

<b>Operator</b>	Liberty Steel Newport Limited
<b>Permit Ref</b>	EP3830GH
<b>Condition</b>	2.7.3 The Operator shall have an energy management plan, which shall be updated annually. The plan shall include proposals for energy efficiency if appropriate (including those proposals under any negotiated agreement or trading agreement) together with target setting and monitoring details.

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Liberty Steel Newport Limited (LSN) continues to have in place an energy management plan which provides for the monitoring of both Natural Gas and Electricity, comparing these with production tonnage with a view to achieving maximum efficiency. Consumption is monitored monthly and presented in a series of graphs which provide Management with indicators that energy consumption is either efficient and therefore in control, or moving away from control.

A copy of the monitoring results is provided in a series of graphs attached to this response.

It should be noted that, due to production being suspended throughout the whole of 2014 restarting on 16<sup>th</sup> October 2016, comparison becomes impossible.

It should also be noted that zero Natural Gas was consumed during this 'down' period with electricity consumption being limited predominantly to the heating and lighting of the Administration Block only

Areas for improvements in energy efficiency are discussed weekly at management meetings with a view to identifying specific areas on which efforts are concentrated to either reduce consumption or use energy more effectively. Senior Management are involved in the annual review process 'signing off' agreed energy efficiency measures for the coming 12 months.

2015 was a year of change both in company name and direction, on a positive note the process restarting successfully in October 16. Due to financial constraints and a requirement to finance the start up LSN has been unable to progress with targets stipulated 12 months previously and as such these targets have been moved forward.

R Steed

# MIR STEEL UK LTD

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Date	1st March 2012
Reviewed	15th February 2015

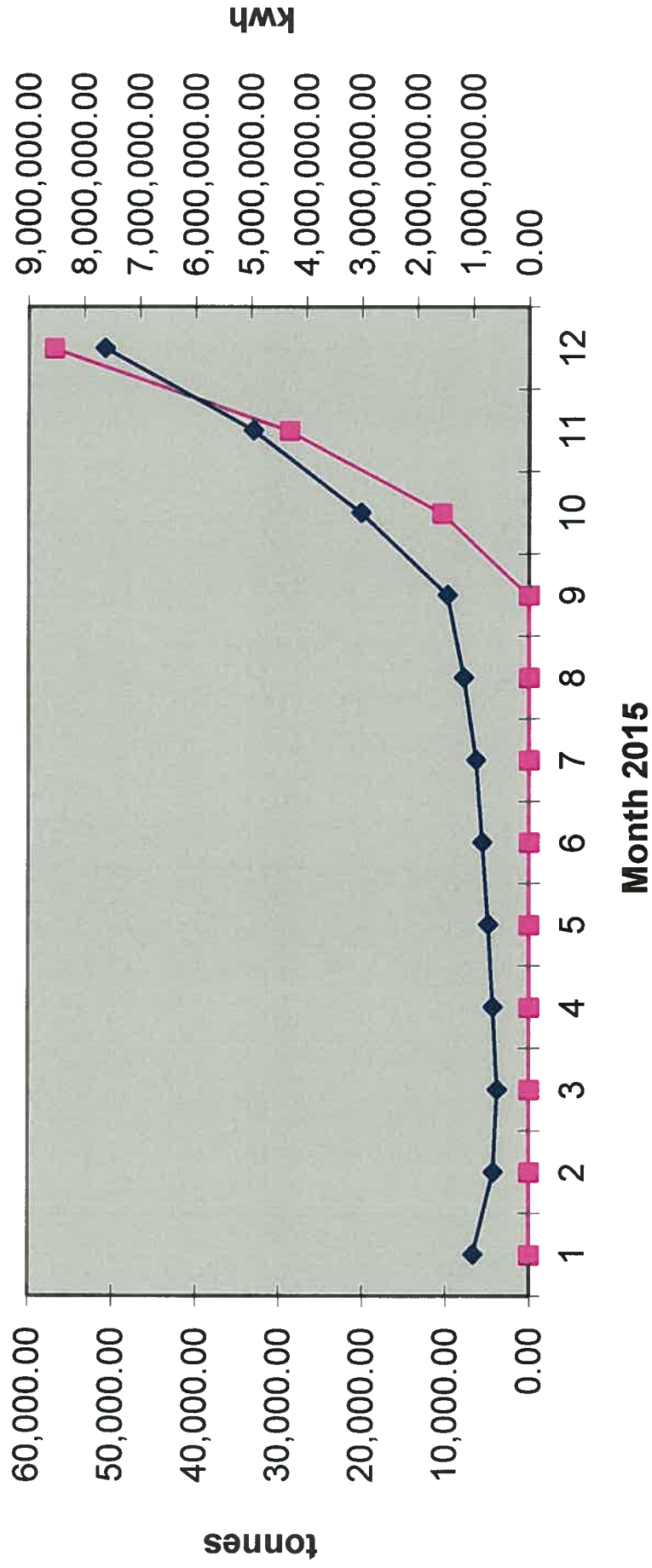
Programme No	Energy 1 Items	Objective		Responsible Person	Anticipated Impact
		Target Timescale	Utilisation of resources in an efficient manner, Ensure opportunities for energy reduction are identified and addressed.		
1	Conversion of the three (3) roughing mill Geir Pump drives to variable speed. Motor power will effectively be reduced from 132 kwh to 69kwh by reducing the frequency from 50 hz to	01/08/2012 Completed	Electrical Engineer	Estimated reduction of 230,000 kwh per annum	
2	Conversion of the three (3) finishing mill Geir Pump drives to variable speed. Motor power will effectively be reduced from 132 kwh to 69kwh by reducing the frequency from 50 hz to	14/08/2015	Electrical Engineer	Estimated reduction of 230,000 kwh per annum	
3	Conversion of the drives serving the cooling tower fans to variable speed according to water temperature - further automation will also ensure that when process water temperature is < 20 degrees C fans will be shut down	01/08/2012 Completed	Electrical Engineer	Estimated reduction of 57,600 kwh per annum	
4	Automation of the two Hot Strip Mill combustion air fans to allow one fan to be shut down during operation of the furnace and the remaining fan to operate at variable speeds depending on air flow requirements	14/08/2013 Unable to complete due to financial restrictions associated with zero production reviewed completion target 14/08/15	Electrical Engineer	Estimated reduction of 2,000,000 kwh per annum	
5	Replacement of worn refractories and spent insulation associated with the reheat furnace. These areas of concern are identified in the energy management projects undertaken by the Cardiff School of Engineering	14/12/2012 Completed	Hot Strip Mill Manager	Reduction in consumption to be reviewed following the planned return to production.	

