
MANUFACTURING SUPPLIES COST		1,765	1,765	1,765	1,765	1,765	1,765
RAW MAT & SUPPLIES C TOTAL	**	126,485	127,336	125,259	123,168	127,305	127,367
BY-PRODUCT							
SCRAP		1,559	1,559	1,559	1,559	1,559	1,559
SCALE ROD		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		1,551	1,551	1,534	1,526	1,551	1,551
NATURAL GAS		1,401	1,401	1,400	1,400	1,401	1,401
O2N2		27	27	22	20	27	27
COMPRESSED AIR		0	0	0	0	0	0
WATER		161	161	142	133	157	157
UTILITIES COST TOTAL	**	3,141	3,141	3,098	3,078	3,136	3,136
VARIABLE COST TOTAL	***	128,067	128,918	126,799	124,688	128,883	128,945
FIXED COST							
LABOR COST TOTAL		842	842	842	842	842	842
DEPRECIATION TOTAL		4,292	4,292	4,312	1,872	2,295	2,699
REPAIR COST TOTAL		1,586	1,586	1,578	1,574	1,585	3,178
OTHER COST TOTAL		1,207	1,207	1,180	1,167	1,212	1,212
FIXED COST TOTAL	***	7,927	7,927	7,912	5,455	5,934	7,931
ROD COST TOTAL	****	135,994	136,845	134,711	130,142	134,816	136,876

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- ROD -

(UNIT : 1,000US$)

		2005	2006	2007	2008	2009	2010
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
ROD BILLET COST		125,612	125,604	124,750	125,539	125,612	125,604
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	125,612	125,604	124,750	125,539	125,612	125,604
MANUFACTURING SUPPLIES COST		1,765	1,765	1,765	1,765	1,765	1,765
RAW MAT & SUPPLIES C TOTAL	**	127,377	127,369	126,515	127,304	127,377	127,369
BY-PRODUCT							
SCRAP		1,559	1,559	1,559	1,559	1,559	1,559
SCALE ROD		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		1,551	1,551	1,551	1,551	1,551	1,551
NATURAL GAS		1,401	1,401	1,401	1,401	1,401	1,401
O2N2		27	27	27	27	27	27
COMPRESSED AIR		0	0	0	0	0	0
WATER		157	157	157	157	157	157
UTILITIES COST TOTAL	**	3,136	3,136	3,136	3,136	3,136	3,136
VARIABLE COST TOTAL	***	128,954	128,946	128,093	128,881	128,955	128,946
FIXED COST							
LABOR COST TOTAL		842	842	842	842	842	842
DEPRECIATION TOTAL		2,700	2,700	2,700	2,699	2,699	2,699
REPAIR COST TOTAL		3,178	3,178	3,178	3,178	3,178	3,178
OTHER COST TOTAL		1,212	1,212	1,212	1,212	1,212	1,212
FIXED COST TOTAL	***	7,932	7,932	7,932	7,931	7,931	7,931
ROD COST TOTAL	****	136,886	136,879	136,025	136,812	136,886	136,878

CASE 0-2
EXISTING WITH ESCALATION (UP-2)

MANUFACTURING COST SHEET(AMOUNT)
- ROD -

(UNIT : 1,000US$)

		2011	2012	2013	2014	2015
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
ROD BILLET COST		125,604	125,603	125,538	125,612	124,751
P.BILLET COST		0	0	0	0	0
SUB TOTAL	*	125,604	125,603	125,538	125,612	124,751
MANUFACTURING SUPPLIES COST		1,765	1,765	1,765	1,765	1,765
RAW MAT & SUPPLIES C TOTAL	**	127,369	127,368	127,303	127,377	126,516
BY-PRODUCT						
SCRAP		1,559	1,559	1,559	1,559	1,559
SCALE ROD		0	0	0	0	0
UTILITIES						
ELECTRICITY		1,551	1,551	1,551	1,551	1,551
NATURAL GAS		1,401	1,401	1,401	1,401	1,401
O2N2		27	27	27	27	27
COMPRESSED AIR		0	0	0	0	0
WATER		157	157	157	157	157
UTILITIES COST TOTAL	**	3,136	3,136	3,136	3,136	3,136
VARIABLE COST TOTAL	***	128,946	128,946	128,881	128,955	128,094
FIXED COST						
LABOR COST TOTAL		842	842	842	842	842
DEPRECIATION TOTAL		2,699	2,699	2,699	2,699	2,699
REPAIR COST TOTAL		3,178	3,178	3,178	3,178	3,178
OTHER COST TOTAL		1,212	1,212	1,212	1,212	1,212
FIXED COST TOTAL	***	7,931	7,931	7,931	7,931	7,931
ROD COST TOTAL	****	136,878	136,877	136,812	136,886	136,025

CASE 1 - 2

UPDATE WITH ESCALATION

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- DRP -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
PELLET COST		52,791	54,902	57,098	58,412	58,412	58,412
SUB TOTAL	*	52,791	54,902	57,098	58,412	58,412	58,412
MANUFACTURING SUPPLIES COST		716	747	780	815	815	815
RAW MAT & SUPPLIES C TOTAL	**	53,507	55,649	57,878	59,227	59,227	59,227
BY-PRODUCT							
OXIDE FINES		0	0	0	0	0	0
OXIDE THICKNER		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		2,034	2,130	2,231	2,393	2,302	2,301
NATURAL GAS		17,811	18,520	19,257	19,696	19,689	19,689
O2N2		41	41	41	91	75	75
COMPRESSED AIR		210	214	218	504	170	170
WATER		594	606	618	1,140	864	858
UTILITIES COST TOTAL	**	20,690	21,511	22,365	23,823	23,100	23,092
VARIABLE COST TOTAL	***	74,196	77,160	80,243	83,049	82,327	82,319
FIXED COST							
LABOR COST TOTAL		709	745	782	805	805	805
DEPRECIATION TOTAL		6,153	6,136	6,136	6,134	6,136	6,136
REPAIR COST TOTAL		2,572	2,673	2,777	2,262	2,262	2,262
S REPAIR COST TOTAL		1,583	1,646	1,712	1,752	1,752	1,752
OTHER COST TOTAL		6,871	6,577	6,613	6,764	6,828	6,829
FIXED COST TOTAL	***	17,888	17,777	18,021	17,717	17,782	17,784
DRP COST TOTAL	****	92,084	94,937	98,265	100,766	100,109	100,102

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- DRP -

(UNIT : 1,000US$)

		1999	2000	2001	2002	2003	2004
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
PELLET COST		58,412	58,412	58,412	58,412	58,412	58,412
SUB TOTAL	*	58,412	58,412	58,412	58,412	58,412	58,412
MANUFACTURING SUPPLIES COST		815	815	815	815	815	815
RAW MAT & SUPPLIES C TOTAL	**	59,227	59,227	59,227	59,227	59,227	59,227
BY-PRODUCT							
OXIDE FINES		0	0	0	0	0	0
OXIDE THICKNER		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		2,301	2,301	2,280	2,269	2,301	2,301
NATURAL GAS		19,689	19,689	19,676	19,670	19,685	19,685
O2N2		75	75	68	65	74	74
COMPRESSED AIR		170	170	166	165	169	169
WATER		858	858	802	776	847	847
UTILITIES COST TOTAL	**	23,092	23,092	22,992	22,945	23,077	23,077
VARIABLE COST TOTAL	***	82,319	82,319	82,219	82,172	82,304	82,304
FIXED COST							
LABOR COST TOTAL		805	805	805	805	805	805
DEPRECIATION TOTAL		6,136	6,134	5,684	3,295	3,295	3,293
REPAIR COST TOTAL		2,262	2,262	2,259	2,259	5,114	5,114
S REPAIR COST TOTAL		0	1,752	1,752	1,752	1,752	1,752
OTHER COST TOTAL		6,829	6,829	6,793	6,774	6,826	6,826
FIXED COST TOTAL	***	16,032	17,781	17,293	14,885	17,791	17,789
DRP COST TOTAL	****	98,350	100,100	99,512	97,056	100,095	100,093

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- DRP -

(UNIT : 1,000US$)

		2005	2006	2007	2008	2009	2010
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
PELLET COST		58,412	58,412	58,412	58,412	58,412	58,412
SUB TOTAL	*	58,412	58,412	58,412	58,412	58,412	58,412
MANUFACTURING SUPPLIES COST		815	815	815	815	815	815
RAW MAT & SUPPLIES C TOTAL	**	59,227	59,227	59,227	59,227	59,227	59,227
BY-PRODUCT							
OXIDE FINES		0	0	0	0	0	0
OXIDE THICKNER		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		2,301	2,301	2,301	2,301	2,301	2,301
NATURAL GAS		19,685	19,685	19,685	19,685	19,685	19,685
O2N2		74	74	74	74	74	74
COMPRESSED AIR		169	169	169	169	169	169
WATER		847	847	847	847	847	847
UTILITIES COST TOTAL	**	23,077	23,077	23,077	23,077	23,077	23,077
VARIABLE COST TOTAL	***	82,304	82,304	82,304	82,304	82,304	82,304
FIXED COST							
LABOR COST TOTAL		805	805	805	805	805	805
DEPRECIATION TOTAL		3,312	3,295	3,295	3,293	3,312	3,295
REPAIR COST TOTAL		5,114	5,114	5,114	5,114	5,114	5,114
S REPAIR COST TOTAL		1,752	1,752	0	1,752	1,752	1,752
OTHER COST TOTAL		6,826	6,826	6,825	6,826	6,826	6,826
FIXED COST TOTAL	***	17,808	17,791	16,039	17,789	17,808	17,791
DRP COST TOTAL	****	100,112	100,095	98,343	100,093	100,112	100,095

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- DRP -

(UNIT : 1,000US$)

		2011	2012	2013	2014	2015
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
PELLET COST		58,412	58,412	58,412	58,412	58,412
SUB TOTAL	*	58,412	58,412	58,412	58,412	58,412
MANUFACTURING SUPPLIES COST		815	815	815	815	815
RAW MAT & SUPPLIES C TOTAL	**	59,227	59,227	59,227	59,227	59,227
BY-PRODUCT						
OXIDE FINES		0	0	0	0	0
OXIDE THICKNER		0	0	0	0	0
UTILITIES						
ELECTRICITY		2,294	2,301	2,301	2,301	2,301
NATURAL GAS		19,686	19,685	19,685	19,685	19,685
O2N2		61	75	75	75	75
COMPRESSED AIR		120	170	170	170	170
WATER		726	835	835	835	835
UTILITIES COST TOTAL	**	22,887	23,067	23,067	23,067	23,067
VARIABLE COST TOTAL	***	82,114	82,293	82,293	82,293	82,293
FIXED COST						
LABOR COST TOTAL		805	805	805	805	805
DEPRECIATION TOTAL		3,295	3,295	3,293	3,312	3,295
REPAIR COST TOTAL		5,122	5,113	5,113	5,113	5,113
S REPAIR COST TOTAL		1,752	1,752	1,752	1,752	0
OTHER COST TOTAL		6,825	6,826	6,826	6,826	6,826
FIXED COST TOTAL	***	17,800	17,791	17,789	17,808	16,039
DRP COST TOTAL	****	99,913	100,085	100,083	100,102	98,333

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- LCP -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
LIME STONE COST		504	529	556	529	903	903
SUB TOTAL	*	504	529	556	529	903	903
MANUFACTURING SUPPLIES COST		6	6	6	6	9	9
RAW MAT & SUPPLIES C TOTAL	**	510	535	562	535	912	912
BY-PRODUCT							
LIME FINES		0	0	0	0	0	0
LIME STONE FINES		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		59	61	64	64	105	105
NATURAL GAS		309	321	334	316	539	539
O2N2		9	9	8	17	24	24
COMPRESSED AIR		0	0	0	0	0	0
WATER		0	0	0	0	0	0
UTILITIES COST TOTAL	**	376	391	407	397	669	668
VARIABLE COST TOTAL	***	886	926	969	932	1,581	1,580
FIXED COST							
LABOR COST TOTAL		148	156	163	168	168	168
DEPRECIATION TOTAL		343	341	341	341	341	341
REPAIR COST TOTAL		161	168	174	142	142	142
S REPAIR COST TOTAL		0	123	128	131	131	0
OTHER COST TOTAL		404	370	378	416	464	465
FIXED COST TOTAL	***	1,056	1,157	1,184	1,198	1,246	1,116
LCP COST TOTAL	****	1,942	2,084	2,153	2,130	2,826	2,696

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- LCP -

(UNIT : 1,000US$)

		1999	2000	2001	2002	2003	2004
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
LIME STONE COST		903	903	903	903	903	903
SUB TOTAL	*	903	903	903	903	903	903
MANUFACTURING SUPPLIES COST		9	9	9	9	9	9
RAW MAT & SUPPLIES C TOTAL	**	912	912	912	912	912	912
BY-PRODUCT							
LIME FINES		0	0	0	0	0	0
LIME STONE FINES		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		105	105	104	103	105	105
NATURAL GAS		539	539	539	539	539	539
O2N2		24	24	22	21	24	24
COMPRESSED AIR		0	0	0	0	0	0
WATER		0	0	0	0	0	0
UTILITIES COST TOTAL	**	668	668	665	663	668	668
VARIABLE COST TOTAL	***	1,580	1,580	1,577	1,575	1,580	1,580
FIXED COST							
LABOR COST TOTAL		168	168	168	168	168	168
DEPRECIATION TOTAL		341	341	253	207	206	206
REPAIR COST TOTAL		142	142	142	142	321	321
S REPAIR COST TOTAL		131	131	131	131	0	131
OTHER COST TOTAL		465	465	439	425	470	470
FIXED COST TOTAL	***	1,247	1,247	1,132	1,073	1,165	1,295
LCP COST TOTAL	****	2,827	2,827	2,709	2,648	2,745	2,876

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- LCP -

(UNIT : 1,000US$)

