

# Vibration Analysis

16 August 2006



A Vibration report on  
Various Items

at

A Plant  
Somewhere

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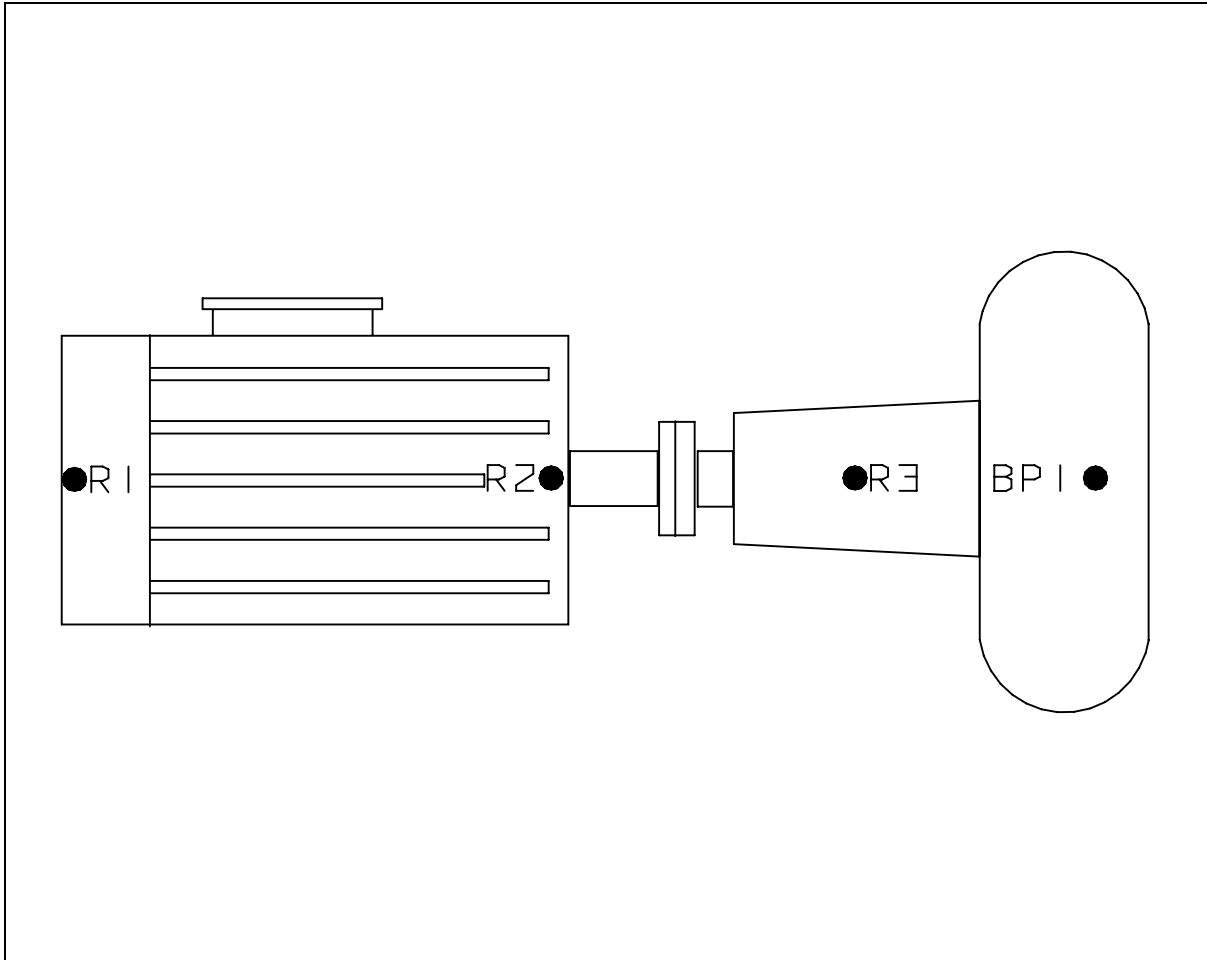
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Machines Monitored List			
Machine	Condition	Remarks	
52/198 CPA ESTER PUMP	n/a		
43/602 PHOSPHORIC ACID PUMP	O.K.		
41/212 BRINE PUMP	Caution	Increased activity from pump	
52/187 CPA ESTER PUMP	n/a		
52/117 HPP PUMP	O.K.		
54/162 CRUDE HPP PUMP	O.K.		
52/189 CAUSTIC SODA PUMP	ACTION	Foot bolt loose - see previous report	
75/405 COOLING WATER PUMP	O.K.		
75/407 COOLING WATER PUMP	O.K.		
52/193 96% SULPH'IC ACID PUMP	O.K.		
50/147 MIBK TRANSFER PUMP	O.K.		
53/503 NO. 1 MODULE PUMP	O.K.		
53/507 NO. 2 MODULE PUMP	O.K.		
53/311 NO. 3 MODULE PUMP	O.K.		
53/319 NO. 5 MODULE PUMP	O.K.		
53/323 NO. 6 MODULE PUMP	O.K.		
53/327 NO. 7 MODULE PUMP	O.K.		
53/515 NO. 8 MODULE PUMP	O.K.		
53/519 NO. 9 MODULE PUMP	O.K.		
53/343 NO. 11 MODULE PUMP	O.K.		
53/347 NO. 12 MODULE PUMP	O.K.		
53/351 NO. 13 MODULE PUMP	O.K.		
52/175 DISTILLATE PUMP	n/a		
53/359 RECOVERED HQ PUMP	O.K.		
52/115 TRANSFER PUMP	ACTION	Change pump ASAP	
52/177 VACUUM PUMP	n/a		
52/185 HOT WATER PUMP	O.K.		
Key to colours			
O.K. Unit in satisfactory condition			
Caution - some increase noted but no action required			
Action - Misalignment / Imbalance etc. not critical			
Urgent - Bearing damage etc. - Critical			

