

**Tables and Figures**

Table 1.	C	Mn	Si	Cr	Ni	Mo	W	Fe	Co	[N]	Cb/Ta
<b>X-45</b>	.25	.5	.9	25	10	-	7.5	<2	bal	-	-
<b>X-40</b>	.5	.5	.9	25	10	-	7.5	<2	bal	-	-
<b>FSX-414</b>	.35	.5	.9	29.5	10	-	7.5	<2	bal	-	-
<b>WI-52</b>	.45	.4	.4	21	-	-	11	2	bal	-	2
<b>HS-25</b>	.1	1.2	.8	20	10	-	15	<3	bal	-	-
<b>F-75</b>	.25	.5	.8	28	<1	6	<.2	<.75	bal	.15	-
<b>Haynes UltimetÔ</b>	.06	.8	.3	25	9	5	2	3	bal	.10	-
<b>Co 6</b>	1.1		.8	29	<3	<1.5	5.5	<3	bal	-	-

*Table 1- AOD nominal chemistries (wt.%)*

Table 2.	[N]	[O]	S	Pb	Sn	Sb	Bi	Tl	Te	Zn	Cd
X-45	<200	<70	<20	<1	<25	<3	<.5	<.5	<.5	<3	<1
X-40	<200	<70	<20	<1	<25	<3	<.5	<.5	<.5	<3	<1
FSX-414	<200	<70	<20	<1	<25	<3	<.5	<.5	<.5	<3	<1
WI-52	<200	<60	<20	<1	<25	<3	<.5	<.5	<.5	<3	<1
HS-25	<200	<70	<20	<1	<25	<3	<.5	<.5	<.5	<3	<1
F-75	.15%	<75	<20	<1	<10	<3	<.5	<.5	<.5	<3	<1
Haynes UltimetÔ	.10%	<75	<20	<1	<25	<3	<.5	<.5	<.5	<3	<1
Co 6	<250	<50	<20	<1	<35	<3	<.5	<.5	<.5	<3	<1

*Table 2-Typical AOD minor and trace element chemistry (ppm)*

Table 3.	Solidus (°F)	Liquidus (°F)	Melting Range (°F)
X-45	2,551	2,590	39
X-40	2,504	2,568	64
FSX-414	2,525	2,565	40
WI-52	2,512	2,572	60
HS-25	2,531	2,582	51
F-75	2,512	2,556	44
Haynes UltimetÔ	2,537	2,581	44
Co 6	2,336	2,360	24

*Table 3- Cobalt alloy melting data by DTA*