

APPENDIX B

NIBLACK MASTER ACID BASE
ACCOUNTING GEOCHEMICAL
DATABASE

Table B-1. Acid Base Accounting Results

General											Acid Generating Potential (AGP)			Acid Neutralization Potentials (ANP)					Net Neutralization Potential (NNP)			ANP:AGP Ratios			Classification			
Sample ID	hole-id	from	to	Unit	Muck Round/ Ramp Distance from Portal (ft)	Company	Program	Date	Analytical Lab	Anticipated Sulphur Range	Paste pH	Total Sulphur	Sulphate Sulphur	Sulphide Sulphur	AGP (Total S)	Fizz Test	TIC	TIC	Standard Siderite ANP	CaCO3 ANP	Standard Siderite ANP	Sobek NNP	Carbonate NNP	Siderite NNP	Sobek ANP:AGP	Carbonate ANP:AGP	Siderite ANP:AGP	ARD Classification
		%	%									%	%C	%CO2		kgCaCO3/tonne			kgCaCO3/tonne									
70651	LO-180	450	455	HW		MESH	Verification	2007	CEMI	<0.2	9.37	0.2	<0.01	0.2	6.3	Moderate	0.43	--	143.8	35.8	97.7	137.6	29.6	91.5	23.0	5.7	15.6	non-PAG
70659	LO-161	1554.2	1559.2	HW		MESH	Verification	2007	CEMI	>0.5	9.22	0.99	<0.01	0.99	30.9	Moderate	0.43	--	111.8	35.8	80.2	80.9	4.9	49.3	3.6	1.2	2.6	non-PAG
70663	LO-180	342.5	345	HW		MESH	Verification	2007	CEMI	0.3-0.5	9.48	0.2	<0.01	0.2	6.3	Moderate	0.32	--	91.1	26.7	65.2	84.9	20.4	58.9	14.6	4.3	10.4	non-PAG
C217463	PORTAL	120	130	HW		MESH	Verification	2007	CEMI	NA	9.83	0.01	<0.01	0.01	0.3	Strong	0.53	--	75.4	44.2	62.7	75.1	43.9	62.3	241.3	141.3	200.5	non-PAG
70654	LO-161	830	835	FW		MESH	Verification	2007	CEMI	>1	8.97	1.51	<0.01	1.51	47.2	None	<0.01	--	9.6	0.8	9.2	-37.6	-46.4	-38.0	0.2	0.0	0.2	PAG
70655	LO-161	924	927.6	FW		MESH	Verification	2007	CEMI	0.3-0.5	9.45	0.26	<0.01	0.26	8.1	Slight	0.13	--	23.1	10.8	21.9	15.0	2.7	13.8	2.8	1.3	2.7	PAG
70660	LO-186	350	355	FW		MESH	Verification	2007	CEMI	<0.2	8.98	0.16	<0.01	0.16	5.0	Moderate	1.59	--	179.6	132.5	155.4	174.6	127.5	150.4	35.9	26.5	31.1	non-PAG
70661	LO-159	163.2	168.2	FW		MESH	Verification	2007	CEMI	0.3-0.5	8.99	0.28	<0.01	0.28	8.8	Strong	1.23	--	180.9	102.5	140.4	172.2	93.8	131.6	20.7	11.7	16.0	non-PAG
70662	LO-181	404.9	408.9	FW		MESH	Verification	2007	CEMI	>1	8.87	5.01	0.01	5.00	156.3	Slight	0.21	--	32.2	17.5	29.2	-124.1	-138.8	-127.1	0.2	0.1	0.2	PAG
70667	LO-182	660	665	FW		MESH	Verification	2007	CEMI	<0.2	8.81	0.23	<0.01	0.23	7.2	Strong	1.36	--	214.2	113.3	147.9	207.0	106.1	140.7	29.8	15.8	20.6	non-PAG
70657	LO-191	1178	1183	LO		MESH	Verification	2007	CEMI	<0.2	9.52	0.31	<0.01	0.31	9.7	None	<0.01	--	1.2	0.8	3.6	-8.5	-8.9	-6.1	0.1	0.1	0.4	PAG
70658	LO-161	1488	1491	LO		MESH	Verification	2007	CEMI	0.3-0.5	9.84	0.37	<0.01	0.37	11.6	None	0.03	--	10.6	2.5	10.6	-1.0	-9.1	-1.0	0.9	0.2	0.9	PAG
70664	LO-190	1145.7	1150.7	LO		MESH	Verification	2007	CEMI	0.3-0.5	9.30	0.81	<0.01	0.81	25.3	None	<0.01	--	2.9	0.8	3.6	-22.4	-24.5	-21.7	0.1	0.0	0.1	PAG
70665	LO-182	936	941	LO		MESH	Verification	2007	CEMI	>1	9.40	1.68	<0.01	1.68	52.5	Moderate	0.08	--	40.2	6.7	45.1	-12.3	-45.8	-7.4	0.8	0.1	0.9	PAG
70666	LO-184	829.5	832.5	LO		MESH	Verification	2007	CEMI	<0.2	9.58	0.37	<0.01	0.37	11.6	Moderate	0.19	--	33.3	15.8	27.6	21.7	4.3	16.0	2.9	1.4	2.4	PAG
70668	LO-191	871	874.5	LO		MESH	Verification	2007	CEMI	>1	8.11	4.86	0.02	4.84	151.3	None	<0.01	--	7.1	0.8	8.4	-144.2	-150.5	-142.9	0.0	0.0	0.1	PAG
70652	LO-188	1065	1069	MD		MESH	Verification	2007	CEMI	0.3-0.5	8.81	0.38	<0.01	0.38	11.9	Strong	1.65	--	209.8	137.5	174.2	197.9	125.6	162.3	17.7	11.6	14.7	non-PAG
70653	LO-190	1023	1029.6	MD		MESH	Verification	2007	CEMI	>1	8.98	0.89	<0.01	0.89	27.8	Strong	1.24	--	187.2	103.3	150.4	159.4	75.5	122.6	6.7	3.7	5.4	non-PAG
C217451	PORTAL	0	10	HW		MESH	Op. Charac. Plan	2007	CEMI	NA	9.10	0.05	--	--	1.6	--	1.1	--	--	91.7	--	--	90.1	--	--	58.6	--	non-PAG
C217452	PORTAL	10	20	HW		MESH	Op. Charac. Plan	2007	CEMI	NA	9.02	0.06	--	--	1.9	--	0.65	--	--	54.2	--	--	52.3	--	--	28.8	--	non-PAG
C217453	PORTAL	20	30	HW		MESH	Op. Charac. Plan	2007	CEMI	NA	8.97	0.02	--	--	0.6	--	1.49	--	--	124.2	--	--	123.5	--	--	198.3	--	non-PAG
C217454	PORTAL	30	40	HW		MESH	Op. Charac. Plan	2007	CEMI	NA	9.20	0.01	--	--	0.3	--	1.84	--	--	153.3	--	--	153.0	--	--	489.9	--	non-PAG
70656	LO-161	927.7	935	MD		MESH	Verification	2007	CEMI	<0.2	9.05	0.2	<0.01	0.2	6.3	Strong	1.97	--	180.3	164.2	174.2	174.1	157.9	167.9	28.8	26.3	27.9	non-PAG
C217456	PORTAL	50	60	HW		MESH	Op. Charac. Plan	2007	CEMI	NA	9.49	0.01	--	--	0.3	--	1.47	--	--	122.5	--	--	122.2	--	--	391.4	--	non-PAG
C217457	PORTAL	60	70	HW		MESH	Op. Charac. Plan	2007	CEMI	NA	9.54	0.02	--	--	0.6	--	1.02	--	--	85.0	--	--	84.4	--	--	135.8	--	non-PAG
C217458	PORTAL	70	80	HW		MESH	Op. Charac. Plan	2007	CEMI	NA	9.57	0.06	--	--	1.9	--	0.85	--	--	70.8	--	--	69.0	--	--	37.7	--	non-PAG
C217459	PORTAL	80	90	HW		MESH	Op. Charac. Plan	2007	CEMI	NA	9.55	0.04	--	--	1.3	--	1.42	--	--	118.3	--	--	117.1	--	--	94.5	--	non-PAG
C217460	PORTAL	90	100	HW		MESH	Op. Charac. Plan	2007	CEMI	NA	9.33	0.01	--	--	0.3	--	1.13	--	--	94.2	--	--	93.9	--	--	300.9	--	non-PAG
C217461	PORTAL	100	110	HW		MESH	Op. Charac. Plan	2007	CEMI	NA	9.89	0.01	--	--	0.3	--	0.48	--	--	40.0	--	--	39.7	--	--	127.8	--	non-PAG
C217462	PORTAL	110	120	HW		MESH	Op. Charac. Plan	2007	CEMI	NA	9.57	0.02	--	--	0.6	--	0.81	--	--	67.5	--	--	66.9	--	--	107.8	--	non-PAG
C217455	PORTAL	40	50	MD		MESH	Verification	2007	CEMI	NA	9.23	0.01	<0.01	0.01	0.3	Strong	1.59	--	182.2	132.5	149.1	181.9	132.2	148.8	583.0	424.0	477.2	non-PAG
C217464	PORTAL	130	140	HW		MESH	Op. Charac. Plan	2007	CEMI	NA	9.94	0.02	--	--	0.6	--	0.27	--	--	22.5	--	--	21.9	--	--	35.9	35.9	non-PAG
C217465	PORTAL	140	150	HW		MESH	Op. Charac. Plan	2007	CEMI	NA	9.84	0.02	--	--	0.6	--	0.22	--	--	18.3	--	--	17.7	--	--	29.3	29.3	non-PAG
NBCA03	LO-088	530	532	HW		KP	Characterization	1997	NA	NA	9.50	0.16	--	0.14	5.0	None	--	--	11	--	--	6	--	--	2.2	--	--	PAG
NBCA07	LO-095	450	452	HW		KP	Characterization	1997	NA	NA	8.90	5.08	--	4.87	159.0	None	--	--	10	--	--	-149	--	--	0.1	--	--	PAG
NBC04358	LO-099	226	229.4	LO		KP	Characterization	1997	NA	NA	4.50	5.41	0.43	4.54	169.0	None	--	0.20	-2	4.5	--	-171	-164.5	--	0.0	0.0	--	PAG
NBC04537	LO-102	165	170	LO		KP	Characterization	1997	NA	NA	6.40	0.85	0.03	0.81	27.0	None	--	0.20	1	4.5	--	-26	-22.5	--	0.0	0.2	--	PAG
NBC05051	LO-107	1169	1171	FW		KP	Characterization	1997	NA	NA	8.70	0.49	0.01	0.44	15.0	Slight	--	0.60	25	13.6	--	10	-1.4	--	1.7	0.9	--	PAG
NBC06011	LO-108	400	401	FW		KP	Characterization	1997	NA	NA	8.30	2.9	0.02	2.79	91.0	Slight	--	1.50	37	34.1	--	-54	-56.9	--	0.4	0.4	--	PAG
NBC06101	LO-111	42	47	FW		KP	Characterization	1997	NA	NA	8.50	1.9	0.02	1.86	59.0	None	--	0.20	5	4.5	--	-54	-54.5	--	0.1	0.1	--	PAG
NBC06111	LO-111	417	422	FW		KP	Characterization	1997	NA	NA	8.50	2.61	0.02	2.57	82.0	None	--	0.20	10	4.5	--	-72	-77.5	--	0.1	0.1	--	PAG
NBC06114	LO-111	499	504	FW		KP	Characterization	1997	NA	NA	8.10	6.53	0.03	6.32	204.0	Slight	--	0.50	18	11.4	--	-186	-192.6	--	0.1	0.1	--	PAG
NBC06129	LO-111	831	834	LO		KP	Characterization	1997	NA	NA	6.80	7.39	0.06	7.06	231.0	None	--	0.20	5	4.5	--	-226	-226.5	--	0.0	0.0	--	PAG
NBC06141	LO-111	1021	1024	LO		KP	Characterization	1997	NA	NA	4.30	8	0.18	7.59	250.0	None	--	0.20	-2	4.5	--	-252	-245.5	--	0.0	0.0	--	PAG
NBC06145	LO-111	1081	1084	HW		KP	Characterization	1997	NA	NA	9.50	0.2	0.02	0.17	6.0	Slight	--	0.50	17	11.4	--	11	5.4	--	2.8	1.9	--	PAG
NBC06148	LO-113	52	57	FW		KP	Characterization	1997	NA	NA	7.00	2.75	0.03	2.65	86.0	None	--	0.20	4	4.5	--	-82	-81.5					