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### 41/212 Brine Pump

Plot 1 shows the ESP spectras and trend from the pump bearings.

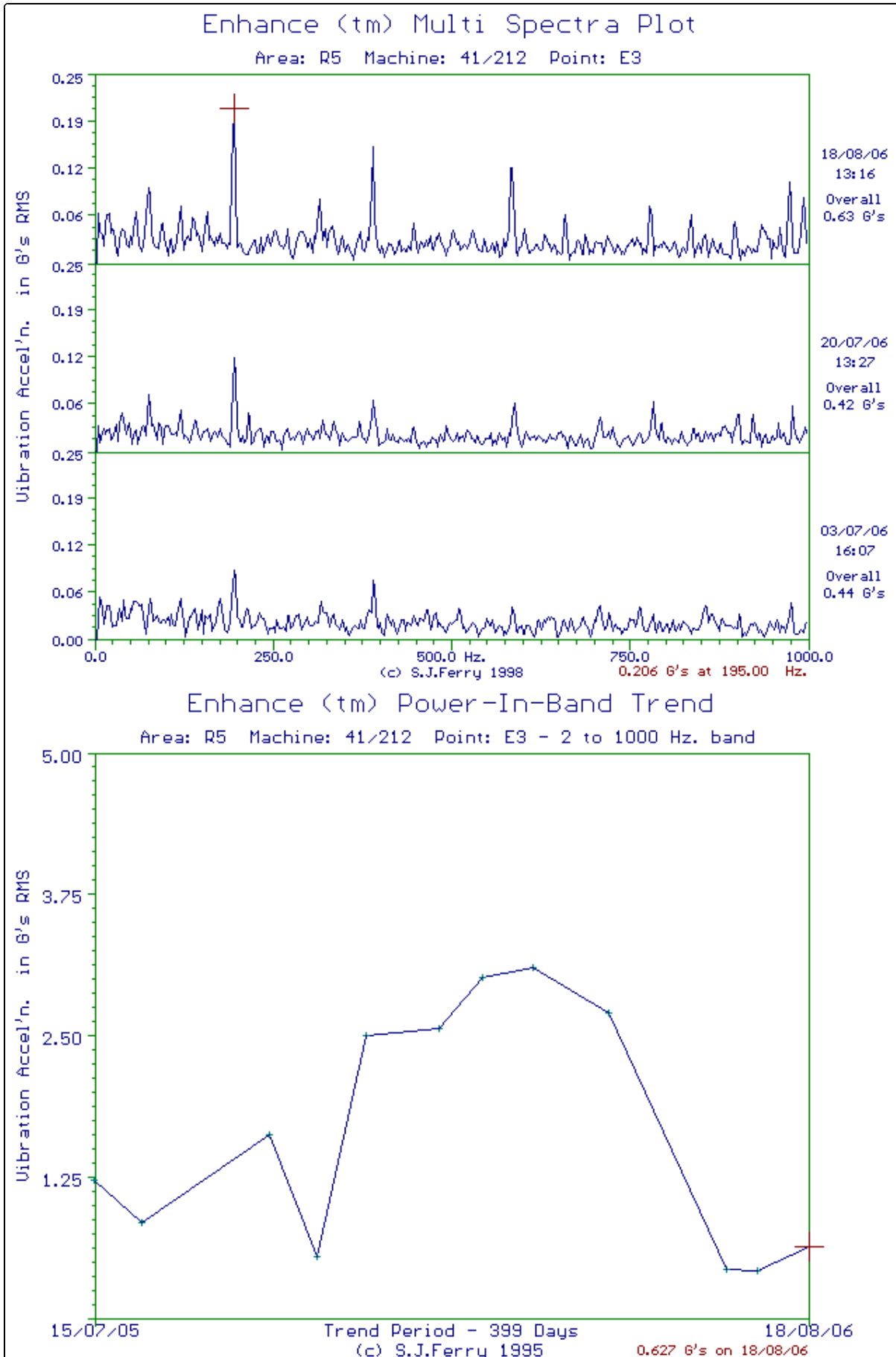
As can be seen, there has been a steady increase over the last few readings. However, the levels are only at about 40% alarm limits and are still well short of what they were prior to the failure of the previous pump.

