

Holeid	Interval		TREO	TREO D	%TREO D	HREO	HREO D	%HREOD	NdPr	NdPr D	%NdPr D	DyTb	DyTb D	%DyTb D
	From	To		Desorbed	TREOD/TREO*100		Desorbed	HREOD/HREO*100		Desorbed	NdPrD/NdPr*100		Desorbed	DyTbD/DyTb*100
	m	m	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%
PCH-RC-001	3.0	4.0	4505.8	495.1	11.0	724.6	147.4	20.3	889.4	120.4	13.5	124.9	20.3	16.3
PCH-RC-001	5.0	6.0	4215.9	760.9	18.0	806.6	266.9	33.1	822.9	169.7	20.6	141.6	37.9	26.8
PCH-RC-001	6.0	7.0	3404.6	488.5	14.3	815.9	193.4	23.7	574.3	99.6	17.3	121.6	26.1	21.5
PCH-RC-001	7.0	8.0	2101.3	156.8	7.5	398.9	73.7	18.5	341.6	24.8	7.3	72.4	9.0	12.4
PCH-RC-002	8.0	9.0	3074.8	65.2	2.1	298.3	27.1	9.1	563.8	11.8	2.1	47.0	2.9	6.2
PCH-RC-002	9.0	10.0	2782.1	44.2	1.6	243.4	19.8	8.1	502.1	7.6	1.5	34.6	2.2	6.2
PCH-RC-007	9.0	10.0	2005.1	111.3	5.6	160.1	39.4	24.6	374.9	27.8	7.4	26.5	5.0	18.8
PCH-RC-007	10.0	11.0	2214.6	338.9	15.3	362.8	136.0	37.5	471.0	74.1	15.7	46.1	15.8	34.3
PCH-RC-008	5.0	6.0	2545.4	858.1	33.7	453.0	241.8	53.4	508.0	245.0	48.2	71.3	35.2	49.4
PCH-RC-008	6.0	7.0	7940.4	1617.8	20.4	1523.5	471.8	31.0	1720.5	451.2	26.2	249.7	70.2	28.1
PCH-RC-008	7.0	8.0	5708.1	1184.3	20.7	1146.6	359.4	31.3	1180.0	318.2	27.0	181.6	51.3	28.3
PCH-RC-008	8.0	9.0	2645.2	648.7	24.5	483.6	206.3	42.7	535.4	168.5	31.5	72.4	29.2	40.4
PCH-RC-008	9.0	10.0	5741.7	514.3	9.0	990.8	171.1	17.3	908.1	122.2	13.5	153.9	24.1	15.6
PCH-RC-009	1.0	2.0	7329.5	114.3	1.6	193.2	22.4	11.6	743.6	33.1	4.5	34.5	2.7	8.0
PCH-RC-009	2.0	3.0	3558.4	149.3	4.2	179.2	32.6	18.2	740.0	42.3	5.7	31.2	4.0	13.0
PCH-RC-009	3.0	4.0	3374.2	231.2	6.9	191.4	43.6	22.8	689.8	66.6	9.7	32.9	5.3	16.1
PCH-RC-009	4.0	5.0	3145.8	173.6	5.5	203.8	35.0	17.2	622.1	49.8	8.0	34.7	4.1	11.8
PCH-RC-009	5.0	6.0	3748.3	234.6	6.3	212.8	53.0	24.9	729.5	66.1	9.1	34.9	6.2	17.7
PCH-RC-009	6.0	7.0	3327.9	173.4	5.2	184.6	39.2	21.2	700.3	50.1	7.2	31.6	4.9	15.6
PCH-RC-009	11.0	12.0	6515.3	182.4	2.8	820.7	53.7	6.5	1583.9	45.9	2.9	129.2	5.4	4.2
PCH-RC-009	12.0	13.0	2793.2	111.0	4.0	226.6	31.0	13.7	642.0	28.1	4.4	34.4	2.8	8.1
PCH-RC-011	0.0	1.0	3565.3	9.3	0.3	276.1	2.1	0.8	668.8	2.6	0.4	40.4	0.2	0.6
PCH-RC-011	2.0	3.0	4690.1	238.6	5.1	357.8	49.6	13.9	1119.3	76.5	6.8	54.7	5.8	10.7
PCH-RC-011	3.0	4.0	4005.9	243.1	6.1	301.1	47.5	15.8	979.3	78.0	8.0	46.6	5.5	11.9
PCH-RC-011	9.0	10.0	7048.0	66.7	0.9	416.7	19.7	4.7	1520.9	16.6	1.1	72.4	2.1	2.9