Table B-1. Acid Base Accounting Results

General											Acid Generating Potential (AGP)				Acid Neutralization Potentials (ANP)					Net Neutralization Potential (NNP)			ANP:AGP Ratios			Classification		
Sample ID	hole-id	from	to	Unit	Muck Round/ Ramp Distance from Portal (ft)	Company	Program	Date	Analytical Lab	Anticipated Sulphur Range	Paste pH	Total Sulphur	Sulphate Sulphur	Sulphide Sulphur	AGP (Total S)	Fizz Test	TIC	TIC	Standard Siderite ANP	CaCO3 ANP	Standard Siderite ANP	Sobek NNP	Carbonate NNP	Siderite NNP	Sobek ANP:AGP	Carbonate ANP:AGP	Siderite ANP:AGP	ARD Classification
		%	%									%	%C	%CO2			kgCaCO3/tonne	kgCaCO3/tonne										
NBS06107	Surface grab			HW		KP	Characterization	2006		NA	8.70	0.13	--	--	4.1	Slight	--	--	35	--	--	31	--	--	8.5	--	--	non-PAG
N28916	LO-180	32	35	HW		KP	Characterization	2006		NA	9.20	0.16	--	--	5.0	Moderate	--	--	45	--	--	40	--	--	9.0	--	--	non-PAG
NBC06177	LO-113	915	920	LO		KP	Characterization	1997		NA	9.70	0.01	0.01	0.01	1.0	Slight	--	0.40	9	9.1	--	8	8.1	--	9.0	9.1	--	non-PAG
NBS06114	Surface grab			HW		KP	Characterization	2006		NA	8.40	0.03	--	--	0.9	None	--	--	9	--	--	8	--	--	10.0	--	--	non-PAG
N28937	LO-180	933.4	938.4	LO		KP	Characterization	2006		NA	9.10	0.13	--	--	4.1	Moderate	--	--	42	--	--	38	--	--	10.2	--	--	non-PAG
NBCA09	LO-102	700	702	HW		KP	Characterization	1997		NA	9.80	0.19	--	0.16993464	6.0	Strong	--	--	70	--	--	64	--	--	11.7	--	--	non-PAG
NBC05054	LO-107	1263	1265	FW		KP	Characterization	1997		NA	8.90	0.19	0.01	0.14	6.0	Moderate	--	2.90	75	65.9	--	69	59.9	--	12.5	11.0	--	non-PAG
NBS06110	Surface grab			HW		KP	Characterization	2006		NA	9.10	0.01	--	--	0.3	None	--	--	4	--	--	4	--	--	13.3	--	--	non-PAG
NBC06031	LO-108	655	657	LO		KP	Characterization	1997		NA	9.30	0.03	0.02	0.01	1.0	Slight	--	0.30	13	6.8	--	12	5.8	--	13.0	6.8	--	non-PAG
NBCA01	LO-084	670	672	HW		KP	Characterization	1997		NA	9.40	0.01	--	0.01	1.0	Slight	--	--	13	--	--	12	--	--	13.0	--	--	non-PAG
N28927	LO-180	502	507	HW		KP	Characterization	2006		NA	9.40	0.19	--	--	5.9	Moderate	--	--	83	--	--	77	--	--	14.1	--	--	non-PAG
NBS06116	Surface grab			HW		KP	Characterization	2006		NA	8.50	0.02	--	--	0.6	None	--	--	9	--	--	8	--	--	15.0	--	--	non-PAG
NBCA06	LO-092	480	482	HW		KP	Characterization	1997		NA	9.60	0.01	--	0.01	1.0	Slight	--	--	15	--	--	14	--	--	15.0	--	--	non-PAG
NBCA12	LO-109	950	952	HW		KP	Characterization	1997		NA	9.40	0.01	--	0.01	1.0	Slight	--	--	15	--	--	14	--	--	15.0	--	--	non-PAG
NBC06254	LO-117	1250	1255	LO		KP	Characterization	1997		NA	9.70	0.01	0.01	0.01	1.0	Slight	--	0.60	15	13.6	--	14	12.6	--	15.0	13.6	--	non-PAG
N28930	LO-180	675	680	HW		KP	Characterization	2006		NA	9.40	0.36	--	--	11.3	Moderate	--	--	191	--	--	180	--	--	16.9	--	--	non-PAG
NBC04998	LO-107	985	987	FW		KP	Characterization	1997		NA	9.20	0.01	0.01	0.01	1.0	Slight	--	3.70	19	84.1	--	18	83.1	--	19.0	84.1	--	non-PAG
N28955	LO-180	1180	1185	LO		KP	Characterization	2006		NA	10.20	0.01	--	--	0.3	None	--	--	6	--	--	6	--	--	20.0	--	--	non-PAG
NBCA11	LO-106	850	852	HW		KP	Characterization	1997		NA	9.20	0.18	--	0.16032295	6.0	Strong	--	--	123	--	--	117	--	--	20.5	--	--	non-PAG
N28935	LO-180	885	890	LO		KP	Characterization	2006		NA	9.60	0.07	--	--	2.2	Moderate	--	--	56	--	--	54	--	--	25.5	--	--	non-PAG
NBC04248	LO-096	260	265	LO		KP	Characterization	1997		NA	9.20	0.01	0.01	0.01	1.0	Slight	--	0.90	27	20.5	--	26	19.5	--	27.0	20.5	--	non-PAG
NBCA15	LO-119	490	492	HW		KP	Characterization	1997		NA	9.40	0.01	--	0.01	1.0	Slight	--	--	27	--	--	26	--	--	27.0	--	--	non-PAG
NBCA10	LO-103	806	808	HW		KP	Characterization	1997		NA	9.50	0.02	--	0.01	1.0	Moderate	--	--	27	--	--	26	--	--	27.0	--	--	non-PAG
NBC04720	LO-104	301	303	LO		KP	Characterization	1997		NA	9.40	0.01	0.01	0.01	1.0	Slight	--	0.80	28	18.2	--	27	17.2	--	28.0	18.2	--	non-PAG
NBC05802	LO-146	993	995	FW		KP	Characterization	1997		NA	9.90	0.02	0.02	0.01	1.0	Slight	--	1.20	28	27.3	--	27	26.3	--	28.0	27.3	--	non-PAG
NBC04719	LO-104	253	255	LO		KP	Characterization	1997		NA	9.50	0.01	0.01	0.01	1.0	Slight	--	1.10	34	25.0	--	33	24.0	--	34.0	25.0	--	non-PAG
N28917	LO-180	79	80	HW		KP	Characterization	2006		NA	9.40	0.04	--	--	1.3	Moderate	--	--	43	--	--	42	--	--	33.1	--	--	non-PAG
NBC05832	LO-148	549	551	LO		KP	Characterization	1997		NA	9.80	0.01	0.01	0.01	1.0	Moderate	--	1.20	35	27.3	--	34	26.3	--	35.0	27.3	--	non-PAG
N28929	LO-180	625	630	HW		KP	Characterization	2006		NA	9.80	0.11	--	--	3.4	Moderate	--	--	125	--	--	122	--	--	36.8	--	--	non-PAG
NBC04250	LO-096	373	378	LO		KP	Characterization	1997		NA	9.60	0.01	0.01	0.01	1.0	Slight	--	1.70	37	38.6	--	36	37.6	--	37.0	38.6	--	non-PAG
NBC04739	LO-104	440	442	FW		KP	Characterization	1997		NA	9.40	0.03	0.01	0.01	1.0	Moderate	--	1.10	37	25.0	--	36	24.0	--	37.0	25.0	--	non-PAG
N28953	LO-180	1010	1015	LO		KP	Characterization	2006		NA	10.30	0.01	--	--	0.3	Slight	--	--	13	--	--	13	--	--	43.3	--	--	non-PAG
NBS06102	Surface grab			HW		KP	Characterization	2006		NA	9.10	0.03	--	--	0.9	Slight	--	--	41	--	--	40	--	--	45.6	--	--	non-PAG
NBS06104	Surface grab			HW		KP	Characterization	2006		NA	9.60	0.01	--	--	0.3	None	--	--	7	--	--	7	--	--	23.3	--	--	non-PAG
NBS06105	Surface grab			HW		KP	Characterization	2006		NA	8.80	0.01	--	--	0.3	None	--	--	7	--	--	7	--	--	23.3	--	--	non-PAG
NBCA05	LO-090	720	722	HW		KP	Characterization	1997		NA	9.40	0.01	--	0.01	1.0	Moderate	--	--	46	--	--	45	--	--	46.0	--	--	non-PAG
NBC04567	LO-102	676	681	FW		KP	Characterization	1997		NA	9.30	0.01	0.01	0.01	1.0	Moderate	--	1.20	47	27.3	--	46	26.3	--	47.0	27.3	--	non-PAG
NBS06109	Surface grab			HW		KP	Characterization	2006		NA	8.60	0.01	--	--	0.3	Slight	--	--	15	--	--	15	--	--	50.0	--	--	non-PAG
NBCA04	LO-090	650	652	HW		KP	Characterization	1997		NA	9.50	0.01	--	0.01	1.0	Moderate	--	--	49	--	--	48	--	--	49.0	--	--	non-PAG
NBC05135	LO-112	412	413	FW		KP	Characterization	1997		NA	9.00	0.01	0.01	0.01	1.0	Moderate	--	2.20	53	50.0	--	52	49.0	--	53.0	50.0	--	non-PAG
NBC04940	LO-107	683	688	LO		KP	Characterization	1997		NA	9.30	0.02	0.01	0.01	1.0	Moderate	--	2.00	55	45.5	--	54	44.5	--	55.0	45.5	--	non-PAG
NBCA13	LO-115	400	402	HW		KP	Characterization	1997		NA	9.30	0.01	--	0.01	1.0	Moderate	--	--	61	--	--	60	--	--	61.0	--	--	non-PAG
NBC04713	LO-104	32	34	LO		KP	Characterization	1997		NA	9.60	0.01	0.01	0.01	1.0	Slight	--	3.10	64	70.5	--	63	69.5	--	64.0	70.5	--	non-PAG
NBC06255	LO-122	89	94	HW		KP	Characterization	1997		NA	8.80	0.03	0.01	0.01	1.0	Moderate	--	2.80	66	63.6	--	65	62.6	--	66.0	63.6	--	non-PAG
NBCA08	LO-099	550	552	HW		KP	Characterization	1997		NA	9.30	0.01	--	0.01	1.0	Moderate	--	--	66	--	--	65	--	--	66.0	--	--	non-PAG
NBC07322	LO-145	1153	1154	HW		KP	Characterization	1997		NA	9.30	0.01	0.01	0.01	1.0	Moderate	--	2.50	72	56.8	--	71	55.8	--	72.0	56.8	--	non-PAG
NBC05844	LO-148	858	862	HW		KP	Characterization	1997		NA	9.00	0.04	0.01	0.01	1.0	Moderate	--	3.30	88	75.0	--	87	74.0	--	88.0	75.0	--	non-PAG
N28954	LO-180	1105	1110	LO		KP	Characterization	2006		NA	10.00	0.01	--	--	0.3	Moderate	--	--	33	--	--	33	--	--	110.0	--	--	non-PAG
N28928	LO-180	565	570	HW		KP	Characterization	2006		NA	9.40	0.02	--	--	0.6	Moderate	--	--	67	--	--	66	--	--	111.7	--	--	non-PAG
NBCA14	LO-115	500	502	HW		KP	Characterization	1997		NA	9.40	0.01	--	0.01	1.0	Strong	--	--	108	--	--	107	--	--	108.0	--	--	non-PAG
NBS06101	Surface grab			HW		KP	Characterization	2006		NA	8.90	0.01	--	--	0.3	Slight	--	--	37	--	--	37	--	--	123.3	--	--	non-PAG
NBC04901	LO-107	126	129	HW		KP	Characterization	1997		NA	8.90	0.01	0.01	0.01	1.0	Strong	--	5.10	143	115.9	--	142	114.9	--	143.0	115.9	--	non-PAG
NBC06002	LO-108	129	130	HW		KP	Characterization	1997		NA	8.90	0.01	0.01	0.01	1.0	Strong	--	5.90	145	134.1	--	144	133.1	--	145.0	134.1	--	non-PAG
NBC06008	LO-108	348	349	HW		KP	Characterization	1997		NA	9.10	0.01	0.01	0.01	1.0	Strong	--	7.30	184	165.9	--	183	164.9	--	184.0	165.9	--	non-PAG
NBC06014	LO-108	467	468	HW		KP	Characterization	1997		NA	8.30	0.01	0.01	0.01	1.0	Strong	--	7.70	194	175.0	--	193	174.0	--	194.0	175.0	--	non-PAG
NBS06111	Surface grab			HW		KP	Characterization	2006		NA	9.30	0.01	--	--	0.3	Slight	--	--	31	--	--	31	--	--	103.3	--	--	non-PAG
NBC04530	LO-102	57	60	HW		KP	Characterization	1997		NA	9.30	0.04	0.01	0.01	1.0	Moderate	--	9.20	200	209.1	--	199	208.1	--	200.0	209.1	--	non-PAG
N28																												

