

# **CASE 1 - 1**

**UPDATE WITHOUT ESCALATION**



CASE 1-1  
UPDATE-2 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
RAM 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	.024	.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	2.643	2.538	2.536
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	22.272	22.264	22.263
O2N2 UNIT PRICE	.134	.134	.134	.289	.097	.097
O2N2 UNIT CONSUMPTION	2.000	2.000	2.000	2.000	2.000	2.000
O2N2 COST	.267	.267	.267	.577	.195	.195
COMP AIR UNIT PRICE	.003	.003	.003	.006	.005	.005
COMP AIR UNIT CONSUMPTION	18.000	18.000	18.000	18.000	18.000	18.000
COMPRESSED AIR COST	.053	.052	.051	.108	.089	.089
WATER UNIT PRICE	.502	.501	.501	.904	.684	.678
WATER UNIT CONSUMPTION	1.500	1.500	1.500	1.500	1.500	1.500
WATER COST	.753	.752	.751	1.357	1.025	1.018
UTILITIES COST TOTAL **	25.877	25.875	25.873	26.957	26.110	26.101
VARIABLE COST TOTAL ***	92.773	92.771	92.769	93.853	93.006	92.996
FIXED COST						

LABOR COST	.881	.881	.881	.881	.881	.881	.881
DEPRECIATION COST	7.925	7.903	7.901	7.903	7.903	7.903	7.903
REPAIR COST	3.218	3.219	2.605	2.605	2.605	2.605	2.605
S REPAIR COST	1.980	1.980	1.980	1.980	1.980	1.980	1.980
OTHER COST	8.826	8.405	8.533	8.406	8.605	8.606	8.606
FIXED COST TOTAL	22.829	22.388	21.899	22.389	21.973	21.975	21.975
	***						
DRP COST TOTAL	115.602	115.159	115.751	115.157	114.979	114.971	114.971
	****						
DRI PRODUCTION	776,400	776,400	776,400	776,400	776,400	776,400	776,400

CASE 1-1  
UPDATE-2 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						
RAW MAT & SUPPLIES C TOTAL **	.882	.882	.882	.882	.882	.882
	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	2.536	2.536	2.509	2.495	2.531	2.532
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	22.263	22.263	22.246	22.239	22.256	22.256
O2N2 UNIT PRICE	.097	.097	.095	.094	.097	.097
O2N2 UNIT CONSUMPTION	2.000	2.000	2.000	2.000	2.000	2.000
O2N2 COST	.195	.195	.190	.188	.193	.193
COMP AIR UNIT PRICE	.005	.005	.004	.004	.005	.005
COMP AIR UNIT CONSUMPTION	18.000	18.000	18.000	18.000	18.000	18.000
COMPRESSED AIR COST	.089	.089	.080	.077	.087	.087
WATER UNIT PRICE	.678	.678	.631	.608	.669	.669
WATER UNIT CONSUMPTION	1.500	1.500	1.500	1.500	1.500	1.500
WATER COST	1.018	1.018	.946	.912	1.003	1.003
UTILITIES COST TOTAL **	26.101	26.101	25.972	25.911	26.071	26.071
VARIABLE COST TOTAL ***	92.996	92.996	92.868	92.807	92.967	92.967

FIXED COST

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LABOR COST	.881	.881	.881	.881	.881	.881	.881	.881
DEPRECIATION COST	7.903	7.321	4.244	4.244	4.244	4.244	4.244	4.241
REPAIR COST	2.605	2.601	2.600	2.600	5.827	5.827	5.827	5.827
S REPAIR COST	.000	1.980	1.980	1.980	1.980	1.980	1.980	1.980
OTHER COST	8.606	8.567	8.546	8.546	8.604	8.604	8.604	8.604
FIXED COST TOTAL	19.995	21.349	18.250	18.250	21.536	21.536	21.536	21.533
	***							
DRP COST TOTAL	112.991	114.217	111.057	111.057	114.503	114.503	114.503	114.500
	****							
DRI PRODUCTION	776,400	776,400	776,400	776,400	776,400	776,400	776,400	776,400

CASE 1-1  
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET  
- DRP -

(UNIT : US\$/DRI TON)

VARIABLE COST	2005	2006	2007	2008	2009	2010
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	2.531	2.531	2.531	2.532	2.531	2.531
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	22.256	22.256	22.256	22.256	22.256	22.256
O2N2 UNIT PRICE	.097	.097	.097	.097	.097	.097
O2N2 UNIT CONSUMPTION	2.000	2.000	2.000	2.000	2.000	2.000
O2N2 COST	.193	.193	.193	.193	.193	.193
COMP AIR UNIT PRICE	.005	.005	.005	.005	.005	.005
COMP AIR UNIT CONSUMPTION	18.000	18.000	18.000	18.000	18.000	18.000
COMPRESSED AIR COST	.087	.087	.087	.087	.087	.087
WATER UNIT PRICE	.669	.669	.669	.669	.669	.669
WATER UNIT CONSUMPTION	1.500	1.500	1.500	1.500	1.500	1.500
WATER COST	1.003	1.003	1.003	1.003	1.003	1.003
UTILITIES COST TOTAL **	26.071	26.071	26.071	26.071	26.071	26.071
VARIABLE COST TOTAL ***	92.967	92.967	92.967	92.967	92.967	92.967
FIXED COST						

LABOR COST	.881	.881	.881	.881	.881	.881	.881	.881	.881
DEPRECIATION COST	4.266	4.244	4.241	4.244	4.266	4.244	4.266	4.244	4.244
REPAIR COST	5.827	5.827	5.827	5.827	5.827	5.827	5.827	5.827	5.827
S REPAIR COST	1.980	1.980	1.980	1.980	1.980	1.980	1.980	1.980	1.980
OTHER COST	8.604	8.604	8.604	8.604	8.604	8.604	8.604	8.604	8.604
FIXED COST TOTAL	21.558	21.536	21.533	21.556	21.558	21.533	21.558	21.536	21.536
	***								
DRP COST TOTAL	114.525	114.503	114.500	112.523	114.525	114.500	114.525	114.503	114.503
	****								
DRI PRODUCTION	776,400	776,400	776,400	776,400	776,400	776,400	776,400	776,400	776,400



CASE 1-1  
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET  
- DRP -

(UNIT : US\$/DRI TON)

	2011	2012	2013	2014	2015
VARIABLE COST					
RAW MATERIAL & SUPPLIES					
RAW MATERIAL & SUPPLIES	43.430	43.430	43.430	43.430	43.430
PELLET UNIT PRICE	1.520	1.520	1.520	1.520	1.520
PELLET UNIT CONSUMPTION	66.014	66.014	66.014	66.014	66.014
PELLET COST					
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	2.531	2.531	2.531	2.531
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	22.256	22.256	22.256	22.256	22.256
O2N2 UNIT PRICE	.068	.094	.094	.094	.094
O2N2 UNIT CONSUMPTION	2.000	2.000	2.000	2.000	2.000
O2N2 COST	.136	.187	.187	.187	.187
COMP AIR UNIT PRICE	.004	.005	.005	.005	.005
COMP AIR UNIT CONSUMPTION	18.000	18.000	18.000	18.000	18.000
COMPRESSED AIR COST	.071	.085	.085	.085	.085
WATER UNIT PRICE	.575	.659	.659	.659	.659
WATER UNIT CONSUMPTION	1.500	1.500	1.500	1.500	1.500
WATER COST	.863	.989	.989	.989	.989
UTILITIES COST TOTAL **	25.849	26.049	26.049	26.049	26.049
VARIABLE COST TOTAL ***	92.745	92.945	92.945	92.945	92.945

FIXED COST

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LABOR COST	.881	.881	.881	.881	.881
DEPRECIATION COST	4.244	4.244	4.266	4.244	4.244
REPAIR COST	5.828	5.828	5.828	5.828	5.828
S REPAIR COST	1.980	1.980	1.980	1.980	.000
OTHER COST	8.604	8.602	8.602	8.602	8.602
FIXED COST TOTAL	21.545	21.532	21.556	21.535	19.555
***					
DRP COST TOTAL	114.290	114.477	114.501	114.480	112.500
****					
DRI PRODUCTION	776,400	776,400	776,400	776,400	776,400

CASE 1-1  
 UPDATE-2 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	.132	.123	.123
RAW MAT & SUPPLIES C TOTAL **	11.942	11.942	11.942	11.952	11.943	11.943
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	.024	.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	1.442	1.384	1.384
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	7.296	7.293	7.293
O2N2 UNIT PRICE	.134	.134	.134	.289	.097	.097
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.003	.003	.003	.006	.005	.005
COMP AIR UNIT CONSUMPTION	70.000	70.000	70.000	70.000	70.000	70.000
COMPRESSED AIR COST	.206	.203	.200	.419	.348	.346
WATER UNIT PRICE	.502	.501	.501	.904	.684	.678
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	9.156	9.025	9.023
VARIABLE COST TOTAL ***	20.824	20.821	20.817	21.108	20.968	20.966

FIXED COST

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LABOR COST	3.476	3.476	3.760	2.201	2.201
DEPRECIATION COST	8.345	8.297	8.974	5.254	5.254
REPAIR COST	3.810	3.812	3.336	1.953	1.953
S REPAIR COST	.000	2.871	3.105	1.818	.000
OTHER COST	9.701	8.708	10.093	6.561	6.573
FIXED COST TOTAL	25.333	27.164	29.268	17.788	15.982
	***				
LCP COST TOTAL	46.157	47.985	50.376	38.756	36.948
	****				
B. LIME PRODUCTION	41,100	41,100	38,000	64,900	64,900

CASE 1-1  
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET  
- LCP -

(UNIT : US\$/LCP TON)

	1999	2000	2001	2002	2003	2004
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
LIME MATERIAL 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	.123	.123	.123	.123	.123	.123
RAW MAT & SUPPLIES C TOTAL **	11.943	11.943	11.943	11.943	11.943	11.943
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	1.384	1.384	1.368	1.361	1.381	1.381
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	7.293	7.293	7.288	7.285	7.291	7.291
O2N2 UNIT PRICE	.097	.097	.095	.094	.097	.097
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.005	.005	.004	.004	.005	.005
COMP AIR UNIT CONSUMPTION	70.000	70.000	70.000	70.000	70.000	70.000
COMPRESSED AIR COST	.346	.346	.312	.298	.338	.338
WATER UNIT PRICE	.678	.678	.631	.608	.669	.669
WATER UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
WATER COST	.000	.000	.000	.000	.000	.000
UTILITIES COST TOTAL **	9.023	9.023	8.968	8.944	9.010	9.010
VARIABLE COST TOTAL ***	20.966	20.966	20.912	20.888	20.953	20.953

FIXED COST

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LABOR COST	2.201	2.201	2.201	2.201	2.201	2.201	2.201
DEPRECIATION COST	5.254	3.929	3.190	3.174	3.174	3.174	3.174
REPAIR COST	1.953	1.950	1.949	4.369	4.369	4.369	4.369
S REPAIR COST	1.818	1.818	1.818	.000	.000	1.818	1.818
OTHER COST	6.573	6.176	5.970	6.580	6.580	6.577	6.577
FIXED COST TOTAL	17.800	16.074	15.129	16.325	16.325	18.140	18.140
	***						
LCP COST TOTAL	38.766	36.986	36.016	37.278	37.278	39.093	39.093
	****						
B. LIME PRODUCTION	64,900	64,900	64,900	64,900	64,900	64,900	64,900

CASE 1-1  
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET  
- LCP -

(UNIT : US\$/LCP TON)

	2005	2006	2007	2008	2009	2010
<b>VARIABLE COST</b>						
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	.123	.123	.123	.123	.123	.123
RAW MAT & SUPPLIES C TOTAL **	11.943	11.943	11.943	11.943	11.943	11.943
<b>BY-PRODUCT</b>						
LIME FINES UNIT CONSUMPTION	.020	.020	.020	.020	.020	.020
LIME STONE FINES UNIT CONSUMPTIO	.150	.150	.150	.150	.150	.150
<b>UTILITIES</b>						
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	1.381	1.381	1.381	1.381	1.381	1.381
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	7.291	7.291	7.291	7.291	7.291	7.291
O2N2 UNIT PRICE	.097	.097	.097	.097	.097	.097
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.005	.005	.005	.005	.005	.005
COMP AIR UNIT CONSUMPTION	70.000	70.000	70.000	70.000	70.000	70.000
COMPRESSED AIR COST	.338	.338	.338	.338	.338	.338
WATER UNIT PRICE	.669	.669	.669	.669	.669	.669
WATER UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
WATER COST	.000	.000	.000	.000	.000	.000
UTILITIES COST TOTAL **	9.010	9.010	9.010	9.010	9.010	9.010
VARIABLE COST TOTAL ***	20.953	20.953	20.953	20.953	20.953	20.953

FIXED COST

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LABOR COST	2.201	2.201	2.201	2.201	2.201	2.201	2.201
DEPRECIATION COST	3.174	3.174	3.174	3.174	3.174	3.174	3.174
REPAIR COST	4.369	4.369	4.369	4.369	4.369	4.369	4.369
S REPAIR COST	1.818	1.818	1.818	1.818	1.818	1.818	1.818
OTHER COST	6.580	6.580	6.577	6.580	6.580	6.580	6.580
FIXED COST TOTAL	18.143	18.143	16.522	18.143	18.143	18.143	18.143
***							
LCP COST TOTAL	39.096	39.096	37.275	39.096	39.096	39.096	39.096
****							
B. LIME PRODUCTION	64,900	64,900	64,900	64,900	64,900	64,900	64,900



CASE 1-1  
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET  
- LCP -

(UNIT : US\$/LCP TON)

	2011	2012	2013	2014	2015
VARIABLE COST					
RAW MATERIAL & SUPPLIES					
LIME MATERIAL 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	.123	.123	.123	.123	.123
RAW MAT & SUPPLIES C TOTAL **	11.943	11.943	11.943	11.943	11.943
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	1.380	1.380	1.380	1.380
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	7.291	7.291	7.291	7.291	7.291
O2N2 UNIT PRICE	.068	.094	.094	.094	.094
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.004	.005	.005	.005	.005
COMP AIR UNIT CONSUMPTION	70.000	70.000	70.000	70.000	70.000
COMPRESSED AIR COST	.276	.332	.332	.332	.332
WATER UNIT PRICE	.575	.659	.659	.659	.659
WATER UNIT CONSUMPTION	.000	.000	.000	.000	.000
WATER COST	.000	.000	.000	.000	.000
UTILITIES COST TOTAL **	8.944	9.003	9.003	9.003	9.003
VARIABLE COST TOTAL ***	20.887	20.946	20.946	20.946	20.946
FIXED COST					

LABOR COST	2.201	2.201	2.201	2.201	2.201	2.201
DEPRECIATION COST	3.174	3.174	3.174	3.174	3.174	3.174
REPAIR COST	4.376	4.370	4.370	4.370	4.370	4.370
S REPAIR COST	1.818	1.818	.000	1.818	1.818	1.818
OTHER COST	6.575	6.553	6.555	6.555	6.556	6.556
FIXED COST TOTAL	18.146	18.117	16.301	16.301	18.120	18.120
	***					
LCP COST TOTAL	39.032	39.063	37.247	37.247	39.066	39.066
	****					
B. LIME PRODUCTION	64,900	64,900	64,900	64,900	64,900	64,900

CASE 1-1  
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET  
- SMP -

(UNIT : US\$/SMP TON)

