	A	B	C	D	E	F	G	H	I	J	K	L	M	N
							EPA FORM H 89							
1				Net Material										
2				COGS 1989										
3		71.73%	Shop	$14,112,159										
4		31.67%	Fabrication	$1,365,235										
5		4.74%	SPS	$0										
6	**3200 Shop**	Ave Cost		$15,477,394	Total Pounds	Chromium	Nickel	Copper	Manganese	Phosphorus	Sulfur	Silicon	Molybdenum	Iron + Trace
7	T304	$1.25	10.33%	$1,457,638	1,166,110	221,561	104,950		23,322	525	350	116,611		698,792
8	T304H	$1.25	0.31%	$43,233	34,586	6,571	3,113		692	16	10	3,459		20,726
9	T304L	$1.25	16.21%	$2,288,277	1,830,621	347,818	164,756		36,612	824	549	183,062		1,097,000
10	T316	$1.75	7.30%	$1,029,840	588,480	100,042	70,618		11,770	265	177	58,848	14,712	332,050
11	T316 (.04 MIN CARBON)	$1.75	0.22%	$31,584	18,048	3,068	368		361	8	5	1,805	451	11,981
12	T316L	$1.75	37.31%	$5,265,575	3,008,900	511,513	61,382		60,178	1,354	903	300,890	75,222	1,997,458
13	T316L (2.75% MOLY)	$1.75	0.68%	$96,307	55,033	9,356	1,123		1,101	25	17	5,503	1,513	36,396
14	T317L	$2.75	5.46%	$770,837	280,304	53,258	39,243		5,606	126	84	28,030	9,811	144,147
15	T309S	$1.25	0.00%	$0	0	0	0		0	0	0	0		0
16	T310S	$1.25	0.00%	$521	417	104	58		8	0	0	63		183
17	T321	$1.25	0.65%	$92,230	73,784	14,019	8,116		1,476	33	22	7,378		42,739
18	T347	$1.25	0.07%	$9,261	7,409	1,334	815		148	3	2	741		4,366
19	HAST 276	$4.50	0.04%	$6,009	1,335	267	775		13	1	0	134		146
20	ALLOY 20	$4.50	0.00%	$203	45	9	17		0	0	0	5		14
21	OTHER HAST	$4.50	0.00%	$194	43	10	25		0	0	0	4		4
22	A20CB3	$4.50	0.10%	$14,801	3,289	658	1,184	115	66	1	0	329		936
23	904L	$4.50	0.76%	$107,790	23,953	5,509	6,228		479	11	0	2,395		9,331
24	INCO 600	$4.50	0.28%	$39,156	8,701	1,305	6,265	44	87	4	0	870		127
25	INCO 625	$4.50	1.50%	$211,746	47,055	7,058	33,879	235	471	21	0	4,705		685
26	INCO 800	$4.50	0.09%	$12,743	2,832	425	2,039	14	28	1	0	283		41
27	INCO 825	$4.50	0.06%	$8,827	1,962	294	1,412	10	20	1	0	196		29
28	NICKEL 200	$4.50	0.00%	$0	0	0	0	0	0	0	0	0		0
29	90-10 CUNI	$1.80	12.80%	$1,806,078	1,003,376	150,506	722,431	5,017	10,034	452	0	100,338		14,599
30	70-30 CUNI	$1.80	5.72%	$807,638	448,688	67,303	323,055	2,243	4,487	202	0	44,869		6,528
31	TITANIUM	$10.00	0.03%	$3,899	390	58	281	2	4	0	0	39		6
32	6061 ALUM	$1.05	0.03%	$4,097	3,902	585	2,809	20	39	2	0	390		57
33	5086 ALUM	$1.05	0.00%	$0	0	0	0	0	0	0	0	0		0
34	OTHER ALUM	$1.05	0.00%	$465	443	66	319	2	4	0	0	44		6
35	EVERDUR 655	$1.80	0.02%	$3,211	1,784	268	1,284	9	18	1	0	178		26