Table B-1. Acid Base Accounting Results

General												Acid Generating Potential (AGP)				Acid Neutralization Potentials (ANP)					Net Neutralization Potential (NNP)			ANP:AGP Ratios			Classification		
Sample ID	hole-id	from	to	Unit	Muck Round/ Ramp Distance from Portal (ft)	Company	Program	Date	Analytical Lab	Anticipated Sulphur Range	Paste pH	Total Sulphur	Sulphate Sulphur	Sulphide Sulphur	AGP (Total S)	Fizz Test	TIC	TIC	Standard Sobek ANP	CaCO3 ANP	Standard Siderite ANP	Sobek NNP	Carbonate NNP	Siderite NNP	Sobek ANP:AGP	Carbonate ANP:AGP	Siderite ANP:AGP	ARD Classification	
												%	%	%			%C	%CO2											kgCaCO3/tonne
NBC 08099				HW	436-446	NMC/MESH	QA/QC	26-Nov-07	CEMI	NA	8.77	0.11	<0.01	0.11	3.4	Slight	0.17	--	42.9	14.2	--	39	11	--	12.5	4.1	--	non-PAG	
NBC 08107				HW	Mammoth Drill Station 0-12	NMC/MESH	QA/QC	29-Nov-07	CEMI	NA	8.93	0.06	<0.01	0.06	1.9	Strong	1.92	--	231.2	160.0	--	229	158	--	123.3	85.3	--	non-PAG	
NBC 08128				HW	562-568	NMC/MESH	QA/QC	13-Dec-07	CEMI	NA	9.03	<0.01	<0.01	<0.01	0.3	Strong	1.64	--	226.2	136.7	--	226	136	--	754.0	455.6	--	non-PAG	
NBC 08145				HW	664-677	NMC/MESH	QA/QC	12-Jan-08	CEMI	NA	9.41	<0.01	<0.01	<0.01	0.3	Strong	0.93	--	121.6	77.5	--	122	77	--	405.3	258.3	--	non-PAG	
NBC 08170				HW	786-798	NMC/MESH	QA/QC		CEMI	NA	9.34	<0.01	<0.01	<0.01	0.3	Moderate	0.47	--	75.2	39.2	--	75	39	--	250.7	130.6	--	non-PAG	
NBC 08201 Duplicate						NMC/MESH	QA/QC		CEMI	NA	9.14	0.34	<0.01	0.34	10.6	Slight	0.25	--	41.9	20.8	--	31	10	--	3.9	2.0	--	non-PAG	
NBC 08215 Duplicate						NMC/MESH	QA/QC		CEMI	NA	8.95	<0.01	<0.01	<0.01	0.3	Slight	0.56	--	67.7	46.7	--	67	46	--	225.7	155.6	--	non-PAG	
NBC 08237 Duplicate						NMC/MESH	QA/QC		CEMI	NA	9.20	<0.01	<0.01	<0.01	0.3	Moderate	1.98	--	225.1	165.0	--	225	165	--	750.3	550.0	--	non-PAG	
NBC 08256 Duplicate						NMC/MESH	QA/QC		CEMI	NA	9.30	0.03	<0.01	0.03	0.9	Slight	0.55	--	56.7	45.8	--	56	45	--	60.5	48.9	--	non-PAG	
NBC 08281 Duplicate						NMC/MESH	QA/QC		CEMI	NA	9.09	0.01	<0.01	0.01	0.3	Slight	0.15	--	29.0	12.5	--	29	12	--	92.8	40.0	--	non-PAG	
NBC 08294 Duplicate						NMC/MESH	QA/QC		CEMI	NA	9.51	0.66	0.03	0.63	19.7	Slight	0.29	--	52.8	24.2	--	33	4	--	2.7	1.2	--	Uncertain	
NBC 08305 Duplicate						NMC/MESH	QA/QC		CEMI	NA	9.11	0.15	<0.01	0.15	4.7	Slight	0.68	--	70.9	56.7	--	66	52	--	15.1	12.1	--	non-PAG	
NBC 08351						NMC/MESH	QA/QC	23-May-08	CEMI	NA	9.34	0.09	0.02	0.07	2.2	Moderate	0.58	--	108.6	48.3	--	106.4	46	--	49.6	22.1	--	non-PAG	
NBC 08357						NMC/MESH	QA/QC	23-May-08	CEMI	NA	9.04	0.15	0.03	0.12	3.8	Moderate	1.07	--	168.7	89.2	--	168.7	85	--	45.0	23.8	--	non-PAG	
NBC 08381						NMC/MESH	QA/QC	23-May-08	CEMI	NA	9.01	0.2	0.04	0.16	5.0	Moderate	1.2	--	201.6	100.0	--	201.6	95	--	40.3	20.0	--	non-PAG	
NBC 08405						NMC/MESH	QA/QC	23-May-08	CEMI	NA	11.74	0.05	0.05	0.01	0.3	Moderate	0.97	--	147.0	80.8	--	147.0	81	--	490.0	269.4	--	non-PAG	
NBC 08441						NMC/MESH	QA/QC	23-May-08	CEMI	NA	9.33	0.02	0.02	0.01	0.3	Moderate	0.82	--	150.7	68.3	--	150.7	68	--	502.3	227.8	--	non-PAG	
NBC 08450						NMC/MESH	QA/QC	23-May-08	CEMI	NA	9.10	0.06	0.03	0.03	0.9	Moderate	1.21	--	173.1	100.8	--	172.2	100	--	184.6	107.6	--	non-PAG	
LO-1				LO		NMC/MESH	Field Barrels	7-Aug-08	CEMI		8.54	1.04	<0.01	1.04	32.5	Moderate	0.97	--	87.2	80.8	--	54.7	48	--	2.7	2.5	--		
LO-2				LO		NMC/MESH	Field Barrels	7-Aug-08	CEMI		8.63	0.77	<0.01	0.77	24.1	Slight	0.17	--	28.0	14.2	--	28.0	-10	--	1.2	0.6	--		
HW-1				HW		NMC/MESH	Field Barrels	7-Aug-08	CEMI		8.73	0.92	<0.01	0.92	28.8	Slight	0.29	--	39.3	24.2	--	39.3	-5	--	1.4	0.8	--		
NBC 08470						NMC/MESH	QA/QC	5-Sep-08	CEMI		8.91	0.22	<0.01	0.22	6.9	Moderate	1.13	--	127.2	84.2	--			--			--		
NBC 08497						NMC/MESH	QA/QC	5-Sep-08	CEMI		8.96	0.08	<0.01	0.08	2.5	Slight	0.12	--	24.1	10.0	--			--			--		
NBS 05025						NMC/MESH	QA/QC	5-Sep-08	CEMI		8.54	0.8	<0.01	0.8	25.0	Moderate	1.13	--	163.5	94.2	--			--			--		
NBS 05028						NMC/MESH	QA/QC	5-Sep-08	CEMI		8.69	0.22	<0.01	0.22	6.9	Moderate	0.55	--	105.9	45.8	--			--			--		
NBS 05071						NMC/MESH	QA/QC	5-Sep-08	CEMI			4.2																	
NBS 05084						NMC/MESH	QA/QC	5-Sep-08	CEMI			0.86																	
NBS 05085						NMC/MESH	QA/QC	5-Sep-08	CEMI			0.08																	
NBS 05086						NMC/MESH	QA/QC	5-Sep-08	CEMI		8.87	0.91	<0.01	0.91	28.4	None	0.01	--	13.2	0.8	--			--			--		
NBS 05087						NMC/MESH	QA/QC	5-Sep-08	CEMI			2.32																	
NBS 05088						NMC/MESH	QA/QC	5-Sep-08	CEMI			3.42																	
NBS 05089						NMC/MESH	QA/QC	5-Sep-08	CEMI			2.63																	
NBS 05097						NMC/MESH	QA/QC	5-Sep-08	CEMI			1.44																	
NBS 05098						NMC/MESH	QA/QC	5-Sep-08	CEMI			2.18																	
NBS 05099						NMC/MESH	QA/QC	5-Sep-08	CEMI			2.04																	
NBS 05100						NMC/MESH	QA/QC	5-Sep-08	CEMI			1.4																	
NBS 05101						NMC/MESH	QA/QC	5-Sep-08	CEMI			1.98																	
NBS 05111						NMC/MESH	QA/QC	5-Sep-08	CEMI			1.46																	
NBS 05112						NMC/MESH	QA/QC	5-Sep-08	CEMI		8.61	1.27	<0.01	1.27	39.7	None	0.04	--	13.7	3.3	--			--			--		
NBS 05113						NMC/MESH	QA/QC	5-Sep-08	CEMI			1.75																	
NBS 05114						NMC/MESH	QA/QC	5-Sep-08	CEMI			2.57																	
NBS 05115						NMC/MESH	QA/QC	5-Sep-08	CEMI			2.07																	
NBS 05116						NMC/MESH	QA/QC	5-Sep-08	CEMI			1.97																	
NBS 05128						NMC/MESH	QA/QC	5-Sep-08	CEMI			1.2																	
NBS 05129						NMC/MESH	QA/QC	5-Sep-08	CEMI			1.5																	
NBS 05130						NMC/MESH	QA/QC	5-Sep-08	CEMI			0.75																	
NBS 05131						NMC/MESH	QA/QC	5-Sep-08	CEMI			0.07																	
NBS 05132						NMC/MESH	QA/QC	5-Sep-08	CEMI			0.19																	

Notes (MESH Programs):

AGP = Acid generating potential in tonnes CaCO3 equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - S(SO4).
 ANP = Acid neutralization potential in tonnes CaCO3 equivalent per 1000 tonnes of material.
 NNP = Net neutralization potential; NP - AP
 Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO3/tonne.

Notes (KP Program):

Acid Neutralization Potential (ANP) was reported by the lab as Neutralization Potential. Analytical Method: Sobek (EPA-600) through addition of acid, heating and titration.
 Acid Generating Potential (AGP) was reported by the lab as Maximum Potential Acidity. Value determined by calculating Total Sulphur (%S) * 31.25.
 Sulphate Sulphur Analytical Method: Sobek (EPA-600) through acid leaching processing and gravimetric analysis.
 Sulphide Sulphur Analytical Method: Sobek (EPA-600) through bromine and nitric acid digestion, followed by gravimetric analysis.
 Total Sulphur Analytical Method: Sobek (EPA-600) through heating in a Leco induction furnace and measuring the SO2 released with an Infra-red detector.
 Inorganic Carbon Analytical Method: Carbon assay through heating sample in a Leco induction furnace followed by a gasometric measurement of CO2
 Carbonate Neutralization Potential (CNP) was calculated as follows: CO2% *(100/44)*10

General Notes (all programs):

The detection limit has been used for plotting samples below the detection limit (<0.01 to 0.01 for S % and <0.2 to 0.2 for CQ%)
 ARD Classification based on Sobek ANP:AGP, and if no Sobek ANP then based on Carbonate ANP:AGP
 PAG = potentially acid generating = Sobek ANP:AGP <3
 non-PAG = non potentially acid generating = Sobek ANP:AGP >3

Table B-2. QA/QC Duplicates of Acid Base Accounting Results

General										Acid Generating Potential (AGP)				Acid Neutralization Potentials (ANP)				
Sample ID	hole-id	from	to	Unit	Company	Program	Analytical Lab	Anticipated Sulfur Range	Paste pH	Total Sulphur %	Sulphate Sulphur %	Sulphide Sulphur %	AGP	Fizz Test	TIC %	Sobek ANP	CaCO3 ANP	Siderite ANP
																kgCaCO3/tonne		
70651	LO-180	450	455	HW	MESH	Verification	CEMI	<0.2	9.44	0.2	<0.01			Moderate	0.42	138.8		
C217463	PORTAL	120	130	HW	MESH	Verification	CEMI	NA			<0.01							
70655	LO-161	924	927.6	FW	MESH	Verification	CEMI	0.3-0.5						Slight				21.7
70661	LO-159	163.2	168.2	FW	MESH	Verification	CEMI	0.3-0.5	9.04					Strong		185.9		
70657	LO-191	1178	1183	LO	MESH	Verification	CEMI	<0.2		0.31					<0.01			
C217452	PORTAL	10	20	HW	MESH	Op. Charac. Plan	CEMI	NA		0.05					0.66			
C217457	PORTAL	60	70	HW	MESH	Op. Charac. Plan	CEMI	NA		0.02					1.04			
70665	LO-182	936	941	LO	MESH	Verification	CEMI	>1						Moderate				43.9
NBC 08033					NMC/MESH	QA/QC	CEMI		9.39	0.01	<0.01			Slight	38.3	0.17		
NBC 08170					NMC/MESH	QA/QC	CEMI		9.40					Moderate	66.4			
NBC 08281					NMC/MESH	QA/QC	CEMI			0.01	<0.01				0.14			
NBC 08305					NMC/MESH	QA/QC	CEMI		IS					Slight		70.8		
NBC 08351					NMC/MESH	QA/QC	CEMI			0.58		0.1	0.02					
NBC 08450					NMC/MESH	QA/QC	CEMI		9.11							171.2		Moderate
NBC 08470					NMC/MESH	QA/QC	CEMI			0.21				Moderate	1.13	131.6		
NBS05088					NMC/MESH	QA/QC	CEMI			3.44								
NBS05114					NMC/MESH	QA/QC	CEMI			2.6								
NBS05128					NMC/MESH	QA/QC	CEMI			1.21								

Notes (MESH Program):

AGP = Acid generating potential in tonnes CaCO₃ equivalent per 1,000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - S(SO₄).