VARIABLE COST	1993	1994	1995	1996	1997	1998
RAW MATERIAL & SUPPLIES						
DRI UNIT PRICE	115.602	115.159	115.157	115.751	114.979	114.971
DRI UNIT CONSUMPTION	.678	.678	.678	.765	.501	.501
DRI COST	78.353	78.053	78.052	88.567	57.612	57.608
B LIME UNIT PRICE	46.157	47.985	47.991	50.376	38.756	36.948
B LIME UNIT CONSUMPTION	.036	.036	.036	.037	.042	.042
B LIME COST	1.656	1.722	1.722	1.887	1.623	1.548
SCRAP UNIT PRICE	122.978	122.962	122.944	123.430	127.001	126.988
SCRAP UNIT CONSUMPTION	.283	.283	.283	.334	.488	.488
SCRAP COST	34.803	34.798	34.793	41.225	61.976	61.970
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	1.990	1.883	1.883
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	.011	.017	.017
COKE BREEZE COST	.476	.476	.476	1.031	1.637	1.637
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	9.648	9.799	9.799
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	1.623	1.539	1.539
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	.004	.004
LADLE BRICK COST	3.143	3.143	3.143	3.562	4.086	4.086
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	319.530	319.530	319.530	319.530
FETLING MAT UNIT CONSUMPTION	.011	.011	.011	.011	.010	.010	.010	.010	.010	.010
FETLING MAT COST	3.515	3.515	3.515	3.515	3.195	3.067	3.067	3.067	3.067	3.067
HBI PRICE	126.610	126.610	126.610	126.610	126.610	126.610	126.610	126.610	126.610	126.610
HBI UNIT CONSUMPTION	.170	.170	.170	.170	.153	.129	.129	.129	.129	.129
HBI COST	21.524	21.524	21.524	21.524	19.359	16.333	16.333	16.333	16.333	16.333
FEMN PRICE	534.900	534.900	534.900	534.900	534.900	534.900	534.900	534.900	534.900	534.900
FEMN UNIT CONSUMPTION	.011	.011	.011	.011	.011	.010	.010	.010	.010	.010
FEMN COST	5.937	5.937	5.937	5.937	5.616	5.296	5.296	5.296	5.296	5.296
FEV PRICE	12,629.520	12,629.520	12,629.520	12,629.520	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	.000	.000	.000	.000
FEV COST	.063	.063	.063	.063	.057	.051	.051	.051	.051	.051
DOLO PRICE	72.840	72.840	72.840	72.840	72.840	72.840	72.840	72.840	72.840	72.840
DOLO UNIT CONSUMPTION	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
DOLO COST	.058	.058	.058	.058	.055	.051	.051	.051	.051	.051
SUB TOTAL *	166.471	164.232	164.225	164.225	179.434	166.571	166.484	166.484	166.484	166.484
MANUFACTURING SUPPLIES COST	.812	.812	.812	.812	.812	.812	.812	.812	.812	.812
RAW MAT & SUPPLIES C TOTAL **	165.283	165.044	165.037	165.037	180.246	167.383	167.296	167.296	167.296	167.296
BY-PRODUCT										
SCRAP UNIT PRICE	118.240	118.240	118.240	118.240	118.240	118.240	118.240	118.240	118.240	118.240
SCRAP UNIT CONSUMPTION	.019	.019	.019	.019	.019	.019	.019	.019	.019	.019
SCRAP COST	2.261	2.261	2.261	2.261	2.261	2.266	2.266	2.266	2.266	2.266
DUST UNIT CONSUMPTION	.010	.010	.010	.010	.010	.010	.010	.010	.010	.010
SLAG UNIT CONSUMPTION	.153	.153	.153	.153	.153	.153	.153	.153	.153	.153
SCALE SHP UNIT CONSUMPTION	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005
WASTE BRICK UNIT CONSUMPTION	.012	.012	.012	.012	.012	.012	.012	.012	.012	.012
UTILITIES										
ELECT UNIT PRICE	.023	.023	.023	.023	.024	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	690.000	690.000	690.000	690.000	647.000	587.000	587.000	587.000	587.000	587.000
ELECTRICITY COST	15.865	15.865	15.862	15.862	15.546	13.541	13.535	13.535	13.535	13.535
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	4.000	4.000	4.000	4.000	4.080	4.200	4.200	4.200	4.200	4.200
NATURAL GAS COST	.307	.307	.307	.307	.313	.322	.322	.322	.322	.322
O2N2 UNIT PRICE	.134	.134	.134	.134	.289	.097	.097	.097	.097	.097
O2N2 UNIT CONSUMPTION	1.000	1.000	1.000	1.000	7.500	16.600	16.600	16.600	16.600	16.600
O2N2 COST	.134	.134	.134	.134	2.165	1.615	1.615	1.615	1.615	1.615
COMP AIR UNIT PRICE	.003	.003	.003	.003	.006	.005	.005	.005	.005	.005
COMP AIR UNIT CONSUMPTION	26.000	26.000	26.000	26.000	26.000	26.000	26.000	26.000	26.000	26.000
COMPRESSED AIR COST	.076	.075	.074	.074	.155	.129	.129	.129	.129	.129
WATER UNIT PRICE	.502	.501	.501	.501	.904	.684	.678	.678	.678	.678
WATER UNIT CONSUMPTION	.800	.800	.800	.800	.840	.900	.900	.900	.900	.900
WATER COST	.402	.401	.400	.400	.760	.615	.611	.611	.611	.611

UTILITIES COST TOTAL	**	16.784	16.781	16.777	18.940	16.223	16.212
VARIABLE COST TOTAL	***	179.806	179.564	179.554	196.925	181.339	181.242
FIXED COST							
LABOR COST		2.018	2.018	2.018	3.037	1.989	1.989
DEPRECIATION COST		9.866	9.815	9.815	13.212	10.607	10.607
REPAIR COST		3.582	3.584	3.584	5.085	3.330	3.330
OTHER COST		5.490	4.171	4.171	5.298	3.629	3.630
FIXED COST TOTAL	***	20.955	19.587	19.588	26.632	19.554	19.555
SHP COST TOTAL	****	200.761	199.151	199.142	223.557	200.893	200.797
BILLT PRODUCTION		1,145,500	1,145,500	1,145,500	1,014,700	1,549,500	1,549,500

CASE 1-1  
 UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET  
 - SMP -

(UNIT : US\$/SMP TON)

VARIABLE COST	1999	2000	2001	2002	2003	2004
RAW MATERIAL & SUPPLIES						
DRI UNIT PRICE	112.991	114.968	114.217	111.057	114.503	114.500
DRI UNIT CONSUMPTION	.501	.501	.501	.501	.501	.501
DRI COST	56.616	57.607	57.230	55.647	57.373	57.372
B LIME UNIT PRICE	38.766	38.763	36.986	36.016	37.278	39.093
B LIME UNIT CONSUMPTION	.042	.042	.042	.042	.042	.042
B LIME COST	1.624	1.624	1.549	1.509	1.561	1.637
SCRAP UNIT PRICE	126.988	126.988	126.988	126.988	126.988	126.988
SCRAP UNIT CONSUMPTION	.488	.488	.488	.488	.488	.488
SCRAP COST	61.970	61.970	61.970	61.970	61.970	61.970
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	1.883	1.883	1.883	1.883	1.883	1.883
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	.017	.017	.017	.017	.017	.017
COKE BREEZE COST	1.637	1.637	1.637	1.637	1.637	1.637
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	9.799	9.799	9.799	9.799	9.799	9.799
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	1.539	1.539	1.539	1.539	1.539	1.539
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	.004	.004	.004	.004	.004	.004
LADLE BRICK COST	4.086	4.086	4.086	4.086	4.086	4.086
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	.010	.010	.010	.010	.010	.010
FETLING MAT COST	3.067	3.067	3.067	3.067	3.067	3.067
HBI PRICE	126.610	126.610	126.610	126.610	126.610	126.610
HBI UNIT CONSUMPTION	.129	.129	.129	.129	.129	.129
HBI COST	16.333	16.333	16.333	16.333	16.333	16.333
FEMN PRICE	534.900	534.900	534.900	534.900	534.900	534.900
FEMN UNIT CONSUMPTION	.010	.010	.010	.010	.010	.010
FEMN COST	5.296	5.296	5.296	5.296	5.296	5.296
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	.051	.051	.051	.051	.051	.051
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	.051	.051	.051	.051	.051	.051
SUB TOTAL *	165.569	166.559	166.108	166.484	166.264	166.338
MANUFACTURING SUPPLIES COST	.812	.812	.812	.812	.812	.812
RAW MAT & SUPPLIES C TOTAL **	166.381	167.371	166.920	165.296	167.076	167.150
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	2.266	2.266	2.266	2.266	2.266	2.266
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	587.000	587.000	587.000	587.000	587.000	587.000
ELECTRICITY COST	13.535	13.535	13.588	13.316	13.509	13.509
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	4.200	4.200	4.200	4.200	4.200	4.200
NATURAL GAS COST	.322	.322	.322	.322	.322	.322
O2N2 UNIT PRICE	.097	.097	.095	.094	.097	.097
O2N2 UNIT CONSUMPTION	16.600	16.600	16.600	16.600	16.600	16.600
O2N2 COST	1.615	1.615	1.577	1.561	1.603	1.603
COMP AIR UNIT PRICE	.005	.005	.004	.004	.005	.005
COMP AIR UNIT CONSUMPTION	26.000	26.000	26.000	26.000	26.000	26.000
COMPRESSED AIR COST	.129	.129	.116	.111	.126	.126
WATER UNIT PRICE	.678	.678	.631	.608	.669	.669
WATER UNIT CONSUMPTION	.900	.900	.900	.900	.900	.900
WATER COST	.611	.611	.568	.547	.602	.602

UTILITIES COST TOTAL	**	16.212	15.972	15.857	16.162	16.162
VARIABLE COST TOTAL	***	180.326	180.625	178.886	180.971	181.046
FIXED COST						
LABOR COST		1.989	1.989	1.989	1.989	1.989
DEPRECIATION COST		10.607	8.612	7.612	7.612	7.612
REPAIR COST		3.350	3.324	3.323	5.980	5.980
OTHER COST		3.630	3.597	3.579	3.623	3.623
FIXED COST TOTAL	***	19.555	17.522	16.503	19.204	19.204
SMP COST TOTAL	****	199.881	198.148	195.389	200.175	200.250
BILLT PRODUCTION		1,549,500	1,549,500	1,549,500	1,549,500	1,549,500



CASE 1-1  
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET  
- SMP -

	2005	2006	2007	2008	2009	2010
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
DRI UNIT PRICE	114.525	114.503	112.523	114.500	114.525	114.503
DRI UNIT CONSUMPTION	.501	.501	.501	.501	.501	.501
DRI COST	57.384	57.373	56.381	57.372	57.384	57.373
B LIME UNIT PRICE	39.096	39.096	39.096	37.275	39.096	39.096
B LIME UNIT CONSUMPTION	.042	.042	.042	.042	.042	.042
B LIME COST	1.638	1.638	1.638	1.561	1.638	1.638
SCRAP UNIT PRICE	126.988	126.988	126.988	126.988	126.988	126.988
SCRAP UNIT CONSUMPTION	.488	.488	.488	.488	.488	.488
SCRAP COST	61.970	61.970	61.970	61.970	61.970	61.970
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	1.883	1.883	1.883	1.883	1.883	1.883
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	.017	.017	.017	.017	.017	.017
COKE BREEZE COST	1.637	1.637	1.637	1.637	1.637	1.637
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	9.799	9.799	9.799	9.799	9.799	9.799
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	1.539	1.539	1.539	1.539	1.539	1.539
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	.004	.004	.004	.004	.004	.004
LADLE BRICK COST	4.086	4.086	4.086	4.086	4.086	4.086
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	319.530
FETLING MAT UNIT CONSUMPTION	.010	.010	.010	.010	.010	.010	.010
FETLING MAT COST	3.067	3.067	3.067	3.067	3.067	3.067	3.067
HBI PRICE	126.610	126.610	126.610	126.610	126.610	126.610	126.610
HBI UNIT CONSUMPTION	.129	.129	.129	.129	.129	.129	.129
HBI COST	16.333	16.333	16.333	16.333	16.333	16.333	16.333
FEMN PRICE	534.900	534.900	534.900	534.900	534.900	534.900	534.900
FEMN UNIT CONSUMPTION	.010	.010	.010	.010	.010	.010	.010
FEMN COST	5.296	5.296	5.296	5.296	5.296	5.296	5.296
FEV PRICE	12,629.520	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	.000
FEV COST	.051	.051	.051	.051	.051	.051	.051
DOLO PRICE	72.840	72.840	72.840	72.840	72.840	72.840	72.840
DOLO UNIT CONSUMPTION	.001	.001	.001	.001	.001	.001	.001
DOLO COST	.051	.051	.051	.051	.051	.051	.051
SUB TOTAL *	166.351	166.340	165.348	166.262	166.351	166.340	166.340
MANUFACTURING SUPPLIES COST	.812	.812	.812	.812	.812	.812	.812
RAW MAT & SUPPLIES C TOTAL **	167.163	167.152	166.160	167.074	167.163	167.152	167.152
BY-PRODUCT							
SCRAP UNIT PRICE	118.240	118.240	118.240	118.240	118.240	118.240	118.240
SCRAP UNIT CONSUMPTION	.019	.019	.019	.019	.019	.019	.019
SCRAP COST	2.266	2.266	2.266	2.266	2.266	2.266	2.266
DUST UNIT CONSUMPTION	.010	.010	.010	.010	.010	.010	.010
SLAG UNIT CONSUMPTION	.153	.153	.153	.153	.153	.153	.153
SCALE SMP UNIT CONSUMPTION	.005	.005	.005	.005	.005	.005	.005
WASTE BRICK UNIT CONSUMPTION	.012	.012	.012	.012	.012	.012	.012
UTILITIES							
ELECT UNIT PRICE	.023	.023	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	587.000	587.000	587.000	587.000	587.000	587.000	587.000
ELECTRICITY COST	13.509	13.509	13.509	13.509	13.509	13.509	13.509
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	4.200	4.200	4.200	4.200	4.200	4.200	4.200
NATURAL GAS COST	.322	.322	.322	.322	.322	.322	.322
O2N2 UNIT PRICE	.097	.097	.097	.097	.097	.097	.097
O2N2 UNIT CONSUMPTION	16.600	16.600	16.600	16.600	16.600	16.600	16.600
O2N2 COST	1.603	1.603	1.603	1.603	1.603	1.603	1.603
COMP AIR UNIT PRICE	.005	.005	.005	.005	.005	.005	.005
COMP AIR UNIT CONSUMPTION	26.000	26.000	26.000	26.000	26.000	26.000	26.000
COMPRESSED AIR COST	.126	.126	.126	.126	.126	.126	.126
WATER UNIT PRICE	.669	.669	.669	.669	.669	.669	.669
WATER UNIT CONSUMPTION	.900	.900	.900	.900	.900	.900	.900
WATER COST	.602	.602	.602	.602	.602	.602	.602

UTILITIES COST TOTAL	**	16.162	16.162	16.162	16.162	16.162	16.162
VARIABLE COST TOTAL	***	181.058	181.047	180.055	180.970	181.058	181.047
FIXED COST							
LABOR COST		1.989	1.989	1.989	1.989	1.989	1.989
DEPRECIATION COST		7.612	7.612	7.612	7.612	7.612	7.612
REPAIR COST		5.980	5.980	5.980	5.980	5.980	5.980
OTHER COST		3.623	3.623	3.622	3.623	3.623	3.623
FIXED COST TOTAL	***	19.204	19.204	19.203	19.204	19.204	19.204
SMP COST TOTAL	****	200.262	200.251	199.258	200.174	200.262	200.251
BILLT PRODUCTION		1,549,500	1,549,500	1,549,500	1,549,500	1,549,500	1,549,500

CASE 1-1  
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET  
- SMP -

	2011	2012	2013	2014	2015
VARIABLE COST					
RAW MATERIAL & SUPPLIES					
DRI UNIT PRICE	114.290	114.477	114.501	114.480	112.500
DRI UNIT CONSUMPTION	.501	.501	.501	.501	.501
DRI COST	57.267	57.360	57.373	57.362	56.370
B LIME UNIT PRICE	39.032	39.063	37.247	39.066	39.066
B LIME UNIT CONSUMPTION	.042	.042	.042	.042	.042
B LIME COST	1.635	1.636	1.560	1.636	1.636
SCRAP UNIT PRICE	126.988	126.988	126.988	126.988	126.988
SCRAP UNIT CONSUMPTION	.488	.488	.488	.488	.488
SCRAP COST	61.970	61.970	61.970	61.970	61.970
FESI PRICE	537.950	537.950	537.950	537.950	537.950
FESI UNIT CONSUMPTION	.004	.004	.004	.004	.004
FESI COST	1.883	1.883	1.883	1.883	1.883
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	.017	.017	.017	.017	.017
COKE BREEZE COST	1.637	1.637	1.637	1.637	1.637
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	9.799	9.799	9.799	9.799	9.799
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	1.539	1.539	1.539	1.539	1.539
LADLE BRICK PRICE	1,047.570	1,047.570	1,047.570	1,047.570	1,047.570
LADLE BRICK UNIT CONSUMPTION	.004	.004	.004	.004	.004
LADLE BRICK COST	4.086	4.086	4.086	4.086	4.086
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