PCH-RC-011	10.0	11.0	2405.0	49.3	2.1	123.3	18.0	14.6	492.1	10.0	2.0	20.5	1.8	8.6
PCH-RC-013	0.0	1.0	1934.8	88.8	4.6	58.7	12.8	21.9	231.7	26.7	11.5	9.4	1.5	16.2
PCH-RC-013	1.0	2.0	1737.9	130.9	7.5	69.2	17.1	24.7	265.9	39.7	14.9	10.6	2.0	18.6
PCH-RC-014	3.0	4.0	1535.6	231.4	15.1	114.4	47.4	41.4	277.0	69.8	25.2	13.7	4.9	35.5
PCH-RC-014	4.0	5.0	1226.6	170.6	13.9	71.5	35.4	49.5	253.6	53.8	21.2	10.4	3.7	35.3
PCH-RC-016	0.0	1.0	2824.7	89.0	3.2	158.8	17.6	11.1	448.3	28.7	6.4	28.2	2.2	7.9
PCH-RC-017	4.0	5.0	1896.8	79.1	4.2	64.4	23.3	36.2	314.0	29.7	9.5	10.8	2.7	24.8
PCH-RC-021	6.0	7.0	3094.2	6.5	0.2	108.9	3.1	2.8	521.8	1.0	0.2	19.0	0.3	1.5
PCH-RC-021	13.0	14.0	2344.3	4.3	0.2	79.3	2.0	2.5	415.4	0.5	0.1	13.9	0.2	1.3
PCH-RC-023	9.0	10.0	2163.1	215.2	9.9	236.7	80.1	33.8	416.3	39.7	9.5	37.9	7.8	20.6
PCH-RC-026	1.0	2.0	2249.0	35.2	1.6	22.1	6.4	29.2	107.4	9.8	9.1	1.2	0.7	58.4
PCH-RC-026	17.0	18.0	269.7	19.7	7.3	17.2	8.9	51.7	25.7	3.3	12.9	2.4	0.8	31.3
PCH-RC-029	3.0	4.0	1548.1	256.3	16.6	93.7	45.7	48.8	263.3	81.8	31.1	15.5	5.8	37.6
PCH-RC-034	9.0	10.0	5357.4	398.6	7.4	604.5	138.5	22.9	1089.0	108.8	10.0	80.6	16.5	20.4
PCH-RC-035	4.0	5.0	5844.8	230.8	3.9	188.0	37.5	19.9	931.5	69.0	7.4	31.0	5.3	17.0
PCH-RC-037	4.0	5.0	3166.1	178.9	5.7	96.8	52.6	54.3	499.6	48.6	9.7	12.6	6.2	49.7
PCH-RC-040	4.0	5.0	15284.0	92.7	0.6	432.1	18.8	4.3	3313.9	30.6	0.9	81.8	2.3	2.8
PCH-RC-040	14.0	15.0	8011.4	119.5	1.5	380.9	52.9	13.9	1633.0	28.5	1.7	65.1	6.7	10.3
PCH-RC-043	3.0	4.0	2046.5	380.9	18.6	70.6	64.3	91.1	417.9	133.3	31.9	9.2	8.0	86.7
PCH-RC-045	1.0	2.0	1682.8	30.4	1.8	43.6	5.4	12.4	113.2	8.8	7.8	2.4	0.6	25.2
PCH-RC-047	6.0	7.0	1870.7	333.8	17.8	298.2	105.7	35.5	425.8	109.8	25.8	38.7	13.1	33.8
PCH-RC-047	7.0	8.0	2224.2	212.8	9.6	132.1	70.2	53.2	417.7	66.7	16.0	18.5	8.1	43.7
PCH-RC-050	3.0	4.0	1059.0	307.6	29.0	117.1	94.1	80.4	245.6	97.9	39.9	16.3	11.9	73.4
PCH-RC-050	4.0	5.0	1262.0	229.2	18.2	160.0	82.4	51.5	218.0	69.1	31.7	21.1	8.7	41.3
PCH-RC-050	5.0	6.0	1236.2	294.2	23.8	149.9	98.9	65.9	276.6	91.2	33.0	19.5	12.5	64.1
PCH-RC-051	4.0	5.0	9259.6	560.1	6.0	215.0	60.7	28.2	2042.7	218.6	10.7	41.1	8.1	19.6
PCH-RC-051	5.0	6.0	17538.4	617.5	3.5	422.1	70.7	16.7	3698.9	242.0	6.5	73.0	9.3	12.8
PCH-RC-051	6.0	7.0	23932.2	377.5	1.6	574.4	62.6	10.9	5031.9	131.2	2.6	97.1	7.6	7.8