ANP = Acid neutralization potential in tonnes CaCO₃ equivalent per 1,000 tonnes of material.

NNP = Net neutralization potential; NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO₃/tonne.

Table B-4. Whole Rock Analyses Data

General							Whole Rock Analysis																		
hole-id	from	to	Unit	Company1	Program1	Date	Sample ID	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	MgO	MnO	Na ₂ O	SiO ₂	P ₂ O ₅	TiO ₂	Nb	Rb	Sr	Y	Zr	LOI	Total
	ft	ft						%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	%	%
LO-102	165	170	LO	KP	Characterization	1997	NBC04537	12.75	0.08	0.01	3.84	3.28	1.06	0.04	0.66	75.07	0.05	0.38	4	50	28	34	108	2.89	100.1
LO-107	1169	1171	FW	KP	Characterization	1997	NBC05051	14.26	5.51	0.01	11.22	0.06	4.44	0.26	3.15	55.77	0.19	0.8	2	2	348	24	63	3.65	99.32
LO-108	400	401	FW	KP	Characterization	1997	NBC06011	11.69	1.38	0.01	14.24	0.05	8.14	0.77	0.95	53.8	0.02	0.5	2	2	22	6	12	6.72	98.27
LO-111	42	47	FW	KP	Characterization	1997	NBC06101	11.73	0.21	0.01	4.01	1.59	2.1	0.04	2.21	73.27	0.08	0.44	2	14	46	32	120	3	98.68
LO-111	417	422	FW	KP	Characterization	1997	NBC06111	12.3	0.45	0.01	5.96	2.2	3.01	0.04	1.15	68.6	0.12	0.61	2	30	60	32	108	4.12	98.56
LO-111	499	504	FW	KP	Characterization	1997	NBC06114	14.56	0.56	0.01	14.81	0.96	8.28	0.25	1.51	48.19	0.04	0.52	2	10	38	8	18	8.45	98.13
LO-111	831	834	LO	KP	Characterization	1997	NBC06129	13.24	0.69	0.01	11.34	1.79	2.54	0.07	3.36	58.61	0.06	0.51	2	22	46	22	117	6.15	98.36
LO-111	1021	1024	LO	KP	Characterization	1997	NBC06141	7.71	0.21	0.01	9.9	1.67	0.62	0.04	1.91	70.37	0.02	0.26	2	20	24	16	54	5.33	98.04
LO-111	1081	1084	HW	KP	Characterization	1997	NBC06145	9.25	1.79	0.01	4.3	0.07	1.61	0.16	3.6	76.11	0.05	0.3	2	2	82	18	54	1.59	98.83
LO-113	52	57	FW	KP	Characterization	1997	NBC06148	12.83	0.21	0.01	5.3	1.52	2.32	0.04	2.73	70.44	0.09	0.47	2	14	54	38	120	3.62	99.57
LO-113	435	439	FW	KP	Characterization	1997	NBC06157	12.95	1	0.01	6.47	1.93	3.56	0.06	1.62	66.02	0.11	0.56	4	24	86	32	153	4.9	99.18
LO-113	578	583	FW	KP	Characterization	1997	NBC06162	14.72	0.26	0.01	20.94	2.36	7.95	0.15	0.06	39.78	0.05	0.49	2	24	24	10	18	12.76	99.52
LO-117	166	171	FW	KP	Characterization	1997	NBC06183	13.51	1.7	0.01	11.84	0.99	4.35	0.26	2.41	57.64	0.09	0.98	4	8	20	20	57	5	98.77
LO-117	255	260	FW	KP	Characterization	1997	NBC06185	12.88	1.29	0.01	9.02	1.73	2.32	0.3	2.16	63.15	0.13	0.67	4	14	6	30	75	4.49	98.14
LO-117	500	505	FW	KP	Characterization	1997	NBC06189	13.64	0.68	0.01	8.12	0.5	4.68	0.29	3.46	62.99	0.13	0.72	4	4	30	32	81	3.93	99.14
LO-117	727	732	FW	KP	Characterization	1997	NBC06198	14.74	0.99	0.01	14.22	0.1	12.1	0.5	1.53	45.34	0.06	0.7	2	2	8	8	24	8.73	99.02
LO-117	991	996	LO	KP	Characterization	1997	NBC06227	10.57	0.69	0.01	21.11	1.23	2.61	0.06	3.38	44.46	0.05	0.46	2	6	6	6	12	10.83	95.45
LO-117	1023	1028	LO	KP	Characterization	1997	NBC06236	11.86	0.48	0.01	15.92	1.26	2.03	0.08	3.91	50.26	0.06	0.57	2	6	4	6	18	8.35	94.78
LO-122	299	304	LO	KP	Characterization	1997	NBC06261	11.11	0.12	0.01	10.48	2.98	0.17	0.01	0.31	67.14	0.07	0.36	2	34	34	24	63	6.54	99.29
LO-122	384	389	LO	KP	Characterization	1997	NBC06279	10.81	1.02	0.01	17.48	0.31	5.77	0.15	1.17	53.43	0.07	0.63	2	10	18	22	57	8.24	99.09
LO-123	418	419	FW	KP	Characterization	1997	NBC06306	13.52	0.57	0.01	7.03	0.71	2.85	0.23	3.78	66.4	0.13	0.68	1	7	38	30	69	2.89	98.79
LO-123	633	634	FW	KP	Characterization	1997	NBC06309	12.92	1.14	0.01	13.38	0.05	7.52	0.38	3.06	52.12	0.03	0.54	1	1	42	6	17	7.46	98.6
LO-123	1368	1369	HW	KP	Characterization	1997	NBC06331	15.17	4.77	0.01	11.51	0.16	2.9	0.2	4.77	55.48	0.08	0.75	1	2	149	22	62	2.93	98.72
LO-126	1309	1312	LO	KP	Characterization	1997	NBC06408	16.84	0.1	0.01	3.07	4.84	2.21	0.02	0.22	66.36	0.05	0.51	2	34	64	47	130	4.13	98.35
LO-126	1460	1463	HW	KP	Characterization	1997	NBC06429	12.46	0.96	0.01	5.57	0.12	2.46	0.19	5.31	69.67	0.14	0.44	3	1	83	21	70	1.74	99.06
LO-108	1207	1208	FW	KP	Characterization	1997	NBC06066	16.48	4.66	0.01	13.36	0.08	4.58	0.36	4.23	50.9	0.05	0.7	2	2	322	14	33	3.78	99.18
LO-148	962	964	HW	KP	Characterization	1997	NBC05847	14.43	7.99	0.01	12.54	0.1	3.91	0.21	3.95	49.61	0.27	1.22	3	1	369	27	71	4.77	99
LO-113	1221	1224	HW	KP	Characterization	1997	NBC06180	16.01	3.19	0.01	12.99	0.09	4.01	0.21	5.03	54.95	0.05	0.62	2	2	110	14	27	2.87	100.02
LO-113	915	920	LO	KP	Characterization	1997	NBC06177	13.39	1.38	0.01	3.15	1.88	1.62	0.08	3.68	72.11	0.05	0.27	2	26	78	26	81	1.67	99.28
LO-107	1263	1265	FW	KP	Characterization	1997	NBC05054	15.34	4.48	0.01	12.37	0.1	3.43	0.2	5.78	51.78	0.07	0.64	2	2	48	14	21	4.91	99.1
LO-108	655	657	LO	KP	Characterization	1997	NBC06031	13.38	0.65	0.01	5.39	0.46	3.11	0.11	4.77	69.21	0.07	0.41	2	4	86	26	77	2.24	99.8
LO-117	1250	1255	LO	KP	Characterization	1997	NBC06254	12.03	1.43	0.01	2.57	1.54	1.47	0.23	3.83	73.54	0.05	0.26	4	22	46	26	90	1.41	98.36
LO-107	985	987	FW	KP	Characterization	1997	NBC04998	16.52	6.03	0.01	8.05	0.38	3.82	0.42	3.9	55.66	0.13	0.66	2	10	116	42	114	3.03	98.6
LO-096	260	265	LO	KP	Characterization	1997	NBC04248	13.33	2.31	0.01	3.38	2.18	1.92	0.12	2	70.23	0.06	0.33	2	30	106	34	111	2.93	98.79
LO-104	301	303	LO	KP	Characterization	1997	NBC04720	12.53	1.76	0.01	3.4	1.88	1.94	0.13	2.78	70.52	0.07	0.33	2	28	86	34	102	2.75	98.09
LO-146	993	995	FW	KP	Characterization	1997	NBC05802	10.65	2.14	0.01	7.88	0.08	0.81	0.16	5.64	69.13	0.08	0.39	1	1	72	20	36	1.45	98.41
LO-104	253	255	LO	KP	Characterization	1997	NBC04719	10.97	2	0.01	2.17	1.64	0.79	0.08	2.8	75.05	0.04	0.25	2	28	106	28	87	2.58	98.37
LO-148	549	551	LO	KP	Characterization	1997	NBC05832	12.72	1.93	0.01	2.98	0.5	0.56	0.05	5.92	71.41	0.04	0.33	1	10	79	30	92	2.11	98.55
LO-096	373	378	LO	KP	Characterization	1997	NBC04250	13.17	1.43	0.01	3.95	0.16	1.62	0.12	6.67	68.6	0.07	0.37	2	4	86	30	93	2.59	98.75
LO-104	440	442	FW	KP	Characterization	1997	NBC04739	11.47	2.74	0.01	4.16	0.08	1.68	0.11	5.17	70.14	0.09	0.47	2	2	64	34	99	1.95	98.06
LO-102	676	681	FW	KP	Characterization	1997	NBC04567	16.35	4.12	0.01	10.69	0.08	3.88	0.2	6.67	53.41	0.06	0.53	2	6	138	16	39	3.34	99.33
LO-112	412	413	FW	KP	Characterization	1997	NBC05135	15.39	4.01	0.01	12.26	0.08	4.56	0.24	5.41	52.35	0.06	0.59	2	2	104	12	33	4.41	99.36
LO-107	683	688	LO	KP	Characterization	1997	NBC04940	15.13	4.11	0.01	5.23	1.82	3.62	0.16	3.14	60.41	0.07	0.44	2	30	128	34	99	4.13	98.26
LO-104	32	34	LO	KP	Characterization	1997	NBC04713	12.12	2.22	0.01	2.17	1.79	2.29	0.1	1.38	71.83	0.05	0.27	2	24	110	36	123	5	99.22
LO-122	89	94	HW	KP	Characterization	1997	NBC06255	15.66	3.76	0.01	11.89	0.09	5.21	0.19	5.72	52.3	0.04	0.53	2	8	126	12	36	3.78	99.17
LO-148	858	862	HW	KP	Characterization	1997	NBC05844	14.36	5.32	0.01	10.88	0.08	6.82	0.2	4.33	49.27	0.08	0.69	1	1	112	16	42	6.29	98.33
LO-107	126	129	HW	KP	Characterization	1997	NBC04901	15.56	6.79	0.01	12.58	0.35	7.33	0.21	4.78	41.87	0.04	0.66	2	10	96	8	30	8.31	98.49
LO-108	129	130	HW	KP	Characterization	1997	NBC06002	14.42	6.93	0.01	11.34	0.18	7.89	0.23	4.19	43.99	0.05	0.6	2	2	90	8	18	9.39	99.22
LO-108	348	349	HW	KP	Characterization	1997	NBC06008	15.28	10.39	0.01	10.68	0.43	3.7	0.19	1.98	45.4	0.19	1.11	2	4	464	18	51	10.15	99.51
LO-108	467	468	HW	KP	Characterization	1997	NBC06014	12.33	10.58	0.01	10.01	0.05	11.19	0.18	0.05	41.02	0.1	0.8	2	2	188	14	45	13.13	99.45
LO-102	57	60	HW	KP	Characterization	1997	NBC04530	15.28	8.53	0.01	10.08	1.1	3.41	0.18	3.2	44.94	0.23	1.02	2	14	344	22	72	12.18	100.15
LO-100	248	258	FW	KP	Characterization	?	NBC04345	12.63	2.09	0.01	5.65	0.07	2.13	0.17	5.09	69.69	0.07	0.32	2	2	124	32	78	1.67	99.58