6	Review status of both internal and external lighting servicing the main building with a view to replacement with more energy efficient units	31/12/2013 Unable to complete due to financial restrictions associated with zero production reviewed completion target 31/12/15	Acting Environment Manager	Estimated reduction of 1,600,000 kwh per annum  Estimated payback 2 yrs
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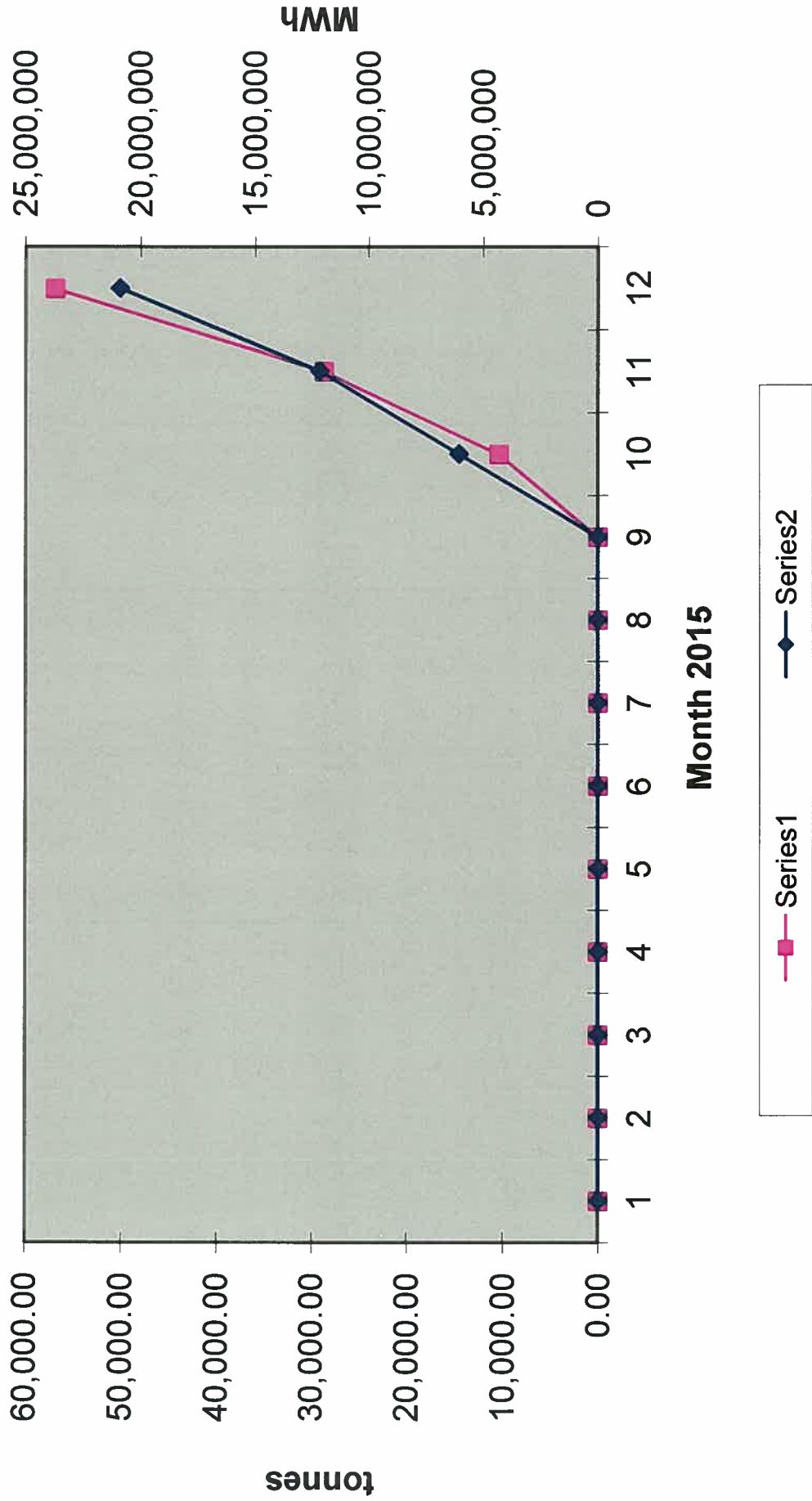
*Implementation of any item recorded within this plan is subject to appropriate funds being available*

