

## **REE Sorption Study on sieved -50 +100 mesh fractions of Media #1 in Brine #1 with Different Starting pH's at 70C**

### **Experimental Conditions**

- Shaker bath test ran for 90 minutes
- Sieved media #1 to -50 +100 mesh size
- Starting pH's of 3.5, 4.5, 5.5, 6, 7
- Elevated temperature at 70C
- 2g media to 150mL of REE solution for a 75-1 liquid to solid ratio
- 2ppm each of the REE 7 metals
- Samples analyzed on ICP-MS

Table #1: Shows the percentages of REE's removed from solution at different brine starting pH's in a 90 minute shaker bath test.

<b>Microcosm Shaker Test</b>			
<b>Media 1(-50+100), Brine 1M, REE7 mix, 70oC, 4 hours</b>			
<b>pH</b>	<b>mg REE's Offered</b>	<b>mg REE's Loaded to Media</b>	<b>% of REE's Loaded to Media</b>
3.5	2.33	0.81	34.60%
4.5	2.42	0.88	36.40%
5.5	2.02	0.96	47.50%
6	2.29	0.76	33.20%
7	2.26	0.77	34.10%