PCH-RC-051	7.0	8.0	7110.6	630.8	8.9	202.9	91.2	44.9	1557.1	220.0	14.1	31.1	10.4	33.4
PCH-RC-051	8.0	9.0	9361.2	258.2	2.8	207.6	30.8	14.8	2206.0	96.6	4.4	40.0	4.1	10.2
PCH-RC-051	9.0	10.0	14855.6	155.3	1.0	325.5	19.0	5.8	3310.2	58.2	1.8	63.3	2.7	4.2
PCH-RC-055	6.0	7.0	2932.1	102.0	3.5	253.6	49.4	19.5	811.2	26.6	3.3	42.6	5.1	11.9
PCH-RC-056	2.0	3.0	3277.8	216.5	6.6	177.1	30.5	17.2	656.0	59.8	9.1	28.1	3.4	12.2
PCH-RC-059	10.0	11.0	2534.7	58.1	2.3	184.6	16.8	9.1	490.5	16.3	3.3	27.7	1.7	6.1
PCH-RC-060	2.0	3.0	3001.4	393.6	13.1	122.1	49.8	40.8	631.5	106.8	16.9	20.6	5.9	28.7
PCH-RC-063	1.0	2.0	32746.3	18.3	0.1	2335.1	5.1	0.2	5603.0	6.1	0.1	312.8	0.6	0.2
PCH-RC-063	2.0	3.0	32259.8	25.1	0.1	2285.5	7.9	0.3	6431.5	7.6	0.1	363.2	0.8	0.2
PCH-RC-063	3.0	4.0	39322.4	54.7	0.1	1884.6	34.2	1.8	7155.4	7.8	0.1	284.5	2.4	0.9
PCH-RC-063	4.0	5.0	26282.5	377.9	1.4	1380.4	234.2	17.0	4868.7	50.0	1.0	179.8	14.6	8.1
PCH-RC-063	5.0	6.0	43201.5	374.8	0.9	1966.3	232.6	11.8	8590.9	47.1	0.5	277.4	12.0	4.3
PCH-RC-063	6.0	7.0	61884.8	32.6	0.1	3035.6	17.6	0.6	12897.7	3.7	0.0	503.1	0.7	0.1
PCH-RC-063	18.0	19.0	50810.1	2.4	0.0	1540.1	1.7	0.1	9233.1	0.1	0.0	266.2	0.1	0.0
PCH-RC-063	19.0	20.0	54225.8	10.6	0.0	2931.0	6.6	0.2	14891.3	1.3	0.0	501.7	0.4	0.1
PCH-RC-063	20.0	21.0	48425.4	10.0	0.0	2927.2	6.1	0.2	12744.1	1.2	0.0	462.0	0.4	0.1
PCH-RC-063	23.0	24.0	31424.5	0.7	0.0	1371.2	0.3	0.0	6419.8	0.2	0.0	219.6	0.0	0.0
PCH-RC-065	1.0	2.0	7527.7	18.8	0.2	249.8	4.9	2.0	1435.7	7.5	0.5	47.0	0.5	1.0
PCH-RC-065	2.0	3.0	4526.1	21.2	0.5	224.9	2.1	0.9	899.9	6.2	0.7	40.1	0.2	0.6
PCH-RC-066	2.0	3.0	8230.5	75.6	0.9	265.0	7.1	2.7	1247.8	25.5	2.0	50.5	1.0	2.0
PCH-RC-066	3.0	4.0	13003.1	74.8	0.6	695.2	27.9	4.0	2340.4	19.8	0.8	108.1	2.4	2.2
PCH-RC-066	7.0	8.0	32540.6	230.6	0.7	777.9	106.8	13.7	6525.2	52.7	0.8	102.9	8.0	7.8
PCH-RC-066	8.0	9.0	39881.2	637.6	1.6	1299.9	302.9	23.3	8089.2	126.7	1.6	166.9	20.1	12.0
PCH-RC-066	9.0	10.0	38266.8	81.0	0.2	1395.5	15.1	1.1	7622.2	32.1	0.4	156.9	1.6	1.0
PCH-RC-067	1.0	2.0	6449.5	73.2	1.1	192.3	8.5	4.4	1176.7	25.0	2.1	32.8	0.9	2.6
PCH-RC-067	2.0	3.0	18428.2	35.5	0.2	580.5	5.7	1.0	3038.6	11.2	0.4	86.9	0.5	0.6
PCH-RC-067	3.0	4.0	45107.5	136.0	0.3	2583.4	27.2	1.1	8311.1	50.8	0.6	311.0	2.9	0.9
PCH-RC-067	4.0	5.0	39269.4	115.3	0.3	2665.3	23.0	0.9	7003.7	44.5	0.6	366.3	2.6	0.7
PCH-RC-067	5.0	6.0	34755.6	338.9	1.0	2237.8	237.2	10.6	6385.0	32.6	0.5	311.8	19.7	6.3