FETILING MAT PRICE	319.530	319.530	319.530	319.530	319.530
FETILING MAT UNIT CONSUMPTION	.010	.010	.010	.010	.010
FETILING MAT COST	3.067	3.067	3.067	3.067	3.067
HBI PRICE	126.610	126.610	126.610	126.610	126.610
HBI UNIT CONSUMPTION	.129	.129	.129	.129	.129
HBI COST	16.333	16.333	16.333	16.333	16.333
FEMN PRICE	534.900	534.900	534.900	534.900	534.900
FEMN UNIT CONSUMPTION	.010	.010	.010	.010	.010
FEMN COST	5.296	5.296	5.296	5.296	5.296
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	.051	.051	.051	.051	.051
DOLO PRICE	72.840	72.840	72.840	72.840	72.840
DOLO UNIT CONSUMPTION	.001	.001	.001	.001	.001
DOLO COST	.051	.051	.051	.051	.051
SUB TOTAL *	166.230	166.325	166.262	166.327	165.335
MANUFACTURING SUPPLIES COST	.812	.812	.812	.812	.812
RAW MAT & SUPPLIES C TOTAL **	167.042	167.137	167.073	167.139	166.147
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	2.266	2.266	2.266	2.266	2.266
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	587.000	587.000	587.000	587.000	587.000
ELECTRICITY COST	13.465	13.505	13.505	13.505	13.505
N GAS UNIT PRICE	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	4.200	4.200	4.200	4.200	4.200
NATURAL GAS COST	.322	.322	.322	.322	.322
O2N2 UNIT PRICE	.094	.094	.094	.094	.094
O2N2 UNIT CONSUMPTION	16.600	16.600	16.600	16.600	16.600
O2N2 COST	1.125	1.555	1.555	1.555	1.555
COMP AIR UNIT PRICE	.004	.005	.005	.005	.005
COMP AIR UNIT CONSUMPTION	26.000	26.000	26.000	26.000	26.000
COMPRESSED AIR COST	.103	.123	.123	.123	.123
WATER UNIT PRICE	.575	.659	.659	.659	.659
WATER UNIT CONSUMPTION	.900	.900	.900	.900	.900
WATER COST	.518	.594	.594	.594	.594

UTILITIES COST TOTAL	**	15.533	16.099	16.099	16.099	16.099
VARIABLE COST TOTAL	***	180.309	180.970	180.906	180.971	179.979
FIXED COST						
LABOR COST		1.989	1.989	1.989	1.989	1.989
DEPRICIATION COST		6.932	5.980	5.980	5.980	5.980
REPAIR COST		5.992	7.450	7.450	7.450	7.450
OTHER COST		3.623	3.622	3.622	3.622	3.622
FIXED COST TOTAL	***	18.536	19.041	19.041	19.041	19.041
SMP COST TOTAL	****	198.845	200.011	199.947	200.013	199.021
BILLT PRODUCTION		1,549,500	1,549,500	1,549,500	1,549,500	1,549,500

CASE 1-1  
UPDATE-2 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	223.557	200.893	200.797
BAR BILLET UNIT CONSUMPTION	1.045	1.045	1.045	1.005	1.045	1.045
BAR BILLET COST	209.787	208.111	208.105	224.780	209.934	209.835
P.BILLET UNIT PRICE	258.260	258.260	258.260	258.260	258.260	258.260
P.BILLET UNIT CONSUMPTION	.000	.000	.000	.039	.000	.000
P.BILLET COST	.000	.000	.000	10.063	.000	.000
SUB TOTAL *	209.787	208.111	208.105	234.844	209.934	209.835
MANUFACTURING SUPPLIES COST	2.826	2.825	2.827	2.825	2.825	2.825
RAW MAT & SUPPLIES C TOTAL **	212.613	210.935	210.932	237.669	212.760	212.660
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	.024	.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	1.463	1.405	1.404
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	2.649	2.649
O2N2 UNIT PRICE	.134	.134	.134	.289	.097	.097
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.003	.003	.003	.006	.005	.005
COMP AIR UNIT CONSUMPTION	104.800	104.800	104.800	104.800	104.800	104.800
COMPRESSED AIR COST	.308	.303	.299	.627	.521	.518
WATER UNIT PRICE	.502	.501	.501	.904	.684	.678
WATER UNIT CONSUMPTION	.360	.360	.360	.360	.360	.360
WATER COST	.181	.181	.180	.326	.246	.244

UTILITIES COST TOTAL	**	4.539	4.534	4.529	5.065	4.820	4.815
VARIABLE COST TOTAL	***	213.739	212.067	212.047	239.321	214.167	214.062
FIXED COST							
LABOR COST		1.659	1.612	1.568	1.568	1.568	1.568
DEPRECIATION COST		5.673	5.489	5.339	5.339	5.341	5.339
REPAIR COST		2.240	2.178	2.118	1.714	1.714	1.714
OTHER COST		1.710	1.562	1.528	1.791	1.640	1.627
FIXED COST TOTAL	***	11.282	10.840	10.554	10.412	10.263	10.248
BAR COST TOTAL	****	225.021	222.908	222.601	249.733	224.429	224.309
BAR PRODUCTION		537,100	552,600	568,100	568,100	568,100	568,100



CASE 1-1  
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET  
- BAR -

(UNIT : US\$/BAR TON)

VARIABLE COST	1999	2000	2001	2002	2003	2004
RAW MATERIAL & SUPPLIES						
BAR BILLET UNIT PRICE	199.881	200.872	198.148	195.389	200.175	200.250
BAR BILLET UNIT CONSUMPTION	1.045	1.045	1.045	1.045	1.045	1.045
BAR BILLET COST	208.678	209.912	207.066	204.183	209.185	209.263
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 *	208.678	209.912	207.066	204.183	209.185	209.263
MANUFACTURING SUPPLIES COST	2.825	2.825	2.825	2.825	2.825	2.825
RAW MAT & SUPPLIES C TOTAL **	211.703	212.738	209.891	207.008	212.010	212.088
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	1.404	1.404	1.389	1.381	1.402	1.402
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	2.647	2.646	2.648	2.648
G2N2 UNIT PRICE	.097	.097	.095	.094	.097	.097
G2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
G2N2 COST	.000	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.005	.005	.004	.004	.005	.005
COMP AIR UNIT CONSUMPTION	104.800	104.800	104.800	104.800	104.800	104.800
COMPRESSED AIR COST	.518	.518	.468	.447	.506	.506
WATER UNIT PRICE	.678	.678	.631	.608	.669	.669
WATER UNIT CONSUMPTION	.360	.360	.360	.360	.360	.360
WATER COST	.244	.244	.227	.219	.241	.241

UTILITIES COST TOTAL	**	4,815	4,815	4,730	4,693	4,796	4,796
VARIABLE COST TOTAL	***	213,105	214,139	211,208	208,287	213,393	213,470
FIXED COST							
LABOR COST		1,568	1,568	1,568	1,568	1,568	1,568
DEPRECIATION COST		5,339	5,339	4,117	2,880	2,880	2,880
REPAIR COST		1,714	1,714	1,711	1,710	3,834	3,834
OTHER COST		1,627	1,626	1,579	1,556	1,626	1,625
FIXED COST TOTAL	***	10,248	10,247	8,976	7,714	9,908	9,907
BAR COST TOTAL	****	223,352	224,386	220,184	216,001	223,301	223,378
BAR PRODUCTION		568,100	568,100	568,100	568,100	568,100	568,100

CASE 1-1  
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET  
- BAR -

(UNIT : US\$/BAR TON)

VARIABLE COST	2005	2006	2007	2008	2009	2010
RAW MATERIAL & SUPPLIES						
BAR BILLET UNIT PRICE	200.262	200.251	199.258	200.174	200.262	200.251
BAR BILLET UNIT CONSUMPTION	1.045	1.045	1.045	1.045	1.045	1.045
BAR BILLET COST	209.275	209.264	208.227	209.183	209.276	209.264
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 *	209.275	209.264	208.227	209.183	209.276	209.264
MANUFACTURING SUPPLIES COST	2.825	2.825	2.825	2.825	2.825	2.825
RAW MAT & SUPPLIES C TOTAL **	212.101	212.090	211.052	212.008	212.101	212.090
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	1.402	1.402	1.402	1.402	1.402	1.402
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	2.648	2.648	2.648	2.648	2.648	2.648
O2N2 UNIT PRICE	.097	.097	.097	.097	.097	.097
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.005	.005	.005	.005	.005	.005
COMP AIR UNIT CONSUMPTION	104.800	104.800	104.800	104.800	104.800	104.800
COMPRESSED AIR COST	.506	.506	.506	.506	.506	.506
WATER UNIT PRICE	.669	.669	.669	.669	.669	.669
WATER UNIT CONSUMPTION	.360	.360	.360	.360	.360	.360
WATER COST	.241	.241	.241	.241	.241	.241

UTILITIES COST TOTAL	**	4.796	4.796	4.796	4.796	4.796	4.796
VARIABLE COST TOTAL	***	213.483	212.434	213.391	213.484	213.472	213.472
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		3.834	3.834	3.834	3.834	3.834	3.834
OTHER COST		1.626	1.626	1.625	1.626	1.626	1.626
FIXED COST TOTAL	***	9.908	9.908	9.907	9.908	9.908	9.908
BAR COST TOTAL	****	223.391	222.342	223.298	223.392	223.380	223.380
BAR PRODUCTION		568,100	568,100	568,100	568,100	568,100	568,100

CASE 1-1  
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET  
- BAR -

(UNIT : US\$/BAR TON)

VARIABLE COST	2011	2012	2013	2014	2015
RAW MATERIAL & SUPPLIES					
BAR BILLET UNIT PRICE	198.845	200.011	199.947	200.013	199.021
BAR BILLET UNIT CONSUMPTION	1.045	1.045	1.045	1.045	1.045
BAR BILLET COST	207.795	209.013	208.946	209.015	207.978
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 *	207.795	209.013	208.946	209.015	207.978
MANUFACTURING SUPPLIES COST	2.825	2.825	2.825	2.825	2.825
RAW MAT & SUPPLIES C TOTAL **	210.620	211.838	211.771	211.840	210.803
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	1.597	1.401	1.401	1.401	1.401
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	2.648	2.648	2.648	2.648	2.648
O2N2 UNIT PRICE	.068	.094	.094	.094	.094
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.004	.005	.005	.005	.005
COMP AIR UNIT CONSUMPTION	104.800	104.800	104.800	104.800	104.800
COMPRESSED AIR COST	.414	.497	.497	.497	.497
WATER UNIT PRICE	.575	.659	.659	.659	.659
WATER UNIT CONSUMPTION	.360	.360	.360	.360	.360
WATER COST	.207	.237	.237	.237	.237

UTILITIES COST TOTAL	**	4.665	4.783	4.783	4.783
VARIABLE COST TOTAL	***	211.872	213.207	213.209	212.173
FIXED COST					
LABOR COST		1.568	1.568	1.568	1.568
DEPRECIATION COST		2.880	2.880	2.880	2.880
REPAIR COST		3.840	3.835	3.835	3.835
OTHER COST		1.625	1.623	1.623	1.623
FIXED COST TOTAL	***	9.914	9.906	9.906	9.906
BAR COST TOTAL	****	221.786	223.113	223.115	222.079
BAR PRODUCTION		568,100	568,100	568,100	568,100

CASE 1-1  
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET  
- ROD -

(UNIT : US\$/ROD TON)

	1993	1994	1995	1996	1997	1998
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
ROD BILLET UNIT	199.151	199.142	199.142	223.557	200.893	200.797
ROD BILLET UNIT CONSUMPTION	1.023	1.023	1.023	.985	1.023	1.024
ROD BILLET COST	203.831	203.821	203.821	220.144	205.612	205.526
P. BILLET UNIT	258.260	258.260	258.260	258.260	258.260	258.260
P. BILLET UNIT CONSUMPTION	.000	.000	.000	.039	.000	.000
P. BILLET COST	.000	.000	.000	10.000	.000	.000
SUB TOTAL *	203.831	203.821	203.821	230.144	205.612	205.526
MANUFACTURING SUPPLIES COST	2.719	2.842	2.379	5.596	2.969	2.842
RAW MAT & SUPPLIES C TOTAL **	208.198	206.673	206.201	235.740	208.581	208.368
BY-PRODUCT						
SCRAP PRICE	118.240	118.240	118.240	118.240	118.240	118.240
SCRAP UNIT CONSUMPTION	.021	.021	.021	.020	.020	.020
SCRAP COST	2.431	2.431	2.431	2.410	2.422	2.419
SCALE ROD UNIT CONSUMPTION	.009	.009	.009	.009	.009	.009
UTILITIES						
ELECT UNIT PRICE	.023	.023	.023	.024	.023	.023
ELECT UNIT CONSUMPTION	106.100	106.100	106.100	103.800	100.800	100.800
ELECTRICITY COST	2.440	2.439	2.439	2.494	2.325	2.324
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	29.400	29.400	29.400	28.800	27.900	27.900
NATURAL GAS COST	2.258	2.258	2.258	2.212	2.142	2.142
O2N2 UNIT PRICE	.134	.134	.134	.289	.097	.097
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.003	.003	.003	.006	.005	.005
COMP AIR UNIT CONSUMPTION	16.800	16.800	16.800	16.500	16.000	16.000
COMPRESSED AIR COST	.049	.048	.048	.099	.079	.079
WATER UNIT PRICE	.502	.501	.501	.904	.684	.678
WATER UNIT CONSUMPTION	.550	.550	.550	.630	.760	.760
WATER COST	.276	.276	.275	.570	.520	.516

UTILITIES COST TOTAL	**	5.023	5.022	5.020	5.374	5.066	5.061
VARIABLE COST TOTAL	***	210.790	209.264	208.790	238.704	211.225	211.010
FIXED COST							
LABOR COST		1.313	1.313	1.313	2.107	1.070	1.024
DEPRECIATION COST		7.911	7.880	7.880	12.150	8.120	7.773
REPAIR COST		2.562	2.563	2.563	4.686	2.380	2.278
OTHER COST		2.054	1.971	1.963	2.589	1.536	1.481
FIXED COST TOTAL	***	13.840	13.727	13.719	21.531	13.106	12.556
ROD COST TOTAL	****	224.629	222.991	222.509	260.236	224.332	223.566
ROD PRODUCTION		544,700	544,700	544,700	456,200	898,200	938,400



CASE 1-1  
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET  
- ROD -

(UNIT : US\$/ROD TON)