		2005	2006	2007	2008	2009	2010
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
LIME STONE COST		903	903	903	903	903	903
SUB TOTAL	*	903	903	903	903	903	903
MANUFACTURING SUPPLIES COST		9	9	9	9	9	9
RAW MAT & SUPPLIES C TOTAL	**	912	912	912	912	912	912
BY-PRODUCT							
LIME FINES		0	0	0	0	0	0
LIME STONE FINES		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		105	105	105	105	105	105
NATURAL GAS		539	539	539	539	539	539
O2N2		24	24	24	24	24	24
COMPRESSED AIR		0	0	0	0	0	0
WATER		0	0	0	0	0	0
UTILITIES COST TOTAL	**	668	668	668	668	668	668
VARIABLE COST TOTAL	***	1,580	1,580	1,580	1,580	1,580	1,580
FIXED COST							
LABOR COST TOTAL		168	168	168	168	168	168
DEPRECIATION TOTAL		206	206	206	206	206	206
REPAIR COST TOTAL		321	321	321	321	321	321
S REPAIR COST TOTAL		131	131	131	0	131	131
OTHER COST TOTAL		470	470	470	470	470	470
FIXED COST TOTAL	***	1,296	1,296	1,296	1,164	1,296	1,296
LCP COST TOTAL	****	2,876	2,876	2,876	2,745	2,876	2,876

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- LCP -

(UNIT : 1,000US$)

		2011	2012	2013	2014	2015
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
LIME STONE COST		903	903	903	903	903
SUB TOTAL	*	903	903	903	903	903
MANUFACTURING SUPPLIES COST		9	9	9	9	9
RAW MAT & SUPPLIES C TOTAL	**	912	912	912	912	912
BY-PRODUCT						
LIME FINES		0	0	0	0	0
LIME STONE FINES		0	0	0	0	0
UTILITIES						
ELECTRICITY		105	105	105	105	105
NATURAL GAS		539	539	539	539	539
O2N2		20	24	24	24	24
COMPRESSED AIR		0	0	0	0	0
WATER		0	0	0	0	0
UTILITIES COST TOTAL	**	663	668	668	668	668
VARIABLE COST TOTAL	***	1,575	1,580	1,580	1,580	1,580
FIXED COST						
LABOR COST TOTAL		168	168	168	168	168
DEPRECIATION TOTAL		206	206	206	206	206
REPAIR COST TOTAL		321	321	320	320	320
S REPAIR COST TOTAL		131	131	0	131	131
OTHER COST TOTAL		470	470	470	470	470
FIXED COST TOTAL	***	1,296	1,296	1,165	1,296	1,296
LCP COST TOTAL	****	2,871	2,876	2,745	2,876	2,876

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- SMP -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
DRI		92,084	94,937	98,265	100,766	100,109	100,102
LIME STONE		1,942	2,084	2,153	2,130	2,826	2,696
SCRAP		41,239	43,127	45,104	48,536	110,392	110,385
FESI		2,493	2,618	2,749	2,377	3,434	3,434
AL		192	201	211	193	294	294
COKE BREEZE		566	594	624	1,231	2,986	2,986
ELECTRODE		11,264	11,715	12,184	11,157	17,303	17,303
FURNACE BRICK		1,981	2,060	2,143	1,877	2,718	2,718
LADLE BRICK		3,708	3,856	4,011	4,119	7,215	7,215
TUNDISH BRICK		1,719	1,788	1,860	1,685	2,573	2,573
FETLING MAT		4,147	4,313	4,485	3,695	5,417	5,417
HBI		25,395	26,411	27,467	22,401	28,842	28,842
FEMN		7,005	7,286	7,577	6,495	9,351	9,351
FEV		75	77	81	66	89	89
BURNT DOLOMITE		69	73	76	65	93	93
SUB TOTAL	*	193,879	201,141	208,988	206,793	293,644	293,500
MANUFACTURING SUPLLIES COST		971	1,014	1,059	938	1,433	1,433
RAW MAT & SUPPLIES C TOTAL	**	194,850	202,155	210,047	207,731	295,077	294,933
BY-PRODUCT							
SCRAP		2,687	2,821	2,962	2,700	4,133	4,133
DUST		0	0	0	0	0	0
SLAG		0	0	0	0	0	0
SCALE SMP		0	0	0	0	0	0
WASTE BRICK		0	0	0	0	0	0
SUB TOTAL	*	2,687	2,821	2,962	2,700	4,133	4,133
UTILITIES							
ELECTRICITY		18,820	19,711	20,646	18,392	24,518	24,508
NATURAL GAS		362	377	392	362	569	569
O2N2		88	88	88	171	217	216
COMPRESSED AIR		155	158	161	2,469	2,812	2,812
WATER		467	477	486	834	1,035	1,027
UTILITIES COST TOTAL	**	19,893	20,811	21,773	22,229	29,151	29,133

VARIABLE COST TOTAL	***	212,056	220,144	228,858	227,260	320,094	319,932
FIXED COST							
LABOR COST TOTAL		2,398	2,518	2,644	3,627	3,627	3,627
DEPRECIATION TOTAL		11,301	11,243	11,243	13,623	16,954	16,954
REPAIR COST TOTAL		4,223	4,390	4,561	5,975	5,975	5,975
OTHER COST TOTAL		6,353	4,967	5,098	5,937	6,223	6,226
FIXED COST TOTAL	***	24,276	23,118	23,546	29,162	32,779	32,782
SMP COST TOTAL	****	236,332	243,262	252,404	256,422	352,873	352,713

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- SMP -

(UNIT : 1,000US$)

	1999	2000	2001	2002	2003	2004
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
DRI	98,350	100,100	99,512	97,056	100,095	100,093
LIME STONE	2,827	2,827	2,709	2,648	2,745	2,876
SCRAP	110,385	110,385	110,385	110,385	110,385	110,385
FESI	3,434	3,434	3,434	3,434	3,434	3,434
AL	294	294	294	294	294	294
COKE BREEZE	2,986	2,986	2,986	2,986	2,986	2,986
ELECTRODE	17,303	17,303	17,303	17,303	17,303	17,303
FURNACE BRICK	2,718	2,718	2,718	2,718	2,718	2,718
LADLE BRICK	7,215	7,215	7,215	7,215	7,215	7,215
TUNDISH BRICK	2,573	2,573	2,573	2,573	2,573	2,573
FETLING MAT	5,417	5,417	5,417	5,417	5,417	5,417
HBI	28,842	28,842	28,842	28,842	28,842	28,842
FEMN	9,351	9,351	9,351	9,351	9,351	9,351
FEV	89	89	89	89	89	89
BURNT DOLOMITE	93	93	93	93	93	93
SUB TOTAL *	291,879	293,628	292,922	290,405	293,541	293,669
MANUFACTURING SUPLLIES COST	1,433	1,433	1,433	1,433	1,433	1,433
RAW MAT & SUPPLIES C TOTAL **	293,312	295,061	294,355	291,838	294,974	295,102
BY-PRODUCT						
SCRAP	4,133	4,133	4,133	4,133	4,133	4,133
DUST	0	0	0	0	0	0
SLAG	0	0	0	0	0	0
SCALE SMP	0	0	0	0	0	0
WASTE BRICK	0	0	0	0	0	0
SUB TOTAL *	4,133	4,133	4,133	4,133	4,133	4,133
UTILITIES						
ELECTRICITY	24,508	24,508	24,280	24,168	24,509	24,509
NATURAL GAS	569	569	569	569	569	569
O2N2	216	216	197	189	215	215
COMPRESSED AIR	2,812	2,812	2,754	2,728	2,803	2,803
WATER	1,027	1,027	961	929	1,014	1,014
UTILITIES COST TOTAL **	29,133	29,133	28,760	28,582	29,110	29,110

VARIABLE COST TOTAL	***	318,311	320,061	318,982	316,287	319,950	320,079
FIXED COST							
LABOR COST TOTAL		3,627	3,627	3,627	3,627	3,627	3,627
DEPRECIATION TOTAL		16,954	16,954	13,864	12,314	12,314	12,314
REPAIR COST TOTAL		5,975	5,975	5,968	5,967	10,657	10,657
OTHER COST TOTAL		6,226	6,225	6,151	6,110	6,188	6,187
FIXED COST TOTAL	***	32,782	32,781	29,610	28,018	32,785	32,785
SMP COST TOTAL	****	351,092	352,842	348,592	344,305	352,735	352,864

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- SMP -

(UNIT : 1,000US$)

	2005	2006	2007	2008	2009	2010
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
DRI	100,112	100,095	98,343	100,093	100,112	100,095
LIME STONE	2,876	2,876	2,876	2,745	2,876	2,876
SCRAP	110,385	110,385	110,385	110,385	110,385	110,385
FESI	3,434	3,434	3,434	3,434	3,434	3,434
AL	294	294	294	294	294	294
COKE BREEZE	2,986	2,986	2,986	2,986	2,986	2,986
ELECTRODE	17,303	17,303	17,303	17,303	17,303	17,303
FURNACE BRICK	2,718	2,718	2,718	2,718	2,718	2,718
LADLE BRICK	7,215	7,215	7,215	7,215	7,215	7,215
TUNDISH BRICK	2,573	2,573	2,573	2,573	2,573	2,573
FETLING MAT	5,417	5,417	5,417	5,417	5,417	5,417
HBI	28,842	28,842	28,842	28,842	28,842	28,842
FEMN	9,351	9,351	9,351	9,351	9,351	9,351
FEV	89	89	89	89	89	89
BURNT DOLOMITE	93	93	93	93	93	93
SUB TOTAL *	293,689	293,672	291,919	293,538	293,689	293,672
MANUFACTURING SUPLLIES COST	1,433	1,433	1,433	1,433	1,433	1,433
RAW MAT & SUPPLIES C TOTAL **	295,122	295,105	293,352	294,971	295,122	295,105
BY-PRODUCT						
SCRAP	4,133	4,133	4,133	4,133	4,133	4,133
DUST	0	0	0	0	0	0
SLAG	0	0	0	0	0	0
SCALE SMP	0	0	0	0	0	0
WASTE BRICK	0	0	0	0	0	0
SUB TOTAL *	4,133	4,133	4,133	4,133	4,133	4,133
UTILITIES						
ELECTRICITY	24,509	24,509	24,509	24,509	24,509	24,509
NATURAL GAS	569	569	569	569	569	569
O2N2	215	215	215	215	215	215
COMPRESSED AIR	2,803	2,803	2,803	2,803	2,803	2,803
WATER	1,014	1,014	1,014	1,014	1,014	1,014
UTILITIES COST TOTAL **	29,110	29,110	29,110	29,110	29,110	29,110

VARIABLE COST TOTAL	***	320,098	320,081	318,329	319,948	320,098	320,081
FIXED COST							
LABOR COST TOTAL		3,627	3,627	3,627	3,627	3,627	3,627
DEPRECIATION TOTAL		12,314	12,314	12,314	12,314	12,314	12,314
REPAIR COST TOTAL		10,657	10,657	10,657	10,657	10,657	10,657
OTHER COST TOTAL		6,187	6,188	6,186	6,187	6,188	6,188
FIXED COST TOTAL	***	32,785	32,785	32,784	32,785	32,785	32,785
SMP COST TOTAL	****	352,883	352,866	351,113	352,733	352,883	352,866

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- SMP -

(UNIT : 1,000US$)

		2011	2012	2013	2014	2015
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
DRI		99,913	100,085	100,083	100,102	98,333
LIME STONE		2,871	2,876	2,745	2,876	2,876
SCRAP		110,385	110,385	110,385	110,385	110,385
FESI		3,434	3,434	3,434	3,434	3,434
AL		294	294	294	294	294
COKE BREEZE		2,986	2,986	2,986	2,986	2,986
ELECTRODE		17,303	17,303	17,303	17,303	17,303
FURNACE BRICK		2,718	2,718	2,718	2,718	2,718
LADLE BRICK		7,215	7,215	7,215	7,215	7,215
TUNDISH BRICK		2,573	2,573	2,573	2,573	2,573
FETLING MAT		5,417	5,417	5,417	5,417	5,417
HBI		28,842	28,842	28,842	28,842	28,842
FEMN		9,351	9,351	9,351	9,351	9,351
FEV		89	89	89	89	89
BURNT DOLOMITE		93	93	93	93	93
SUB TOTAL	*	293,485	293,662	293,529	293,679	291,910
MANUFACTURING SUPLLIES COST		1,433	1,433	1,433	1,433	1,433
RAW MAT & SUPPLIES C TOTAL	**	294,918	295,095	294,962	295,112	293,343
BY-PRODUCT						
SCRAP		4,133	4,133	4,133	4,133	4,133
DUST		0	0	0	0	0
SLAG		0	0	0	0	0
SCALE SMP		0	0	0	0	0
WASTE BRICK		0	0	0	0	0
SUB TOTAL	*	4,133	4,133	4,133	4,133	4,133
UTILITIES						
ELECTRICITY		24,434	24,511	24,511	24,511	24,511
NATURAL GAS		569	569	569	569	569
O2N2		176	216	216	216	216
COMPRESSED AIR		1,989	2,824	2,824	2,824	2,824
WATER		870	1,000	1,000	1,000	1,000
UTILITIES COST TOTAL	**	28,037	29,119	29,119	29,119	29,119

VARIABLE COST TOTAL	***	318,822	320,080	319,947	320,098	318,329
FIXED COST						
LABOR COST TOTAL		3,627	3,627	3,627	3,627	3,627
DEPRECIATION TOTAL		11,155	9,533	9,533	9,533	9,533
REPAIR COST TOTAL		10,680	13,508	13,508	13,508	13,508
OTHER COST TOTAL		6,187	6,187	6,187	6,188	6,188
FIXED COST TOTAL	***	31,649	32,856	32,856	32,857	32,857
SMP COST TOTAL	****	350,471	352,936	352,803	352,954	351,185