36	Totals		100.00%	$14,112,159	8,611,490	1,502,966	1,556,544	7,711	157,024	3,875	2,119	861,170	101,710	
37														~~4,078,974~~
38														
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	A	B	C	D	E	F	G
1				Net Material			
2				COGS 1989			
3		0.7173	Shop	14112159			
4		0.3167	Fabrication	1365235			
5		0.0474	SPS	0			
6	**3200 Shop**	Ave Cost		=SUM(D3:D5)	Total Pounds	Chromium	Nickel
7	T304	1.25	0.10328949865082	=$D$3*C7	=D7/B7	=E7*0.19	=E7*0.09
8	T304H	1.25	0.0030635244763657	=$D$3*C8	=D8/B8	=E8*0.19	=E8*0.09
9	T304L	1.25	0.16214929814705	=$D$3*C9	=D9/B9	=E9*0.19	=E9*0.09
10	T316	1.75	0.072975341298588	=$D$3*C10	=D10/B10	=E10*0.17	=E10*0.12
11	T316 (.04 MIN CARBON)	1.75	0.0022380809579063	=$D$3*C11	=D11/B11	=E11*0.17	=F11*0.12
12	T316L	1.75	0.37312326276244	=$D$3*C12	=D12/B12	=E12*0.17	=F12*0.12
13	T316L (2.75% MOLY)	1.75	0.0068244172249044	=$D$3*C13	=D13/B13	=E13*0.17	=F13*0.12
14	T317L	2.75	0.054622205266178	=$D$3*C14	=D14/B14	=E14*0.19	=E14*0.14
15	T309S	1.25	0	=$D$3*C15	=D15/B15	=E15*0.23	=E15*0.14
16	T310S	1.25	0.000036939285665133	=$D$3*C16	=D16/B16	=E16*0.25	=E16*0.14
17	T321	1.25	0.0065354684578569	=$D$3*C17	=D17/B17	=E17*0.19	=E17*0.11
18	T347	1.25	0.00065622934153042	=$D$3*C18	=D18/B18	=E18*0.18	=E18*0.11
19	HAST 276	4.5	0.0004258278764175	=$D$3*C19	=D19/B19	=E19*0.2	=E19*0.58
20	ALLOY 20	4.5	0.000014365277758663	=$D$3*C20	=D20/B20	=E20*0.2	=E20*0.38
21	OTHER HAST	4.5	0.000013778939890962	=$D$3*C21	=D21/B21	=E21*0.22	=E21*0.58
22	A20CB3	4.5	0.0010488118608493	=$D$3*C22	=D22/B22	=E22*0.2	=E22*0.36
23	904L	4.5	0.0076380929423591	=$D$3*C23	=D23/B23	=E23*0.23	=E23*0.26
24	INCO 600	4.5	0.0027746196846583	=$D$3*C24	=D24/B24	=E24*0.15	=E24*0.72
25	INCO 625	4.5	0.015004532618923	=$D$3*C25	=D25/B25	=E25*0.15	=E25*0.72
26	INCO 800	4.5	0.0009029603162588	=$D$3*C26	=D26/B26	=E26*0.15	=E26*0.72
27	INCO 825	4.5	0.00062547592036953	=$D$3*C27	=D27/B27	=E27*0.15	=E27*0.72
28	NICKEL 200	4.5	0	=$D$3*C28	=D28/B28	=E28*0.15	=E28*0.72
29	90-10 CUNI	1.8	0.12798024342764	=$D$3*C29	=D29/B29	=E29*0.15	=E29*0.72
30	70-30 CUNI	1.8	0.057229942932776	=$D$3*C30	=D30/B30	=E30*0.15	=E30*0.72
31	TITANIUM	10	0.00027631172015387	=$D$3*C31	=D31/B31	=E31*0.15	=E31*0.72
32	6061 ALUM	1.05	0.00029029001491985	=$D$3*C32	=D32/B32	=E32*0.15	=E32*0.72
33	5086 ALUM	1.05	0	=$D$3*C33	=D33/B33	=E33*0.15	=E33*0.72