Table B-5. Niblack - Muck Pile Visual Inspection and XRF Data from Borehole and Drill Cutting Samples

Muck Round/Ramp Distance from Portal (ft)	Geologist	Date	Rocktype	Imbo Center Borehole		XRF Results (2nd Jumbo Center Borehole)			Final Disposition	
				Sample #	Sample #	Sample #	S%	Cu%		Zn
Portal Shot	D. Green	22-Sep-07	mafic seds/tuff	C217451					Construction	
6-21	G. Duso	28-Sep-07	mafic seds/tuff	C217452					Construction	
21-31	G. Duso	30-Sep-07	mafic seds/tuff	C217453	NBC08004				Construction	
31-42	G. Duso	2-Oct-07	mafic seds/tuff	C217454	NBC08005				Construction	
42-54	G. Duso	4-Oct-07	mafic seds/tuff	C217455	NBC08007				Construction	
54-63	G. Duso	6-Oct-07	mafic seds/tuff and mafic dike	C217456	NBC08008				Construction	
63-75	G. Duso	7-Oct-07	mafic seds/tuff	C217457	NBC08009				Construction	
			mafic seds/tuff	C217458						
75-93	G. Duso	9-Oct-07	mafic seds/tuff	C217459	NBC08010				Construction	
93-105	G. Duso	10-Oct-07	mafic sed/tuff and mafic dike	C217460	NBC08011				Construction	
			mafic sed/tuff and mafic dike	C217461						
105-121	G. Duso	13-Oct-07	mafic sed/tuff and mafic dike	C217462					Construction	
121-129	G. Duso	14-Oct-07	mafic sed/tuff and mafic dike	C217463					Construction	
129-138	G. Duso	14-Oct-07	mafic sed/tuff and mafic dike	C217464					Construction	
138-150	G. Duso	15-Oct-07	mafic tuff	C217465					Construction	
150-163	D.Green/J.DiMarchi	18-Oct-07	mafic tuff/seds	NBC08016					Construction	
163-175	J. DiMarchi	20-Oct-07	mafic tuff/seds	NBC08017	NBC08022				Construction	
175-186	J. DiMarchi	21-Oct-07	mafic tuff/seds	NBC08018	NBC08023				Construction	
186-198	J. DiMarchi	22-Oct-07	mafic tuff/seds	NBC08019	NBC08024				Construction	
198-208	J. DiMarchi	22-Oct-07	mafic tuff/seds	NBC08020	NBC08025				Construction	
208-220	J. DiMarchi	25-Oct-07	mafic tuff/seds	NBC08021		NBC08026	0.0042	0.0100	0.0120	Construction
220-232	J. DiMarchi	26-Oct-07	mafic tuff/seds	NBC08027						Construction
232-243	J. DiMarchi	27-Oct-07	mafic tuff/seds	NBC08028						Construction
243-255	J. DiMarchi	28-Oct-07	mafic tuff/seds	NBC08029	NBC08040					Construction
Sump 0-12	J. DiMarchi	26-Oct-07	mafic tuff/seds	NBC08032	NBC08039					Construction
Sump 12-24	G. Duso	27-Oct-07	mafic tuff/seds	NBC08033						Construction
Sump 24-36	G. Duso	28-Oct-07	mafic tuff/seds	NBC08034	NBC08042					Construction
Sump 36-48	G. Duso	30-Oct-07	mafic tuff/seds	NBC08035	NBC08043					Construction
Sump 48-60	G. Duso	3-Nov-07	mafic tuff/seds	NBC08036	NBC08045					Construction
Sump 60-72	G. Duso	4-Nov-07	mafic tuff/seds	NBC08037	NBC08044					Construction
255-267	G. Duso	7-Nov-07	mafic tuff/seds	NBC08030	NBC08041					Construction
267-279	G. Duso	7-Nov-07	mafic tuff/seds	NBC08031						Construction
279-291	G. Duso	7-Nov-07	mafic tuff/seds	NBC08046	NBC08082					Construction
	G. Duso	7-Nov-07	mafic tuff/seds	NBC08047						Construction
291-303	G. Duso	8-Nov-07	mafic tuff/seds	NBC08048	NBC08083					Construction
	G. Duso	8-Nov-07	mafic tuff/seds	NBC08049						Construction
303-314	G. Duso	9-Nov-07	mafic tuff/seds	NBC08050	NBC08084					Construction
	G. Duso	9-Nov-07	mafic tuff/seds	NBC08051						Construction
314-326	G. Duso	10-Nov-07	mafic tuff/seds	NBC08052	NBC08085					Construction
	G. Duso	10-Nov-07	mafic tuff/seds	NBC08053						Construction
326-338	G. Duso	10-Nov-07	mafic tuff/seds	NBC08054	NBC08086					Construction
	G. Duso	11-Nov-07	mafic tuff/seds	NBC08055						Construction
338-350	G. Duso	11-Nov-07	mafic tuff/seds	NBC08056	NBC08087					Construction
	G. Duso	14-Nov-07	mafic tuff/seds	NBC08057						Construction
	G. Duso	14-Nov-07	mafic tuff/seds	NBC08058						Construction
350-361	G. Duso	15-Nov-07	mafic tuff/seds	NBC08059	NBC08088					Construction
	G. Duso	15-Nov-07	maf dike	NBC08060						Construction
361-372	G. Duso	15-Nov-07	maf dike	NBC08061	NBC08089					Construction
	G. Duso	16-Nov-07	maf dike	NBC08062						Construction
372-383	G. Duso	16-Nov-07	maf dike	NBC08063	NBC08090					Construction
383-394	G. Duso	20-Nov-07	maf dike	NBC08064/065	NBC08091					Construction
	G. Duso	20-Nov-07	maf dike	NBC08066/067						Construction
394-406	G. Duso	21-Nov-07	mafic tuff/seds	NBC08068/069	NBC08096					Construction
406-418	G. Duso	21-Nov-07	mafic tuff/seds	NBC08070/071	NBC08097					Construction
	G. Duso	21-Nov-07	mafic tuff/seds	NBC08072/073						
418-430	G. Duso	21-Nov-07	mafic tuff/seds	NBC08074/075	NBC08098					Construction
430-442	JDiMarchi	26-Nov-07	mafic dike and maf tuff/seds	NBC08076/077	NBC08099					Construction
442-454	JDiMarchi	27-Nov-07	mafic dike and maf tuff/seds	NBC08078/079	NBC08104					Construction
454-466	JDiMarchi	4-Dec-07	mafic dike and maf tuff/seds	NBC08080	NBC08105					Construction
	JDiMarchi	4-Dec-07	mafic dike and maf tuff/seds	NBC08081						
466-478	JDiMarchi	5-Dec-07	mafic dike and maf tuff/seds		NBC08112					Construction
478-488	JDiMarchi	6-Dec-07	mafic dike and maf tuff/seds		NBC08113					Construction
386 muck bay 0-12	JDiMarchi/DGreen	27-Nov-07	mafic dike and maf tuff/seds	NBC08092	no sample					Construction
386 muck bay 12-24	JDiMarchi/DGreen	27-Nov-07	mafic dike and maf tuff/seds	NBC08093	no sample					Construction
386 muck bay 24-36	JDiMarchi/DGreen	30-Nov-07	mafic dike and maf tuff/seds	NBC08094	NBC08110					Construction
386 muck bay 36-48	JDiMarchi	1-Dec-07	mafic tuff/seds	NBC08095	NBC08111					Construction

Table B-5. Niblack - Muck Pile Visual Inspection and XRF Data from Borehole and Drill Cutting Samples

Muck Round/Ramp Distance from Portal (ft)	Geologist	Date	Rocktype	Imbo Center Borehole		XRF Results (2nd Jumbo Center Borehole)				Final Disposition
				Sample #	Sample #	Sample #	S%	Cu%	Zn	
Mammoth Drill Station (slab round)	JDiMarchi	26-Nov-07	mafic dike and maf tuff/seds	NBC08100	NBC08106					Construction
Mammoth Drill Station 0-12	JDiMarchi	29-Nov-07	mafic dike and maf tuff/seds	NBC08100	NBC08107					Construction
Mammoth Drill Station 12-24	JDiMarchi/DGreen	30-Nov-07	mafic dike and maf tuff/seds	NBC08101	NBC08108					Construction
Mammoth Drill Station 24-36	JDiMarchi	1-Dec-07	mafic dike and maf tuff/seds	NBC08102	NBC08109					Construction
Mammoth Drill Station 36-48	G. Duso	7-Dec-07	mafic dike and maf tuff/seds	NBC08103	NBC08120					Construction
488-499	G. Duso	7-Dec-07	mafic dike and maf tuff/seds	NBC08114	NBC08121					Construction
499-511	G. Duso	8-Dec-07	mafic dike and maf tuff/seds	NBC08115	NBC08122					Construction
511-522	G. Duso	8-Dec-07	mafic dike and maf tuff/seds	NBC08118	NBC08123					Construction
522-534	G. Duso	9-Dec-07	mafic dike and maf tuff/seds	NBC08119	NBC08124					Construction
534-545	G. Duso	12-Dec-07	FP mafic	NBC08117	NBC08125	NBC08126	0.0049	0.0040	0.0032	Construction
545-557	G. Duso	12-Dec-07	FP mafic	NBC08116	NBC08138	NBC08127	0.0059	0.0039	0.0052	Construction
557-568	G. Duso	13-Dec-07	FP mafic	NBC08128	NBC08139					Construction
568-580	G. Duso	13-Dec-07	FP mafic	NBC08129	NBC08140					Construction
580-592	G. Duso	14-Dec-07	FP mafic	NBC08130	NBC08141					Construction
water tank cut out	G. Duso	14-Dec-07	FP mafic + maf dike		NBC08142					Construction
592-604	G. Duso	7-Jan-08	FP mafic + maf dike	NBC08132	NBC08149	NBC08131	0.0960	0.0078	0.0110	Construction
604-616	G. Duso	8-Jan-08	FP mafic + maf dike	NBC08133	NBC08150					Construction
616-628	G. Duso	8-Jan-08	FP mafic + maf dike	NBC08134	NBC08151					Construction
628-640	G. Duso	9-Jan-08	FP mafic + maf dike	NBC08135	NBC08152					Construction
640-652	G. Duso	10-Jan-08	FP mafic + maf dike	NBC08143	NBC08153					Construction
652-664	G. Duso	11-Jan-08	FP mafic + maf dike	NBC08144	NBC08154					Construction
664-677	G. Duso	12-Jan-08	FP mafic + maf dike	NBC08145	NBC08155					Construction
677-689	G. Duso	13-Jan-08	FP mafic + maf dike	NBC08146	NBC08156					Construction
689-702	G. Duso	14-Jan-08	FP mafic + maf dike	NBC08157	NBC08162	NBC08147	0.0190	0.0100	0.0052	Construction
702-714	G. Duso	15-Jan-08	FP mafic + maf dike	NBC08158	NBC08163	NBC08148	0.0180	0.0081	0.0067	Construction
714-727	G. Duso	16-Jan-08	FP mafic + maf dike	NBC08159	NBC08164b					Construction
727-739	G. Duso	17-Jan-08	FP mafic + maf dike	NBC08160	NBC08165					Construction
739-751	G. Duso	19-Jan-08	Mafic dike	NBC08161	NBC08166					Construction
751-764	G. Duso	20-Jan-08	Mafic dike	NBC08167	NBC08174					Construction
764-776	JDiMarchi/DGreen	21-Jan-08	mafic dike	NBC08168	NBC08175					Construction
776-788	Dgreen	22-Jan-08	mafic dike and maf tuff/seds	NBC08169	NBC08176					Construction
788-801	JDiMarchi/DGreen	23-Jan-08	maf dike and maf seds	NBC08170	NBC08177					Construction
801-813	JDiMarchi/DGreen	23-Jan-08	maf dike and maf seds	NBC08171	NBC08178					Construction
813-825	JDiMarchi/Cornejo	25-Jan-08	maf dike and maf seds	NBC08172	NBC08186	NBC08179	0.0110	0.0014	0.0027	Construction
825-837	JDiMarchi/Cornejo	25-Jan-08	maf dike and maf seds	NBC08173	NBC08187	NBC08180	0.0130	0.0029	0.0047	Construction
837-849	Cornejo	26-Jan-08	maf dike + seds; tr py	NBC08181	NBC08188					Construction
849-861	Cornejo	27-Jan-08	maf dike and/or tuff	NBC08182	NBC08189					Construction
861-872	Cornejo	27-Jan-08	maf dike and/or tuff	NBC08183	NBC08190					Construction
872-884	Cornejo	28-Jan-08	maf dike	NBC08184	NBC08198	NBC08191	0.0970	0.0030	0.0038	Construction
884-896	Cornejo	28-Jan-08	maf tuff w tr py	NBC08185	NBC08199	NBC08192	0.2500	0.0050	0.0059	PAG PILE
896-908	Cornejo	29-Jan-08	Rhy (Maf) ALT, 1-2% py	NBC08193	NBC08200					PAG PILE
908-920	Cornejo	30-Jan-08	Rhy (Maf) ALT, 1-2% py	NBC08194	NBC08201					PAG PILE
920-932	Cornejo	31-Jan-08	Rhy (Maf) ALT, 1-2% py	NBC08195	NBC08202					PAG PILE
932-945	G. Duso	2-Feb-08	Rhy (Maf) ALT, 1-2% py	NBC08196	NBC08212	NBC08203	0.3300	0.1200	0.0240	PAG PILE
945-957	G. Duso	3-Feb-08	Rhy (Maf) ALT, 1-2% py	NBC08197	NBC08211	NBC08204	0.0650	0.0091	0.0240	PAG PILE
957-969	G. Duso	3-Feb-08	maf tuff/seds + maf dike	NBC08205	no sample					Construction
969-981	G. Duso	4-Feb-08	maf tuff/seds + maf dike	NBC08206	NBC08218					Construction
981-993	G. Duso	4-Feb-08	maf tuff/seds + maf dike	NBC08207	NBC08217					Construction
MPC#1 cut out	G. Duso	4-Feb-08	maf dike and/or tuff	NBC08210	no sample					Construction
Muck Bay #2 0-12	G. Duso	8-Feb-08	maf tuff,1-2% py	NBC08213	NBC08226					PAG PILE
Muck Bay #2 12-24	G. Duso	8-Feb-08	maf tuff, minor py	NBC08214	NBC08227					Construction
Muck Bay #2 24-36	G. Duso	10-Feb-08	maf tuff minor py	NBC08215	no sample					Construction
Muck Bay #2 36-48	G. Duso	10-Feb-08	maf tuff	NBC08216	NBC08229					Construction
993-1005	G. Duso	9-Feb-08	maf tuff+maf dike	NBC08208	NBC08228	NBC08219	0.0210	0.0030	0.0140	Construction
1005-1018	G. Duso	9-Feb-08	maf tuff+maf dike	NBC08209	NBC08233	NBC08220	0.1040	0.0040	0.0100	Construction
1018-1030	G. Duso	10-Feb-08	maf tuff+ maf dike	NBC08221	NBC08230					Construction
1030-1042	G. Duso	11-Feb-08	maf tuff+ maf dike	NBC08222	NBC08231					Construction
1042-1054	G. Duso	11-Feb-08	maf tuff + maf dike	NBC08223	NBC08232					Construction
1054-1065	G. Duso	14-Feb-08	maf tuff + maf dike	NBC08224	NBC08240	NBC08234	0.0470	0.0071	0.0110	Construction
1065-1075	P. Meister	15-Feb-08	maf tuff + maf dike	NBC08225	NBC08241	NBC08235	0.1300	0.0098	0.0140	Construction
1075-1086	J. DiMarchi	15-Feb-08	maf tuff + maf dike	NBC08236	NBC08242					Construction
1086-1096	J. DiMarchi	15-Feb-08	maf tuff + maf dike	NBC08237	no sample					Construction
1096-1107	J. DiMarchi	16-Feb-08	maf tuff + maf dike	NBC08238	NBC08250					Construction
1107-1119	P. Meister	18-Feb-08	maf seds + maf dike	NBC08239	no sample	NBC08243	0.0180	0.0063	0.0170	Construction
1119-1131	P. Meister	19-Feb-08	maf seds + maf dike	NBC08244	NBC08251					Construction
1131-1143	P. Meister	19-Feb-08	maf seds + maf dike	NBC08245	NBC08252					Construction