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- BAR -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
BAR BILLET COST		115,793	122,631	130,812	144,348	135,198	135,137
P.BILLET COST		0	0	0	6,515	0	0
SUB TOTAL	*	115,793	122,631	130,812	150,864	135,198	135,137
MANUFACTURING SUPLLIES COST		1,632	1,754	1,883	1,967	1,967	1,967
RAW MAT & SUPPLIES C TOTAL	**	117,425	124,385	132,695	152,831	137,165	137,104
BY-PRODUCT							
SCRAP COST		1,901	2,048	2,218	2,282	2,282	2,282
SCALE BAR		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		771	831	895	960	923	923
NATURAL GAS		1,466	1,568	1,676	1,715	1,714	1,714
O2N2		167	171	176	386	321	319
COMPRESSED AIR		0	0	0	0	0	0
WATER		99	104	109	200	152	151
UTILITIES COST TOTAL	**	2,502	2,674	2,855	3,261	3,110	3,107
VARIABLE COST TOTAL	***	118,025	125,011	133,332	153,809	137,993	137,929
FIXED COST							
LABOR COST TOTAL		924	970	1,019	1,049	1,049	1,049
DEPRECIATION TOTAL		3,047	3,033	3,033	3,033	3,034	3,033
REPAIR COST TOTAL		1,238	1,287	1,337	1,089	1,089	1,089
OTHER COST TOTAL		941	916	955	1,157	1,054	1,045
FIXED COST TOTAL	***	6,150	6,207	6,344	6,327	6,225	6,216
BAR COST TOTAL	****	124,176	131,218	139,676	160,136	144,219	144,144

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- BAR -

(UNIT : 1,000US$)

		1999	2000	2001	2002	2003	2004
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
BAR BILLET COST		134,516	135,186	133,558	131,916	135,146	135,195
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	134,516	135,186	133,558	131,916	135,146	135,195
MANUFACTURING SUPLLIES COST		1,967	1,967	1,967	1,967	1,967	1,967
RAW MAT & SUPPLIES C TOTAL	**	136,483	137,153	135,525	133,883	137,113	137,162
BY-PRODUCT							
SCRAP COST		2,282	2,282	2,282	2,282	2,282	2,282
SCALE BAR		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		923	923	914	910	923	923
NATURAL GAS		1,714	1,714	1,713	1,712	1,714	1,714
O2N2		319	319	291	279	317	317
COMPRESSED AIR		0	0	0	0	0	0
WATER		151	151	141	136	149	149
UTILITIES COST TOTAL	**	3,107	3,107	3,059	3,037	3,103	3,103
VARIABLE COST TOTAL	***	137,308	137,978	136,302	134,638	137,933	137,982
FIXED COST							
LABOR COST TOTAL		1,049	1,049	1,049	1,049	1,049	1,049
DEPRECIATION TOTAL		3,033	3,033	2,339	1,636	1,636	1,636
REPAIR COST TOTAL		1,089	1,089	1,088	1,087	2,462	2,462
OTHER COST TOTAL		1,045	1,045	1,018	1,003	1,049	1,048
FIXED COST TOTAL	***	6,216	6,215	5,493	4,775	6,195	6,195
BAR COST TOTAL	****	143,523	144,193	141,795	139,413	144,128	144,177

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- BAR -

(UNIT : 1,000US$)

		2005	2006	2007	2008	2009	2010
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
BAR BILLET COST		135,202	135,196	134,524	135,145	135,202	135,196
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	135,202	135,196	134,524	135,145	135,202	135,196
MANUFACTURING SUPLLIES COST		1,967	1,967	1,967	1,967	1,967	1,967
RAW MAT & SUPPLIES C TOTAL	**	137,169	137,163	136,491	137,112	137,169	137,163
BY-PRODUCT							
SCRAP COST		2,282	2,282	2,282	2,282	2,282	2,282
SCALE BAR		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		923	923	923	923	923	923
NATURAL GAS		1,714	1,714	1,714	1,714	1,714	1,714
O2N2		317	317	317	317	317	317
COMPRESSED AIR		0	0	0	0	0	0
WATER		149	149	149	149	149	149
UTILITIES COST TOTAL	**	3,103	3,103	3,103	3,103	3,103	3,103
VARIABLE COST TOTAL	***	137,989	137,983	137,311	137,932	137,989	137,983
FIXED COST							
LABOR COST TOTAL		1,049	1,049	1,049	1,049	1,049	1,049
DEPRECIATION TOTAL		1,636	1,636	1,636	1,636	1,636	1,636
REPAIR COST TOTAL		2,462	2,462	2,462	2,462	2,462	2,462
OTHER COST TOTAL		1,049	1,049	1,049	1,048	1,049	1,049
FIXED COST TOTAL	***	6,195	6,195	6,195	6,195	6,195	6,195
BAR COST TOTAL	****	144,184	144,178	143,506	144,127	144,185	144,178

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- BAR -

(UNIT : 1,000US$)

		2011	2012	2013	2014	2015
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
BAR BILLET COST		134,278	135,223	135,172	135,230	134,552
P.BILLET COST		0	0	0	0	0
SUB TOTAL	*	134,278	135,223	135,172	135,230	134,552
MANUFACTURING SUPLLIES COST		1,967	1,967	1,967	1,967	1,967
RAW MAT & SUPPLIES C TOTAL	**	136,245	137,190	137,139	137,197	136,519
BY-PRODUCT						
SCRAP COST		2,282	2,282	2,282	2,282	2,282
SCALE BAR		0	0	0	0	0
UTILITIES						
ELECTRICITY		920	923	923	923	923
NATURAL GAS		1,714	1,714	1,714	1,714	1,714
O2N2		260	319	319	319	319
COMPRESSED AIR		0	0	0	0	0
WATER		128	147	147	147	147
UTILITIES COST TOTAL	**	3,021	3,102	3,102	3,102	3,102
VARIABLE COST TOTAL	***	136,984	138,009	137,958	138,016	137,338
FIXED COST						
LABOR COST TOTAL		1,049	1,049	1,049	1,049	1,049
DEPRECIATION TOTAL		1,636	1,636	1,636	1,636	1,636
REPAIR COST TOTAL		2,466	2,462	2,462	2,462	2,462
OTHER COST TOTAL		1,049	1,049	1,049	1,049	1,049
FIXED COST TOTAL	***	6,199	6,196	6,195	6,196	6,196
BAR COST TOTAL	****	143,183	144,205	144,153	144,212	143,534

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- ROD -

(UNIT : 1,000US$)

		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
ROD BILLET COST		115,020	118,393	122,842	113,525	209,356	218,639
P.BILLET COST		0	0	0	5,199	0	0
SUB TOTAL	*	115,020	118,393	122,842	118,724	209,356	218,639
MANUFACTURING SUPPLIES COST		1,618	1,690	1,765	1,544	3,040	3,176
RAW MAT & SUPPLIES C TOTAL	**	116,638	120,083	124,607	120,268	212,396	221,815
BY-PRODUCT							
SCRAP		1,374	1,443	1,515	1,294	2,561	2,672
SCALE ROD		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		1,376	1,441	1,510	1,327	2,441	2,549
NATURAL GAS		1,267	1,317	1,370	1,149	2,191	2,289
O2N2		27	27	27	49	77	81
COMPRESSED AIR		0	0	0	0	0	0
WATER		153	156	159	281	507	525
UTILITIES COST TOTAL	**	2,823	2,941	3,065	2,806	5,216	5,444
VARIABLE COST TOTAL	***	118,086	121,581	126,157	121,780	215,051	224,587
FIXED COST							
LABOR COST TOTAL		742	779	818	1,132	1,132	1,132
DEPRECIATION TOTAL		4,309	4,292	4,292	5,669	7,597	7,597
REPAIR COST TOTAL		1,436	1,493	1,551	2,504	2,503	2,503
OTHER COST TOTAL		1,149	1,145	1,182	1,342	1,575	1,587
FIXED COST TOTAL	***	7,637	7,709	7,843	10,646	12,806	12,819
ROD COST TOTAL	****	125,723	129,290	134,001	132,426	227,857	237,406

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- ROD -

(UNIT : 1,000US$)

		1999	2000	2001	2002	2003	2004
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
ROD BILLET COST		217,634	218,719	216,084	213,427	218,653	218,732
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	217,634	218,719	216,084	213,427	218,653	218,732
MANUFACTURING SUPPLIES COST		3,176	3,176	3,176	3,176	3,176	3,176
RAW MAT & SUPPLIES C TOTAL	**	220,810	221,895	219,260	216,603	221,829	221,908
BY-PRODUCT							
SCRAP		2,672	2,672	2,672	2,672	2,672	2,672
SCALE ROD		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		2,549	2,549	2,525	2,513	2,549	2,549
NATURAL GAS		2,289	2,289	2,288	2,287	2,289	2,289
O2N2		81	81	73	70	80	80
COMPRESSED AIR		0	0	0	0	0	0
WATER		525	525	491	475	519	519
UTILITIES COST TOTAL	**	5,444	5,444	5,378	5,346	5,436	5,436
VARIABLE COST TOTAL	***	223,582	224,667	221,966	219,277	224,593	224,673
FIXED COST							
LABOR COST TOTAL		1,132	1,132	1,132	1,132	1,132	1,132
DEPRECIATION TOTAL		7,597	7,597	7,617	5,177	5,600	6,004
REPAIR COST TOTAL		2,503	2,504	2,501	2,500	2,502	4,096
OTHER COST TOTAL		1,587	1,586	1,560	1,546	1,591	1,590
FIXED COST TOTAL	***	12,819	12,818	12,809	10,354	10,824	12,821
ROD COST TOTAL	****	236,401	237,485	234,775	229,631	235,417	237,494

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- ROD -

(UNIT : 1,000US$)

		2005	2006	2007	2008	2009	2010
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
ROD BILLET COST		218,744	218,734	217,647	218,651	218,744	218,734
P.BILLET COST		0	0	0	0	0	0
SUB TOTAL	*	218,744	218,734	217,647	218,651	218,744	218,734
MANUFACTURING SUPPLIES COST		3,176	3,176	3,176	3,176	3,176	3,176
RAW MAT & SUPPLIES C TOTAL	**	221,920	221,910	220,823	221,827	221,920	221,910
BY-PRODUCT							
SCRAP		2,672	2,672	2,672	2,672	2,672	2,672
SCALE ROD		0	0	0	0	0	0
UTILITIES							
ELECTRICITY		2,549	2,549	2,549	2,549	2,549	2,549
NATURAL GAS		2,289	2,289	2,289	2,289	2,289	2,289
O2N2		80	80	80	80	80	80
COMPRESSED AIR		0	0	0	0	0	0
WATER		519	519	519	519	519	519
UTILITIES COST TOTAL	**	5,436	5,436	5,436	5,436	5,436	5,436
VARIABLE COST TOTAL	***	224,684	224,674	223,587	224,592	224,685	224,674
FIXED COST							
LABOR COST TOTAL		1,132	1,132	1,132	1,132	1,132	1,132
DEPRECIATION TOTAL		6,005	6,005	6,005	6,004	6,004	6,004
REPAIR COST TOTAL		4,095	4,095	4,095	4,096	4,095	4,095
OTHER COST TOTAL		1,591	1,591	1,591	1,590	1,591	1,591
FIXED COST TOTAL	***	12,822	12,823	12,823	12,821	12,822	12,822
ROD COST TOTAL	****	237,507	237,497	236,410	237,413	237,506	237,496

CASE 1-2
UPDATE-2 WITH ESCALATION

MANUFACTURING COST SHEET(AMOUNT)
- ROD -

(UNIT : 1,000US$)

		2011	2012	2013	2014	2015
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
ROD BILLET COST		217,249	218,777	218,695	218,788	217,692
P.BILLET COST		0	0	0	0	0
SUB TOTAL	*	217,249	218,777	218,695	218,788	217,692
MANUFACTURING SUPPLIES COST		3,176	3,176	3,176	3,176	3,176
RAW MAT & SUPPLIES C TOTAL	**	220,425	221,953	221,871	221,964	220,868
BY-PRODUCT						
SCRAP		2,672	2,672	2,672	2,672	2,672
SCALE ROD		0	0	0	0	0
UTILITIES						
ELECTRICITY		2,541	2,549	2,549	2,549	2,549
NATURAL GAS		2,289	2,289	2,289	2,289	2,289
O2N2		65	80	80	80	80
COMPRESSED AIR		0	0	0	0	0
WATER		445	511	511	511	511
UTILITIES COST TOTAL	**	5,340	5,430	5,430	5,430	5,430
VARIABLE COST TOTAL	***	223,094	224,711	224,628	224,722	223,625
FIXED COST						
LABOR COST TOTAL		1,132	1,132	1,132	1,132	1,132
DEPRECIATION TOTAL		5,368	4,478	4,478	4,478	4,478
REPAIR COST TOTAL		4,105	5,660	5,660	5,660	5,660
OTHER COST TOTAL		1,591	1,591	1,591	1,591	1,591
FIXED COST TOTAL	***	12,195	12,861	12,861	12,861	12,861
ROD COST TOTAL	****	235,289	237,572	237,489	237,583	236,487

MANUFACTURING

COST SHEET

CASE 0-1

EXISTING WITHOUT ESCALATION

CASE 0-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- DRP -

(UNIT : US$/DRI TON)

