

CONTAMINATION OIL CONDITION WEAR

NORMAL NORMAL

## PELLET MILL - Gearbox

Unit Make : SPROUT

RECOMMENDATION		Sample Date	05/22/08	10/07/08	12/26/11	Current	UOM
Description of the most service interval to	manitan	Time on Unit	0		4000		hrs
Resample at the next service interval to monitor.		Time on Oil	2500	3900	0	3000	hrs
		Time on Fltr	1200	3900	0	0	hrs
		Oil Maint.	not chg	n/a	n/a	n/a	
		Filter Maint.	changed	not chg	n/a	changed	
CONTAMINATION		Sample Date	05/22/08	10/07/08	12/26/11	Current	Abn
	present in the system is any contamination in the	Silicon	17	13	3.9		50
The amount and size of particulates pres		Potassium	0.0	6.0	5.7	0.9	20
component.		Water (%)	< 0.1	< 0.1	< 0.1	< 0.1	0.2
component.		>4µm(c)	358988	8269	8410	8378	
		>6µm(c)	195556	4504	4581	3375	5000
		>14µm(c)	33318	767	780	524	640
		>21µm(c)	11243	258	263	100	
		>38µm(c)	1736	39	40	13	
		>70µm(c)	179	4	4	4	
		ISO 4406(c)	25/22	19/17	19/17	19/16	>19/16
OIL CONDITION  Oil Type: 30 GAL of MOBIL  The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.		Sample Date	05/22/08	10/07/08	12/26/11	Current	Base
		Boron	4.6	3.1	0.7	0.1	
		Barium	0.0	0.0	0.4	0.7	
		Calcium	196	92	90	9.0	
		Magnesium	6.1	3.3	0.5	0.0	
		Molybdenum	0.0	0.2	1.0	1.0	
		Phosphorus	79	55	54	417	
		Sulfur	11641	9969	6989	412	
		Zinc	88	46	10	7.0	
		Visc 40°C (cSt)	276.5	273.5	275.0	295.2	
		Visc 100°C (cSt)					
		AN (mg/KOH/g)	0.192	0.060	0.434	0.272	
		BN (mg/KOH/g)					
WEAR		Sample Date	05/22/08	10/07/08	12/26/11	Current	Abn
All component wear rates are normal.		PQ					
		Iron	10	7.3	4.3		200
		Nickel	0.1	0.1	0.0	0.0	
		Chromium	0.2	0.2	0.2	0.1	10
		Titanium	1.8		0.0		
		Copper	5.4		1.1	0.2	200
		Aluminum	0.3	0.6	0.2	0.4	25
		Tin	0.0		0.0		10
		Lead	0.1	0.4	0.6	0.0	50

NOTE: all elemental values reported in parts per million (ppm).