34	OTHER ALUM	1.05	0.0000329815050581 54	=$D$3*C34	=D34/B34	=E34*0.15	=E34*0.72
35	EVERDUR 655	1.8	0.0002274990926678	=$D$3*C35	=D35/B35	=E35*0.15	=E35*0.72
36	Totals		=SUM(C7:C35)	=SUM(D7:D35)	=SUM(E7:E35)	=SUM(F7:F35)	=SUM(G7:G35)
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EPA FORM R 89

EPA FORM R 89

	H	I	J	K	L	M	N
1							
2							
3							
4							
5							
6	Copper	Manganese	Phosphorus	Sulfur	Silicon	Molybdenum	Iron + Trace
7		=E7*0.02	=E7*0.00045	=E7*0.0003	=E7*0.1		=E7-(SUM(F7:M7))
8		=E8*0.02	=E8*0.00045	=E8*0.0003	=E8*0.1		=E8-(SUM(F8:M8))
9		=E9*0.02	=E9*0.00045	=E9*0.0003	=E9*0.1		=E9-(SUM(F9:M9))
10		=E10*0.02	=E10*0.00045	=E10*0.0003	=E10*0.1	=E10*0.025	=E10-(SUM(F10:M10))
11		=E11*0.02	=E11*0.00045	=E11*0.0003	=E11*0.1	=E11*0.025	=E11-(SUM(F11:M11))
12		=E12*0.02	=E12*0.00045	=E12*0.0003	=E12*0.1	=E12*0.025	=E12-(SUM(F12:M12))
13		=E13*0.02	=E13*0.00045	=E13*0.0003	=E13*0.1	=E13*0.0275	=E13-(SUM(F13:M13))
14		=E14*0.02	=E14*0.00045	=E14*0.0003	=E14*0.1	=E14*0.035	=E14-(SUM(F14:M14))
15		=E15*0.02	=E15*0.00045	=E15*0.0003	=E15*0.1		=E15-(SUM(F15:M15))
16		=E16*0.02	=E16*0.00045	=E16*0.0003	=E16*0.15		=E16-(SUM(F16:M16))
17		=E17*0.02	=E17*0.00045	=E17*0.0003	=E17*0.1		=E17-(SUM(F17:M17))
18		=E18*0.02	=E18*0.00045	=E18*0.0003	=E18*0.1		=E18-(SUM(F18:M18))
19		=E19*0.01	=E19*0.00045	0	=E19*0.1		=E19-(SUM(F19:M19))
20		=E20*0.01	=E20*0.00045	0	=E20*0.1		=E20-(SUM(F20:M20))
21		=E21*0.01	=E21*0.00045	0	=E21*0.1		=E21-(SUM(F21:M21))
22	=E22*0.035	=E22*0.02	=E22*0.00045	0	=E22*0.1		=E22-(SUM(F22:M22))
23		=E23*0.02	=E23*0.00045	0	=E23*0.1		=E23-(SUM(F23:M23))
24	=E24*0.005	=E24*0.01	=E24*0.00045	0	=E24*0.1		=E24-(SUM(F24:M24))
25	=E25*0.005	=E25*0.01	=E25*0.00045	0	=E25*0.1		=E25-(SUM(F25:M25))
26	=E26*0.005	=E26*0.01	=E26*0.00045	0	=E26*0.1		=E26-(SUM(F26:M26))
27	=E27*0.005	=E27*0.01	=E27*0.00045	0	=E27*0.1		=E27-(SUM(F27:M27))
28	=E28*0.005	=E28*0.01	=E28*0.00045	0	=E28*0.1		=E28-(SUM(F28:M28))
29	=E29*0.005	=E29*0.01	=E29*0.00045	0	=E29*0.1		=E29-(SUM(F29:M29))
30	=E30*0.005	=E30*0.01	=E30*0.00045	0	=E30*0.1		=E30-(SUM(F30:M30))
31	=E31*0.005	=E31*0.01	=E31*0.00045	0	=E31*0.1		=E31-(SUM(F31:M31))
32	=E32*0.005	=E32*0.01	=E32*0.00045	0	=E32*0.1		=E32-(SUM(F32:M32))
33	=E33*0.005	=E33*0.01	=E33*0.00045	0	=E33*0.1		=E33-(SUM(F33:M33))
34	=E34*0.005	=E34*0.01	=E34*0.00045	0	=E34*0.1		=E34-(SUM(F34:M34))
35	=E35*0.005	=E35*0.01	=E35*0.00045	0	=E35*0.1		=E35-(SUM(F35:M35))