	1993	1994	1995	1996	1997	1998
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
PELLET UNIT PRICE	43.430	43.430	43.430	43.430	43.430	43.430
PELLET UNIT CONSUMPTION	1.520	1.520	1.520	1.520	1.520	1.520
PELLET COST	66.014	66.014	66.014	66.014	66.014	66.014
SUB TOTAL *	66.014	66.014	66.014	66.014	66.014	66.014
MANUFACTURING SUPPLIES COST	.882	.882	.882	.882	.882	.882
RAW MAT & SUPPLIES C TOTAL **	66.896	66.896	66.896	66.896	66.896	66.896
BY-PRODUCT						
OXIDE FINES UNIT CONSUMPTION	.060	.060	.060	.060	.060	.060
OXIDE THICKNER UNIT CONSUMPTION	.025	.025	.025	.025	.025	.025
UTILITIES						
ELECT UNIT PRICE	.023	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	110.000	110.000	110.000	110.000	110.000	110.000
ELECTRICITY COST	2.529	2.529	2.529	2.529	2.529	2.529
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	290.000	290.000	290.000	290.000	290.000	290.000
NATURAL GAS COST	22.275	22.275	22.274	22.274	22.274	22.274
O2N2 UNIT PRICE	.134	.134	.134	.134	.134	.134
O2N2 UNIT CONSUMPTION	2.000	2.000	2.000	2.000	2.000	2.000
O2N2 COST	.267	.267	.267	.267	.267	.267
COMP AIR UNIT PRICE	.003	.003	.003	.003	.003	.003
COMP AIR UNIT CONSUMPTION	18.000	18.000	18.000	18.000	18.000	18.000
COMPRESSED AIR COST	.053	.052	.051	.051	.051	.051
WATER UNIT PRICE	.502	.501	.501	.501	.501	.501
WATER UNIT CONSUMPTION	1.500	1.500	1.500	1.500	1.500	1.500
WATER COST	.753	.752	.751	.751	.751	.751
UTILITIES COST TOTAL **	25.877	25.875	25.873	25.873	25.873	25.873
VARIABLE COST TOTAL ***	92.773	92.771	92.769	92.769	92.769	92.769

FIXED COST

LABOR COST		.881	.881	.881	.881	.881	.881
DEPRECIATION COST		7.925	7.903	7.903	7.901	7.903	7.903
REPAIR COST		3.218	3.219	3.219	3.219	3.219	3.219
S REPAIR COST		1.980	1.980	1.980	1.980	1.980	1.980
OTHER COST		8.826	8.405	8.406	8.405	8.405	8.406
FIXED COST TOTAL	***	22.829	22.388	22.389	22.386	22.388	22.389
DRP COST TOTAL	****	115.602	115.159	115.157	115.154	115.157	115.157
DRI PRODUCTION		776,400	776,400	776,400	776,400	776,400	776,400

CASE 0-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- DRP -

(UNIT : US$/DRI TON)

	1999	2000	2001	2002	2003	2004
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
PELLET UNIT PRICE	43.430	43.430	43.430	43.430	43.430	43.430
PELLET UNIT CONSUMPTION	1.520	1.520	1.520	1.520	1.520	1.520
PELLET COST	66.014	66.014	66.014	66.014	66.014	66.014
SUB TOTAL *	66.014	66.014	66.014	66.014	66.014	66.014
MANUFACTURING SUPPLIES COST	.882	.882	.882	.882	.882	.882
RAW MAT & SUPPLIES C TOTAL **	66.896	66.896	66.896	66.896	66.896	66.896
BY-PRODUCT						
OXIDE FINES UNIT CONSUMPTION	.060	.060	.060	.060	.060	.060
OXIDE THICKNER UNIT CONSUMPTION	.025	.025	.025	.025	.025	.025
UTILITIES						
ELECT UNIT PRICE	.023	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	110.000	110.000	110.000	110.000	110.000	110.000
ELECTRICITY COST	2.529	2.529	2.496	2.480	2.523	2.523
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	290.000	290.000	290.000	290.000	290.000	290.000
NATURAL GAS COST	22.274	22.274	22.256	22.249	22.267	22.267
O2N2 UNIT PRICE	.134	.134	.112	.102	.127	.127
O2N2 UNIT CONSUMPTION	2.000	2.000	2.000	2.000	2.000	2.000
O2N2 COST	.267	.267	.223	.204	.254	.254
COMP AIR UNIT PRICE	.003	.003	.002	.002	.003	.003
COMP AIR UNIT CONSUMPTION	18.000	18.000	18.000	18.000	18.000	18.000
COMPRESSED AIR COST	.051	.051	.041	.037	.049	.049
WATER UNIT PRICE	.501	.501	.437	.406	.488	.488
WATER UNIT CONSUMPTION	1.500	1.500	1.500	1.500	1.500	1.500
WATER COST	.751	.751	.655	.609	.732	.732
UTILITIES COST TOTAL **	25.873	25.873	25.673	25.579	25.825	25.825
VARIABLE COST TOTAL ***	92.769	92.769	92.568	92.474	92.720	92.720
FIXED COST						

LABOR COST		.881	.881	.881	.881	.881	.881
DEPRECIATION COST		7.903	7.901	7.321	4.244	4.244	4.241
REPAIR COST		3.219	3.219	3.200	3.191	6.437	6.437
S REPAIR COST		.000	1.980	1.980	1.980	1.980	1.980
OTHER COST		8.406	8.405	8.366	8.345	8.403	8.403
FIXED COST TOTAL	***	20.409	22.386	21.747	18.640	21.945	21.942
DRP COST TOTAL	****	113.178	115.154	114.316	111.115	114.665	114.663
DRI PRODUCTION		776,400	776,400	776,400	776,400	776,400	776,400

CASE 0-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- DRP -

(UNIT : US$/DRI TON)

	2005	2006	2007	2008	2009	2010
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
PELLET UNIT PRICE	43.430	43.430	43.430	43.430	43.430	43.430
PELLET UNIT CONSUMPTION	1.520	1.520	1.520	1.520	1.520	1.520
PELLET COST	66.014	66.014	66.014	66.014	66.014	66.014
SUB TOTAL *	66.014	66.014	66.014	66.014	66.014	66.014
MANUFACTURING SUPPLIES COST	.882	.882	.882	.882	.882	.882
RAW MAT & SUPPLIES C TOTAL **	66.896	66.896	66.896	66.896	66.896	66.896
BY-PRODUCT						
OXIDE FINES UNIT CONSUMPTION	.060	.060	.060	.060	.060	.060
OXIDE THICKNER UNIT CONSUMPTION	.025	.025	.025	.025	.025	.025
UTILITIES						
ELECT UNIT PRICE	.023	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	110.000	110.000	110.000	110.000	110.000	110.000
ELECTRICITY COST	2.523	2.523	2.523	2.523	2.523	2.523
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	290.000	290.000	290.000	290.000	290.000	290.000
NATURAL GAS COST	22.267	22.267	22.267	22.267	22.267	22.267
O2N2 UNIT PRICE	.127	.127	.127	.127	.127	.127
O2N2 UNIT CONSUMPTION	2.000	2.000	2.000	2.000	2.000	2.000
O2N2 COST	.254	.254	.254	.254	.254	.254
COMP AIR UNIT PRICE	.003	.003	.003	.003	.003	.003
COMP AIR UNIT CONSUMPTION	18.000	18.000	18.000	18.000	18.000	18.000
COMPRESSED AIR COST	.049	.049	.049	.049	.049	.049
WATER UNIT PRICE	.488	.488	.488	.488	.488	.488
WATER UNIT CONSUMPTION	1.500	1.500	1.500	1.500	1.500	1.500
WATER COST	.732	.732	.732	.732	.732	.732
UTILITIES COST TOTAL **	25.825	25.825	25.825	25.825	25.825	25.825
VARIABLE COST TOTAL ***	92.720	92.720	92.720	92.720	92.720	92.720
FIXED COST						

LABOR COST		.881	.881	.881	.881	.881	.881
DEPRECIATION COST		4.266	4.244	4.244	4.241	4.266	4.244
REPAIR COST		6.437	6.437	6.437	6.437	6.437	6.437
S REPAIR COST		1.980	1.980	.000	1.980	1.980	1.980
OTHER COST		8.403	8.403	8.403	8.403	8.403	8.403
FIXED COST TOTAL	***	21.967	21.945	19.965	21.942	21.967	21.945
DRP COST TOTAL	****	114.687	114.665	112.685	114.663	114.687	114.665
DRI PRODUCTION		776,400	776,400	776,400	776,400	776,400	776,400

CASE 0-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- DRP -

(UNIT : US$/DRI TON)

	2011	2012	2013	2014	2015
VARIABLE COST					
RAW MATERIAL & SUPPLIES					
PELLET UNIT PRICE	43.430	43.430	43.430	43.430	43.430
PELLET UNIT CONSUMPTION	1.520	1.520	1.520	1.520	1.520
PELLET COST	66.014	66.014	66.014	66.014	66.014
SUB TOTAL *	66.014	66.014	66.014	66.014	66.014
MANUFACTURING SUPPLIES COST	.882	.882	.882	.882	.882
RAW MAT & SUPPLIES C TOTAL **	66.896	66.896	66.896	66.896	66.896
BY-PRODUCT					
OXIDE FINES UNIT CONSUMPTION	.060	.060	.060	.060	.060
OXIDE THICKNER UNIT CONSUMPTION	.025	.025	.025	.025	.025
UTILITIES					
ELECT UNIT PRICE	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	110.000	110.000	110.000	110.000	110.000
ELECTRICITY COST	2.523	2.523	2.523	2.523	2.523
N GAS UNIT PRICE	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	290.000	290.000	290.000	290.000	290.000
NATURAL GAS COST	22.267	22.267	22.267	22.267	22.267
O2N2 UNIT PRICE	.127	.127	.127	.127	.127
O2N2 UNIT CONSUMPTION	2.000	2.000	2.000	2.000	2.000
O2N2 COST	.254	.254	.254	.254	.254
COMP AIR UNIT PRICE	.003	.003	.003	.003	.003
COMP AIR UNIT CONSUMPTION	18.000	18.000	18.000	18.000	18.000
COMPRESSED AIR COST	.049	.049	.049	.049	.049
WATER UNIT PRICE	.488	.488	.488	.488	.488
WATER UNIT CONSUMPTION	1.500	1.500	1.500	1.500	1.500
WATER COST	.732	.732	.732	.732	.732
UTILITIES COST TOTAL **	25.825	25.825	25.825	25.825	25.825
VARIABLE COST TOTAL ***	92.720	92.720	92.720	92.720	92.720
FIXED COST					

LABOR COST		.881	.881	.881	.881	.881
DEPRECIATION COST		4.244	4.241	4.266	4.244	4.244
REPAIR COST		6.437	6.437	6.437	6.437	6.437
S REPAIR COST		1.980	1.980	1.980	1.980	.000
OTHER COST		8.403	8.403	8.403	8.403	8.403
FIXED COST TOTAL	***	21.945	21.942	21.967	21.945	19.965
DRP COST TOTAL	****	114.665	114.662	114.687	114.665	112.686
DRI PRODUCTION		776,400	776,400	776,400	776,400	776,400

CASE 0-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- LCP -

(UNIT : US$/LCP TON)

	1993	1994	1995	1996	1997	1998
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
LIME STONE UNIT PRICE	5.910	5.910	5.910	5.910	5.910	5.910
LIME STONE UNIT CONSUMPTION	2.000	2.000	2.000	2.000	2.000	2.000
LIME STONE COST	11.820	11.820	11.820	11.820	11.820	11.820
SUB TOTAL *	11.820	11.820	11.820	11.820	11.820	11.820
MANUFACTURING SUPPLIES COST	.122	.122	.122	.122	.122	.122
RAW MAT & SUPPLIES C TOTAL **	11.942	11.942	11.942	11.942	11.942	11.942
BY-PRODUCT						
LIME FINES UNIT CONSUMPTION	.020	.020	.020	.020	.020	.020
LIME STONE FINES UNIT CONSUMPTIO	.150	.150	.150	.150	.150	.150
UTILITIES						
ELECT UNIT PRICE	.023	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	60.000	60.000	60.000	60.000	60.000	60.000
ELECTRICITY COST	1.380	1.379	1.379	1.379	1.379	1.379
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	95.000	95.000	95.000	95.000	95.000	95.000
NATURAL GAS COST	7.297	7.297	7.297	7.297	7.297	7.297
O2N2 UNIT PRICE	.134	.134	.134	.134	.134	.134
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.003	.003	.003	.003	.003	.003
COMP AIR UNIT CONSUMPTION	70.000	70.000	70.000	70.000	70.000	70.000
COMPRESSED AIR COST	.206	.203	.200	.200	.200	.200
WATER UNIT PRICE	.502	.501	.501	.501	.501	.501
WATER UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
WATER COST	.000	.000	.000	.000	.000	.000
UTILITIES COST TOTAL **	8.882	8.879	8.876	8.876	8.876	8.876
VARIABLE COST TOTAL ***	20.824	20.821	20.817	20.817	20.817	20.817

FIXED COST

LABOR COST		3.476	3.476	3.476	3.476	3.476	3.476
DEPRECIATION COST		8.345	8.297	8.297	8.297	8.297	8.297
REPAIR COST		3.810	3.812	3.812	3.812	3.812	3.812
S REPAIR COST		.000	2.871	2.871	2.871	2.871	.000
OTHER COST		9.701	8.708	8.718	8.712	8.717	8.718
FIXED COST TOTAL	***	25.333	27.164	27.174	27.168	27.173	24.303
LCP COST TOTAL	****	46.157	47.985	47.991	47.986	47.990	45.120
B.LIME PRODUCTION		41,100	41,100	41,100	41,100	41,100	41,100

CASE 0-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- LCP -

(UNIT : US$/LCP TON)

	1999	2000	2001	2002	2003	2004
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
LIME STONE UNIT PRICE	5.910	5.910	5.910	5.910	5.910	5.910
LIME STONE UNIT CONSUMPTION	2.000	2.000	2.000	2.000	2.000	2.000
LIME STONE COST	11.820	11.820	11.820	11.820	11.820	11.820
SUB TOTAL *	11.820	11.820	11.820	11.820	11.820	11.820
MANUFACTURING SUPPLIES COST	.122	.122	.122	.122	.122	.122
RAW MAT & SUPPLIES C TOTAL **	11.942	11.942	11.942	11.942	11.942	11.942
BY-PRODUCT						
LIME FINES UNIT CONSUMPTION	.020	.020	.020	.020	.020	.020
LIME STONE FINES UNIT CONSUMPTIO	.150	.150	.150	.150	.150	.150
UTILITIES						
ELECT UNIT PRICE	.023	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	60.000	60.000	60.000	60.000	60.000	60.000
ELECTRICITY COST	1.379	1.379	1.362	1.353	1.376	1.376
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	95.000	95.000	95.000	95.000	95.000	95.000
NATURAL GAS COST	7.297	7.297	7.291	7.288	7.294	7.294
O2N2 UNIT PRICE	.134	.134	.112	.102	.127	.127
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.003	.003	.002	.002	.003	.003
COMP AIR UNIT CONSUMPTION	70.000	70.000	70.000	70.000	70.000	70.000
COMPRESSED AIR COST	.200	.200	.161	.144	.190	.190
WATER UNIT PRICE	.501	.501	.437	.406	.488	.488
WATER UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
WATER COST	.000	.000	.000	.000	.000	.000
UTILITIES COST TOTAL **	8.876	8.876	8.813	8.785	8.861	8.861
VARIABLE COST TOTAL ***	20.817	20.817	20.755	20.727	20.802	20.802
FIXED COST						