<b>Approved by Director</b>	<b>Date</b>	<b>Signature</b>
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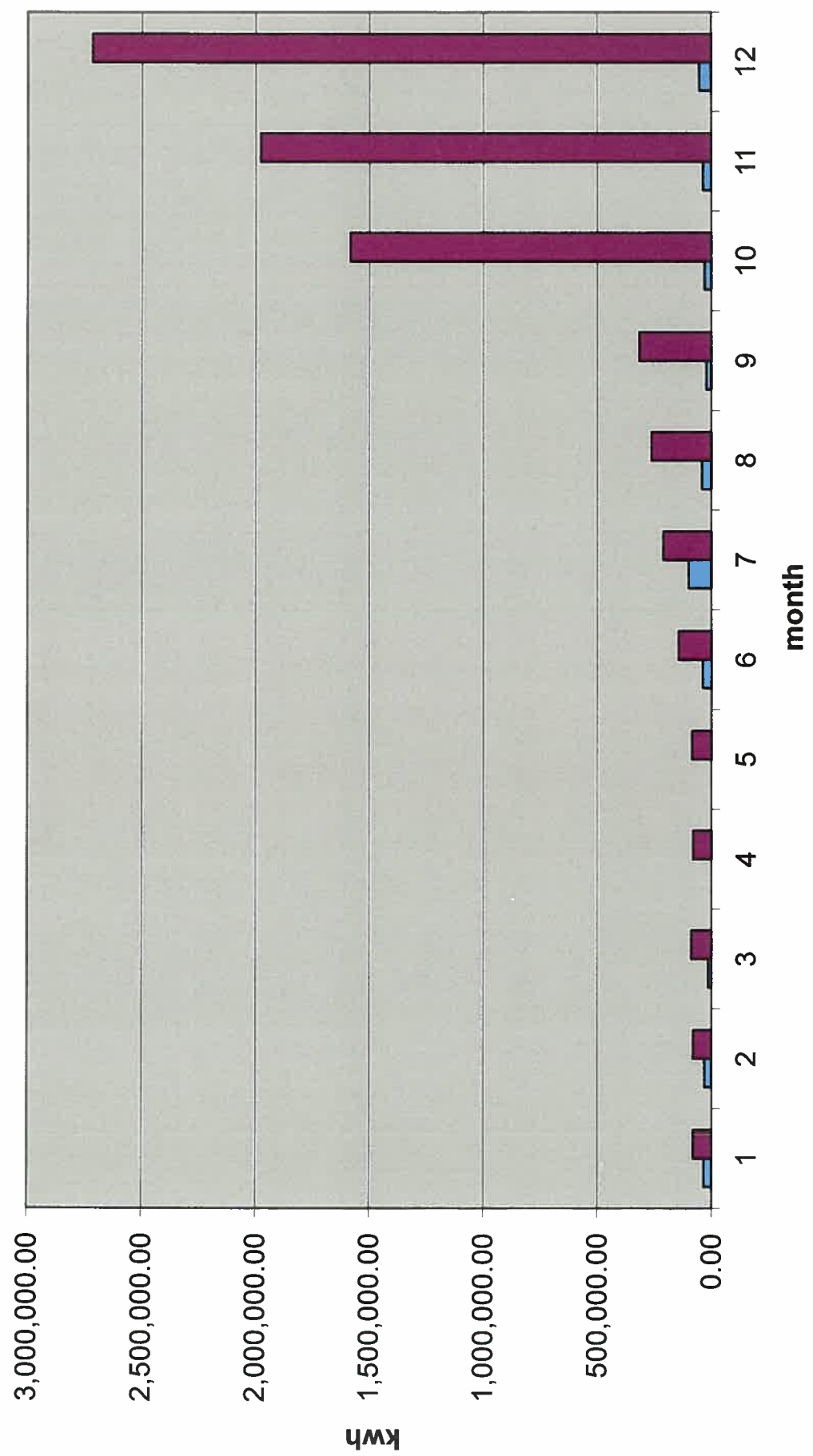
# Moving Annual Total - Production v Electricity