36	=SUM(H7:H35)	=SUM(I7:I35)	=SUM(J7:J35)	=SUM(K7:K35)	=SUM(L7:L35)	=SUM(M7:M35)	
37							=SUM(N7:N35)
38							
39							
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45							

	A	B	C	D	E	F	G
46	**Fab Shop**						
47	T304	1.25	0.010309	=($D$4+$D$5)*C47	=D47/B47	=E47*0.19	=E47*0.09
48	T304H	1.25	0			=E48*0.19	=E48*0.09
49	T304L	1.25	0.547614	=($D$4+$D$5)*C49	=D49/B49	=E49*0.19	=E49*0.09
50	T316	1.75	0.083759	=($D$4+$D$5)*C50	=D50/B50	=E50*0.17	=E50*0.12
51	T316 (.04 MIN CARBON)	1.75	0			=E51*0.17	=F51*0.12
52	T316L	1.75	0.2254	=($D$4+$D$5)*C52	=D52/B52	=E52*0.17	=F52*0.12
53	T316L (2.75% MOLY)	1.75	0.059347	=($D$4+$D$5)*C53	=D53/B53	=E53*0.17	=F53*0.12
54	T317L	2.75	0.023014507252147	=($D$4+$D$5)*C54	=D54/B54	=E54*0.19	=E54*0.14
55	T309	1.25	0			=E55*0.23	=E55*0.14
56	T310S	1.25	0.01387563	=($D$4+$D$5)*C56	=D56/B56	=E56*0.25	=E56*0.14
57	T321	1.25	0			=E57*0.19	=E57*0.11
58	T347	1.25	0			=E58*0.18	=E58*0.11
59	HAST 276	4.5	0.017535423762362	=($D$4+$D$5)*C59	=D59/B59	=E59*0.2	=E59*0.58
60	ALLOY 20	4.5	0			=E60*0.2	=E60*0.38
61	OTHER HAST	4.5	0			=E61*0.22	=E61*0.58
62	A20CB3	4.5	0.0047131	=($D$4+$D$5)*C62	=D62/B62	=E62*0.2	=E62*0.36
63	904L	4.5	0.0024679441654527	=($D$4+$D$5)*C63	=D63/B63	=E63*0.23	=E63*0.26
64	INCO 600	4.5	0			=E64*0.15	=E64*0.72
65	INCO 625	4.5	0			=E65*0.15	=E65*0.72
66	INCO 800	4.5	0			=E66*0.15	=E66*0.72
67	INCO 825	4.5	0			=E67*0.15	=E67*0.72
68	NICKEL 200	4.5	0			=E68*0.15	=E68*0.72
69	90-10 CUNI	1.8	0.01094	=($D$4+$D$5)*C69	=D69/B69	=E69*0.15	=E69*0.72
70	70-30 CUNI	1.8	0.000514326869525	=($D$4+$D$5)*C70	=D70/B70	=E70*0.15	=E70*0.72
71	TITANIUM	10	0			=E71*0.15	=E71*0.72
72	6061 ALUM	1.05	0			=E72*0.15	=E72*0.72
73	5086 ALUM	1.05	0			=E73*0.15	=E73*0.72
74	OTHER ALUM	1.05	0			=E74*0.15	=E74*0.72
75	EVERDUR 655	1.8	0			=E75*0.15	=E75*0.72
76	Tantalum	2.2	0.00051007954822	=($D$4+$D$5)*C76	=D76/B76	=E76*0.15	=E76*0.72
77	Totals		=SUM(C47:C76)	=SUM(D47:D76)	=SUM(E47:E76)	=SUM(F47:F76)	=SUM(G47:G76)
78					Total Pounds	Chromium	Nickel
79		Grand Totals		=D36+D77	=E36+E77	=F36+F77	=G36+G77
80							
81	Maximum Amount (2 months supply)				=E79/6	=F79/6	=G79/6
82							
83	Area Affected by All Processing Methods (Approximat				=(E79/454)*(((0.125*240)/14	=E83*0.15	=E83*0.72

	H	I	J	K	L	M	N
46							
47		=E47*0.01	=E47*0.00045	=E47*0.0003	=E47*0.1		=E47-(SUM(F47:M47))