LABOR COST		3.476	3.476	3.476	3.476	3.476	3.476
DEPRECIATION COST		8.297	8.297	6.204	5.036	5.012	5.012
REPAIR COST		3.812	3.812	3.789	3.779	7.622	7.622
S REPAIR COST		2.871	2.871	2.871	2.871	.000	2.871
OTHER COST		8.718	8.712	8.082	7.754	8.726	8.721
FIXED COST TOTAL	***	27.174	27.168	24.423	22.917	24.837	27.702
LCP COST TOTAL	****	47.991	47.986	45.177	43.644	45.639	48.505
B.LIME PRODUCTION		41,100	41,100	41,100	41,100	41,100	41,100

CASE 0-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- LCP -

(UNIT : US$/LCP TON)

	2005	2006	2007	2008	2009	2010
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
LIME STONE UNIT PRICE	5.910	5.910	5.910	5.910	5.910	5.910
LIME STONE UNIT CONSUMPTION	2.000	2.000	2.000	2.000	2.000	2.000
LIME STONE COST	11.820	11.820	11.820	11.820	11.820	11.820
SUB TOTAL *	11.820	11.820	11.820	11.820	11.820	11.820
MANUFACTURING SUPPLIES COST	.122	.122	.122	.122	.122	.122
RAW MAT & SUPPLIES C TOTAL **	11.942	11.942	11.942	11.942	11.942	11.942
BY-PRODUCT						
LIME FINES UNIT CONSUMPTION	.020	.020	.020	.020	.020	.020
LIME STONE FINES UNIT CONSUMPTIO	.150	.150	.150	.150	.150	.150
UTILITIES						
ELECT UNIT PRICE	.023	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	60.000	60.000	60.000	60.000	60.000	60.000
ELECTRICITY COST	1.376	1.376	1.376	1.376	1.376	1.376
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	95.000	95.000	95.000	95.000	95.000	95.000
NATURAL GAS COST	7.294	7.294	7.294	7.294	7.294	7.294
O2N2 UNIT PRICE	.127	.127	.127	.127	.127	.127
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.003	.003	.003	.003	.003	.003
COMP AIR UNIT CONSUMPTION	70.000	70.000	70.000	70.000	70.000	70.000
COMPRESSED AIR COST	.190	.190	.190	.190	.190	.190
WATER UNIT PRICE	.488	.488	.488	.488	.488	.488
WATER UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
WATER COST	.000	.000	.000	.000	.000	.000
UTILITIES COST TOTAL **	8.861	8.861	8.861	8.861	8.861	8.861
VARIABLE COST TOTAL ***	20.802	20.802	20.802	20.802	20.802	20.802

FIXED COST

LABOR COST		3.476	3.476	3.476	3.476	3.476	3.476
DEPRECIATION COST		5.012	5.012	5.012	5.012	5.012	5.012
REPAIR COST		7.622	7.622	7.622	7.622	7.622	7.622
S REPAIR COST		2.871	2.871	2.871	.000	2.871	2.871
OTHER COST		8.726	8.726	8.725	8.721	8.726	8.726
FIXED COST TOTAL	***	27.707	27.708	27.707	24.831	27.708	27.708
LCP COST TOTAL	****	48.509	48.510	48.509	45.634	48.510	48.510
B.LIME PRODUCTION		41,100	41,100	41,100	41,100	41,100	41,100

CASE 0-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- LCP -

(UNIT : US$/LCP TON)

	2011	2012	2013	2014	2015
VARIABLE COST					
RAW MATERIAL & SUPPLIES					
LIME STONE UNIT PRICE	5.910	5.910	5.910	5.910	5.910
LIME STONE UNIT CONSUMPTION	2.000	2.000	2.000	2.000	2.000
LIME STONE COST	11.820	11.820	11.820	11.820	11.820
SUB TOTAL *	11.820	11.820	11.820	11.820	11.820
MANUFACTURING SUPPLIES COST	.122	.122	.122	.122	.122
RAW MAT & SUPPLIES C TOTAL **	11.942	11.942	11.942	11.942	11.942
BY-PRODUCT					
LIME FINES UNIT CONSUMPTION	.020	.020	.020	.020	.020
LIME STONE FINES UNIT CONSUMPTIO	.150	.150	.150	.150	.150
UTILITIES					
ELECT UNIT PRICE	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	60.000	60.000	60.000	60.000	60.000
ELECTRICITY COST	1.376	1.376	1.376	1.376	1.376
N GAS UNIT PRICE	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	95.000	95.000	95.000	95.000	95.000
NATURAL GAS COST	7.294	7.294	7.294	7.294	7.294
O2N2 UNIT PRICE	.127	.127	.127	.127	.127
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.003	.003	.003	.003	.003
COMP AIR UNIT CONSUMPTION	70.000	70.000	70.000	70.000	70.000
COMPRESSED AIR COST	.190	.190	.190	.190	.190
WATER UNIT PRICE	.488	.488	.488	.488	.488
WATER UNIT CONSUMPTION	.000	.000	.000	.000	.000
WATER COST	.000	.000	.000	.000	.000
UTILITIES COST TOTAL **	8.861	8.861	8.861	8.861	8.861
VARIABLE COST TOTAL ***	20.802	20.802	20.802	20.802	20.802

FIXED COST

LABOR COST		3.476	3.476	3.476	3.476	3.476
DEPRECIATION COST		5.012	5.012	5.012	5.012	5.012
REPAIR COST		7.622	7.622	7.622	7.622	7.622
S REPAIR COST		2.871	2.871	.000	2.871	2.871
OTHER COST		8.726	8.721	8.725	8.726	8.726
FIXED COST TOTAL	***	27.708	27.702	24.835	27.708	27.708
LCP COST TOTAL	****	48.510	48.505	45.638	48.510	48.510
B.LIME PRODUCTION		41,100	41,100	41,100	41,100	41,100

CASE 0-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- SMP -

(UNIT : US$/SMP TON)

	1993	1994	1995	1996	1997	1998
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
DRI UNIT PRICE	115.602	115.159	115.157	115.154	115.157	115.157
DRI UNIT CONSUMPTION	.678	.678	.678	.678	.678	.678
DRI COST	78.353	78.053	78.052	78.050	78.051	78.052
B LIME UNIT PRICE	46.157	47.985	47.991	47.986	47.990	45.120
B LIME UNIT CONSUMPTION	.036	.036	.036	.036	.036	.036
B LIME COST	1.656	1.722	1.722	1.722	1.722	1.619
SCRAP UNIT PRICE	122.978	122.962	122.944	122.944	122.944	122.944
SCRAP UNIT CONSUMPTION	.283	.283	.283	.283	.283	.283
SCRAP COST	34.803	34.798	34.793	34.793	34.793	34.793
FESI PRICE	537.950	537.950	537.950	537.950	537.950	537.950
FESI UNIT CONSUMPTION	.004	.004	.004	.004	.004	.004
FESI COST	2.098	2.098	2.098	2.098	2.098	2.098
AL PRICE	1,611.940	1,611.940	1,611.940	1,611.940	1,611.940	1,611.940
AL UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
AL COST	.161	.161	.161	.161	.161	.161
COKE BREEZE PRICE	95.190	95.190	95.190	95.190	95.190	95.190
COKE BREEZE UNIT CONSUMPTION	.005	.005	.005	.005	.005	.005
COKE BREEZE COST	.476	.476	.476	.476	.476	.476
ELECTRODE PRICE	2,512.440	2,512.440	2,512.440	2,512.440	2,512.440	2,512.440
ELECTRODE UNIT CONSUMPTION	.004	.004	.004	.004	.004	.004
ELECTRODE COST	9.547	9.547	9.547	9.547	9.547	9.547
FURNACE BRICK PRICE	1,399.240	1,399.240	1,399.240	1,399.240	1,399.240	1,399.240
FURNACE BRICK UNIT CONSUMPTION	.001	.001	.001	.001	.001	.001
FURNACE BRICK COST	1.679	1.679	1.679	1.679	1.679	1.679
LADLE BRICK PRICE	1,047.570	1,047.570	1,047.570	1,047.570	1,047.570	1,047.570
LADLE BRICK UNIT CONSUMPTION	.003	.003	.003	.003	.003	.003
LADLE BRICK COST	3.143	3.143	3.143	3.143	3.143	3.143
TUNDISH BRICK PRICE	607.180	607.180	607.180	607.180	607.180	607.180
TUNDISH BRICK UNIT CONSUMPTION	.002	.002	.002	.002	.002	.002
TUNDISH BRICK COST	1.457	1.457	1.457	1.457	1.457	1.457

FETLING MAT PRICE	319.530	319.530	319.530	319.530	319.530	319.530
FETLING MAT UNIT CONSUMPTION	.011	.011	.011	.011	.011	.011
FETLING MAT COST	3.515	3.515	3.515	3.515	3.515	3.515
HBI PRICE	126.610	126.610	126.610	126.610	126.610	126.610
HBI UNIT CONSUMPTION	.170	.170	.170	.170	.170	.170
HBI COST	21.524	21.524	21.524	21.524	21.524	21.524
FEMN PRICE	534.900	534.900	534.900	534.900	534.900	534.900
FEMN UNIT CONSUMPTION	.011	.011	.011	.011	.011	.011
FEMN COST	5.937	5.937	5.937	5.937	5.937	5.937
FEV PRICE	12,629.520	12,629.520	12,629.520	12,629.520	12,629.520	12,629.520
FEV UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
FEV COST	.063	.063	.063	.063	.063	.063
DOLO PRICE	72.840	72.840	72.840	72.840	72.840	72.840
DOLO UNIT CONSUMPTION	.001	.001	.001	.001	.001	.001
DOLO COST	.058	.058	.058	.058	.058	.058
SUB TOTAL *	164.471	164.232	164.225	164.223	164.225	164.122
MANUFACTURING SUPLLIES COST	.812	.812	.812	.812	.812	.812
RAW MAT & SUPPLIES C TOTAL **	165.283	165.044	165.037	165.035	165.037	164.934
BY-PRODUCT						
SCRAP UNIT PRICE	118.240	118.240	118.240	118.240	118.240	118.240
SCRAP UNIT CONSUMPTION	.019	.019	.019	.019	.019	.019
SCRAP COST	2.261	2.261	2.261	2.261	2.261	2.261
DUST UNIT CONSUMPTION	.010	.010	.010	.010	.010	.010
SLAG UNIT CONSUMPTION	.153	.153	.153	.153	.153	.153
SCALE SMP UNIT CONSUMPTION	.005	.005	.005	.005	.005	.005
WASTE BRICK UNIT CONSUMPTION	.012	.012	.012	.012	.012	.012
UTILITIES						
ELECT UNIT PRICE	.023	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	690.000	690.000	690.000	690.000	690.000	690.000
ELECTRICITY COST	15.865	15.863	15.862	15.862	15.862	15.862
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	4.000	4.000	4.000	4.000	4.000	4.000
NATURAL GAS COST	.307	.307	.307	.307	.307	.307
O2N2 UNIT PRICE	.134	.134	.134	.134	.134	.134
O2N2 UNIT CONSUMPTION	1.000	1.000	1.000	1.000	1.000	1.000
O2N2 COST	.134	.134	.134	.134	.134	.134
COMP AIR UNIT PRICE	.003	.003	.003	.003	.003	.003
COMP AIR UNIT CONSUMPTION	26.000	26.000	26.000	26.000	26.000	26.000
COMPRESSED AIR COST	.076	.075	.074	.074	.074	.074
WATER UNIT PRICE	.502	.501	.501	.501	.501	.501
WATER UNIT CONSUMPTION	.800	.800	.800	.800	.800	.800
WATER COST	.402	.401	.400	.400	.400	.400

UTILITIES COST TOTAL	**	16.784	16.781	16.777	16.777	16.777	16.777
VARIABLE COST TOTAL	***	179.806	179.564	179.554	179.552	179.554	179.451
FIXED COST							
LABOR COST		2.018	2.018	2.018	2.018	2.018	2.018
DEPRICIATION COST		9.866	9.815	9.815	9.815	9.815	9.815
REPAIR COST		3.582	3.584	3.584	3.583	3.583	3.583
OTHER COST		5.490	4.171	4.171	4.232	4.231	4.233
FIXED COST TOTAL	***	20.955	19.587	19.588	19.648	19.647	19.649
SMP COST TOTAL	****	200.761	199.151	199.142	199.200	199.201	199.100
BILLT PRODUCTION		1,145,500	1,145,500	1,145,500	1,145,500	1,145,500	1,145,500

CASE 0-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- SMP -

(UNIT : US$/SMP TON)