PCH-RC-067	10.0	11.0	31751.8	282.4	0.9	1931.4	198.3	10.3	5533.3	26.8	0.5	261.5	16.5	6.3
PCH-RC-068	2.0	3.0	6441.1	40.6	0.6	280.8	6.3	2.2	1173.1	13.2	1.1	49.0	0.7	1.5
PCH-RC-094	3.0	4.0	1473.9	61.2	4.2	25.8	14.2	55.2	197.7	20.1	10.2	4.6	1.9	40.7
PCH-RC-094	4.0	5.0	1266.4	98.2	7.8	49.9	28.5	57.2	267.2	31.4	11.7	9.8	3.5	35.6
PCH-RC-116	11.0	12.0	3420.2	231.9	6.8	206.9	48.3	23.4	793.7	71.9	9.1	38.7	6.8	17.6
PCH-RC-116	12.0	13.0	3802.5	337.2	8.9	351.9	72.6	20.6	906.9	102.7	11.3	57.9	9.7	16.8
PCH-RC-116	13.0	14.0	3138.2	376.6	12.0	315.0	87.4	27.8	642.0	107.9	16.8	46.0	10.9	23.7
PCH-RC-116	15.0	16.0	2959.4	272.2	9.2	275.6	66.3	24.0	583.6	68.9	11.8	41.0	7.6	18.6
PCH-RC-116	16.0	17.0	2340.3	224.1	9.6	161.6	56.4	34.9	360.9	51.8	14.4	21.9	6.0	27.5
PCH-RC-116	17.0	18.0	2993.0	252.2	8.4	161.6	66.9	41.4	446.6	54.4	12.2	21.2	6.9	32.8
PCH-RC-116	18.0	19.0	8177.0	102.4	1.3	223.6	30.2	13.5	940.9	20.1	2.1	29.1	2.8	9.8
PCH-RC-116	19.0	20.0	4780.1	109.3	2.3	326.9	32.3	9.9	588.3	21.2	3.6	41.9	3.1	7.3
PCH-RC-119	9.0	10.0	2094.7	10.0	0.5	105.3	5.3	5.0	489.4	1.5	0.3	24.4	0.6	2.5
PCH-RC-119	10.0	11.0	1759.7	5.1	0.3	126.6	3.0	2.4	370.2	0.6	0.2	26.8	0.3	1.2
PCH-RC-119	11.0	12.0	1848.5	8.4	0.5	150.3	4.2	2.8	376.5	1.1	0.3	23.7	0.4	1.6
PCH-RC-120	11.0	12.0	1746.5	100.1	5.7	104.4	30.4	29.2	377.6	29.5	7.8	18.5	3.7	20.2
PCH-RC-120	12.0	13.0	1404.2	185.6	13.2	93.0	56.9	61.1	321.9	55.9	17.4	16.0	6.8	42.7
PCH-RC-120	13.0	14.0	1157.4	103.1	8.9	62.0	39.1	63.0	252.8	27.5	10.9	10.9	4.4	40.2

*Total Rare Earth Oxides: TREO = Y2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Lu2O3 + La2O3 + Ce2O3 + Pr2O3 + Nd2O3 + Sm2O3

*Heavy Rare Earth Oxides: HREO = Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Lu2O3 + Y2O3

*NdPr = Nd2O3+Pr2O3

*DyTb = Dy2O3+Tb4O7

*Element to Oxide Conversion Factor - Cerium Ce2O3 1.1713, Cerium CeO2 1.2284, Dysprosium Dy2O3 1.1477, Erbium Er2O3 1.1435, Europium Eu2O3 1.1579, Gadolinium Gd2O3 1.1526, Holmium Ho2O3 1.1455, Lanthanum La2O3 1.1728, Lutetium Lu2O3 1.1371, Neodymium Nd2O3 1.1664, Praseodymium Pr2O3 1.1703,

Praseodymium Pr6O11 1.2082, Samarium Sm2O3 1.1596, Terbium Tb2O3 1.1510, Terbium Tb4O7 1.1762, Thulium Tm2O3 1.1421, Yttrium Y2O3 1.2699, Ytterbium Yb2O3 1.1387

* Desorbability results were conducted using Ammonium Sulfate at 0.5M, pH4, for 20 minutes.