	1999	2000	2001	2002	2003	2004
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
ROD BILLET UNIT	199.881	200.872	198.148	195.389	200.175	200.250
ROD BILLET UNIT CONSUMPTION	1.024	1.024	1.024	1.024	1.024	1.024
ROD BILLET COST	204.589	205.602	202.814	199.990	204.890	204.966
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 *	204.589	205.602	202.814	199.990	204.890	204.966
MANUFACTURING SUPPLIES COST	2.842	2.842	2.842	2.842	2.842	2.842
RAW MAT & SUPPLIES C TOTAL **	207.431	208.444	205.656	202.832	207.732	207.808
BY-PRODUCT						
SCRAP PRICE	118.240	118.240	118.240	118.240	118.240	118.240
SCRAP UNIT CONSUMPTION	.020	.020	.020	.020	.020	.020
SCRAP COST	2.419	2.419	2.419	2.419	2.419	2.419
SCALE ROD UNIT CONSUMPTION	.009	.009	.009	.009	.009	.009
UTILITIES						
ELECT UNIT PRICE	.023	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	100.800	100.800	100.800	100.800	100.800	100.800
ELECTRICITY COST	2.324	2.324	2.299	2.287	2.320	2.320
N GAS UNIT PRICE	.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	27.900	27.900	27.900	27.900	27.900	27.900
NATURAL GAS COST	2.142	2.142	2.140	2.140	2.141	2.141
O2N2 UNIT PRICE	.097	.097	.095	.094	.097	.097
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.005	.005	.004	.004	.005	.005
COMP AIR UNIT CONSUMPTION	16.000	16.000	16.000	16.000	16.000	16.000
COMPRESSED AIR COST	.079	.079	.071	.068	.077	.077
WATER UNIT PRICE	.678	.678	.631	.608	.669	.669
WATER UNIT CONSUMPTION	.760	.760	.760	.760	.760	.760
WATER COST	.516	.516	.480	.462	.508	.508

UTILITIES COST TOTAL	**	5.061	5.061	4.990	4.956	5.047	5.047
VARIABLE COST TOTAL	***	210.072	211.086	208.227	205.370	210.359	210.435
FIXED COST							
LABOR COST		1.024	1.024	1.024	1.024	1.024	1.024
DEPRECIATION COST		7.773	7.775	7.794	6.483	6.075	6.075
REPAIR COST		2.278	2.278	2.274	2.273	3.766	3.766
OTHER COST		1.481	1.481	1.453	1.439	1.481	1.480
FIXED COST TOTAL	***	12.556	12.555	12.545	11.219	12.346	12.345
ROD COST TOTAL	****	222.628	223.641	220.772	216.589	222.705	222.781
ROD PRODUCTION		938,400	938,400	938,400	938,400	938,400	938,400

CASE 1-1  
UPDATE-2 WITHOUT ESCALATION

		MANUFACTURING COST SHEET					
		- ROD -					
		2005	2006	2007	2008	2009	2010
(UNIT : US\$/ROD TON)							
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
ROD BILLET UNIT		200.262	200.251	199.258	200.174	200.262	200.251
ROD BILLET UNIT CONSUMPTION		1.024	1.024	1.024	1.024	1.024	1.024
ROD BILLET COST		204.978	204.967	203.951	204.888	204.979	204.967
P.BILLET UNIT							
P.BILLET UNIT CONSUMPTION		258.260	258.260	258.260	258.260	258.260	258.260
P.BILLET COST		.000	.000	.000	.000	.000	.000
P.BILLET COST		.000	.000	.000	.000	.000	.000
SUB TOTAL	*	204.978	204.967	203.951	204.888	204.979	204.967
MANUFACTURING SUPPLIES COST							
RAW MAT & SUPPLIES C TOTAL **		2.842	2.842	2.842	2.842	2.842	2.842
		207.820	207.810	206.793	207.730	207.821	207.810
BY-PRODUCT							
SCRAP PRICE		118.240	118.240	118.240	118.240	118.240	118.240
SCRAP UNIT CONSUMPTION		.020	.020	.020	.020	.020	.020
SCRAP COST		2.419	2.419	2.419	2.419	2.419	2.419
SCALE ROD UNIT CONSUMPTION		.009	.009	.009	.009	.009	.009
UTILITIES							
ELECT UNIT PRICE		.023	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION		100.800	100.800	100.800	100.800	100.800	100.800
ELECTRICITY COST		2.320	2.320	2.320	2.320	2.320	2.320
N GAS UNIT PRICE		.077	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION		27.900	27.900	27.900	27.900	27.900	27.900
NATURAL GAS COST		2.141	2.141	2.141	2.141	2.141	2.141
O2N2 UNIT PRICE		.097	.097	.097	.097	.097	.097
O2N2 UNIT CONSUMPTION		.000	.000	.000	.000	.000	.000
O2N2 COST		.000	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE		.005	.005	.005	.005	.005	.005
COMP AIR UNIT CONSUMPTION		16.000	16.000	16.000	16.000	16.000	16.000
COMPRESSED AIR COST		.077	.077	.077	.077	.077	.077
WATER UNIT PRICE		.669	.669	.669	.669	.669	.669
WATER UNIT CONSUMPTION		.760	.760	.760	.760	.760	.760
WATER COST		.508	.508	.508	.508	.508	.508

	5.047	5.047	5.047	5.047	5.047	5.047	5.047
UTILITIES COST TOTAL **							
VARIABLE COST TOTAL ***	210.448	210.437	209.420	210.357	210.448	210.437	210.437
FIXED COST							
LABOR COST	1.024	1.024	1.024	1.024	1.024	1.024	1.024
DEPRECIATION COST	6.076	6.076	6.076	6.075	6.075	6.075	6.075
REPAIR COST	3.766	3.766	3.766	3.766	3.766	3.766	3.766
OTHER COST	1.481	1.481	1.481	1.480	1.481	1.481	1.481
FIXED COST TOTAL ***	12.347	12.347	12.347	12.345	12.346	12.346	12.346
ROD COST TOTAL ****	222.794	222.784	221.767	222.703	222.794	222.783	222.783
ROD PRODUCTION	938,400	938,400	938,400	938,400	938,400	938,400	938,400

CASE 1-1  
UPDATE-2 WITHOUT ESCALATION

MANUFACTURING COST SHEET  
- ROD -

(UNIT : US\$/ROD TON)

	2011	2012	2013	2014	2015
VARIABLE COST					
RAW MATERIAL & SUPPLIES					
ROD BILLET UNIT	198.845	200.011	199.947	200.013	199.021
ROD BILLET UNIT CONSUMPTION	1.024	1.024	1.024	1.024	1.024
ROD BILLET COST	203.528	204.721	204.655	204.723	203.708
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 *	203.528	204.721	204.655	204.723	203.708
MANUFACTURING SUPPLIES COST	2.842	2.842	2.842	2.842	2.842
RAW MAT & SUPPLIES C TOTAL **	206.370	207.563	207.498	207.565	206.550
BY-PRODUCT					
SCRAP PRICE	118.240	118.240	118.240	118.240	118.240
SCRAP UNIT CONSUMPTION	.020	.020	.020	.020	.020
SCRAP COST	2.419	2.419	2.419	2.419	2.419
SCALE ROD UNIT CONSUMPTION	.009	.009	.009	.009	.009
UTILITIES					
ELECT UNIT PRICE	.023	.023	.023	.023	.023
ELECT UNIT CONSUMPTION	100.800	100.800	100.800	100.800	100.800
ELECTRICITY COST	2.312	2.319	2.319	2.319	2.319
N GAS UNIT PRICE	.077	.077	.077	.077	.077
N GAS UNIT CONSUMPTION	27.900	27.900	27.900	27.900	27.900
NATURAL GAS COST	2.141	2.141	2.141	2.141	2.141
O2N2 UNIT PRICE	.068	.094	.094	.094	.094
O2N2 UNIT CONSUMPTION	.000	.000	.000	.000	.000
O2N2 COST	.000	.000	.000	.000	.000
COMP AIR UNIT PRICE	.004	.005	.005	.005	.005
COMP AIR UNIT CONSUMPTION	16.000	16.000	16.000	16.000	16.000
COMPRESSED AIR COST	.063	.076	.076	.076	.076
WATER UNIT PRICE	.575	.659	.659	.659	.659
WATER UNIT CONSUMPTION	.760	.760	.760	.760	.760
WATER COST	.437	.501	.501	.501	.501

UTILITIES COST TOTAL	**	4.954	5.037	5.037	5.037
VARIABLE COST TOTAL	***	208.904	210.181	210.183	209.168
FIXED COST					
LABOR COST		1.024	1.024	1.024	1.024
DEPRECIATION COST		5.459	4.597	4.597	4.597
REPAIR COST		3.774	5.096	5.096	5.096
OTHER COST		1.480	1.479	1.479	1.479
FIXED COST TOTAL	***	11.736	12.197	12.197	12.197
ROD COST TOTAL	****	220.643	222.378	222.380	221.365
ROD PRODUCTION		938,400	938,400	938,400	938,400

**CASE 0-2**

**EXISTING WITH ESCALATION**





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

		MANUFACTURING COST SHEET - DRP -						
		1993	1994	1995	1996	1997	1998	
(UNIT : US\$/DRI TON)								
VARIABLE COST								
RAW MATERIAL & SUPPLIES								
RAW MATERIAL		44.733	46.522	48.383	49.496	49.496	49.496	
PELLET UNIT PRICE		1.520	1.520	1.520	1.520	1.520	1.520	
PELLET UNIT CONSUMPTION		67.994	70.714	73.542	75.234	75.234	75.234	
PELLET COST								
SUB TOTAL	*	67.994	70.714	73.542	75.234	75.234	75.234	
MANUFACTURING SUPPLIES COST								
RAW MAT & SUPPLIES C TOTAL **		.922	.962	1.005	1.005	1.005	1.005	
		68.916	71.676	74.547	76.238	76.238	76.238	
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		.024	.025	.026	.027	.027	.027	
ELECT UNIT CONSUMPTION		110.000	110.000	110.000	110.000	110.000	110.000	
ELECTRICITY COST		2.619	2.743	2.873	2.953	2.953	2.953	
N GAS UNIT PRICE		.079	.082	.086	.087	.087	.087	
N GAS UNIT CONSUMPTION		290.000	290.000	290.000	290.000	290.000	290.000	
NATURAL GAS COST		22.940	23.853	24.803	25.371	25.371	25.371	
O2N2 UNIT PRICE		.135	.138	.140	.142	.142	.142	
O2N2 UNIT CONSUMPTION		2.000	2.000	2.000	2.000	2.000	2.000	
O2N2 COST		.271	.276	.281	.284	.284	.284	
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	.053	.053	.054	.054	.054	
WATER UNIT PRICE		.510	.520	.531	.538	.538	.538	
WATER UNIT CONSUMPTION		1.500	1.500	1.500	1.500	1.500	1.500	
WATER COST		.765	.781	.796	.806	.806	.806	
UTILITIES COST TOTAL **		26.648	27.706	28.806	29.467	29.467	29.467	
VARIABLE COST TOTAL ***		95.564	99.382	103.353	105.706	105.706	105.706	
FIXED COST								

LABOR COST	.914	.959	1.007	1.037	1.037	1.037
DEPRECIATION COST	7.925	7.903	7.903	7.901	7.903	7.903
REPAIR COST	3.312	3.443	3.577	3.658	3.658	3.658
S REPAIR COST	2.039	2.120	2.205	2.257	2.257	2.257
OTHER COST	8.950	8.472	8.518	8.528	8.528	8.529
FIXED COST TOTAL	23.040	22.897	23.211	23.360	23.383	23.383
	***					
DRP COST TOTAL	118.604	122.279	126.564	129.086	129.089	129.089
	***					
DRI PRODUCTION	776,400	776,400	776,400	776,400	776,400	776,400

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

MANUFACTURING COST SHEET  
- DRP -

(UNIT : US\$/DRI TON)

	1999	2000	2001	2002	2003	2004
<b>VARIABLE COST</b>						
RAW MATERIAL & SUPPLIES						
PELLET UNIT PRICE	49.496	49.496	49.496	49.496	49.496	49.496
PELLET UNIT CONSUMPTION	1.520	1.520	1.520	1.520	1.520	1.520
PELLET COST	75.234	75.234	75.234	75.234	75.234	75.234
SUB TOTAL *	75.234	75.234	75.234	75.234	75.234	75.234
MANUFACTURING SUPPLIES COST						
RAW MAT & SUPPLIES C TOTAL **	1.005	1.005	1.005	1.005	1.005	1.005
OXIDE FINES UNIT CONSUMPTION	.060	.060	.060	.060	.060	.060
OXIDE THICKNER UNIT CONSUMPTION	.025	.025	.025	.025	.025	.025
<b>UTILITIES</b>						
ELECT UNIT PRICE	.027	.027	.027	.026	.027	.027
ELECT UNIT CONSUMPTION	110.000	110.000	110.000	110.000	110.000	110.000
ELECTRICITY COST	2.953	2.953	2.920	2.904	2.953	2.953
N GAS UNIT PRICE	.087	.087	.087	.087	.087	.087
N GAS UNIT CONSUMPTION	290.000	290.000	290.000	290.000	290.000	290.000
NATURAL GAS COST	25.371	25.371	25.353	25.345	25.367	25.367
O2N2 UNIT PRICE	.142	.142	.120	.110	.138	.138
O2N2 UNIT CONSUMPTION	2.000	2.000	2.000	2.000	2.000	2.000
O2N2 COST	.284	.284	.240	.220	.277	.277
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	.054	.054	.043	.039	.053	.053
WATER UNIT PRICE	.538	.538	.474	.443	.525	.525
WATER UNIT CONSUMPTION	1.500	1.500	1.500	1.500	1.500	1.500
WATER COST	.806	.806	.711	.664	.788	.788
UTILITIES COST TOTAL **	29.467	29.467	29.267	29.173	29.437	29.437
VARIABLE COST TOTAL ***	105.706	105.706	105.506	105.412	105.675	105.675
<b>FIXED COST</b>						

LABOR COST	1.037	1.037	1.037	1.037	1.037	1.037	1.037	1.037	1.037
DEPRECIATION COST	7.903	7.321	4.244	4.244	4.244	4.244	4.244	4.244	4.241
REPAIR COST	3.658	3.639	3.658	3.650	3.650	3.650	3.650	3.650	7.330
S REPAIR COST	.000	2.257	2.257	2.257	2.257	2.257	2.257	2.257	2.257
OTHER COST	8.529	8.489	8.528	8.468	8.468	8.468	8.468	8.468	8.534
FIXED COST TOTAL	21.127	22.742	23.380	19.635	19.635	19.635	19.635	19.635	23.399
***									
DRP COST TOTAL	126.833	128.248	129.086	125.047	125.047	125.047	125.047	125.047	129.074
****									
DRI PRODUCTION	776,400	776,400	776,400	776,400	776,400	776,400	776,400	776,400	776,400

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

MANUFACTURING COST SHEET  
- DRP -

	2005	2006	2007	2008	2009	2010
(UNIT : US\$/DRI TON)						
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
PELLET UNIT PRICE	49.496	49.496	49.496	49.496	49.496	49.496
PELLET UNIT CONSUMPTION	1.520	1.520	1.520	1.520	1.520	1.520
PELLET COST	75.234	75.234	75.234	75.234	75.234	75.234
SUB TOTAL *	75.234	75.234	75.234	75.234	75.234	75.234
MANUFACTURING SUPPLIES COST						
RAW MAT & SUPPLIES C TOTAL **	1.005	1.005	1.005	1.005	1.005	1.005
RAW MAT & SUPPLIES C TOTAL ***	76.238	76.238	76.238	76.238	76.238	76.238
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	.027	.027	.027	.027	.027	.027
ELECT UNIT CONSUMPTION	110.000	110.000	110.000	110.000	110.000	110.000
ELECTRICITY COST	2.953	2.953	2.953	2.953	2.953	2.953
N GAS UNIT PRICE	.087	.087	.087	.087	.087	.087
N GAS UNIT CONSUMPTION	290.000	290.000	290.000	290.000	290.000	290.000
NATURAL GAS COST	25.367	25.367	25.367	25.367	25.367	25.367
O2N2 UNIT PRICE	.138	.138	.138	.138	.138	.138
O2N2 UNIT CONSUMPTION	2.000	2.000	2.000	2.000	2.000	2.000
O2N2 COST	.277	.277	.277	.277	.277	.277
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	.053	.053	.053	.053	.053
WATER UNIT PRICE	.525	.525	.525	.525	.525	.525
WATER UNIT CONSUMPTION	1.500	1.500	1.500	1.500	1.500	1.500
WATER COST	.788	.788	.788	.788	.788	.788
UTILITIES COST TOTAL **	29.437	29.437	29.437	29.437	29.437	29.437
VARIABLE COST TOTAL ***	105.675	105.675	105.675	105.675	105.675	105.675
FIXED COST						