	1999	2000	2001	2002	2003	2004
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
DRI UNIT PRICE	113.178	115.154	114.316	111.115	114.665	114.663
DRI UNIT CONSUMPTION	.678	.678	.678	.678	.678	.678
DRI COST	76.710	78.050	77.481	75.312	77.718	77.716
B LIME UNIT PRICE	47.991	47.986	45.177	43.644	45.639	48.505
B LIME UNIT CONSUMPTION	.036	.036	.036	.036	.036	.036
B LIME COST	1.722	1.722	1.621	1.566	1.638	1.740
SCRAP UNIT PRICE	122.944	122.944	122.944	122.944	122.944	122.944
SCRAP UNIT CONSUMPTION	.283	.283	.283	.283	.283	.283
SCRAP COST	34.793	34.793	34.793	34.793	34.793	34.793
FESI PRICE	537.950	537.950	537.950	537.950	537.950	537.950
FESI UNIT CONSUMPTION	.004	.004	.004	.004	.004	.004
FESI COST	2.098	2.098	2.098	2.098	2.098	2.098
AL PRICE	1,611.940	1,611.940	1,611.940	1,611.940	1,611.940	1,611.940
AL UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
AL COST	.161	.161	.161	.161	.161	.161
COKE BREEZE PRICE	95.190	95.190	95.190	95.190	95.190	95.190
COKE BREEZE UNIT CONSUMPTION	.005	.005	.005	.005	.005	.005
COKE BREEZE COST	.476	.476	.476	.476	.476	.476
ELECTRODE PRICE	2,512.440	2,512.440	2,512.440	2,512.440	2,512.440	2,512.440
ELECTRODE UNIT CONSUMPTION	.004	.004	.004	.004	.004	.004
ELECTRODE COST	9.547	9.547	9.547	9.547	9.547	9.547
FURNACE BRICK PRICE	1,399.240	1,399.240	1,399.240	1,399.240	1,399.240	1,399.240
FURNACE BRICK UNIT CONSUMPTION	.001	.001	.001	.001	.001	.001
FURNACE BRICK COST	1.679	1.679	1.679	1.679	1.679	1.679
LADLE BRICK PRICE	1,047.570	1,047.570	1,047.570	1,047.570	1,047.570	1,047.570
LADLE BRICK UNIT CONSUMPTION	.003	.003	.003	.003	.003	.003
LADLE BRICK COST	3.143	3.143	3.143	3.143	3.143	3.143
TUNDISH BRICK PRICE	607.180	607.180	607.180	607.180	607.180	607.180
TUNDISH BRICK UNIT CONSUMPTION	.002	.002	.002	.002	.002	.002
TUNDISH BRICK COST	1.457	1.457	1.457	1.457	1.457	1.457

FETLING MAT PRICE	319.530	319.530	319.530	319.530	319.530	319.530
FETLING MAT UNIT CONSUMPTION	.011	.011	.011	.011	.011	.011
FETLING MAT COST	3.515	3.515	3.515	3.515	3.515	3.515
HBI PRICE	126.610	126.610	126.610	126.610	126.610	126.610
HBI UNIT CONSUMPTION	.170	.170	.170	.170	.170	.170
HBI COST	21.524	21.524	21.524	21.524	21.524	21.524
FEMN PRICE	534.900	534.900	534.900	534.900	534.900	534.900
FEMN UNIT CONSUMPTION	.011	.011	.011	.011	.011	.011
FEMN COST	5.937	5.937	5.937	5.937	5.937	5.937
FEV PRICE	12,629.520	12,629.520	12,629.520	12,629.520	12,629.520	12,629.520
FEV UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
FEV COST	.063	.063	.063	.063	.063	.063
DOLO PRICE	72.840	72.840	72.840	72.840	72.840	72.840
DOLO UNIT CONSUMPTION	.001	.001	.001	.001	.001	.001
DOLO COST	.058	.058	.058	.058	.058	.058
SUB TOTAL *	162.884	164.223	163.554	161.329	163.808	163.908
MANUFACTURING SUPLLIES COST	.812	.812	.812	.812	.812	.812
RAW MAT & SUPPLIES C TOTAL **	163.695	165.035	164.366	162.141	164.619	164.720
BY-PRODUCT						
SCRAP UNIT PRICE	118.240	118.240	118.240	118.240	118.240	118.240
SCRAP UNIT CONSUMPTION	.019	.019	.019	.019	.019	.019
SCRAP COST	2.261	2.261	2.261	2.261	2.261	2.261
DUST UNIT CONSUMPTION	.010	.010	.010	.010	.010	.010
SLAG UNIT CONSUMPTION	.153	.153	.153	.153	.153	.153
SCALE SMP UNIT CONSUMPTION	.005	.005	.005	.005	.005	.005
WASTE BRICK UNIT CONSUMPTION	.012	.012	.012	.012	.012	.012
UTILITIES						
ELECT UNIT PRICE	.023	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	690.000	690.000	690.000	690.000	690.000	690.000
ELECTRICITY COST	15.862	15.862	15.659	15.559	15.825	15.825
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	4.000	4.000	4.000	4.000	4.000	4.000
NATURAL GAS COST	.307	.307	.307	.307	.307	.307
O2N2 UNIT PRICE	.134	.134	.112	.102	.127	.127
O2N2 UNIT CONSUMPTION	1.000	1.000	1.000	1.000	1.000	1.000
O2N2 COST	.134	.134	.112	.102	.127	.127
COMP AIR UNIT PRICE	.003	.003	.002	.002	.003	.003
COMP AIR UNIT CONSUMPTION	26.000	26.000	26.000	26.000	26.000	26.000
COMPRESSED AIR COST	.074	.074	.060	.054	.071	.071
WATER UNIT PRICE	.501	.501	.437	.406	.488	.488
WATER UNIT CONSUMPTION	.800	.800	.800	.800	.800	.800
WATER COST	.400	.400	.349	.325	.390	.390

UTILITIES COST TOTAL	**	16.777	16.777	16.486	16.346	16.720	16.720
VARIABLE COST TOTAL	***	178.212	179.552	178.591	176.227	179.079	179.180
FIXED COST							
LABOR COST		2.018	2.018	2.018	2.018	2.018	2.018
DEPRICIATION COST		9.815	9.815	7.117	5.764	5.764	5.764
REPAIR COST		3.583	3.583	3.562	3.552	7.165	7.165
OTHER COST		4.233	4.232	4.187	4.163	4.223	4.223
FIXED COST TOTAL	***	19.649	19.648	16.885	15.497	19.171	19.170
SMP COST TOTAL	****	197.861	199.200	195.476	191.724	198.250	198.350
BILLT PRODUCTION		1,145,500	1,145,500	1,145,500	1,145,500	1,145,500	1,145,500

CASE 0-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- SMP -

(UNIT : US$/SMP TON)

	2005	2006	2007	2008	2009	2010
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
DRI UNIT PRICE	114.687	114.665	112.685	114.663	114.687	114.665
DRI UNIT CONSUMPTION	.678	.678	.678	.678	.678	.678
DRI COST	77.733	77.718	76.376	77.716	77.733	77.718
B LIME UNIT PRICE	48.509	48.510	48.509	45.634	48.510	48.510
B LIME UNIT CONSUMPTION	.036	.036	.036	.036	.036	.036
B LIME COST	1.740	1.741	1.740	1.637	1.741	1.741
SCRAP UNIT PRICE	122.944	122.944	122.944	122.944	122.944	122.944
SCRAP UNIT CONSUMPTION	.283	.283	.283	.283	.283	.283
SCRAP COST	34.793	34.793	34.793	34.793	34.793	34.793
FESI PRICE	537.950	537.950	537.950	537.950	537.950	537.950
FESI UNIT CONSUMPTION	.004	.004	.004	.004	.004	.004
FESI COST	2.098	2.098	2.098	2.098	2.098	2.098
AL PRICE	1,611.940	1,611.940	1,611.940	1,611.940	1,611.940	1,611.940
AL UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
AL COST	.161	.161	.161	.161	.161	.161
COKE BREEZE PRICE	95.190	95.190	95.190	95.190	95.190	95.190
COKE BREEZE UNIT CONSUMPTION	.005	.005	.005	.005	.005	.005
COKE BREEZE COST	.476	.476	.476	.476	.476	.476
ELECTRODE PRICE	2,512.440	2,512.440	2,512.440	2,512.440	2,512.440	2,512.440
ELECTRODE UNIT CONSUMPTION	.004	.004	.004	.004	.004	.004
ELECTRODE COST	9.547	9.547	9.547	9.547	9.547	9.547
FURNACE BRICK PRICE	1,399.240	1,399.240	1,399.240	1,399.240	1,399.240	1,399.240
FURNACE BRICK UNIT CONSUMPTION	.001	.001	.001	.001	.001	.001
FURNACE BRICK COST	1.679	1.679	1.679	1.679	1.679	1.679
LADLE BRICK PRICE	1,047.570	1,047.570	1,047.570	1,047.570	1,047.570	1,047.570
LADLE BRICK UNIT CONSUMPTION	.003	.003	.003	.003	.003	.003
LADLE BRICK COST	3.143	3.143	3.143	3.143	3.143	3.143
TUNDISH BRICK PRICE	607.180	607.180	607.180	607.180	607.180	607.180
TUNDISH BRICK UNIT CONSUMPTION	.002	.002	.002	.002	.002	.002
TUNDISH BRICK COST	1.457	1.457	1.457	1.457	1.457	1.457

FETLING MAT PRICE	319.530	319.530	319.530	319.530	319.530	319.530
FETLING MAT UNIT CONSUMPTION	.011	.011	.011	.011	.011	.011
FETLING MAT COST	3.515	3.515	3.515	3.515	3.515	3.515
HBI PRICE	126.610	126.610	126.610	126.610	126.610	126.610
HBI UNIT CONSUMPTION	.170	.170	.170	.170	.170	.170
HBI COST	21.524	21.524	21.524	21.524	21.524	21.524
FEMN PRICE	534.900	534.900	534.900	534.900	534.900	534.900
FEMN UNIT CONSUMPTION	.011	.011	.011	.011	.011	.011
FEMN COST	5.937	5.937	5.937	5.937	5.937	5.937
FEV PRICE	12,629.520	12,629.520	12,629.520	12,629.520	12,629.520	12,629.520
FEV UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
FEV COST	.063	.063	.063	.063	.063	.063
DOLO PRICE	72.840	72.840	72.840	72.840	72.840	72.840
DOLO UNIT CONSUMPTION	.001	.001	.001	.001	.001	.001
DOLO COST	.058	.058	.058	.058	.058	.058
SUB TOTAL *	163.925	163.911	162.569	163.805	163.925	163.911
MANUFACTURING SUPLLIES COST	.812	.812	.812	.812	.812	.812
RAW MAT & SUPPLIES C TOTAL **	164.737	164.722	163.380	164.617	164.737	164.722
BY-PRODUCT						
SCRAP UNIT PRICE	118.240	118.240	118.240	118.240	118.240	118.240
SCRAP UNIT CONSUMPTION	.019	.019	.019	.019	.019	.019
SCRAP COST	2.261	2.261	2.261	2.261	2.261	2.261
DUST UNIT CONSUMPTION	.010	.010	.010	.010	.010	.010
SLAG UNIT CONSUMPTION	.153	.153	.153	.153	.153	.153
SCALE SMP UNIT CONSUMPTION	.005	.005	.005	.005	.005	.005
WASTE BRICK UNIT CONSUMPTION	.012	.012	.012	.012	.012	.012
UTILITIES						
ELECT UNIT PRICE	.023	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	690.000	690.000	690.000	690.000	690.000	690.000
ELECTRICITY COST	15.825	15.825	15.825	15.825	15.825	15.825
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	4.000	4.000	4.000	4.000	4.000	4.000
NATURAL GAS COST	.307	.307	.307	.307	.307	.307
O2N2 UNIT PRICE	.127	.127	.127	.127	.127	.127
O2N2 UNIT CONSUMPTION	1.000	1.000	1.000	1.000	1.000	1.000
O2N2 COST	.127	.127	.127	.127	.127	.127
COMP AIR UNIT PRICE	.003	.003	.003	.003	.003	.003
COMP AIR UNIT CONSUMPTION	26.000	26.000	26.000	26.000	26.000	26.000
COMPRESSED AIR COST	.071	.071	.071	.071	.071	.071
WATER UNIT PRICE	.488	.488	.488	.488	.488	.488
WATER UNIT CONSUMPTION	.800	.800	.800	.800	.800	.800
WATER COST	.390	.390	.390	.390	.390	.390

UTILITIES COST TOTAL	**	16.720	16.720	16.720	16.720	16.720	16.720
VARIABLE COST TOTAL	***	179.197	179.182	177.840	179.077	179.197	179.182
FIXED COST							
LABOR COST		2.018	2.018	2.018	2.018	2.018	2.018
DEPRICIATION COST		5.764	5.764	5.764	5.764	5.764	5.764
REPAIR COST		7.165	7.165	7.165	7.165	7.165	7.165
OTHER COST		4.223	4.223	4.222	4.223	4.223	4.223
FIXED COST TOTAL	***	19.170	19.171	19.169	19.170	19.171	19.171
SMP COST TOTAL	****	198.367	198.353	197.009	198.247	198.367	198.353
BILLT PRODUCTION		1,145,500	1,145,500	1,145,500	1,145,500	1,145,500	1,145,500

CASE 0-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- SMP -

(UNIT : US$/SMP TON)

	2011	2012	2013	2014	2015
VARIABLE COST					
RAW MATERIAL & SUPPLIES					
DRI UNIT PRICE	114.665	114.662	114.687	114.665	112.686
DRI UNIT CONSUMPTION	.678	.678	.678	.678	.678
DRI COST	77.718	77.716	77.733	77.718	76.377
B LIME UNIT PRICE	48.510	48.505	45.638	48.510	48.510
B LIME UNIT CONSUMPTION	.036	.036	.036	.036	.036
B LIME COST	1.741	1.740	1.637	1.741	1.741
SCRAP UNIT PRICE	122.944	122.944	122.944	122.944	122.944
SCRAP UNIT CONSUMPTION	.283	.283	.283	.283	.283
SCRAP COST	34.793	34.793	34.793	34.793	34.793
FESI PRICE	537.950	537.950	537.950	537.950	537.950
FESI UNIT CONSUMPTION	.004	.004	.004	.004	.004
FESI COST	2.098	2.098	2.098	2.098	2.098
AL PRICE	1,611.940	1,611.940	1,611.940	1,611.940	1,611.940
AL UNIT CONSUMPTION	.000	.000	.000	.000	.000
AL COST	.161	.161	.161	.161	.161
COKE BREEZE PRICE	95.190	95.190	95.190	95.190	95.190
COKE BREEZE UNIT CONSUMPTION	.005	.005	.005	.005	.005
COKE BREEZE COST	.476	.476	.476	.476	.476
ELECTRODE PRICE	2,512.440	2,512.440	2,512.440	2,512.440	2,512.440
ELECTRODE UNIT CONSUMPTION	.004	.004	.004	.004	.004
ELECTRODE COST	9.547	9.547	9.547	9.547	9.547
FURNACE BRICK PRICE	1,399.240	1,399.240	1,399.240	1,399.240	1,399.240
FURNACE BRICK UNIT CONSUMPTION	.001	.001	.001	.001	.001
FURNACE BRICK COST	1.679	1.679	1.679	1.679	1.679
LADLE BRICK PRICE	1,047.570	1,047.570	1,047.570	1,047.570	1,047.570
LADLE BRICK UNIT CONSUMPTION	.003	.003	.003	.003	.003
LADLE BRICK COST	3.143	3.143	3.143	3.143	3.143
TUNDISH BRICK PRICE	607.180	607.180	607.180	607.180	607.180
TUNDISH BRICK UNIT CONSUMPTION	.002	.002	.002	.002	.002
TUNDISH BRICK COST	1.457	1.457	1.457	1.457	1.457