Table B-5. Niblack - Muck Pile Visual Inspection and XRF Data from Borehole and Drill Cutting Samples

Muck Round/Ramp Distance from Portal (ft)	Geologist	Date	Rocktype	Imbo Center Borehole		XRF Results (2nd Jumbo Center Borehole)				Final Disposition
				Sample #	Sample #	Sample #	S%	Cu%	Zn	
1143-1155	P. Meister	20-Feb-08	maf seds	NBC08246	NBC08253					Construction
1155-1167	P. Meister	20-Feb-08	maf seds	NBC08247	NBC08254					Construction
1167-1179	P. Meister	22-Feb-08	maf seds	NBC08248	NBC08262	NBC08257	0.0058	0.0025	0.0100	Construction
1179-1192	P. Meister	24-Feb-08	maf seds	NBC08249	NBC08263	NBC08258	0.0420	0.0077	0.0092	Construction
1192-1204	P. Meister	24-Feb-08	maf seds	NBC08255	NBC08264					Construction
1204-1216	P. Meister	25-Feb-08	maf seds	NBC08256	NBC08265					Construction
1216-1228	P. Meister	25-Feb-08	maf seds + maf dike	NBC08259	NBC08266					Construction
1228-1240	P. Meister	26-Feb-08	maf seds + maf dike	NBC08260	no sample	NBC08267	0.0660	0.0077	0.0130	Construction
1240-1252	P. Meister	26-Feb-08	maf seds	NBC08261	NBC08274	NBC08268	0.1000	0.0065	0.0120	Construction
1252-1264	P. Meister	26-Feb-08	maf seds	NBC08269	NBC08275					Construction
1264-1276	P. Meister	27-Feb-08	maf seds	NBC08270	NBC08276					Construction
1276-1287	P. Meister	27-Feb-08	maf seds (<1% cpy)	NBC08271	NBC08277					Construction
1287-1300	P. Meister	28-Feb-08	maf dike	NBC08272	NBC08285	NBC08278	0.0180	0.0045	0.0140	Construction
1300-1311	P. Meister	28-Feb-08	maf dike	NBC08273	NBC08286	NBC08279	0.0140	0.0083	0.0120	Construction
1311-1323	P. Meister	29-Feb-08	maf seds	NBC08280	NBC08287					Construction
1323-1334	P. Meister	29-Feb-08	maf seds	NBC08281	NBC08288					Construction
1334-1346	P. Meister	1-Mar-08	maf seds	NBC08282	NBC08289					Construction
1346-1358	P. Meister	2-Mar-08	maf seds	NBC08283	NBC08297	NBC08292	0.0260	0.0130	0.0130	Construction
1358-1370	P. Meister	2-Mar-08	maf seds	NBC08284	NBC08299	NBC08293	0.0330	0.0200	0.0120	Construction
1370-1382	P. Meister	3-Mar-08	maf seds	NBC08290	NBC08298					Construction
1382-1393	P. Meister	3-Mar-08	maf seds	NBC08291	NBC08300					Construction
1393-1403	P. Meister	4-Mar-08	maf seds	NBC08294	NBC08301					Construction
1403-1415	P. Meister	7-Mar-08	maf seds	NBC08295	NBC08310B	NBC08302	0.0930	0.0200	0.0120	Construction
1415-1428	P. Meister	13-Mar-08	maf seds	NBC08296	NBC08311B	NBC08303	0.0450	0.0220	0.0100	Construction
1428-1440	D. Green	15-Mar-08	maf seds + maf dike	NBC08304	NBC08319	NBC08312	0.0610	0.0140	0.0088	Construction
1440-1452	D. Green	16-Mar-08	maf seds	NBC08305	NBC08320	NBC08313	0.0620	0.0190	0.0140	Construction
1452-1464	D. Green	17-Mar-08	maf seds	NBC08306	NBC08321	NBC08314	0.1600	0.0210	0.0110	Construction
1464-1477	J.DiMarchi	18-Mar-08	maf seds	NBC08307	NBC08322	NBC08315	0.0470	0.0170	0.0097	Construction
1477-1489	J.DiMarchi	18-Mar-08	maf seds	NBC08308	NBC08323	NBC08316	0.0310	0.0210	0.0093	Construction
1489-1501	J.DiMarchi	21-Mar-08	maf seds	NBC08317	NBC08336	NBC08324	0.0820	0.0180	0.0080	Construction
1501-1512	J.DiMarchi	22-Mar-08	maf seds + maf dike	NBC08318	no sample	NBC08325	0.0260	0.0130	0.0050	Construction
1512-1524	J.DiMarchi	23-Mar-08	maf seds	NBC08326	NBC08338					Construction
1524-1536	J.DiMarchi	23-Mar-08	maf seds	NBC08327	NBC08337					Construction
1536-1548	J.DiMarchi	24-Mar-08	maf seds	NBC08328	NBC08339					Construction
1548-1559	J.DiMarchi	26-Mar-08	maf seds	NBC08329	NBC08350	NBC08342	0.0860	0.0050	0.0070	Construction
1559-1571	P. Meister	27-Mar-08	maf seds	NBC08330	NBC08351	NBC08343	0.1020	0.0050	0.0070	Construction
Muck Bay #3 slash/first round	J.DiMarchi	20-Mar-08	Maf seds	probe hole started aft	NBC08331					Construction
Muck Bay #3 Rnd #2 borehole 0'-12'	J.DiMarchi	23-Mar-08	Maf seds	NBC08332	NBC08340					Construction
Muck Bay #3 Rnd #3, borehole 12'-24'	J.DiMarchi	25-Mar-08	Maf seds	NBC08333	NBC08349					Construction
Muck Bay #3 Rnd #4, borehole 24'-36'				NBC08334						Construction
Muck Bay #3 borehole 36'-48'				NBC08335						Construction
1571-1583	P. Meister	28-Mar-08	maf seds	NBC08344	NBC08352					Construction
1583-1594	P. Meister	28-Mar-08	maf seds + maf dike	NBC08345	NBC08353					Construction
1594-1606	P. Meister	29-Mar-08	maf seds	NBC08346	NBC08354					Construction
1606-1618	P. Meister	30-Mar-08	maf seds	NBC08347	NBC08363	NBC08355	0.0970	0.0160	0.0080	Construction
1618-1630	P. Meister	30-Mar-08	maf seds	NBC08348	NBC08362	NBC08356	0.1770	0.0140	0.0060	Construction
1630-1641	P. Meister	31-Mar-08	maf seds	NBC08357	NBC08364					Construction
1641-1653	P. Meister	1-Apr-08	maf seds + maf dike	NBC08358	NBC08365					Construction
1653-1665	P. Meister	1-Apr-08	maf dike	NBC08359	NBC08373					Construction
1665-1676	P. Meister	2-Apr-08	maf dike	NBC08360	no sample	NBC08366	0.1710	0.0150	0.0080	Construction
1676-1688	P. Meister	5-Apr-08	maf seds	NBC08361	NBC08375	NBC08367	0.2210	0.0130	0.0080	Construction
1688-1699	P. Meister	5-Apr-08	maf seds	NBC08368	NBC08376					Construction
1699-1711	P. Meister	6-Apr-08	maf seds	NBC08369	NBC08376B					Construction
1711-1722	P. Meister	6-Apr-08	maf seds	NBC08370	NBC08377					Construction
1722-1732	P. Meister	8-Apr-08	maf seds	NBC08371	NBC08385	NBC08378	0.3280	0.0080	0.0190	Construction
1732-1742	P. Meister	9-Apr-08	maf seds 1% py	NBC08372	NBC08386	NBC08379	0.5060	0.0060	0.0110	PAG PILE
1742-1752	P. Meister	10-Apr-08	maf seds	NBC08380	NBC08387					Construction
1752-1762	P. Meister	10-Apr-08	maf seds	NBC08381	NBC08388					Construction
1762-1774	P. Meister	10-Apr-08	maf seds	NBC08382	NBC08389					Construction
1774-1785	P. Meister	13-Apr-08	maf seds	NBC08383	NBC08397	NBC08390	0.2260	0.0050	0.0020	Construction
1785-1797	P. Meister	14-Apr-08	maf seds	NBC08384	NBC08398	NBC08391	0.1400	0.0060	0.0020	Construction
1797-1809	P. Meister	14-Apr-08	maf seds	NBC08392	NBC08399					Construction
1809-1820	P. Meister	15-Apr-08	maf seds	NBC08393	NBC08400					Construction
1820-1832	P. Meister	15-Apr-08	maf seds	NBC08394	NBC08401					Construction
1832-1843	P. Meister	18-Apr-08	maf seds	NBC08395	NBC08409	NBC08402	0.0950	0.0180	0.0080	Construction
1843-1854	P. Meister	19-Apr-08	maf seds	NBC08396	NBC08410	NBC08403	0.1380	0.0160	0.0080	Construction