LABOR COST	1.037	1.037	1.037	1.037	1.037	1.037	1.037	1.037	1.037
DEPRECIATION COST	4.266	4.244	4.241	4.244	4.244	4.241	4.244	4.244	4.244
REPAIR COST	7.330	7.330	7.330	7.330	7.330	7.330	7.330	7.330	7.330
S. REPAIR COST	2.257	2.257	2.257	2.257	2.257	2.257	2.257	2.257	2.257
OTHER COST	8.535	8.535	8.534	8.534	8.534	8.534	8.535	8.535	8.535
FIXED COST TOTAL	23.423	23.401	23.399	23.399	23.399	23.399	23.423	23.401	23.401
DRP COST TOTAL	129.099	129.077	129.074	126.820	129.077	129.074	129.099	129.077	129.077
DRI PRODUCTION	776,400	776,400	776,400	776,400	776,400	776,400	776,400	776,400	776,400

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

MANUFACTURING COST SHEET  
- DRP -

	2011	2012	2013	2014	2015
(UNIT : US\$/DRI TON)					
VARIABLE COST					
RAW MATERIAL & SUPPLIES					
PELLET UNIT PRICE	49.496	49.496	49.496	49.496	49.496
PELLET UNIT CONSUMPTION	1.520	1.520	1.520	1.520	1.520
PELLET COST	75.234	75.234	75.234	75.234	75.234
SUB TOTAL *	75.234	75.234	75.234	75.234	75.234
MANUFACTURING SUPPLIES COST	1.005	1.005	1.005	1.005	1.005
RAW MAT & SUPPLIES C TOTAL **	76.238	76.238	76.238	76.238	76.238
BY-PRODUCT					
OXIDE FINES UNIT CONSUMPTION	.060	.060	.060	.060	.060
OXIDE THICKNER UNIT CONSUMPTION	.025	.025	.025	.025	.025
UTILITIES					
ELECT UNIT PRICE	.027	.027	.027	.027	.027
ELECT UNIT CONSUMPTION	110.000	110.000	110.000	110.000	110.000
ELECTRICITY COST	2.953	2.953	2.953	2.953	2.953
N GAS UNIT PRICE	.087	.087	.087	.087	.087
N GAS UNIT CONSUMPTION	290.000	290.000	290.000	290.000	290.000
NATURAL GAS COST	25.367	25.367	25.367	25.367	25.367
O2N2 UNIT PRICE	.138	.138	.138	.138	.138
O2N2 UNIT CONSUMPTION	2.000	2.000	2.000	2.000	2.000
O2N2 COST	.277	.277	.277	.277	.277
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	.053	.053	.053	.053	.053
WATER UNIT PRICE	.525	.525	.525	.525	.525
WATER UNIT CONSUMPTION	1.500	1.500	1.500	1.500	1.500
WATER COST	.788	.788	.788	.788	.788
UTILITIES COST TOTAL **	29.437	29.437	29.437	29.437	29.437
VARIABLE COST TOTAL ***	105.675	105.675	105.675	105.675	105.675

FIXED COST

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LABOR COST	1.037	1.037	1.037	1.037	1.037	1.037
DEPRECIATION COST	4.244	4.244	4.241	4.244	4.266	4.244
REPAIR COST	7.330	7.330	7.330	7.330	7.330	7.330
S REPAIR COST	2.257	2.257	2.257	2.257	2.257	.000
OTHER COST	8.535	8.534	8.534	8.534	8.535	8.535
FIXED COST TOTAL	23.401	23.401	23.399	23.401	23.423	21.145
***						
DRP COST TOTAL	129.077	129.076	129.074	129.076	129.099	126.820
****						
DRI PRODUCTION	776,400	776,400	776,400	776,400	776,400	776,400



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

MANUFACTURING COST SHEET  
- LCP -

(UNIT : US\$/LCP TON)

	1993	1994	1995	1996	1997	1998
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
LINE STONE UNIT PRICE	6.132	6.438	6.760	6.956	6.956	6.956
LINE STONE UNIT CONSUMPTION	2.000	2.000	2.000	2.000	2.000	2.000
LINE STONE COST	12.263	12.876	13.520	13.912	13.912	13.912
SUB TOTAL *	12.263	12.876	13.520	13.912	13.912	13.912
MANUFACTURING SUPPLIES COST	.146	.146	.146	.146	.219	.219
RAW MAT & SUPPLIES C TOTAL **	12.409	13.022	13.666	14.058	14.131	14.131
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	.024	.025	.026	.027	.027	.027
ELECT UNIT CONSUMPTION	60.000	60.000	60.000	60.000	60.000	60.000
ELECTRICITY COST	1.429	1.496	1.567	1.611	1.611	1.611
N GAS UNIT PRICE	.079	.082	.086	.087	.087	.087
N GAS UNIT CONSUMPTION	95.000	95.000	95.000	95.000	95.000	95.000
NATURAL GAS COST	7.515	7.814	8.125	8.311	8.311	8.311
O2N2 UNIT PRICE	.135	.138	.140	.142	.142	.142
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	.207	.207	.207	.208	.208	.208
WATER UNIT PRICE	.510	.520	.531	.538	.538	.538
WATER UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
WATER COST	.000	.000	.000	.000	.000	.000
UTILITIES COST TOTAL **	9.151	9.517	9.899	10.130	10.130	10.130
VARIABLE COST TOTAL ***	21.560	22.540	23.565	24.188	24.261	24.261
FIXED COST						

LABOR COST	3.607	3.787	3.976	4.092	4.092	4.092
DEPRECIATION COST	8.345	8.297	8.297	8.297	8.297	8.297
REPAIR COST	3.922	4.076	4.236	4.332	4.332	4.332
S REPAIR COST	.000	2.993	3.114	3.187	3.187	.000
OTHER COST	9.818	9.002	9.190	9.271	9.276	9.277
FIXED COST TOTAL	25.692	28.155	28.813	29.179	29.183	25.997
***						
LCP COST TOTAL	47.252	50.694	52.378	53.367	53.445	50.258
****						
B. LIME PRODUCTION	41,100	41,100	41,100	41,100	41,100	41,100

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

MANUFACTURING COST SHEET  
- LCP -

(UNIT : US\$/LCP TON)

	1999	2000	2001	2002	2003	2004
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
LIME STONE UNIT PRICE	6.956	6.956	6.956	6.956	6.956	6.956
LIME STONE UNIT CONSUMPTION	2.000	2.000	2.000	2.000	2.000	2.000
LIME STONE COST	13.912	13.912	13.912	13.912	13.912	13.912
SUB TOTAL *	13.912	13.912	13.912	13.912	13.912	13.912
MANUFACTURING SUPPLIES COST	.219	.219	.219	.219	.219	.219
RAW MAT & SUPPLIES C TOTAL **	14.131	14.131	14.131	14.131	14.131	14.131
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	.027	.027	.027	.026	.027	.027
ELECT UNIT CONSUMPTION	60.000	60.000	60.000	60.000	60.000	60.000
ELECTRICITY COST	1.611	1.611	1.593	1.584	1.611	1.611
N GAS UNIT PRICE	.087	.087	.087	.087	.087	.087
N GAS UNIT CONSUMPTION	95.000	95.000	95.000	95.000	95.000	95.000
NATURAL GAS COST	8.311	8.311	8.305	8.303	8.310	8.310
O2N2 UNIT PRICE	.142	.142	.120	.110	.138	.138
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	.208	.208	.169	.152	.205	.205
WATER UNIT PRICE	.538	.538	.474	.443	.525	.525
WATER UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
WATER COST	.000	.000	.000	.000	.000	.000
UTILITIES COST TOTAL **	10.130	10.130	10.067	10.040	10.126	10.126
VARIABLE COST TOTAL ***	24.261	24.261	24.199	24.171	24.257	24.257
FIXED COST						

LABOR COST	4.092	4.092	4.092	4.092	4.092	4.092	4.092
DEPRECIATION COST	8.297	8.297	5.036	5.036	5.012	5.012	5.012
REPAIR COST	4.332	4.332	4.309	4.298	8.679	8.679	8.679
S REPAIR COST	3.187	3.187	3.187	3.187	.000	3.187	3.187
OTHER COST	9.277	9.271	8.641	8.313	9.421	9.415	9.415
FIXED COST TOTAL	29.184	29.179	26.385	24.927	27.203	30.385	30.385
***							
LCP COST TOTAL	53.446	53.440	50.583	49.098	51.460	54.642	54.642
***							
B. LIME PRODUCTION	41,100	41,100	41,100	41,100	41,100	41,100	41,100

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

MANUFACTURING COST SHEET  
- LCP -

(UNIT : US\$/LCP TON)

	2005	2006	2007	2008	2009	2010
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
LIME STONE UNIT PRICE	6.956	6.956	6.956	6.956	6.956	6.956
LIME STONE UNIT CONSUMPTION	2.000	2.000	2.000	2.000	2.000	2.000
LIME STONE COST	13.912	13.912	13.912	13.912	13.912	13.912
SUB TOTAL *	13.912	13.912	13.912	13.912	13.912	13.912
MANUFACTURING SUPPLIES COST						
RAW MAT & SUPPLIES C TOTAL **	.219	.219	.219	.219	.219	.219
	14.131	14.131	14.131	14.131	14.131	14.131
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	.027	.027	.027	.027	.027	.027
ELECT UNIT CONSUMPTION	60.000	60.000	60.000	60.000	60.000	60.000
ELECTRICITY COST	1.611	1.611	1.611	1.611	1.611	1.611
N GAS UNIT PRICE	.087	.087	.087	.087	.087	.087
N GAS UNIT CONSUMPTION	95.000	95.000	95.000	95.000	95.000	95.000
NATURAL GAS COST	8.310	8.310	8.310	8.310	8.310	8.310
O2N2 UNIT PRICE	.138	.138	.138	.138	.138	.138
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	.205	.205	.205	.205	.205	.205
WATER UNIT PRICE	.525	.525	.525	.525	.525	.525
WATER UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
WATER COST	.000	.000	.000	.000	.000	.000
UTILITIES COST TOTAL **	10.126	10.126	10.126	10.126	10.126	10.126
VARIABLE COST TOTAL ***	24.257	24.257	24.257	24.257	24.257	24.257
FIXED COST						

LABOR COST	4.092	4.092	4.092	4.092	4.092	4.092	4.092
DEPRECIATION COST	5.012	5.012	5.012	5.012	5.012	5.012	5.012
REPAIR COST	8.679	8.679	8.679	8.679	8.679	8.679	8.679
S REPAIR COST	3.187	3.187	3.187	3.187	3.187	3.187	3.187
OTHER COST	9.420	9.421	9.415	9.421	9.421	9.421	9.421
FIXED COST TOTAL	30.390	30.389	27.198	30.390	30.390	30.390	30.390
***							
LCP COST TOTAL	54.647	54.646	51.454	54.647	54.647	54.647	54.647
****							
B.LIME PRODUCTION	41,100	41,100	41,100	41,100	41,100	41,100	41,100

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

MANUFACTURING COST SHEET  
- LCP -

(UNIT : US\$/LCP TON)

	2011	2012	2013	2014	2015
VARIABLE COST					
RAW MATERIAL & SUPPLIES					
LIME STONE UNIT PRICE	6.956	6.956	6.956	6.956	6.956
LIME STONE UNIT CONSUMPTION	2.000	2.000	2.000	2.000	2.000
LIME STONE COST	13.912	13.912	13.912	13.912	13.912
SUB TOTAL *	13.912	13.912	13.912	13.912	13.912
MANUFACTURING SUPPLIES COST	.219	.219	.219	.219	.219
RAW MAT & SUPPLIES C TOTAL **	14.131	14.131	14.131	14.131	14.131
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	.027	.027	.027	.027	.027
ELECT UNIT CONSUMPTION	60.000	60.000	60.000	60.000	60.000
ELECTRICITY COST	1.611	1.611	1.611	1.611	1.611
N GAS UNIT PRICE	.087	.087	.087	.087	.087
N GAS UNIT CONSUMPTION	95.000	95.000	95.000	95.000	95.000
NATURAL GAS COST	8.310	8.310	8.310	8.310	8.310
O2N2 UNIT PRICE	.138	.138	.138	.138	.138
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	.205	.205	.205	.205	.205
WATER UNIT PRICE	.525	.525	.525	.525	.525
WATER UNIT CONSUMPTION	.000	.000	.000	.000	.000
WATER COST	.000	.000	.000	.000	.000
UTILITIES COST TOTAL **	10.126	10.126	10.126	10.126	10.126
VARIABLE COST TOTAL ***	24.257	24.257	24.257	24.257	24.257
FIXED COST					

LABOR COST	4.092	4.092	4.092	4.092	4.092	4.092
DEPRECIATION COST	5.012	5.012	5.012	5.012	5.012	5.012
REPAIR COST	8.679	8.679	8.679	8.679	8.679	8.679
S. REPAIR COST	3.187	3.187	.000	3.187	3.187	3.187
OTHER COST	9.421	9.415	9.419	9.421	9.421	9.421
FIXED COST TOTAL	30.390	30.385	27.202	30.390	30.390	30.390
***						
LCP COST TOTAL	54.647	54.642	51.459	54.647	54.647	54.647
****						
B. LIME PRODUCTION	41,100	41,100	41,100	41,100	41,100	41,100



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

MANUFACTURING COST SHEET  
- SMP -

(UNIT : US\$/SMP TON)

VARIABLE COST	1993	1994	1995	1996	1997	1998
RAW MATERIAL & SUPPLIES						
DRI UNIT PRICE	118.604	122.279	126.564	129.086	129.089	129.089
DRI UNIT CONSUMPTION	.678	.678	.678	.678	.678	.678
DRI COST	80.388	82.878	85.783	87.493	87.494	87.494
B LIME UNIT PRICE	47.252	50.694	52.378	53.367	53.445	50.258
B LIME UNIT CONSUMPTION	.036	.036	.036	.036	.036	.036
B LIME COST	1.695	1.819	1.879	1.915	1.918	1.803
SCRAP UNIT PRICE	127.210	133.037	139.133	142.833	142.833	142.833
SCRAP UNIT CONSUMPTION	.283	.283	.283	.283	.283	.283
SCRAP COST	36.000	37.649	39.375	40.422	40.422	40.422
FESI PRICE	558.123	586.029	615.331	633.175	633.175	633.175
FESI UNIT CONSUMPTION	.004	.004	.004	.004	.004	.004
FESI COST	2.177	2.286	2.400	2.469	2.469	2.469
AL PRICE	1,672.388	1,756.007	1,843.807	1,897.278	1,897.278	1,897.278
AL UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
AL COST	.167	.176	.184	.190	.190	.190
COKE BREEZE PRICE	98.760	103.698	108.882	112.040	112.040	112.040
COKE BREEZE UNIT CONSUMPTION	.005	.005	.005	.005	.005	.005
COKE BREEZE COST	.494	.518	.544	.560	.560	.560
ELECTRODE PRICE	2,587.813	2,691.326	2,798.979	2,863.355	2,863.355	2,863.355
ELECTRODE UNIT CONSUMPTION	.004	.004	.004	.004	.004	.004
ELECTRODE COST	9.834	10.227	10.636	10.881	10.881	10.881
FURNACE BRICK PRICE	1,441.217	1,498.866	1,558.821	1,594.673	1,594.673	1,594.673
FURNACE BRICK UNIT CONSUMPTION	.001	.001	.001	.001	.001	.001
FURNACE BRICK COST	1.729	1.799	1.871	1.914	1.914	1.914
LADLE BRICK PRICE	1,078.997	1,122.157	1,167.043	1,193.885	1,193.885	1,193.885
LADLE BRICK UNIT CONSUMPTION	.003	.003	.003	.003	.003	.003
LADLE BRICK COST	3.237	3.366	3.501	3.582	3.582	3.582
TUNDISH BRICK PRICE	625.395	650.411	676.428	691.986	691.986	691.986
TUNDISH BRICK UNIT CONSUMPTION	.002	.002	.002	.002	.002	.002
TUNDISH BRICK COST	1.501	1.561	1.623	1.661	1.661	1.661