FETLING MAT PRICE	319.530	319.530	319.530	319.530	319.530
FETLING MAT UNIT CONSUMPTION	.011	.011	.011	.011	.011
FETLING MAT COST	3.515	3.515	3.515	3.515	3.515
HBI PRICE	126.610	126.610	126.610	126.610	126.610
HBI UNIT CONSUMPTION	.170	.170	.170	.170	.170
HBI COST	21.524	21.524	21.524	21.524	21.524
FEMN PRICE	534.900	534.900	534.900	534.900	534.900
FEMN UNIT CONSUMPTION	.011	.011	.011	.011	.011
FEMN COST	5.937	5.937	5.937	5.937	5.937
FEV PRICE	12,629.520	12,629.520	12,629.520	12,629.520	12,629.520
FEV UNIT CONSUMPTION	.000	.000	.000	.000	.000
FEV COST	.063	.063	.063	.063	.063
DOLO PRICE	72.840	72.840	72.840	72.840	72.840
DOLO UNIT CONSUMPTION	.001	.001	.001	.001	.001
DOLO COST	.058	.058	.058	.058	.058
SUB TOTAL *	163.911	163.908	163.822	163.911	162.569
MANUFACTURING SUPLLIES COST	.812	.812	.812	.812	.812
RAW MAT & SUPPLIES C TOTAL **	164.722	164.720	164.634	164.722	163.381
BY-PRODUCT					
SCRAP UNIT PRICE	118.240	118.240	118.240	118.240	118.240
SCRAP UNIT CONSUMPTION	.019	.019	.019	.019	.019
SCRAP COST	2.261	2.261	2.261	2.261	2.261
DUST UNIT CONSUMPTION	.010	.010	.010	.010	.010
SLAG UNIT CONSUMPTION	.153	.153	.153	.153	.153
SCALE SMP UNIT CONSUMPTION	.005	.005	.005	.005	.005
WASTE BRICK UNIT CONSUMPTION	.012	.012	.012	.012	.012
UTILITIES					
ELECT UNIT PRICE	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	690.000	690.000	690.000	690.000	690.000
ELECTRICITY COST	15.825	15.825	15.825	15.825	15.825
N GAS UNIT PRICE	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	4.000	4.000	4.000	4.000	4.000
NATURAL GAS COST	.307	.307	.307	.307	.307
O2N2 UNIT PRICE	.127	.127	.127	.127	.127
O2N2 UNIT CONSUMPTION	1.000	1.000	1.000	1.000	1.000
O2N2 COST	.127	.127	.127	.127	.127
COMP AIR UNIT PRICE	.003	.003	.003	.003	.003
COMP AIR UNIT CONSUMPTION	26.000	26.000	26.000	26.000	26.000
COMPRESSED AIR COST	.071	.071	.071	.071	.071
WATER UNIT PRICE	.488	.488	.488	.488	.488
WATER UNIT CONSUMPTION	.800	.800	.800	.800	.800
WATER COST	.390	.390	.390	.390	.390

UTILITIES COST TOTAL	**	16.720	16.720	16.720	16.720	16.720
VARIABLE COST TOTAL	***	179.182	179.180	179.093	179.182	177.840
FIXED COST						
LABOR COST		2.018	2.018	2.018	2.018	2.018
DEPRICIATION COST		5.764	5.764	5.764	5.764	5.764
REPAIR COST		7.165	7.165	7.165	7.165	7.165
OTHER COST		4.223	4.223	4.223	4.223	4.223
FIXED COST TOTAL	***	19.171	19.170	19.170	19.171	19.171
SMP COST TOTAL	****	198.353	198.350	198.263	198.353	197.011
BILLT PRODUCTION		1,145,500	1,145,500	1,145,500	1,145,500	1,145,500

CASE 0-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- BAR -

(UNIT : US$/BAR TON)

	1993	1994	1995	1996	1997	1998
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
BAR BILLET UNIT PRICE	200.761	199.151	199.142	199.200	199.201	199.100
BAR BILLET UNIT CONSUMPTION	1.045	1.045	1.045	1.045	1.045	1.045
BAR BILLET COST	209.787	208.111	208.105	208.166	208.167	208.061
P.BILLET UNIT PRICE	258.260	258.260	258.260	258.260	258.260	258.260
P.BILLET UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
P.BILLET COST	.000	.000	.000	.000	.000	.000
SUB TOTAL *	209.787	208.111	208.105	208.166	208.167	208.061
MANUFACTURING SUPLLIES COST	2.826	2.825	2.827	2.827	2.827	2.827
RAW MAT & SUPPLIES C TOTAL **	212.613	210.935	210.932	210.993	210.994	210.888
BY-PRODUCT						
SCRAP UNIT PRICE	118.240	118.240	118.240	118.240	118.240	118.240
SCRAP UNIT CONSUMPTION	.029	.029	.029	.029	.029	.029
SCRAP COST	3.412	3.402	3.413	3.413	3.413	3.413
SCALE BAR UNIT CONSUMPTION	.009	.009	.009	.009	.009	.009
UTILITIES						
ELECT UNIT PRICE	.023	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	60.900	60.900	60.900	60.900	60.900	60.900
ELECTRICITY COST	1.400	1.400	1.400	1.400	1.400	1.400
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	34.500	34.500	34.500	34.500	34.500	34.500
NATURAL GAS COST	2.650	2.650	2.650	2.650	2.650	2.650
O2N2 UNIT PRICE	.134	.134	.134	.134	.134	.134
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.003	.003	.003	.003	.003	.003
COMP AIR UNIT CONSUMPTION	104.800	104.800	104.800	104.800	104.800	104.800
COMPRESSED AIR COST	.308	.303	.299	.299	.299	.299
WATER UNIT PRICE	.502	.501	.501	.501	.501	.501
WATER UNIT CONSUMPTION	.360	.360	.360	.360	.360	.360
WATER COST	.181	.181	.180	.180	.180	.180

UTILITIES COST TOTAL	**	4.539	4.534	4.529	4.529	4.529	4.529
VARIABLE COST TOTAL	***	213.739	212.067	212.047	212.109	212.109	212.003
FIXED COST							
LABOR COST		1.659	1.612	1.568	1.568	1.568	1.568
DEPRICIATION COST		5.673	5.489	5.339	5.339	5.341	5.339
REPAIR COST		2.240	2.178	2.118	2.118	2.118	2.118
OTHER COST		1.710	1.562	1.528	1.527	1.528	1.528
FIXED COST TOTAL	***	11.282	10.840	10.554	10.553	10.555	10.554
BAR COST TOTAL	****	225.021	222.908	222.601	222.661	222.665	222.557
BAR PRODUCTION		537,100	552,600	568,100	568,100	568,100	568,100

CASE O-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- BAR -

(UNIT : US$/BAR TON)

	1999	2000	2001	2002	2003	2004
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
BAR BILLET UNIT PRICE	197.861	199.200	195.476	191.724	198.250	198.350
BAR BILLET UNIT CONSUMPTION	1.045	1.045	1.045	1.045	1.045	1.045
BAR BILLET COST	206.766	208.166	204.274	200.353	207.172	207.277
P.BILLET UNIT PRICE	258.260	258.260	258.260	258.260	258.260	258.260
P.BILLET UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
P.BILLET COST	.000	.000	.000	.000	.000	.000
SUB TOTAL *	206.766	208.166	204.274	200.353	207.172	207.277
MANUFACTURING SUPLLIES COST	2.827	2.827	2.827	2.827	2.827	2.827
RAW MAT & SUPPLIES C TOTAL **	209.593	210.993	207.101	203.180	209.999	210.104
BY-PRODUCT						
SCRAP UNIT PRICE	118.240	118.240	118.240	118.240	118.240	118.240
SCRAP UNIT CONSUMPTION	.029	.029	.029	.029	.029	.029
SCRAP COST	3.413	3.413	3.413	3.413	3.413	3.413
SCALE BAR UNIT CONSUMPTION	.009	.009	.009	.009	.009	.009
UTILITIES						
ELECT UNIT PRICE	.023	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	60.900	60.900	60.900	60.900	60.900	60.900
ELECTRICITY COST	1.400	1.400	1.382	1.373	1.397	1.397
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	34.500	34.500	34.500	34.500	34.500	34.500
NATURAL GAS COST	2.650	2.650	2.648	2.647	2.649	2.649
O2N2 UNIT PRICE	.134	.134	.112	.102	.127	.127
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.003	.003	.002	.002	.003	.003
COMP AIR UNIT CONSUMPTION	104.800	104.800	104.800	104.800	104.800	104.800
COMPRESSED AIR COST	.299	.299	.240	.216	.285	.285
WATER UNIT PRICE	.501	.501	.437	.406	.488	.488
WATER UNIT CONSUMPTION	.360	.360	.360	.360	.360	.360
WATER COST	.180	.180	.157	.146	.176	.176

UTILITIES COST TOTAL	**	4.529	4.529	4.427	4.382	4.506	4.506
VARIABLE COST TOTAL	***	210.709	212.109	208.115	204.148	211.092	211.197
FIXED COST							
LABOR COST		1.568	1.568	1.568	1.568	1.568	1.568
DEPRICIATION COST		5.339	5.339	4.117	2.880	2.880	2.880
REPAIR COST		2.118	2.118	2.106	2.100	4.236	4.236
OTHER COST		1.528	1.527	1.480	1.456	1.527	1.526
FIXED COST TOTAL	***	10.554	10.553	9.271	8.004	10.211	10.210
BAR COST TOTAL	****	221.263	222.661	217.386	212.152	221.303	221.407
BAR PRODUCTION		568,100	568,100	568,100	568,100	568,100	568,100

CASE 0-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- BAR -

(UNIT : US$/BAR TON)

	2005	2006	2007	2008	2009	2010
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
BAR BILLET UNIT PRICE	198.367	198.353	197.009	198.247	198.367	198.353
BAR BILLET UNIT CONSUMPTION	1.045	1.045	1.045	1.045	1.045	1.045
BAR BILLET COST	207.295	207.280	205.876	207.170	207.296	207.280
P.BILLET UNIT PRICE	258.260	258.260	258.260	258.260	258.260	258.260
P.BILLET UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
P.BILLET COST	.000	.000	.000	.000	.000	.000
SUB TOTAL *	207.295	207.280	205.876	207.170	207.296	207.280
MANUFACTURING SUPLLIES COST	2.827	2.827	2.827	2.827	2.827	2.827
RAW MAT & SUPPLIES C TOTAL **	210.122	210.107	208.703	209.997	210.123	210.107
BY-PRODUCT						
SCRAP UNIT PRICE	118.240	118.240	118.240	118.240	118.240	118.240
SCRAP UNIT CONSUMPTION	.029	.029	.029	.029	.029	.029
SCRAP COST	3.413	3.413	3.413	3.413	3.413	3.413
SCALE BAR UNIT CONSUMPTION	.009	.009	.009	.009	.009	.009
UTILITIES						
ELECT UNIT PRICE	.023	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	60.900	60.900	60.900	60.900	60.900	60.900
ELECTRICITY COST	1.397	1.397	1.397	1.397	1.397	1.397
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	34.500	34.500	34.500	34.500	34.500	34.500
NATURAL GAS COST	2.649	2.649	2.649	2.649	2.649	2.649
O2N2 UNIT PRICE	.127	.127	.127	.127	.127	.127
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.003	.003	.003	.003	.003	.003
COMP AIR UNIT CONSUMPTION	104.800	104.800	104.800	104.800	104.800	104.800
COMPRESSED AIR COST	.285	.285	.285	.285	.285	.285
WATER UNIT PRICE	.488	.488	.488	.488	.488	.488
WATER UNIT CONSUMPTION	.360	.360	.360	.360	.360	.360
WATER COST	.176	.176	.176	.176	.176	.176

UTILITIES COST TOTAL	**	4.506	4.506	4.506	4.506	4.506	4.506
VARIABLE COST TOTAL	***	211.215	211.200	209.796	211.090	211.215	211.200
FIXED COST							
LABOR COST		1.568	1.568	1.568	1.568	1.568	1.568
DEPRICIATION COST		2.880	2.880	2.880	2.880	2.880	2.880
REPAIR COST		4.236	4.236	4.236	4.236	4.236	4.236
OTHER COST		1.527	1.527	1.527	1.526	1.527	1.527
FIXED COST TOTAL	***	10.210	10.211	10.211	10.210	10.211	10.211
BAR COST TOTAL	****	221.425	221.411	220.007	221.299	221.426	221.411
BAR PRODUCTION		568,100	568,100	568,100	568,100	568,100	568,100

CASE 0-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- BAR -

(UNIT : US$/BAR TON)