Table B-5. Niblack - Muck Pile Visual Inspection and XRF Data from Borehole and Drill Cutting Samples

Muck Round/Ramp Distance from Portal (ft)	Geologist	Date	Rocktype	Imbo Center Borehole		XRF Results (2nd Jumbo Center Borehole)				Final Disposition
				Sample #	Sample #	Sample #	S%	Cu%	Zn	
1854-1865	P. Meister	20-Apr-08	maf seds	NBC08404	NBC08411					Construction
1865-1876	P. Meister	20-Apr-08	maf seds	NBC08405	NBC08412					Construction
1876-1887	P. Meister	21-Apr-08	maf seds	NBC08406	NBC08413					Construction
1887-1898	P. Meister	23-Apr-08	maf seds	NBC08407	NBC08422	NBC08414	0.1330	0.0120	0.0080	Construction
1898-1909	P. Meister	23-Apr-08	maf seds	NBC08408	NBC08423	NBC08415	0.1200	0.0110	0.0050	Construction
1909-1920	P. Meister	24-Apr-08	maf seds	NBC08416	NBC08424					Construction
1920-1932	P. Meister	24-Apr-08	maf seds	NBC08417	NBC08425					Construction
1932-1943	P. Meister	25-Apr-08	maf seds	NBC08418	NBC08426					Construction
1943-1954	P. Meister	25-Apr-08	maf seds	NBC08419	NBC08435					Construction
1954-1966	P. Meister	26-Apr-08	maf seds	NBC08420	NBC08437	NBC08427	0.1190	0.0080	0.0080	Construction
1966-1978	P. Meister	27-Apr-08	maf seds	NBC08421	NBC08438	NBC08428	0.3360	0.0100	0.0090	Construction
1978-1990	P. Meister	28-Apr-08	maf seds	NBC08428	NBC08439					Construction
1990-2002	P. Meister	29-Apr-08	maf seds	NBC08430	NBC08440					Construction
MPC#2 cut out	P. Meister	30-Apr-08	maf seds		NBC08441					Construction
2002-2014	P. Meister	30-Apr-08	maf seds	NBC08431	NBC08442					Construction
2014-2026	D.Green	1-May-08	maf seds	NBC08432	NBC08447					Construction
Muck Bay #4 slash round	P. Meister	26-Apr-08	maf seds		NBC08436					Construction
Muck Bay #4 borehole 0'-12' + round 1	D.Green	3-May-08	maf seds	NBC08443	NBC08456					Construction
Muck Bay #4 borehole 12'-24' + round 2	D.Green	4-May-08	maf seds	NBC08444	NBC08457					Construction
Muck Bay #4 borehole 24'-36' + round 3	D.Green	5-May-08	maf seds	NBC08445	NBC08459					Construction
Muck Bay #4 borehole 36'-48' + round 4	D.Green	5-May-08	maf seds	NBC08446						Construction
2025-2036	D.Green	4-May-08	maf seds	NBC08433	NBC08458	NBC08448	0.1040	0.0040	0.0070	Construction
2036-2047	D.Green	5-May-08	black maf seds/Dyke	NBC08434	NBC08460	NBC08449	0.0060	0.0050	0.0060	Construction
2047-2058	D.Green	6-May-08	black maf seds/Dyke	NBC08450	NBC08461					Construction
2058-2070	D.Green	6-May-08	black maf seds/Dyke	NBC08451	NBC08462					Construction
2070-2081	L.Cornejo	7-May-08	maf seds	NBC08452	NBC08463b					Construction
2081-2092	L.Cornejo	7-May-08	maf seds	NBC08453	NBC08464B					Construction
2092-2104	L.Hubbard	13-May-08	msv maf seds	NBC08454	NBC08473	NBC08465	0.0800	0.0090	0.0060	Construction
2104-2115	L.Hubbard	13-May-08	msv maf seds	NBC08455	NBC08474	NBC08466	0.1620	0.0030	0.0050	Construction
2115-2127	L.Hubbard	13-May-08	msv maf seds	NBC08467	NBC08475					Construction
2127-2139	L.Hubbard	14-May-08	msv maf seds	NBC08468	NBC08476					Construction
2139-2150	L.Hubbard	15-May-08	msv maf seds	NBC08469	NBC08477					Construction
2150-2162	L.Hubbard	16-May-08	blocky maf seds	NBC08470	NBC08478					Construction
2162-2174	L.Hubbard	17-May-08	maf (and) seds/tuff	NBC08471	NBC08487	NBC08479	0.0050	0.0060	0.0060	Construction
2174-2186	L.Hubbard	17-May-08	maf (and) seds/tuff	NBC08472	NBC08488	NBC08480	0.0430	0.0090	0.0060	Construction
2186-2197	L.Hubbard	18-May-08	maf (and) seds/tuff	NBC08481	NBC08489					Construction
2197-2209	L.Hubbard	18-May-08	maf (and) seds/tuff	NBC08482	NBC08490					Construction
2209-2220	P. Meister	19-May-08	maf (and) seds/tuff	NBC08483	NBC08491					Construction
2220-2232	P. Meister	19-May-08	maf (and) seds/tuff + dike	NBC08484	NBC08492					Construction
2232 - 2244	P. Meister	21-May-08	maf(and) seds/tuff + dike	NBC08485	NBC08500	NBC08493	1.0770	0.0070	0.0070	PAG Pile
2244-2256	P. Meister	21-May-08	maf(and) seds/tuff + dike	NBC08486	NBS05001	NBC08494	0.5900	0.0080	0.0090	PAG Pile
2256-2268	P. Meister	22-May-08	maf dyke	NBC08495	NBS05002					Construction
				NBC08496						
2268-2280	P. Meister	22-May-08	maf dyke	NBC08497	NBS05003					Construction
2280-2292	P. Meister	23-May-08	maf dyke	NBC08498	NBS05004					Construction
2290-2304	P. Meister	24-May-08	cherty maf sed + bio dyke	NBC08499	NBS05005					Construction
2304-2316	P. Meister	27-May-08	cherty maf sed + bio dike	NBS05006	NBS05013					Construction
2316-2328	P. Meister	27-May-08	cherty maf sed + bio dike	NBS05007	NBS05014					Construction
				NBS05008	NBS05015					
2328-2340	P. Meister	28-May-08	cherty maf sed + bio dike	NBS05009						Construction
2340-2353	P. Meister	28-May-08	cherty maf sed + bio dike	NBS05010	NBS05016					Construction
2353-2365	P. Meister	29-May-08	maf dike	NBS05011	NBS05017					Construction
2365-2377	P. Meister	30-May-08	maf dike	NBS05012	NBS05018					Construction
west crosscut slab round	P. Meister	31-May-08	maf dike	No Sample	NBS05027					Construction
west crosscut round 1 (Probehole 0'-12')	P. Meister	1-Jun-08	cherty maf seds + dike	NBS05028	NBS05032					Construction
west crosscut round 2 (Probehole 12'-24')	P. Meister	2-Jun-08	cherty maf seds + dike	NBS05029	NBS05033					Construction
				NBS05030	NBS05034					
west crosscut round 3 (Probehole 24'-36')	P. Meister	2-Jun-08	cherty maf seds + dike	NBS05030	NBS05034B					PAG Pile
2377-2389	P. Meister	3-Jun-08	Maf dike	NBS05019	no sample					Construction
2389-2401	P. Meister	3-Jun-08	Maf dike	NBS05020	NBS05035					Construction
2401-2413	P. Meister	3-Jun-08	Maf dike	NBS05021	NBS05036					Construction
2413-2423	P. Meister	4-Jun-08	cherty maf seds + dike	NBS05022	NBS05037					PAG Pile
2423-2433	P. Meister	4-Jun-08	cherty maf seds + dike	NBS05023	NBS05038					PAG Pile
2433-2443	P. Meister	5-Jun-08	cherty maf seds + dike	NBS05024	NBS05039					PAG Pile
East crosscut slab round	P. Meister	6-Jun-08	Maf Dike	No Sample						Construction

Table B-5. Niblack - Muck Pile Visual Inspection and XRF Data from Borehole and Drill Cutting Samples

Muck Round/Ramp Distance from Portal (ft)	Geologist	Date	Rocktype	Imbo Center Boreh		XRF Results (2nd Jumbo Center Borehole)			Final Disposition	
				Sample #	Sample #	Sample #	S%	Cu%		Zn
East crosscut round 1 (Probehole 0'-12')	P. Meister	8-Jun-08	Maf Dike	NBS05040	NBS05049				Construction	
East crosscut round 2 (Probehole 12'-24')	P. Meister	8-Jun-08	Maf Dike	NBS05041	NBS05050				Construction	
East crosscut round 3 (Probehole 24'-36')	P. Meister	9-Jun-08	Maf Dike	NBS05042	NBS05051				Construction	
2443-2454	P. Meister	8-Jun-08	cherty maf seds + cb maf seds	NBS05025	NBS05052	NBS05043	1.6040	0.0220	0.0060	PAG PILE
2454-2465	P. Meister	10-Jun-08	Maf seds	NBS05026	NBS05053	NBS05044	0.5950	0.0220	0.0060	Construction
2465-2476	P. Meister	11-Jun-08	maf seds + maf dike	NBS05045	NBS05054				Construction	
2476-2487	P. Meister	13-Jun-08	Maf seds + maf dike	NBS05046	no sample				Construction	
2487-2498	P. Meister	14-Jun-08	maf (and) seds tuff + dike	NBS05047	NBS05055				Construction	
2498-2510	P. Meister	14-Jun-08	maf (and) seds/tuff + dike	NBS05048	NBS05058				PAG Pile	
Drill Sump Round 1	P. Meister	13-Jun-08	Maf seds + Maf Tuff		NBS05056				Construction	
Drill Sump Round 2	P. Meister	14-Jun-08	Maf seds + Maf Tuff		NBS05057				Construction	
2510-2522	P. Meister	16-Jun-08	maf seds and tuff	NBS05059	NBS05065				PAG Pile	
2522-2533	P. Meister	17-Jun-08	maf seds and tuff	NBS05060	NBS05067				Construction	
2533-2545	P. Meister	18-Jun-08	maf seds and tuff	NBS05061	NBS05066				Construction	
2545-2553	L.Cornejo	19-Jun-08	mineralized Qxl Rhy LT	NBS05062	NBS05068				Bulk Sample Site	
2553-2570	L.Cornejo	20-Jun-08	mineralized Qxl Rhy LT	NBS05063	NBS05069				Bulk Sample Site	
2570-2582	L.Cornejo	21-Jun-08	mineralized Qxl Rhy LT	NBS05064	NBS05070				Bulk Sample Site	
2582-2593	L.Hubbard	24-Jun-08	MIN Qxl Rhy (AL)T	NBS05071	NBS05078				Bulk Sample Site	
2593-2604	L.Hubbard	25-Jun-08	MIN Qxl Rhy (AL)T	NBS05073	NBS05079				PAG Pile	
2604-2615	L.Hubbard	25-Jun-08	MIN Qxl Rhy (AL)T	NBS05074	NBS05080				PAG Pile	
2615-2625	L.Hubbard	26-Jun-08	MIN Qxl Rhy (AL)T	NBS05075	NBS05081				PAG Pile	
2625-2636	L.Hubbard	27-Jun-08	MIN Qxl Rhy (AL)T	NBS05076	NBS05082				PAG Pile	
2636-2647	L.Hubbard	27-Jun-08	Maf dyke	NBS05077	NBS05083				PAG Pile	
2647-2658	P. Meister	28-Jun-08	Maf Dike	NBS05084	NBS05091				PAG Pile	
2658-2670	P. Meister	29-Jun-08	Maf Dike	NBS05085	NBS05092				PAG Pile	
2670-2681	P. Meister	30-Jun-08	Qxl Rhy (AL)T	NBS05086	NBS05094				PAG Pile	
2681-2692	P. Meister	30-Jun-08	Qxl Rhy (AL)T	NBS05087	NBS05095				PAG Pile	
2692-2703	P. Meister	1-Jul-08	Qxl Rhy (AL)T	NBS05088	NBS05104				PAG Pile	
2703-2715	P. Meister	1-Jul-08	Qxl Rhy (AL)T	NBS05089	NBS05096				PAG Pile	
2715-2726	P. Meister	2-Jul-08	Qxl Rhy (AL)T	NBS05097	NBS05103	NBS05090	-0.3810	0.0920	0.5550	PAG Pile
2726-2738	P. Meister	2-Jul-08	Qxl Rhy (AL)T	NBS05098	NBS05105				PAG Pile	
2738-2749	P. Meister	3-Jul-08	Qxl Rhy (AL)T	NBS05099	NBS05106				PAG Pile	
2749-2761	P. Meister	4-Jul-08	Qxl Rhy (AL)T	NBS05100	NBS05108				PAG Pile	
2761-2772 - END OF DRIFT	P. Meister	5-Jul-08	Qxl Rhy (AL)T	NBS05101	NBS05109				PAG Pile	
Sump #3 Round 1	P. Meister	9-Jul-08	Qxl Rhy (AL)T	NBS05111	NBS05117				PAG Pile	
Sump #3 Round 2	P. Meister	10-Jul-08	Qxl Rhy (AL)T	NBS05112	NBS05119				PAG Pile	
Sump #3 Round 3	P. Meister	11-Jul-08	Qxl Rhy (AL)T	NBS05113	NBS05118				PAG Pile	
Sump #3 Round 4	P. Meister	11-Jul-08	Qxl Rhy (AL)T	NBS05114	NBS05120				PAG Pile	
Sump #3 Round 5	P. Meister	12-Jul-08	Qxl Rhy (AL)T	NBS05115	NBS05121				PAG Pile	
Sump #3 Round 6	P. Meister	12-Jul-08	Qxl Rhy (AL)T	NBS05116	NBS05122				PAG Pile	
NOTES:										
highlighted cells = samples collected for off-site QAQC analysis										
footage in red is based on a survey face (asbuilts from Redpath)--other intervals are corrected to this measurement										
rocktype column is grouped by grout ring										
probehole and blast round footage has been corrected from 813 ft to present by L. Cornejo (May 2008)										
On site XRF instrument is calibrated for very low sulphur values. Sulphur analysis for samples with > 1% sulphur are unreliable and commonly yield negative values.										
All samples yielding negative sulphur values or values of > 1% will be re-analyzed by Leco furnace at an off-site laboratory.										
* Round footage in italics not finalized until next ring face @ approx. 2156 is surveyed										