As has been previously discussed, the concrete plinth is not in a very good condition and this is a contributory factor to the reduction in pump condition. It is understood that this is to be addressed during the annual shutdown and a new plinth cast. It may also be prudent to replace the pump to ensure longevity as the current one is certainly indicating some early warning signs of damage. In the meantime, caution is recommended.



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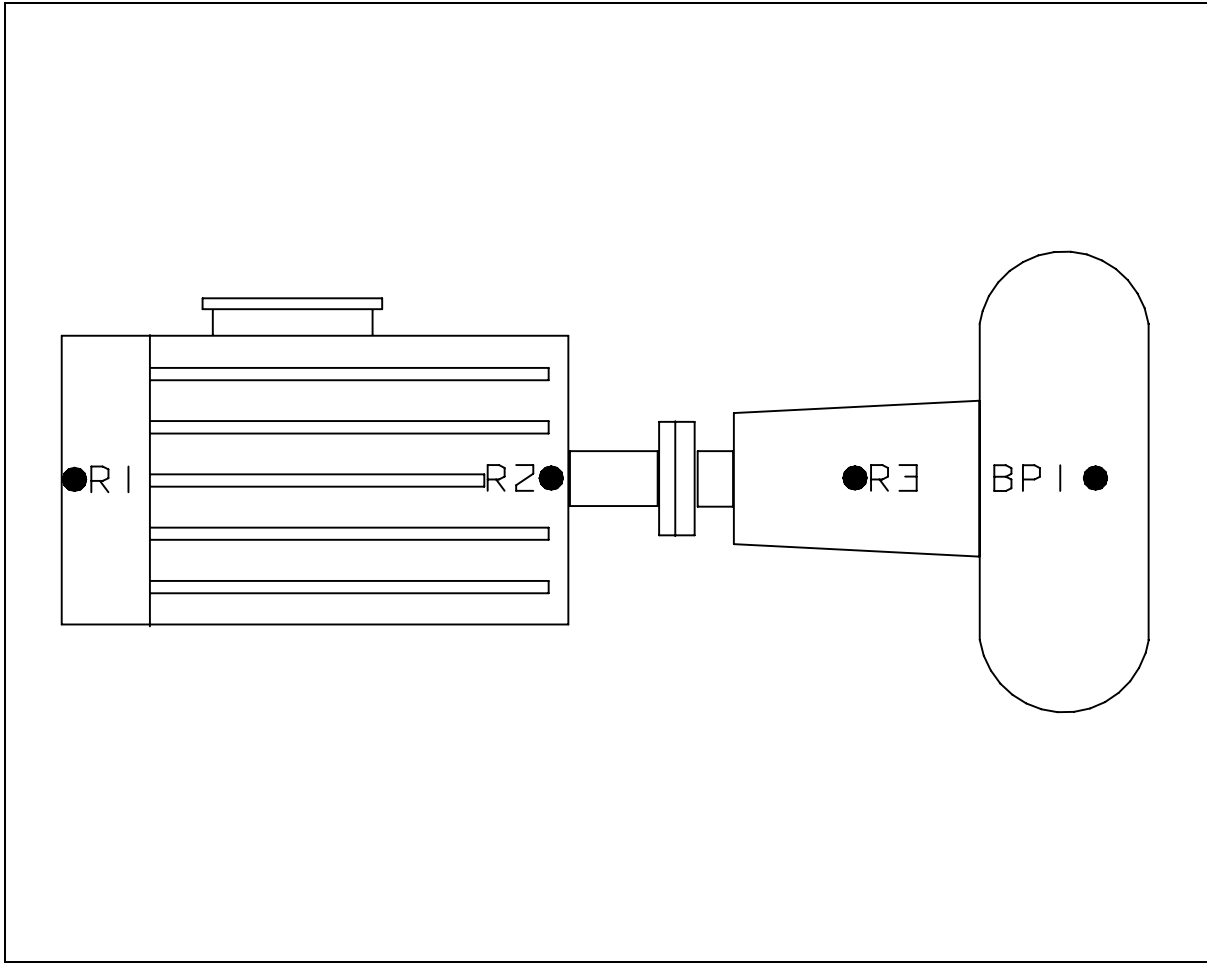
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Plot 1

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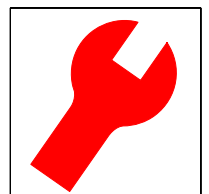


### 52/115 Transfer Pump

Plot 2 shows the ESP spectras and trend from the pump bearings.