48		=E48*0.01	=E48*0.00045	=E48*0.0003	=E48*0.1		=E48-(SUM(F48:M48))
49		=E49*0.01	=E49*0.00045	=E49*0.0003	=E49*0.1		=E49-(SUM(F49:M49))
50		=E50*0.01	=E50*0.00045	=E50*0.0003	=E50*0.1	=E50*0.025	=E50-(SUM(F50:M50))
51		=E51*0.01	=E51*0.00045	=E51*0.0003	=E51*0.1	=E51*0.025	=E51-(SUM(F51:M51))
52		=E52*0.01	=E52*0.00045	=E52*0.0003	=E52*0.1	=E52*0.025	=E52-(SUM(F52:M52))
53		=E53*0.01	=E53*0.00045	=E53*0.0003	=E53*0.1	=E53*0.0275	=E53-(SUM(F53:M53))
54		=E54*0.01	=E54*0.00045	=E54*0.0003	=E54*0.1	=E54*0.035	=E54-(SUM(F54:M54))
55		=E55*0.01	=E55*0.00045	=E55*0.0003	=E55*0.1		=E55-(SUM(F55:M55))
56		=E56*0.01	=E56*0.00045	=E56*0.0003	=E56*0.1		=E56-(SUM(F56:M56))
57		=E57*0.01	=E57*0.00045	=E57*0.0003	=E57*0.1		=E57-(SUM(F57:M57))
58		=E58*0.01	=E58*0.00045	=E58*0.0003	=E58*0.1		=E58-(SUM(F58:M58))
59		=E59*0.01	=E59*0.00045	0	=E59*0.1		=E59-(SUM(F59:M59))
60	=E60*0.005	=E60*0.01	=E60*0.00045	0	=E60*0.1		=E60-(SUM(F60:M60))
61	=E61*0.005	=E61*0.01	=E61*0.00045	0	=E61*0.1		=E61-(SUM(F61:M61))
62	=E62*0.035	=E62*0.01	=E62*0.00045	0	=E62*0.1		=E62-(SUM(F62:M62))
63	=E63*0.005	=E63*0.01	=E63*0.00045	0	=E63*0.1		=E63-(SUM(F63:M63))
64	=E64*0.005	=E64*0.01	=E64*0.00045	0	=E64*0.1		=E64-(SUM(F64:M64))
65	=E65*0.005	=E65*0.01	=E65*0.00045	0	=E65*0.1		=E65-(SUM(F65:M65))
66	=E66*0.005	=E66*0.01	=E66*0.00045	0	=E66*0.1		=E66-(SUM(F66:M66))
67	=E67*0.005	=E67*0.01	=E67*0.00045	0	=E67*0.1		=E67-(SUM(F67:M67))
68	=E68*0.005	=E68*0.01	=E68*0.00045	0	=E68*0.1		=E68-(SUM(F68:M68))
69	=E69*0.005	=E69*0.01	=E69*0.00045	0	=E69*0.1		=E69-(SUM(F69:M69))
70	=E70*0.005	=E70*0.01	=E70*0.00045	0	=E70*0.1		=E70-(SUM(F70:M70))
71	=E71*0.005	=E71*0.01	=E71*0.00045	0	=E71*0.1		=E71-(SUM(F71:M71))
72	=E72*0.005	=E72*0.01	=E72*0.00045	0	=E72*0.1		=E72-(SUM(F72:M72))
73	=E73*0.005	=E73*0.01	=E73*0.00045	0	=E73*0.1		=E73-(SUM(F73:M73))
74	=E74*0.005	=E74*0.01	=E74*0.00045	0	=E74*0.1		=E74-(SUM(F74:M74))
75	=E75*0.005	=E75*0.01	=E75*0.00045	0	=E75*0.1		=E75-(SUM(F75:M75))
76	=E76*0.005	=E76*0.01	=E76*0.00045	0	=E76*0.1		=E76-(SUM(F76:M76))
77	=SUM(H47:H76)	=SUM(I47:I76)	=SUM(J47:J76)	=SUM(K47:K76)	=SUM(L47:L76)	=SUM(M47:M76)	
78	Copper	Manganese	Phosphorus	Sulfur	Silicon	Molybdenum	
79	=H36+H77	=I36+I77	=J36+J77	=K36+K77	=L36+L77	=M36+M77	=SUM(F79:M79)
80							
81	=H79/6	=I79/6	=J79/6	=K79/6	=L79/6	=M79/6	=N79/6
82							
83	=E83*0.005	=E83*0.01	=E83*0.0003	=F83*0.0003	=E83*0.1	=E83*0.0275	=SUM(N47:N76)