	2011	2012	2013	2014	2015
VARIABLE COST					
RAW MATERIAL & SUPPLIES					
BAR BILLET UNIT PRICE	198.353	198.350	198.263	198.353	197.011
BAR BILLET UNIT CONSUMPTION	1.045	1.045	1.045	1.045	1.045
BAR BILLET COST	207.280	207.277	207.187	207.280	205.878
P.BILLET UNIT PRICE	258.260	258.260	258.260	258.260	258.260
P.BILLET UNIT CONSUMPTION	.000	.000	.000	.000	.000
P.BILLET COST	.000	.000	.000	.000	.000
SUB TOTAL *	207.280	207.277	207.187	207.280	205.878
MANUFACTURING SUPLLIES COST	2.827	2.827	2.827	2.827	2.827
RAW MAT & SUPPLIES C TOTAL **	210.107	210.104	210.014	210.107	208.705
BY-PRODUCT					
SCRAP UNIT PRICE	118.240	118.240	118.240	118.240	118.240
SCRAP UNIT CONSUMPTION	.029	.029	.029	.029	.029
SCRAP COST	3.413	3.413	3.413	3.413	3.413
SCALE BAR UNIT CONSUMPTION	.009	.009	.009	.009	.009
UTILITIES					
ELECT UNIT PRICE	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	60.900	60.900	60.900	60.900	60.900
ELECTRICITY COST	1.397	1.397	1.397	1.397	1.397
N GAS UNIT PRICE	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	34.500	34.500	34.500	34.500	34.500
NATURAL GAS COST	2.649	2.649	2.649	2.649	2.649
O2N2 UNIT PRICE	.127	.127	.127	.127	.127
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.003	.003	.003	.003	.003
COMP AIR UNIT CONSUMPTION	104.800	104.800	104.800	104.800	104.800
COMPRESSED AIR COST	.285	.285	.285	.285	.285
WATER UNIT PRICE	.488	.488	.488	.488	.488
WATER UNIT CONSUMPTION	.360	.360	.360	.360	.360
WATER COST	.176	.176	.176	.176	.176

UTILITIES COST TOTAL	**	4.506	4.506	4.506	4.506	4.506
VARIABLE COST TOTAL	***	211.200	211.197	211.107	211.200	209.798
FIXED COST						
LABOR COST		1.568	1.568	1.568	1.568	1.568
DEPRICIATION COST		2.880	2.880	2.880	2.880	2.880
REPAIR COST		4.236	4.236	4.236	4.236	4.236
OTHER COST		1.527	1.527	1.526	1.527	1.527
FIXED COST TOTAL	***	10.211	10.210	10.210	10.211	10.211
BAR COST TOTAL	****	221.411	221.407	221.317	221.411	220.008
BAR PRODUCTION		568,100	568,100	568,100	568,100	568,100

CASE 0-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- ROD -

(UNIT : US$/ROD TON)

	1993	1994	1995	1996	1997	1998
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
ROD BILLET UNIT	200.761	199.151	199.142	199.200	199.201	199.100
ROD BILLET UNIT CONSUMPTION	1.023	1.023	1.023	1.023	1.023	1.023
ROD BILLET COST	205.479	203.831	203.821	203.881	203.882	203.778
P.BILLET UNIT	258.260	258.260	258.260	258.260	258.260	258.260
P.BILLET UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
P.BILLET COST	.000	.000	.000	.000	.000	.000
SUB TOTAL *	205.479	203.831	203.821	203.881	203.882	203.778
MANUFACTURING SUPPLIES COST	2.719	2.842	2.379	2.379	2.379	2.379
RAW MAT & SUPPLIES C TOTAL **	208.198	206.673	206.201	206.260	206.261	206.158
BY-PRODUCT						
SCRAP PRICE	118.240	118.240	118.240	118.240	118.240	118.240
SCRAP UNIT CONSUMPTION	.021	.021	.021	.021	.021	.021
SCRAP COST	2.431	2.431	2.431	2.431	2.431	2.431
SCALE ROD UNIT CONSUMPTION	.009	.009	.009	.009	.009	.009
UTILITIES						
ELECT UNIT PRICE	.023	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	106.100	106.100	106.100	106.100	106.100	106.100
ELECTRICITY COST	2.440	2.439	2.439	2.439	2.439	2.439
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	29.400	29.400	29.400	29.400	29.400	29.400
NATURAL GAS COST	2.258	2.258	2.258	2.258	2.258	2.258
O2N2 UNIT PRICE	.134	.134	.134	.134	.134	.134
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.003	.003	.003	.003	.003	.003
COMP AIR UNIT CONSUMPTION	16.800	16.800	16.800	16.800	16.800	16.800
COMPRESSED AIR COST	.049	.049	.048	.048	.048	.048
WATER UNIT PRICE	.502	.501	.501	.501	.501	.501
WATER UNIT CONSUMPTION	.550	.550	.550	.550	.550	.550
WATER COST	.276	.276	.275	.275	.275	.275

UTILITIES COST TOTAL	**	5.023	5.022	5.020	5.020	5.020	5.020
VARIABLE COST TOTAL	***	210.790	209.264	208.790	208.850	208.851	208.747
FIXED COST							
LABOR COST		1.313	1.313	1.313	1.313	1.313	1.313
DEPRICIATION COST		7.911	7.880	7.880	7.880	7.880	7.880
REPAIR COST		2.562	2.563	2.563	2.563	2.563	2.563
OTHER COST		2.054	1.971	1.963	1.962	1.963	1.963
FIXED COST TOTAL	***	13.840	13.727	13.719	13.718	13.719	13.719
ROD COST TOTAL	****	224.629	222.991	222.509	222.568	222.569	222.466
ROD PRODUCTION		544,700	544,700	544,700	544,700	544,700	544,700

CASE O-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- ROD -

(UNIT : US$/ROD TON)

	1999	2000	2001	2002	2003	2004
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
ROD BILLET UNIT	197.861	199.200	195.476	191.724	198.250	198.350
ROD BILLET UNIT CONSUMPTION	1.023	1.023	1.023	1.023	1.023	1.023
ROD BILLET COST	202.510	203.881	200.070	196.229	202.908	203.011
P.BILLET UNIT	258.260	258.260	258.260	258.260	258.260	258.260
P.BILLET UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
P.BILLET COST	.000	.000	.000	.000	.000	.000
SUB TOTAL *	202.510	203.881	200.070	196.229	202.908	203.011
MANUFACTURING SUPPLIES COST	2.379	2.379	2.379	2.379	2.379	2.379
RAW MAT & SUPPLIES C TOTAL **	204.890	206.260	202.449	198.609	205.288	205.390
BY-PRODUCT						
SCRAP PRICE	118.240	118.240	118.240	118.240	118.240	118.240
SCRAP UNIT CONSUMPTION	.021	.021	.021	.021	.021	.021
SCRAP COST	2.431	2.431	2.431	2.431	2.431	2.431
SCALE ROD UNIT CONSUMPTION	.009	.009	.009	.009	.009	.009
UTILITIES						
ELECT UNIT PRICE	.023	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	106.100	106.100	106.100	106.100	106.100	106.100
ELECTRICITY COST	2.439	2.439	2.408	2.392	2.433	2.433
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	29.400	29.400	29.400	29.400	29.400	29.400
NATURAL GAS COST	2.258	2.258	2.256	2.256	2.257	2.257
O2N2 UNIT PRICE	.134	.134	.112	.102	.127	.127
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.003	.003	.002	.002	.003	.003
COMP AIR UNIT CONSUMPTION	16.800	16.800	16.800	16.800	16.800	16.800
COMPRESSED AIR COST	.048	.048	.039	.035	.046	.046
WATER UNIT PRICE	.501	.501	.437	.406	.488	.488
WATER UNIT CONSUMPTION	.550	.550	.550	.550	.550	.550
WATER COST	.275	.275	.240	.223	.268	.268

UTILITIES COST TOTAL	**	5.020	5.020	4.943	4.906	5.005	5.005
VARIABLE COST TOTAL	***	207.479	208.850	204.961	201.083	207.861	207.964
FIXED COST							
LABOR COST		1.313	1.313	1.313	1.313	1.313	1.313
DEPRICIATION COST		7.880	7.880	7.916	5.658	4.955	4.955
REPAIR COST		2.563	2.563	2.547	2.540	5.124	5.124
OTHER COST		1.963	1.962	1.914	1.889	1.963	1.962
FIXED COST TOTAL	***	13.719	13.718	13.691	11.401	13.355	13.354
ROD COST TOTAL	****	221.198	222.568	218.651	212.484	221.216	221.318
ROD PRODUCTION		544,700	544,700	544,700	544,700	544,700	544,700

CASE 0-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- ROD -

(UNIT : US$/ROD TON)

	2005	2006	2007	2008	2009	2010
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
ROD BILLET UNIT	198.367	198.353	197.009	198.247	198.367	198.353
ROD BILLET UNIT CONSUMPTION	1.023	1.023	1.023	1.023	1.023	1.023
ROD BILLET COST	203.028	203.014	201.639	202.906	203.029	203.014
P.BILLET UNIT	258.260	258.260	258.260	258.260	258.260	258.260
P.BILLET UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
P.BILLET COST	.000	.000	.000	.000	.000	.000
SUB TOTAL *	203.028	203.014	201.639	202.906	203.029	203.014
MANUFACTURING SUPPLIES COST	2.379	2.379	2.379	2.379	2.379	2.379
RAW MAT & SUPPLIES C TOTAL **	205.408	205.393	204.018	205.285	205.408	205.393
BY-PRODUCT						
SCRAP PRICE	118.240	118.240	118.240	118.240	118.240	118.240
SCRAP UNIT CONSUMPTION	.021	.021	.021	.021	.021	.021
SCRAP COST	2.431	2.431	2.431	2.431	2.431	2.431
SCALE ROD UNIT CONSUMPTION	.009	.009	.009	.009	.009	.009
UTILITIES						
ELECT UNIT PRICE	.023	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	106.100	106.100	106.100	106.100	106.100	106.100
ELECTRICITY COST	2.433	2.433	2.433	2.433	2.433	2.433
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	29.400	29.400	29.400	29.400	29.400	29.400
NATURAL GAS COST	2.257	2.257	2.257	2.257	2.257	2.257
O2N2 UNIT PRICE	.127	.127	.127	.127	.127	.127
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.003	.003	.003	.003	.003	.003
COMP AIR UNIT CONSUMPTION	16.800	16.800	16.800	16.800	16.800	16.800
COMPRESSED AIR COST	.046	.046	.046	.046	.046	.046
WATER UNIT PRICE	.488	.488	.488	.488	.488	.488
WATER UNIT CONSUMPTION	.550	.550	.550	.550	.550	.550
WATER COST	.268	.268	.268	.268	.268	.268

UTILITIES COST TOTAL	**	5.005	5.005	5.005	5.005	5.005	5.005
VARIABLE COST TOTAL	***	207.981	207.967	206.592	207.859	207.982	207.967
FIXED COST							
LABOR COST		1.313	1.313	1.313	1.313	1.313	1.313
DEPRICIATION COST		4.957	4.957	4.957	4.955	4.955	4.955
REPAIR COST		5.124	5.124	5.124	5.124	5.124	5.124
OTHER COST		1.962	1.963	1.962	1.962	1.963	1.963
FIXED COST TOTAL	***	13.357	13.357	13.357	13.354	13.355	13.355
ROD COST TOTAL	****	221.338	221.323	219.948	221.213	221.337	221.322
ROD PRODUCTION		544,700	544,700	544,700	544,700	544,700	544,700

CASE 0-1
EXISTING WITHOUT ESCALATION

MANUFACTURING COST SHEET
- ROD -

(UNIT : US$/ROD TON)

	2011	2012	2013	2014	2015
VARIABLE COST					
RAW MATERIAL & SUPPLIES					
ROD BILLET UNIT	198.353	198.350	198.263	198.353	197.011
ROD BILLET UNIT CONSUMPTION	1.023	1.023	1.023	1.023	1.023
ROD BILLET COST	203.014	203.011	202.922	203.014	201.640
P.BILLET UNIT	258.260	258.260	258.260	258.260	258.260
P.BILLET UNIT CONSUMPTION	.000	.000	.000	.000	.000
P.BILLET COST	.000	.000	.000	.000	.000
SUB TOTAL *	203.014	203.011	202.922	203.014	201.640
MANUFACTURING SUPPLIES COST	2.379	2.379	2.379	2.379	2.379
RAW MAT & SUPPLIES C TOTAL **	205.393	205.390	205.302	205.393	204.020
BY-PRODUCT					
SCRAP PRICE	118.240	118.240	118.240	118.240	118.240
SCRAP UNIT CONSUMPTION	.021	.021	.021	.021	.021
SCRAP COST	2.431	2.431	2.431	2.431	2.431
SCALE ROD UNIT CONSUMPTION	.009	.009	.009	.009	.009
UTILITIES					
ELECT UNIT PRICE	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	106.100	106.100	106.100	106.100	106.100
ELECTRICITY COST	2.433	2.433	2.433	2.433	2.433
N GAS UNIT PRICE	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	29.400	29.400	29.400	29.400	29.400
NATURAL GAS COST	2.257	2.257	2.257	2.257	2.257
O2N2 UNIT PRICE	.127	.127	.127	.127	.127
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.003	.003	.003	.003	.003
COMP AIR UNIT CONSUMPTION	16.800	16.800	16.800	16.800	16.800
COMPRESSED AIR COST	.046	.046	.046	.046	.046
WATER UNIT PRICE	.488	.488	.488	.488	.488
WATER UNIT CONSUMPTION	.550	.550	.550	.550	.550
WATER COST	.268	.268	.268	.268	.268

UTILITIES COST TOTAL	**	5.005	5.005	5.005	5.005	5.005
VARIABLE COST TOTAL	***	207.967	207.963	207.875	207.967	206.593
FIXED COST						
LABOR COST		1.313	1.313	1.313	1.313	1.313
DEPRICIATION COST		4.955	4.955	4.955	4.955	4.955
REPAIR COST		5.124	5.124	5.124	5.124	5.124
OTHER COST		1.963	1.962	1.962	1.963	1.963
FIXED COST TOTAL	***	13.355	13.355	13.354	13.355	13.355
ROD COST TOTAL	****	221.322	221.318	221.230	221.322	219.948
ROD PRODUCTION		544,700	544,700	544,700	544,700	544,700