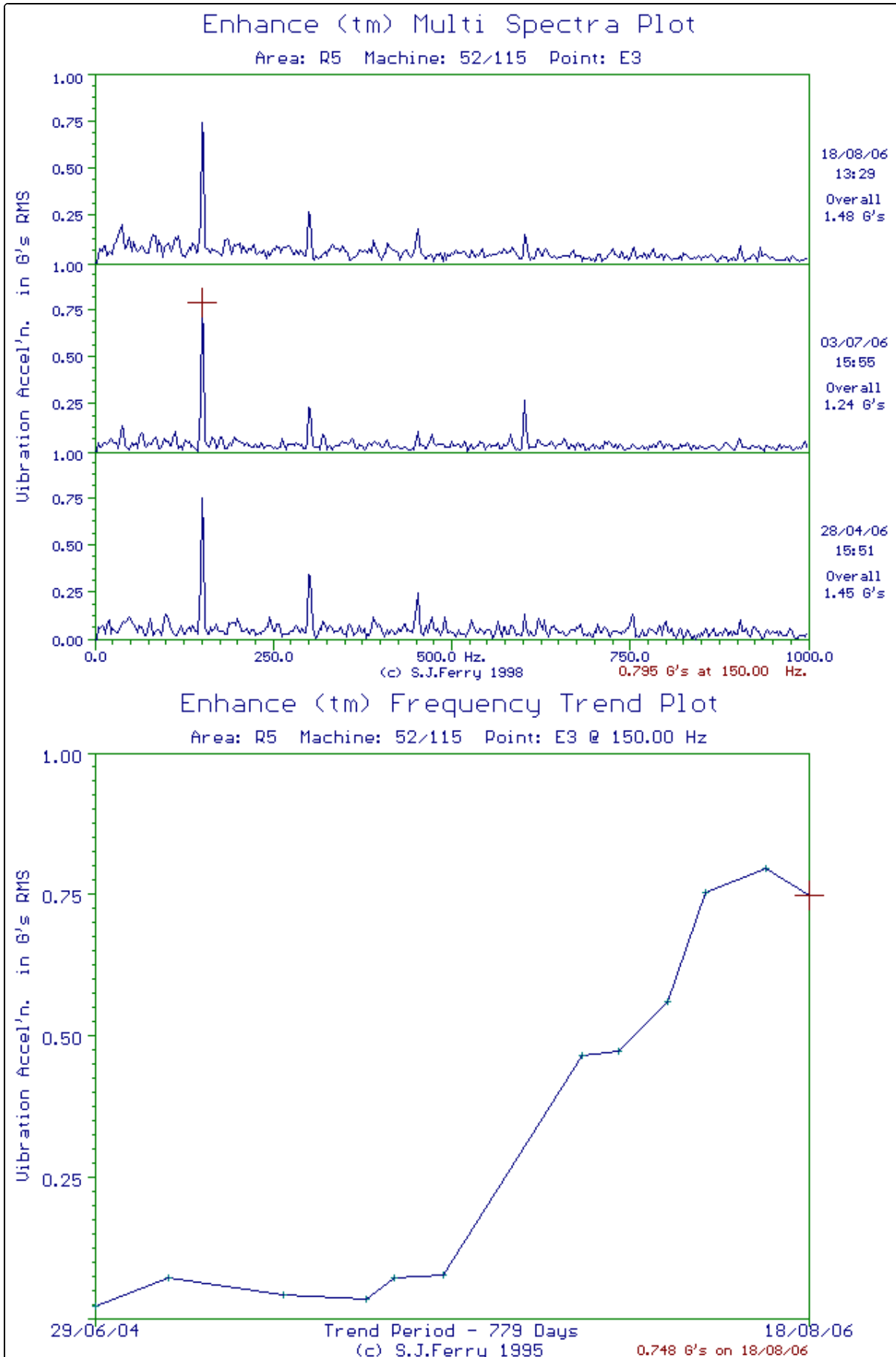
It was reported previously that the pump had become noisy and that there had been a further increase in activity taking it well above alarm limits. As can be seen, the activity is still above alarm limits of 0.5G's

It is again recommended that the pump should be changed as a mater of urgency.



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Plot 2