



## CASE STUDY

### CUSTOMER

**PRECISION DRILLING**

### LOCATION

**DRAYTON VALLEY, AB CANADA / OCT 2014**

### EQUIPMENT

**MUD PUMP**

### APPLICATION

**LUBE OIL**

### PROVEN RESULTS



**EXTENDED  
OPERATIONAL  
CYCLES**

**REDUCED  
MAINTENANCE  
COSTS**

### CHALLENGE

Traditional filtration was unable to remove the inherent contamination under 10 microns during start-up. This contamination was from the new oil, break-in wear and the manufacturing process and if left in the system this results in premature wear to the bearings, shafts, and seals affecting equipment function.

### SOLUTION

Install an OEI magnetic filter scrubber in order to protect the integral system components.

Precision Drilling has been utilising OEI magnetic filtration technology on their hydraulic equipment for 3 years with great results. They determined that their mud pumps could use the same technology to protect them on start up and extend their operational life.



**RECOMMENDED  
PRODUCT**

**MAGNETIC FILTER  
SCRUBBER**



403.242.4221



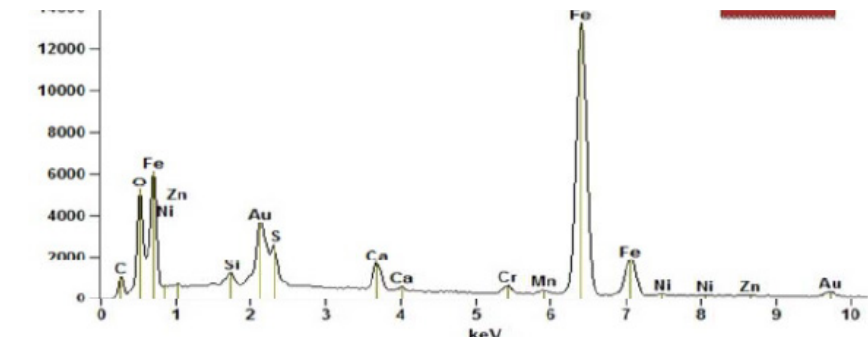
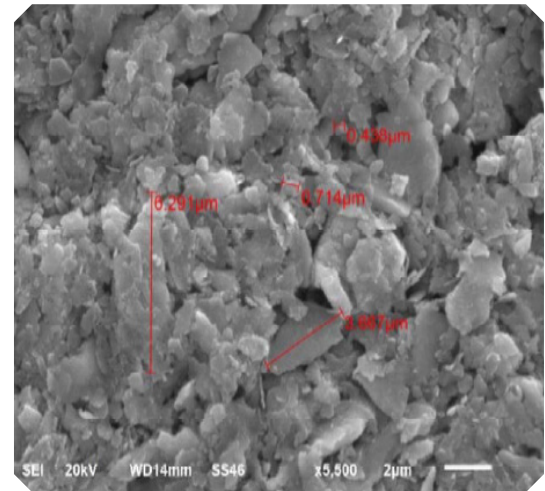
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## RESULTS

During the first 200 hours 10+ ounces of both fine and large contaminants were removed. During the second inspection after another 200 hours 4-6 ounces were removed.

On a third cleaning, after 400 additional hours, 4+ ounces of contamination were removed from the lube system.

The images show trapped contamination ranging from 30+ to sub-micron in size. 71.8 % was found to be ferrous and 17.2 % was non-ferrous and 11% water.



Quantitative Results for: U17400(1)

Element Line	Net Counts	Weight %	Atom %
C K	9660	3.10	11.18
O K	33904	5.02	13.59
Si K	4580	0.88	1.36
S K	20097	3.94	5.32
Ca K	15080	3.33	3.60
Cr K	3899	1.20	1.00
Mn K	1806	0.62	0.49
Fe K	210296	80.71	63.76
Ni K	2224	0.98	0.72
Zn K	1241	0.73	0.48
Total		100.00	100.00



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