FETLING MAT PRICE	329.116	342.281	355.972	364.159	364.159	364.159
FETLING MAT UNIT CONSUMPTION	.011	.011	.011	.011	.011	.011
FETLING MAT COST	3.620	3.765	3.916	4.006	4.006	4.006
HBI PRICE	130.408	135.625	141.050	144.294	144.294	144.294
HBI UNIT CONSUMPTION	.170	.170	.170	.170	.170	.170
HBI COST	22.169	23.056	23.978	24.530	24.530	24.530
FEMN PRICE	550.947	572.985	595.904	609.610	609.610	609.610
FEMN UNIT CONSUMPTION	.011	.011	.011	.011	.011	.011
FEMN COST	6.116	6.360	6.615	6.767	6.767	6.767
FEV PRICE	13,008.406	13,528.742	14,069.891	14,393.499	14,393.499	14,393.499
FEV UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
FEV COST	.065	.068	.070	.072	.072	.072
DOLO PRICE	75.572	79.350	83.318	85.734	85.734	85.734
DOLO UNIT CONSUMPTION	.001	.001	.001	.001	.001	.001
DOLO COST	.060	.063	.067	.069	.069	.069
SUB TOTAL *	169.253	175.592	182.443	186.528	186.532	186.418
MANUFACTURING SUPPLIES COST	.848	.885	.924	.924	.924	.924
RAW MAT & SUPPLIES C TOTAL **	170.101	176.477	183.367	187.452	187.457	187.343
BY-PRODUCT						
SCRAP UNIT PRICE	122.674	128.808	135.248	139.170	139.170	139.170
SCRAP UNIT CONSUMPTION	.019	.019	.019	.019	.019	.019
SCRAP COST	2.345	2.463	2.586	2.661	2.661	2.661
DUST UNIT CONSUMPTION	.010	.010	.010	.010	.010	.010
SLAG UNIT CONSUMPTION	.153	.153	.153	.153	.153	.153
SCALE SHP UNIT CONSUMPTION	.005	.005	.005	.005	.005	.005
WASTE BRICK UNIT CONSUMPTION	.012	.012	.012	.012	.012	.012
UTILITIES						
ELECT UNIT PRICE	.024	.025	.026	.027	.027	.027
ELECT UNIT CONSUMPTION	690.000	690.000	690.000	690.000	690.000	690.000
ELECTRICITY COST	16.429	17.207	18.024	18.522	18.522	18.522
N GAS UNIT PRICE	.079	.082	.086	.087	.087	.087
N GAS UNIT CONSUMPTION	4.000	4.000	4.000	4.000	4.000	4.000
NATURAL GAS COST	.316	.329	.342	.357	.367	.367
O2N2 UNIT PRICE	.135	.138	.140	.142	.142	.142
O2N2 UNIT CONSUMPTION	1.000	1.000	1.000	1.000	1.000	1.000
O2N2 COST	.135	.138	.140	.142	.142	.142
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	.077	.077	.077	.077	.077	.077
WATER UNIT PRICE	.510	.520	.531	.538	.538	.538
WATER UNIT CONSUMPTION	.800	.800	.800	.800	.800	.800
WATER COST	.408	.416	.425	.430	.430	.430

UTILITIES COST TOTAL	**	17,366	18,167	19,008	19,528	19,538	19,538
VARIABLE COST TOTAL	***	185,121	192,182	199,789	204,320	204,335	204,221
FIXED COST							
LABOR COST		2,093	2,198	2,308	2,375	2,375	2,375
DEPRECIATION COST		9,866	9,815	9,815	9,815	9,815	9,815
REPAIR COST		3,687	3,832	3,982	4,072	4,072	4,072
OTHER COST		5,546	4,336	4,450	4,645	4,644	4,646
FIXED COST TOTAL	***	21,192	20,182	20,555	20,907	20,906	20,908
SMP COST TOTAL	****	206,313	212,363	220,344	225,227	225,241	225,128
BILLT PRODUCTION		1,145,500	1,145,500	1,145,500	1,145,500	1,145,500	1,145,500

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

MANUFACTURING COST SHEET  
- SMP -

(UNIT : US\$/SMP TON)

VARIABLE COST	1999	2000	2001	2002	2003	2004
RAW MATERIAL & SUPPLIES						
DRI UNIT PRICE	126.833	129.086	128.248	125.047	129.077	129.074
DRI UNIT CONSUMPTION	.678	.678	.678	.678	.678	.678
DRI COST	85.965	87.492	86.924	84.754	87.486	87.484
B LIME UNIT PRICE	53.446	53.440	50.583	49.098	51.460	54.642
B LIME UNIT CONSUMPTION	.036	.036	.036	.036	.036	.036
B LIME COST	1.918	1.917	1.815	1.762	1.846	1.961
SCRAP UNIT PRICE	142.833	142.833	142.833	142.833	142.833	142.833
SCRAP UNIT CONSUMPTION	.283	.283	.283	.283	.283	.283
SCRAP COST	40.422	40.422	40.422	40.422	40.422	40.422
FESI PRICE	633.175	633.175	633.175	633.175	633.175	633.175
FESI UNIT CONSUMPTION	.004	.004	.004	.004	.004	.004
FESI COST	2.469	2.469	2.469	2.469	2.469	2.469
AL PRICE	1,897.278	1,897.278	1,897.278	1,897.278	1,897.278	1,897.278
AL UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
AL COST	.190	.190	.190	.190	.190	.190
COKE BREEZE PRICE	112.040	112.040	112.040	112.040	112.040	112.040
COKE BREEZE UNIT CONSUMPTION	.005	.005	.005	.005	.005	.005
COKE BREEZE COST	.560	.560	.560	.560	.560	.560
ELECTRODE PRICE	2,863.355	2,863.355	2,863.355	2,863.355	2,863.355	2,863.355
ELECTRODE UNIT CONSUMPTION	.004	.004	.004	.004	.004	.004
ELECTRODE COST	10.881	10.881	10.881	10.881	10.881	10.881
FURNACE BRICK PRICE	1,594.673	1,594.673	1,594.673	1,594.673	1,594.673	1,594.673
FURNACE BRICK UNIT CONSUMPTION	.001	.001	.001	.001	.001	.001
FURNACE BRICK COST	1.914	1.914	1.914	1.914	1.914	1.914
LADLE BRICK PRICE	1,193.885	1,193.885	1,193.885	1,193.885	1,193.885	1,193.885
LADLE BRICK UNIT CONSUMPTION	.003	.003	.003	.003	.003	.003
LADLE BRICK COST	3.582	3.582	3.582	3.582	3.582	3.582
TUNDISH BRICK PRICE	691.986	691.986	691.986	691.986	691.986	691.986
TUNDISH BRICK UNIT CONSUMPTION	.002	.002	.002	.002	.002	.002
TUNDISH BRICK COST	1.661	1.661	1.661	1.661	1.661	1.661

FETLING MAT PRICE	364.159	364.159	364.159	364.159	364.159	364.159	364.159
FETLING MAT UNIT CONSUMPTION	.011	.011	.011	.011	.011	.011	.011
FETLING MAT COST	4.006	4.006	4.006	4.006	4.006	4.006	4.006
HBI PRICE	144.294	144.294	144.294	144.294	144.294	144.294	144.294
HBI UNIT CONSUMPTION	.170	.170	.170	.170	.170	.170	.170
HBI COST	24.530	24.530	24.530	24.530	24.530	24.530	24.530
FENN PRICE	609.610	609.610	609.610	609.610	609.610	609.610	609.610
FENN UNIT CONSUMPTION	.011	.011	.011	.011	.011	.011	.011
FENN COST	6.767	6.767	6.767	6.767	6.767	6.767	6.767
FEV PRICE	14,393.499	14,393.499	14,393.499	14,393.499	14,393.499	14,393.499	14,393.499
FEV UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000	.000
FEV COST	.072	.072	.072	.072	.072	.072	.072
DOLO PRICE	85.734	85.734	85.734	85.734	85.734	85.734	85.734
DOLO UNIT CONSUMPTION	.001	.001	.001	.001	.001	.001	.001
DOLO COST	.069	.069	.069	.069	.069	.069	.069
SUB TOTAL *	185.003	186.531	185.860	183.637	186.453	186.565	186.565
MANUFACTURING SUPPLIES COST	.924	.924	.924	.924	.924	.924	.924
RAW MAT & SUPPLIES C TOTAL **	185.928	187.455	186.784	184.561	187.377	187.490	187.490
BY-PRODUCT							
SCRAP UNIT PRICE	139.170	139.170	139.170	139.170	139.170	139.170	139.170
SCRAP UNIT CONSUMPTION	.019	.019	.019	.019	.019	.019	.019
SCRAP COST	2.661	2.661	2.661	2.661	2.661	2.661	2.661
DUST UNIT CONSUMPTION	.010	.010	.010	.010	.010	.010	.010
SLAG UNIT CONSUMPTION	.153	.153	.153	.153	.153	.153	.153
SCALE SHP UNIT CONSUMPTION	.005	.005	.005	.005	.005	.005	.005
WASTE BRICK UNIT CONSUMPTION	.012	.012	.012	.012	.012	.012	.012
UTILITIES							
ELECT UNIT PRICE	.027	.027	.027	.026	.027	.027	.027
ELECT UNIT CONSUMPTION	690.000	690.000	690.000	690.000	690.000	690.000	690.000
ELECTRICITY COST	18.522	18.522	18.319	18.219	18.522	18.522	18.522
N GAS UNIT PRICE	.087	.087	.087	.087	.087	.087	.087
N GAS UNIT CONSUMPTION	4.200	4.200	4.200	4.200	4.200	4.200	4.200
NATURAL GAS COST	.367	.367	.367	.367	.367	.367	.367
O2N2 UNIT PRICE	.142	.142	.120	.110	.138	.138	.138
O2N2 UNIT CONSUMPTION	1.000	1.000	1.000	1.000	1.000	1.000	1.000
O2N2 COST	.142	.142	.120	.110	.138	.138	.138
COMP AIR UNIT PRICE	.003	.003	.002	.002	.003	.003	.003
COMP AIR UNIT CONSUMPTION	26.000	26.000	26.000	26.000	26.000	26.000	26.000
COMPRESSED AIR COST	.077	.077	.063	.057	.076	.076	.076
WATER UNIT PRICE	.538	.538	.474	.443	.525	.525	.525
WATER UNIT CONSUMPTION	.800	.800	.800	.800	.800	.800	.800
WATER COST	.430	.430	.379	.354	.420	.420	.420

UTILITIES COST TOTAL	**	19.538	19.247	19.107	19.524	19.524
VARIABLE COST TOTAL	***	202.805	203.371	201.007	204.241	204.353
FIXED COST						
LABOR COST		2.375	2.375	2.375	2.375	2.375
DEPRECIATION COST		9.815	7.117	5.764	5.764	5.764
REPAIR COST		4.072	4.051	4.041	8.159	8.159
OTHER COST		4.646	4.601	4.576	4.645	4.644
FIXED COST TOTAL	***	20.908	18.144	16.756	20.943	20.942
SMP COST TOTAL	****	223.713	221.515	217.764	225.184	225.296
BILLT PRODUCTION		1,145,500	1,145,500	1,145,500	1,145,500	1,145,500

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

MANUFACTURING COST SHEET  
- SMP -

(UNIT : US\$/SMP TON)

VARIABLE COST	2005	2006	2007	2008	2009	2010
RAM MATERIAL & SUPPLIES						
DRI UNIT PRICE	129.099	129.077	126.820	129.074	129.099	129.077
DRI UNIT CONSUMPTION	.678	.678	.678	.678	.678	.678
DRI COST	87.501	87.486	85.956	87.484	87.501	87.486
B LIME UNIT PRICE	54.647	54.647	54.646	51.454	54.647	54.647
B LIME UNIT CONSUMPTION	.036	.036	.036	.036	.036	.036
B LIME COST	1.961	1.961	1.961	1.846	1.961	1.961
SCRAP UNIT PRICE	142.833	142.833	142.833	142.833	142.833	142.833
SCRAP UNIT CONSUMPTION	.283	.283	.283	.283	.283	.283
SCRAP COST	40.422	40.422	40.422	40.422	40.422	40.422
FESI PRICE	633.175	633.175	633.175	633.175	633.175	633.175
FESI UNIT CONSUMPTION	.004	.004	.004	.004	.004	.004
FESI COST	2.469	2.469	2.469	2.469	2.469	2.469
AL PRICE	1,897.278	1,897.278	1,897.278	1,897.278	1,897.278	1,897.278
AL UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
AL COST	.190	.190	.190	.190	.190	.190
COKE BREEZE PRICE	112.040	112.040	112.040	112.040	112.040	112.040
COKE BREEZE UNIT CONSUMPTION	.005	.005	.005	.005	.005	.005
COKE BREEZE COST	.560	.560	.560	.560	.560	.560
ELECTRODE PRICE	2,863.355	2,863.355	2,863.355	2,863.355	2,863.355	2,863.355
ELECTRODE UNIT CONSUMPTION	.004	.004	.004	.004	.004	.004
ELECTRODE COST	10.881	10.881	10.881	10.881	10.881	10.881
FURNACE BRICK PRICE	1,594.673	1,594.673	1,594.673	1,594.673	1,594.673	1,594.673
FURNACE BRICK UNIT CONSUMPTION	.001	.001	.001	.001	.001	.001
FURNACE BRICK COST	1.914	1.914	1.914	1.914	1.914	1.914
LADLE BRICK PRICE	1,193.885	1,193.885	1,193.885	1,193.885	1,193.885	1,193.885
LADLE BRICK UNIT CONSUMPTION	.003	.003	.003	.003	.003	.003
LADLE BRICK COST	3.582	3.582	3.582	3.582	3.582	3.582
TUNDISH BRICK PRICE	691.986	691.986	691.986	691.986	691.986	691.986
TUNDISH BRICK UNIT CONSUMPTION	.002	.002	.002	.002	.002	.002
TUNDISH BRICK COST	1.661	1.661	1.661	1.661	1.661	1.661

FETLING MAT PRICE	364.159	364.159	364.159	364.159	364.159	364.159	364.159
FETLING MAT UNIT CONSUMPTION	.011	.011	.011	.011	.011	.011	.011
FETLING MAT COST	4.006	4.006	4.006	4.006	4.006	4.006	4.006
HBI PRICE	144.294	144.294	144.294	144.294	144.294	144.294	144.294
HBI UNIT CONSUMPTION	.170	.170	.170	.170	.170	.170	.170
HBI COST	24.530	24.530	24.530	24.530	24.530	24.530	24.530
FENW PRICE	609.610	609.610	609.610	609.610	609.610	609.610	609.610
FENW UNIT CONSUMPTION	.011	.011	.011	.011	.011	.011	.011
FENW COST	6.767	6.767	6.767	6.767	6.767	6.767	6.767
FEV PRICE	14,393.499	14,393.499	14,393.499	14,393.499	14,393.499	14,393.499	14,393.499
FEV UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000	.000
FEV COST	.072	.072	.072	.072	.072	.072	.072
DOLO PRICE	85.734	85.734	85.734	85.734	85.734	85.734	85.734
DOLO UNIT CONSUMPTION	.001	.001	.001	.001	.001	.001	.001
DOLO COST	.069	.069	.069	.069	.069	.069	.069
SUB TOTAL *	186.582	186.582	186.582	186.582	186.582	186.582	186.582
MANUFACTURING SUPPLIES COST	.924	.924	.924	.924	.924	.924	.924
RAW MAT & SUPPLIES C TOTAL **	187.507	187.507	187.507	187.507	187.507	187.507	187.507
BY-PRODUCT							
SCRAP UNIT PRICE	139.170	139.170	139.170	139.170	139.170	139.170	139.170
SCRAP UNIT CONSUMPTION	.019	.019	.019	.019	.019	.019	.019
SCRAP COST	2.661	2.661	2.661	2.661	2.661	2.661	2.661
DUST UNIT CONSUMPTION	.010	.010	.010	.010	.010	.010	.010
SLAG UNIT CONSUMPTION	.153	.153	.153	.153	.153	.153	.153
SCALE SMP UNIT CONSUMPTION	.005	.005	.005	.005	.005	.005	.005
WASTE BRICK UNIT CONSUMPTION	.012	.012	.012	.012	.012	.012	.012
UTILITIES							
ELECT UNIT PRICE	.027	.027	.027	.027	.027	.027	.027
ELECT UNIT CONSUMPTION	690.000	690.000	690.000	690.000	690.000	690.000	690.000
ELECTRICITY COST	18.522	18.522	18.522	18.522	18.522	18.522	18.522
N GAS UNIT PRICE	.087	.087	.087	.087	.087	.087	.087
N GAS UNIT CONSUMPTION	4.200	4.200	4.200	4.200	4.200	4.200	4.200
NATURAL GAS COST	.367	.367	.367	.367	.367	.367	.367
O2N2 UNIT PRICE	.138	.138	.138	.138	.138	.138	.138
O2N2 UNIT CONSUMPTION	1.000	1.000	1.000	1.000	1.000	1.000	1.000
O2N2 COST	.138	.138	.138	.138	.138	.138	.138
COMP AIR UNIT PRICE	.003	.003	.003	.003	.003	.003	.003
COMP AIR UNIT CONSUMPTION	26.000	26.000	26.000	26.000	26.000	26.000	26.000
COMPRESSED AIR COST	.076	.076	.076	.076	.076	.076	.076
WATER UNIT PRICE	.525	.525	.525	.525	.525	.525	.525
WATER UNIT CONSUMPTION	.800	.800	.800	.800	.800	.800	.800
WATER COST	.420	.420	.420	.420	.420	.420	.420