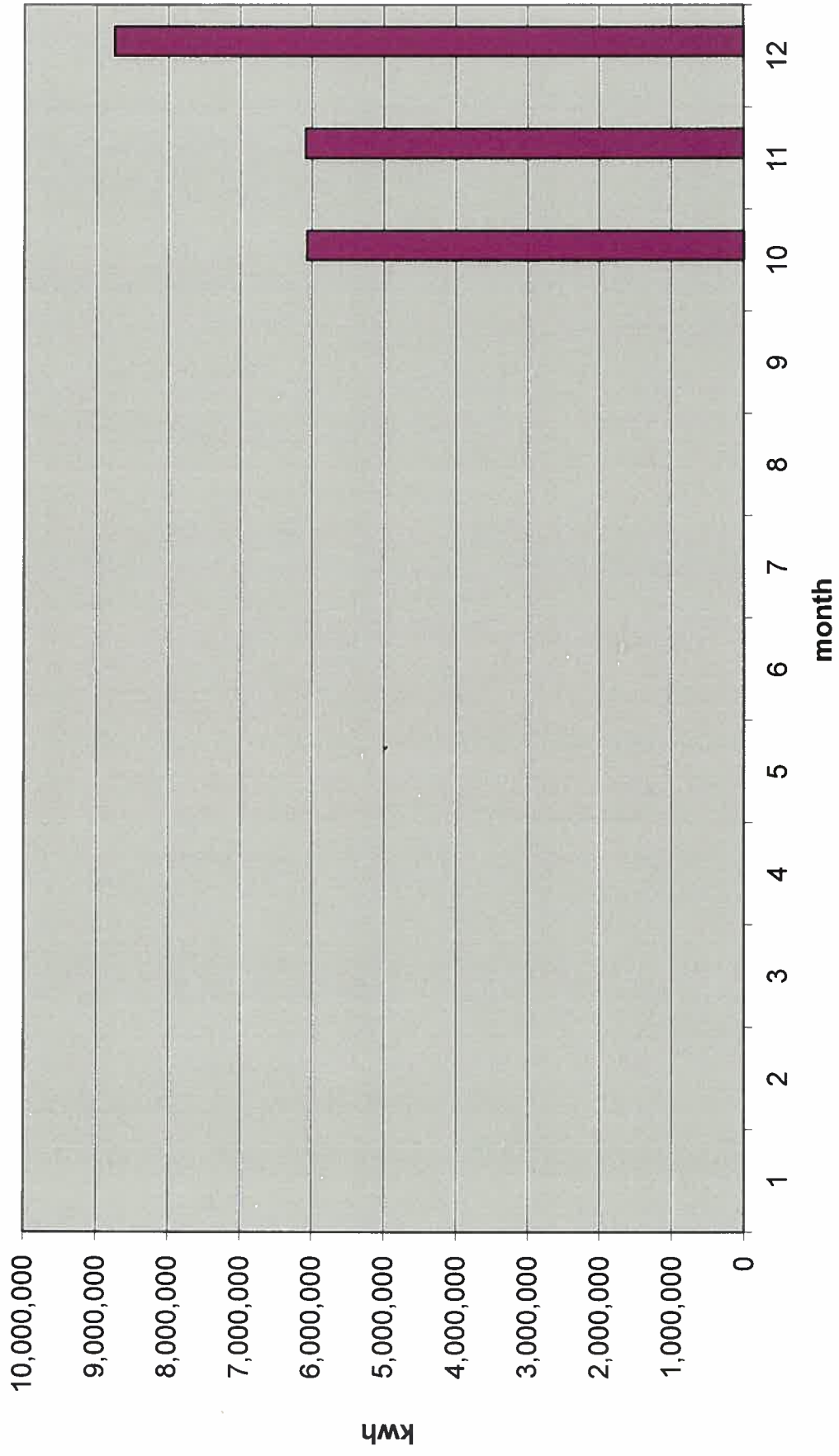
### Moving Annual Totals - Production/Gas



# Electricity usage 2014 v 2015



# Gas usage 2014 v 2015





# Production v Natural Gas Rolling 12 months to December 15