UTILITIES COST TOTAL	**	19,524	19,524	19,524	19,524	19,524	19,524
VARIABLE COST TOTAL	***	204,370	202,826	204,239	204,370	204,356	204,356
FIXED COST							
LABOR COST		2,375	2,375	2,375	2,375	2,375	2,375
DEPRECIATION COST		5,764	5,764	5,764	5,764	5,764	5,764
REPAIR COST		8,159	8,159	8,159	8,159	8,159	8,159
OTHER COST		4,644	4,643	4,644	4,645	4,645	4,645
FIXED COST TOTAL	***	20,942	20,941	20,942	20,943	20,943	20,943
SMP COST TOTAL	****	225,312	223,767	225,181	225,313	225,298	225,298
BILLT PRODUCTION		1,145,500	1,145,500	1,145,500	1,145,500	1,145,500	1,145,500

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

MANUFACTURING COST SHEET  
- SMP -

(UNIT : US\$/SMP TON)

VARIABLE COST	2011	2012	2013	2014	2015
RAW MATERIAL & SUPPLIES					
DRI UNIT PRICE	129.077	129.076	129.074	129.099	126.820
DRI UNIT CONSUMPTION	.678	.678	.678	.678	.678
DRI COST	87.486	87.486	87.484	87.501	85.957
B LIME UNIT PRICE	54.647	54.642	51.459	54.647	54.647
B LIME UNIT CONSUMPTION	.036	.036	.036	.036	.036
B LIME COST	1.961	1.961	1.846	1.961	1.961
SCRAP UNIT PRICE	142.833	142.833	142.833	142.833	142.833
SCRAP UNIT CONSUMPTION	.283	.283	.283	.283	.283
SCRAP COST	40.422	40.422	40.422	40.422	40.422
FESI PRICE	633.175	633.175	633.175	633.175	633.175
FESI UNIT CONSUMPTION	.004	.004	.004	.004	.004
FESI COST	2.469	2.469	2.469	2.469	2.469
AL PRICE	1,897.278	1,897.278	1,897.278	1,897.278	1,897.278
AL UNIT CONSUMPTION	.000	.000	.000	.000	.000
AL COST	.190	.190	.190	.190	.190
COKE BREEZE PRICE	112.040	112.040	112.040	112.040	112.040
COKE BREEZE UNIT CONSUMPTION	.005	.005	.005	.005	.005
COKE BREEZE COST	.560	.560	.560	.560	.560
ELECTRODE PRICE	2,863.355	2,863.355	2,863.355	2,863.355	2,863.355
ELECTRODE UNIT CONSUMPTION	.004	.004	.004	.004	.004
ELECTRODE COST	10.881	10.881	10.881	10.881	10.881
FURNACE BRICK PRICE	1,594.673	1,594.673	1,594.673	1,594.673	1,594.673
FURNACE BRICK UNIT CONSUMPTION	.001	.001	.001	.001	.001
FURNACE BRICK COST	1.914	1.914	1.914	1.914	1.914
LADLE BRICK PRICE	1,193.885	1,193.885	1,193.885	1,193.885	1,193.885
LADLE BRICK UNIT CONSUMPTION	.003	.003	.003	.003	.003
LADLE BRICK COST	3.582	3.582	3.582	3.582	3.582
TUNDISH BRICK PRICE	691.986	691.986	691.986	691.986	691.986
TUNDISH BRICK UNIT CONSUMPTION	.002	.002	.002	.002	.002
TUNDISH BRICK COST	1.661	1.661	1.661	1.661	1.661

FETILING MAT PRICE	364.159	364.159	364.159	364.159	364.159	364.159
FETILING MAT UNIT CONSUMPTION	.011	.011	.011	.011	.011	.011
FETILING MAT COST	4.006	4.006	4.006	4.006	4.006	4.006
HBI PRICE	144.294	144.294	144.294	144.294	144.294	144.294
HBI UNIT CONSUMPTION	.170	.170	.170	.170	.170	.170
HBI COST	24.530	24.530	24.530	24.530	24.530	24.530
FEMN PRICE	609.610	609.610	609.610	609.610	609.610	609.610
FEMN UNIT CONSUMPTION	.011	.011	.011	.011	.011	.011
FEMN COST	6.767	6.767	6.767	6.767	6.767	6.767
FEV PRICE	14,393.499	14,393.499	14,393.499	14,393.499	14,393.499	14,393.499
FEV UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
FEV COST	.072	.072	.072	.072	.072	.072
DOLO PRICE	85.734	85.734	85.734	85.734	85.734	85.734
DOLO UNIT CONSUMPTION	.001	.001	.001	.001	.001	.001
DOLO COST	.069	.069	.069	.069	.069	.069
SUB TOTAL	186.567	186.451	186.582	186.582	186.582	185.038
MANUFACTURING SUPPLIES COST	.924	.924	.924	.924	.924	.924
RAW MAT & SUPPLIES C TOTAL **	187.492	187.376	187.507	187.507	187.507	185.962
BY-PRODUCT						
SCRAP UNIT PRICE	139.170	139.170	139.170	139.170	139.170	139.170
SCRAP UNIT CONSUMPTION	.019	.019	.019	.019	.019	.019
SCRAP COST	2.661	2.661	2.661	2.661	2.661	2.661
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	.027	.027	.027	.027	.027	.027
ELECT UNIT CONSUMPTION	690.000	690.000	690.000	690.000	690.000	690.000
ELECTRICITY COST	18.522	18.522	18.522	18.522	18.522	18.522
N GAS UNIT PRICE	.087	.087	.087	.087	.087	.087
N GAS UNIT CONSUMPTION	4.200	4.200	4.200	4.200	4.200	4.200
NATURAL GAS COST	.367	.367	.367	.367	.367	.367
O2N2 UNIT PRICE	.138	.138	.138	.138	.138	.138
O2N2 UNIT CONSUMPTION	1.000	1.000	1.000	1.000	1.000	1.000
O2N2 COST	.138	.138	.138	.138	.138	.138
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	.076	.076	.076	.076	.076
WATER UNIT PRICE	.525	.525	.525	.525	.525	.525
WATER UNIT CONSUMPTION	.800	.800	.800	.800	.800	.800
WATER COST	.420	.420	.420	.420	.420	.420

UTILITIES COST TOTAL	**	19.524	19.524	19.524	19.524	19.524
VARIABLE COST TOTAL	***	204.356	204.355	204.239	204.370	202.826
FIXED COST						
LABOR COST		2.375	2.375	2.375	2.375	2.375
DEPRECIATION COST		5.764	5.764	5.764	5.764	5.764
REPAIR COST		8.159	8.159	8.159	8.159	8.159
OTHER COST		4.644	4.644	4.644	4.645	4.645
FIXED COST TOTAL	***	20.943	20.942	20.942	20.943	20.943
SNP COST TOTAL	****	225.298	225.297	225.181	225.313	223.769
BILL PRODUCTION		1,145,500	1,145,500	1,145,500	1,145,500	1,145,500

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

		MANUFACTURING COST SHEET					
		- BAR -					
		1993	1994	1995	1996	1997	1998
VARIABLE COST							
RAW MATERIAL & SUPPLIES							
BAR BILLET UNIT PRICE		206.313	212.363	220.344	225.227	225.241	225.123
BAR BILLET UNIT CONSUMPTION		1.045	1.045	1.045	1.045	1.045	1.045
BAR BILLET COST		215.589	221.917	230.261	235.364	235.379	235.261
P.BILLET UNIT PRICE		266.008	276.648	287.714	294.331	294.331	294.331
P.BILLET UNIT CONSUMPTION		.000	.000	.000	.000	.000	.000
P.BILLET COST		.000	.000	.000	.000	.000	.000
SUB TOTAL	*	215.589	221.917	230.261	235.364	235.379	235.261
MANUFACTURING SUPPLIES COST							
RAW MAT & SUPPLIES C TOTAL **		3.039	3.174	3.315	3.315	3.315	3.315
		218.627	225.091	233.576	238.679	238.693	238.575
BY-PRODUCT							
SCRAP UNIT PRICE		122.674	128.808	135.248	139.170	139.170	139.170
SCRAP UNIT CONSUMPTION		.029	.029	.029	.029	.029	.029
SCRAP COST		3.540	3.706	3.904	4.018	4.018	4.018
SCALE BAR UNIT CONSUMPTION		.009	.009	.009	.009	.009	.009
UTILITIES							
ELECT UNIT PRICE		.024	.025	.026	.027	.027	.027
ELECT UNIT CONSUMPTION		60.300	60.300	60.300	60.300	60.300	60.300
ELECTRICITY COST		1.436	1.504	1.575	1.619	1.619	1.619
N GAS UNIT PRICE		.079	.082	.086	.087	.087	.087
N GAS UNIT CONSUMPTION		34.500	34.500	34.500	34.500	34.500	34.500
NATURAL GAS COST		2.729	2.838	2.951	3.018	3.018	3.018
O2N2 UNIT PRICE		.135	.138	.140	.142	.142	.142
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		.310	.310	.309	.312	.312	.312
WATER UNIT PRICE		.510	.520	.531	.538	.538	.538
WATER UNIT CONSUMPTION		.360	.360	.360	.360	.360	.360
WATER COST		.183	.187	.191	.194	.194	.194

UTILITIES COST TOTAL	**	4.659	4.839	5.026	5.142	5.142	5.142
VARIABLE COST TOTAL	***	219.746	226.224	234.698	239.803	239.818	239.700
FIXED COST							
LABOR COST		1.721	1.756	1.794	1.846	1.846	1.846
DEPRICIATION COST		5.673	5.489	5.339	5.339	5.341	5.339
REPAIR COST		2.305	2.329	2.354	2.407	2.407	2.497
OTHER COST		1.752	1.658	1.681	1.725	1.726	1.726
FIXED COST TOTAL	***	11.451	11.232	11.167	11.317	11.319	11.318
BAR COST TOTAL	****	231.197	237.455	245.865	251.120	251.137	251.018
BAR PRODUCTION		537,100	552,600	568,100	568,100	568,100	568,100

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

MANUFACTURING COST SHEET  
- BAR -

	1999	2000	2001	2002	2003	2004
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
BAR BILLET UNIT PRICE	223.713	225.240	221.515	217.764	225.184	225.296
BAR BILLET UNIT CONSUMPTION	1.045	1.045	1.045	1.045	1.045	1.045
BAR BILLET COST	233.782	235.378	231.485	227.565	235.319	235.436
P.BILLET UNIT PRICE	294.331	294.331	294.331	294.331	294.331	294.331
P.BILLET UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
P.BILLET COST	.000	.000	.000	.000	.000	.000
SUB TOTAL *	233.782	235.378	231.485	227.565	235.319	235.436
MANUFACTURING SUPPLIES COST						
RAW MAT & SUPPLIES C TOTAL **	3.315	3.315	3.315	3.315	3.315	3.315
	237.096	238.692	234.799	230.879	238.633	238.750
BY-PRODUCT						
SCRAP UNIT PRICE	139.170	139.170	139.170	139.170	139.170	139.170
SCRAP UNIT CONSUMPTION	.029	.029	.029	.029	.029	.029
SCRAP COST	4.018	4.018	4.018	4.018	4.018	4.018
SCALE BAR UNIT CONSUMPTION	.009	.009	.009	.009	.009	.009
UTILITIES						
ELECT UNIT PRICE	.027	.027	.027	.026	.027	.027
ELECT UNIT CONSUMPTION	60.300	60.300	60.300	60.300	60.300	60.300
ELECTRICITY COST	1.619	1.619	1.601	1.592	1.619	1.619
N GAS UNIT PRICE	.087	.087	.087	.087	.087	.087
N GAS UNIT CONSUMPTION	34.500	34.500	34.500	34.500	34.500	34.500
NATURAL GAS COST	3.018	3.018	3.016	3.015	3.018	3.018
O2N2 UNIT PRICE	.142	.142	.120	.110	.138	.138
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	.312	.312	.253	.228	.307	.307
WATER UNIT PRICE	.538	.538	.474	.443	.525	.525
WATER UNIT CONSUMPTION	.360	.360	.360	.360	.360	.360
WATER COST	.194	.194	.171	.159	.189	.189

UTILITIES COST TOTAL	**	5.142	5.041	4.995	5.133	5.133
VARIABLE COST TOTAL	***	238.221	235.822	231.857	239.748	239.865
FIXED COST						
LABOR COST		1.846	1.846	1.846	1.846	1.846
DEPRICIATION COST		5.339	4.117	2.880	2.880	2.880
REPAIR COST		2.407	2.394	2.389	4.823	4.823
OTHER COST		1.726	1.678	1.654	1.735	1.734
FIXED COST TOTAL	***	11.318	10.036	8.768	11.283	11.282
BAR COST TOTAL	****	249.539	245.858	240.625	251.031	251.147
BAR PRODUCTION		568,100	568,100	568,100	568,100	568,100



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

MANUFACTURING COST SHEET  
- BAR -

(UNIT : US\$/BAR TON)

VARIABLE COST	2005	2006	2007	2008	2009	2010
RAW MATERIAL & SUPPLIES						
BAR BILLET UNIT PRICE	225.312	225.298	223.767	225.181	225.313	225.298
BAR BILLET UNIT CONSUMPTION	1.045	1.045	1.045	1.045	1.045	1.045
BAR BILLET COST	235.453	235.438	233.838	235.316	235.454	235.438
P.BILLET UNIT PRICE	294.331	294.331	294.331	294.331	294.331	294.331
P.BILLET UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
P.BILLET COST	.000	.000	.000	.000	.000	.000
SUB TOTAL *	235.453	235.438	233.838	235.316	235.454	235.438
MANUFACTURING SUPPLIES COST	3.315	3.315	3.315	3.315	3.315	3.315
RAW MAT & SUPPLIES C TOTAL **	238.768	238.753	237.153	238.631	238.768	238.753
BY-PRODUCT						
SCRAP UNIT PRICE	139.170	139.170	139.170	139.170	139.170	139.170
SCRAP UNIT CONSUMPTION	.029	.029	.029	.029	.029	.029
SCRAP COST	4.018	4.018	4.018	4.018	4.018	4.018
SCALE BAR UNIT CONSUMPTION	.009	.009	.009	.009	.009	.009
UTILITIES						
ELECT UNIT PRICE	.027	.027	.027	.027	.027	.027
ELECT UNIT CONSUMPTION	60.300	60.300	60.300	60.300	60.300	60.300
ELECTRICITY COST	1.619	1.619	1.619	1.619	1.619	1.619
N GAS UNIT PRICE	.087	.087	.087	.087	.087	.087
N GAS UNIT CONSUMPTION	34.500	34.500	34.500	34.500	34.500	34.500
NATURAL GAS COST	3.018	3.018	3.018	3.018	3.018	3.018
O2N2 UNIT PRICE	.138	.138	.138	.138	.138	.138
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	.307	.307	.307	.307	.307	.307
WATER UNIT PRICE	.525	.525	.525	.525	.525	.525
WATER UNIT CONSUMPTION	.360	.360	.360	.360	.360	.360
WATER COST	.189	.189	.189	.189	.189	.189

UTILITIES COST TOTAL	**	5.133	5.133	5.133	5.133	5.133	5.133
VARIABLE COST TOTAL	***	239.883	239.746	239.883	239.868	239.868	239.868
FIXED COST							
LABOR COST		1.846	1.846	1.846	1.846	1.846	1.846
DEPRECIATION COST		2.880	2.880	2.880	2.880	2.880	2.880
REPAIR COST		4.823	4.823	4.823	4.823	4.823	4.823
OTHER COST		1.734	1.734	1.735	1.735	1.735	1.735
FIXED COST TOTAL	***	11.283	11.282	11.283	11.283	11.283	11.283
BAR COST TOTAL	****	251.165	251.028	251.166	251.151	251.151	251.151
BAR PRODUCTION		568,100	568,100	568,100	568,100	568,100	568,100

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

MANUFACTURING COST SHEET  
- BAR -

	2011	2012	2013	2014	2015
VARIABLE COST					
RAW MATERIAL & SUPPLIES					
BAR BILLET UNIT PRICE	225.298	225.297	225.181	225.313	223.769
BAR BILLET UNIT CONSUMPTION	1.045	1.045	1.045	1.045	1.045
BAR BILLET COST	235.438	235.437	235.316	235.454	233.840
P.BILLET UNIT PRICE	294.331	294.331	294.331	294.331	294.331
P.BILLET UNIT CONSUMPTION	.000	.000	.000	.000	.000
P.BILLET COST	.000	.000	.000	.000	.000
SUB TOTAL *	235.438	235.437	235.316	235.454	233.840
MANUFACTURING SUPPLIES COST					
RAW MAT & SUPPLIES C TOTAL **	3.315	3.315	3.315	3.315	3.315
	238.753	238.752	238.630	238.768	237.155
BY-PRODUCT					
SCRAP UNIT PRICE	139.170	139.170	139.170	139.170	139.170
SCRAP UNIT CONSUMPTION	.029	.029	.029	.029	.029
SCRAP COST	4.018	4.018	4.018	4.018	4.018
SCALE BAR UNIT CONSUMPTION	.009	.009	.009	.009	.009
UTILITIES					
ELECT UNIT PRICE	.027	.027	.027	.027	.027
ELECT UNIT CONSUMPTION	60.300	60.300	60.300	60.300	60.300
ELECTRICITY COST	1.619	1.619	1.619	1.619	1.619
N GAS UNIT PRICE	.087	.087	.087	.087	.087
N GAS UNIT CONSUMPTION	34.500	34.500	34.500	34.500	34.500
NATURAL GAS COST	3.018	3.018	3.018	3.018	3.018
O2N2 UNIT PRICE	.138	.138	.138	.138	.138
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	.307	.307	.307	.307	.307
WATER UNIT PRICE	.525	.525	.525	.525	.525
WATER UNIT CONSUMPTION	.360	.360	.360	.360	.360
WATER COST	.189	.189	.189	.189	.189

UTILITIES COST TOTAL	**	5.133	5.133	5.133	5.133	5.133
VARIABLE COST TOTAL	***	239.868	239.866	239.745	239.883	238.270
FIXED COST						
LABOR COST		1.846	1.846	1.846	1.846	1.846
DEPRECIATION COST		2.880	2.880	2.880	2.880	2.880
REPAIR COST		4.823	4.823	4.823	4.823	4.823
OTHER COST		1.735	1.734	1.734	1.735	1.735
FIXED COST TOTAL	***	11.283	11.283	11.282	11.283	11.283
BAR COST TOTAL	****	251.151	251.149	251.028	251.166	249.552
BAR PRODUCTION		568,100	568,100	568,100	568,100	568,100

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

MANUFACTURING COST SHEET  
- ROD -

(UNIT : US\$/ROD TON)

	1993	1994	1995	1996	1997	1998
VARIABLE COST						
RAW MATERIAL & SUPPLIES						
ROD BILLET UNIT	206.313	212.363	220.344	225.227	225.241	225.128
ROD BILLET UNIT CONSUMPTION	1.023	1.023	1.023	1.023	1.023	1.023
ROD BILLET COST	211.162	217.354	225.522	230.520	230.534	230.418
P-BILLET UNIT	266.008	276.648	287.714	294.331	294.331	294.331
P-BILLET UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
P-BILLET COST	.000	.000	.000	.000	.000	.000
SUB TOTAL *	211.162	217.354	225.522	230.520	230.534	230.418
MANUFACTURING SUPPLIES COST	2.970	3.103	3.240	3.240	3.240	3.240
RAW MAT & SUPPLIES C TOTAL **	214.132	220.456	228.762	233.760	233.774	233.659
BY-PRODUCT						
SCRAP PRICE	122.674	128.808	135.248	139.170	139.170	139.170
SCRAP UNIT CONSUMPTION	.021	.021	.021	.021	.021	.021
SCRAP COST	2.522	2.649	2.781	2.862	2.862	2.862
SCALE ROD UNIT CONSUMPTION	.009	.009	.009	.009	.009	.009
UTILITIES						
ELECT UNIT PRICE	.024	.025	.026	.027	.027	.027
ELECT UNIT CONSUMPTION	106.100	106.100	106.100	106.100	106.100	106.100
ELECTRICITY COST	2.526	2.646	2.771	2.848	2.848	2.848
N GAS UNIT PRICE	.079	.082	.086	.087	.087	.087
N GAS UNIT CONSUMPTION	29.400	29.400	29.400	29.400	29.400	29.400
NATURAL GAS COST	2.326	2.418	2.515	2.572	2.572	2.572
O2N2 UNIT PRICE	.135	.138	.140	.142	.142	.142
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	.050	.050	.050	.050	.050	.050
WATER UNIT PRICE	.510	.520	.531	.538	.538	.538
WATER UNIT CONSUMPTION	.550	.550	.550	.550	.550	.550
WATER COST	.280	.286	.292	.296	.296	.296

UTILITIES COST TOTAL	**	5.182	5.400	5.628	5.766	5.766	5.766
VARIABLE COST TOTAL	***	216.792	223.208	231.609	236.664	236.678	236.563
FIXED COST							
LABOR COST		1.362	1.430	1.502	1.546	1.546	1.546
DEPRECIATION COST		7.911	7.880	7.880	7.880	7.880	7.880
REPAIR COST		2.637	2.741	2.848	2.912	2.912	2.912
OTHER COST		2.110	2.102	2.170	2.215	2.216	2.216
FIXED COST TOTAL	***	14.020	14.152	14.400	14.553	14.553	14.553
ROD COST TOTAL	****	230.812	237.360	246.009	251.217	251.232	251.117
ROD PRODUCTION		544,700	544,700	544,700	544,700	544,700	544,700

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

MANUFACTURING COST SHEET  
- ROD -

	1999	2000	2001	2002	2003	2004
<b>(UNIT : US\$/ROD TON)</b>						
<b>VARIABLE COST</b>						
<b>RAW MATERIAL &amp; SUPPLIES</b>						
ROD BILLET UNIT	223.713	225.240	221.515	217.764	225.184	225.296
ROD BILLET UNIT CONSUMPTION	1.023	1.023	1.023	1.023	1.023	1.023
ROD BILLET COST	228.970	230.533	226.720	222.881	230.475	230.590
P.BILLET UNIT	294.331	294.331	294.331	294.331	294.331	294.331
P.BILLET UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
P.BILLET COST	.000	.000	.000	.000	.000	.000
<b>SUB TOTAL *</b>	<b>228.970</b>	<b>230.533</b>	<b>226.720</b>	<b>222.881</b>	<b>230.475</b>	<b>230.590</b>
<b>MANUFACTURING SUPPLIES COST</b>						
RAW MAT & SUPPLIES C TOTAL **	3.240	3.240	3.240	3.240	3.240	3.240
	232.210	233.773	229.960	226.121	233.716	233.830
<b>BY-PRODUCT</b>						
SCRAP PRICE	139.170	139.170	139.170	139.170	139.170	139.170
SCRAP UNIT CONSUMPTION	.021	.021	.021	.021	.021	.021
SCRAP COST	2.862	2.862	2.862	2.862	2.862	2.862
SCALE ROD UNIT CONSUMPTION	.009	.009	.009	.009	.009	.009
<b>UTILITIES</b>						
ELECT UNIT PRICE	.027	.027	.027	.026	.027	.027
ELECT UNIT CONSUMPTION	106.100	106.100	106.100	106.100	106.100	106.100
ELECTRICITY COST	2.848	2.848	2.817	2.802	2.848	2.848
N GAS UNIT PRICE	.087	.087	.087	.087	.087	.087
N GAS UNIT CONSUMPTION	29.400	29.400	29.400	29.400	29.400	29.400
NATURAL GAS COST	2.572	2.572	2.570	2.569	2.572	2.572
O2N2 UNIT PRICE	.142	.142	.120	.110	.138	.138
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	.050	.050	.041	.037	.049	.049
WATER UNIT PRICE	.538	.538	.474	.443	.525	.525
WATER UNIT CONSUMPTION	.550	.550	.550	.550	.550	.550
WATER COST	.296	.296	.261	.244	.289	.289

UTILITIES COST TOTAL	**	5.766	5.766	5.688	5.651	5.758	5.758
VARIABLE COST TOTAL	***	235.115	236.677	232.787	228.911	236.612	236.726
FIXED COST							
LABOR COST		1.546	1.546	1.546	1.546	1.546	1.546
DEPRECIATION COST		7.880	7.880	7.916	3.437	4.213	4.955
REPAIR COST		2.912	2.912	2.897	2.890	2.909	5.855
OTHER COST		2.216	2.215	2.167	2.142	2.226	2.225
FIXED COST TOTAL	***	14.553	14.553	14.526	10.014	10.894	14.560
ROD COST TOTAL	****	249.668	251.230	247.313	238.925	247.506	251.286
ROD PRODUCTION		544,700	544,700	544,700	544,700	544,700	544,700



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

MANUFACTURING COST SHEET  
- ROD -

(UNIT : US\$/ROD TON)

VARIABLE COST	2005	2006	2007	2008	2009	2010
RAW MATERIAL & SUPPLIES						
ROD BILLET UNIT	225.312	225.298	223.767	225.181	225.313	225.298
ROD BILLET UNIT CONSUMPTION	1.023	1.023	1.023	1.023	1.023	1.023
ROD BILLET COST	230.607	230.592	229.025	230.473	230.608	230.592
P-BILLET UNIT	294.331	294.331	294.331	294.331	294.331	294.331
P-BILLET UNIT CONSUMPTION	.000	.000	.000	.000	.000	.000
P-BILLET COST	.000	.000	.000	.000	.000	.000
SUB TOTAL *	230.607	230.592	229.025	230.473	230.608	230.592
MANUFACTURING SUPPLIES COST						
RAW MAT & SUPPLIES C TOTAL **	3.240	3.240	3.240	3.240	3.240	3.240
	233.847	233.833	232.266	233.713	233.848	233.833
BY-PRODUCT						
SCRAP PRICE	139.170	139.170	139.170	139.170	139.170	139.170
SCRAP UNIT CONSUMPTION	.021	.021	.021	.021	.021	.021
SCRAP COST	2.862	2.862	2.862	2.862	2.862	2.862
SCALE ROD UNIT CONSUMPTION	.009	.009	.009	.009	.009	.009
UTILITIES						
ELECT UNIT PRICE	.027	.027	.027	.027	.027	.027
ELECT UNIT CONSUMPTION	106.100	106.100	106.100	106.100	106.100	106.100
ELECTRICITY COST	2.848	2.848	2.848	2.848	2.848	2.848
N GAS UNIT PRICE	.087	.087	.087	.087	.087	.087
N GAS UNIT CONSUMPTION	29.400	29.400	29.400	29.400	29.400	29.400
NATURAL GAS COST	2.572	2.572	2.572	2.572	2.572	2.572
O2N2 UNIT PRICE	.138	.138	.138	.138	.138	.138
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	.049	.049	.049	.049
WATER UNIT PRICE	.525	.525	.525	.525	.525	.525
WATER UNIT CONSUMPTION	.550	.550	.550	.550	.550	.550
WATER COST	.289	.289	.289	.289	.289	.289

UTILITIES COST TOTAL	**	5.758	5.758	5.758	5.758	5.758
VARIABLE COST TOTAL	***	236.744	235.162	236.609	236.744	236.729
FIXED COST						
LABOR COST		1.546	1.546	1.546	1.546	1.546
DEPRECIATION COST		4.957	4.957	4.955	4.955	4.955
REPAIR COST		5.835	5.835	5.835	5.835	5.835
OTHER COST		2.225	2.226	2.225	2.226	2.226
FIXED COST TOTAL	***	14.563	14.563	14.560	14.561	14.561
ROD COST TOTAL	****	251.306	249.725	251.169	251.305	251.290
ROD PRODUCTION		544,700	544,700	544,700	544,700	544,700

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

MANUFACTURING COST SHEET  
- ROD -

(UNIT : US\$/ROD TON)

VARIABLE COST	2011	2012	2013	2014	2015
RAW MATERIAL & SUPPLIES					
ROD BILLET UNIT	225.298	225.297	225.181	225.313	223.769
ROD BILLET UNIT CONSUMPTION	1.023	1.023	1.023	1.023	1.023
ROD BILLET COST	230.592	230.591	230.472	230.608	229.027
P.BILLET UNIT	294.331	294.331	294.331	294.331	294.331
P.BILLET UNIT CONSUMPTION	.000	.000	.000	.000	.000
P.BILLET COST	.000	.000	.000	.000	.000
SUB TOTAL *	230.592	230.591	230.472	230.608	229.027
MANUFACTURING SUPPLIES COST					
RAW MAT & SUPPLIES C TOTAL **	3.240	3.240	3.240	3.240	3.240
	233.833	233.831	233.713	233.848	232.267
BY-PRODUCT					
SCRAP PRICE	139.170	139.170	139.170	139.170	139.170
SCRAP UNIT CONSUMPTION	.021	.021	.021	.021	.021
SCRAP COST	2.862	2.862	2.862	2.862	2.862
SCALE ROD UNIT CONSUMPTION	.009	.009	.009	.009	.009
UTILITIES					
ELECT UNIT PRICE	.027	.027	.027	.027	.027
ELECT UNIT CONSUMPTION	106.100	106.100	106.100	106.100	106.100
ELECTRICITY COST	2.848	2.848	2.848	2.848	2.848
N GAS UNIT PRICE	.087	.087	.087	.087	.087
N GAS UNIT CONSUMPTION	29.400	29.400	29.400	29.400	29.400
NATURAL GAS COST	2.572	2.572	2.572	2.572	2.572
O2N2 UNIT PRICE	.138	.138	.138	.138	.138
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	.049	.049	.049	.049	.049
WATER UNIT PRICE	.525	.525	.525	.525	.525
WATER UNIT CONSUMPTION	.550	.550	.550	.550	.550
WATER COST	.289	.289	.289	.289	.289

UTILITIES COST TOTAL	**	5.758	5.758	5.758	5.758
VARIABLE COST TOTAL	***	236.729	236.609	236.744	235.164
FIXED COST					
LABOR COST		1.546	1.546	1.546	1.546
DEPRECIATION COST		4.955	4.955	4.955	4.955
REPAIR COST		5.835	5.835	5.835	5.835
OTHER COST		2.226	2.225	2.226	2.226
FIXED COST TOTAL	***	14.561	14.560	14.561	14.561
ROD COST TOTAL	****	251.290	251.169	251.305	249.725
ROD PRODUCTION		544,700	544,700	544,700	544,700