Table B-6. Shake Flask Extraction Results (liquid to solid ratio of 3:1)

General									General Parameters							
Sample ID	hole-id	from	to	Unit	Company	Program	Date	Analytical Lab	pH	Redox	Conductivity	Acidity (to pH 4.5)	Total Acidity (to pH 8.3)	Alkalinity	Sulphate	Hardness CaCO ₃
Method									meter	meter	meter	titration	titration	titration	Turbidity	
Units										mV	uS/cm	mg CaCO ₃ /L	mg CaCO ₃ /L	mg CaCO ₃ /L	mg/L	mg/L
70651	LO-180	450	455	HW	MESH	Verification	2007	CEMI	8.0	408	95	--	2.3	61.0	4.0	51.7
70659	LO-161	1554.2	1559.2	HW	MESH	Verification	2007	CEMI	8.0	376	93	--	2.7	49.0	7.0	53
70663	LO-180	342.5	345	HW	MESH	Verification	2007	CEMI	8.0	366	95	--	2.8	58.3	3.0	60.2
C217463	PORTAL	120	130	HW	MESH	Verification	2007	CEMI	8.0	374	89	--	2.5	57.5	2.0	49.7
70654	LO-161	830	835	FW	MESH	Verification	2007	CEMI	7.8	384	78	--	2.4	31.8	12.0	33.1
70655	LO-161	924	927.6	FW	MESH	Verification	2007	CEMI	7.7	389	52	--	2.1	28.2	1.0	18.9
70660	LO-186	350	355	FW	MESH	Verification	2007	CEMI	7.9	382	77	--	2.8	45.4	1.0	49.7
70661	LO-159	163.2	168.2	FW	MESH	Verification	2007	CEMI	7.9	382	91	--	2.8	54.5	2.0	57.1
70662	LO-181	404.9	408.9	FW	MESH	Verification	2007	CEMI	7.7	386	94	--	2.8	31.8	25.0	53.8
70667	LO-182	660	665	FW	MESH	Verification	2007	CEMI	8.0	375	94	--	2.9	56.1	1.0	62.8
70657	LO-191	1178	1183	LO	MESH	Verification	2007	CEMI	7.8	389	48	--	2.2	26.3	3.0	17.5
70658	LO-161	1488	1491	LO	MESH	Verification	2007	CEMI	7.9	385	71	--	2.1	38.6	4.0	26.3
70664	LO-190	1145.7	1150.7	LO	MESH	Verification	2007	CEMI	7.5	373	29	--	2.6	10.1	6.0	4.6
70665	LO-182	936	941	LO	MESH	Verification	2007	CEMI	7.8	381	95	--	2.8	46.8	12.0	53.4
70666	LO-184	829.5	832.5	LO	MESH	Verification	2007	CEMI	7.9	375	81	--	2.9	50.2	3.0	51.6
70668	LO-191	871	874.5	LO	MESH	Verification	2007	CEMI	7.3	388	77	--	3.5	10.8	27.0	35
70652	LO-188	1065	1069	MD	MESH	Verification	2007	CEMI	8.0	393	92	--	2.1	56.2	2.0	59.8
70653	LO-190	1023	1029.6	MD	MESH	Verification	2007	CEMI	8.0	380	101	--	2.3	57.2	5.0	63.1
70656	LO-161	927.7	935	MD	MESH	Verification	2007	CEMI	8.1	388	98	--	2.1	61.0	2.0	57.1
C217455	PORTAL	40	50	MD	MESH	Verification	2007	CEMI	8.0	373	90	--	2.8	60.1	1.0	59.1
BLANK	NA	NA	NA	NA	MESH	Verification	2007	CEMI	8.2	371	12	--	0.1	8.2	<1	<0.5

Table B-6. Shake Flask Extraction Results (liquid to solid ratio of 3:1)

Sample ID	Ion Balance				Dissolved Metals											
	Major Anions	Major Cations	Difference	Balance (%)	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu
	Calc	Calc	Calc	Calc	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS
Units	meq/L	meq/L	meq/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
70651	1.30	1.31	-0.01	-0.2%	0.182	0.0002	0.0003	0.00062	<0.00005	<0.00005	0.035	0.00001	17.6	<0.0002	<0.00002	0.0008
70659	1.13	1.29	-0.17	-6.9%	0.0777	0.00043	0.0005	0.003	<0.00005	<0.00005	0.009	0.00008	19.2	<0.0002	0.00006	0.0007
70663	1.23	1.35	-0.12	-4.7%	0.146	0.00026	0.0003	0.00094	<0.00005	<0.00005	0.01	<0.00001	21.5	<0.0002	<0.00002	0.0003
C217463	1.19	1.24	-0.05	-2.1%	0.0947	0.00025	0.0007	0.00056	<0.00005	<0.00005	<0.008	<0.00001	18.4	0.0002	<0.00002	0.0006
70654	0.89	0.97	-0.08	-4.6%	0.138	0.00056	0.0015	0.0015	<0.00005	<0.00005	<0.008	0.00001	11.3	<0.0002	<0.00002	0.0006
70655	0.58	0.65	-0.06	-5.0%	0.126	0.00025	0.0024	0.00488	<0.00005	<0.00005	<0.008	<0.00001	5.54	<0.0002	<0.00002	0.0003
70660	0.93	1.08	-0.15	-7.4%	0.106	0.00008	0.0002	0.00081	<0.00005	<0.00005	<0.008	<0.00001	13.3	0.0003	<0.00002	0.0003
70661	1.13	1.30	-0.17	-7.0%	0.087	0.00018	0.0003	0.00182	0.00005	<0.00005	<0.008	0.00001	21	0.0002	0.00003	0.0005
70662	1.16	1.18	-0.03	-1.1%	0.056	0.00026	0.0008	0.00353	<0.00005	<0.00005	0.022	0.00003	15.5	<0.0002	0.00011	0.0005
70667	1.14	1.33	-0.19	-7.5%	0.0714	0.00016	0.0005	0.00291	<0.00005	<0.00005	0.026	<0.00001	23	0.0003	0.00002	0.0004
70657	0.59	0.57	0.01	1.3%	0.156	0.00015	0.0246	0.00139	<0.00005	<0.00005	<0.008	0.00002	6.41	<0.0002	<0.00002	0.0011
70658	0.85	0.94	-0.08	-4.5%	0.193	0.00054	0.018	0.00167	<0.00005	<0.00005	0.009	0.00001	9.46	<0.0002	0.00009	0.0011
70664	0.33	0.32	0.01	1.1%	0.0273	0.00026	0.0371	0.00042	<0.00005	<0.00005	0.053	<0.00001	1.63	<0.0002	0.00003	0.0007
70665	1.19	1.29	-0.10	-4.1%	0.0944	0.00053	0.0014	0.00493	<0.00005	<0.00005	0.016	<0.00001	19.8	<0.0002	0.00002	0.0008
70666	1.07	1.13	-0.06	-2.8%	0.0849	0.00042	0.0006	0.00328	<0.00005	<0.00005	0.012	<0.00001	20	0.0002	<0.00002	0.0005
70668	0.78	0.85	-0.07	-4.3%	0.0096	0.0002	0.0002	0.00316	0.00006	<0.00005	<0.008	0.00015	12.3	0.0018	0.00188	0.0109
70652	1.17	1.29	-0.12	-4.9%	0.164	0.00014	0.0002	0.0257	<0.00005	<0.00005	<0.008	<0.00001	21.6	<0.0002	<0.00002	0.0005
70653	1.25	1.37	-0.12	-4.5%	0.197	0.0003	0.0004	0.00083	<0.00005	<0.00005	0.009	<0.00001	23.4	<0.0002	<0.00002	0.0005
70656	1.26	1.34	-0.08	-3.1%	0.237	0.0002	<0.0001	0.00373	<0.00005	<0.00005	<0.008	<0.00001	20.6	<0.0002	<0.00002	0.0008
C217455	1.22	1.29	-0.06	-2.5%	0.152	0.00014	0.0003	0.00114	<0.00005	<0.00005	<0.008	<0.00001	22.1	0.0003	<0.00002	0.0003
BLANK					0.0011	<0.00005	<0.0001	0.00004	<0.00005	<0.00005	<0.008	<0.00001	<0.05	<0.0002	<0.00002	0.0003

Table B-6. Shake Flask Extraction Results (liquid to solid ratio of 3:1)

Dissolved Metals																
Sample ID	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S
Method	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	CVAA	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS
Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
70651	<0.005	0.00021	0.0008	1.89	0.00543	<0.05	0.00025	<0.0005	<0.1	1.7	0.0006	1.45	<0.00001	5.34	0.148	0.8
70659	<0.005	0.00019	0.0003	1.22	0.103	<0.05	0.00379	<0.0005	<0.1	0.888	0.0015	1.48	<0.00001	4.84	0.0449	2.9
70663	<0.005	<0.00002	0.0003	1.6	0.014	<0.05	0.00013	<0.0005	<0.1	0.237	0.0006	1.11	<0.00001	3.19	0.0546	0.9
C217463	<0.005	<0.00002	0.0004	0.92	0.0313	<0.05	0.00018	<0.0005	<0.1	1.83	<0.0005	1.56	<0.00001	4.63	0.035	0.1
70654	0.005	0.00004	0.0007	1.2	0.013	<0.05	0.00049	<0.0005	<0.1	2.87	<0.0005	1.32	<0.00001	5.4	0.0239	3.9
70655	<0.005	0.00004	0.0005	1.22	0.0143	<0.05	0.00024	<0.0005	<0.1	4.03	<0.0005	1.15	<0.00001	3.81	0.0455	0.7
70660	<0.005	0.00004	0.0005	4	0.0724	<0.05	0.00057	<0.0005	<0.1	0.364	<0.0005	0.71	<0.00001	1.74	0.0304	0.4
70661	<0.005	0.00009	<0.0002	1.14	0.154	<0.05	0.00034	<0.0005	<0.1	0.537	<0.0005	0.91	<0.00001	3.38	0.0347	0.8
70662	<0.005	0.00002	0.0005	3.65	0.332	<0.05	0.0002	<0.0005	<0.1	1.61	<0.0005	0.85	0.00002	1.55	0.0277	8.6
70667	<0.005	<0.00002	0.0003	1.31	0.0399	<0.05	0.00038	<0.0005	<0.1	0.321	0.0005	0.76	<0.00001	1.47	0.0517	0.2
70657	0.01	0.00019	<0.0002	0.35	0.0121	<0.05	0.00165	<0.0005	<0.1	6.31	0.0008	1.22	<0.00001	1.48	0.00985	0.9
70658	0.009	0.00035	0.0003	0.64	0.0237	<0.05	0.00104	<0.0005	<0.1	1.86	0.0025	1.18	<0.00001	8.36	0.0357	0.9
70664	<0.005	0.00004	0.0003	0.12	0.00387	<0.05	0.00024	<0.0005	<0.1	3.75	0.0015	1.21	<0.00001	3.07	0.0114	1.9
70665	<0.005	0.00022	0.0005	0.95	0.0479	<0.05	0.00045	<0.0005	<0.1	1.05	<0.0005	1.18	0.00002	4.47	0.0999	4.1
70666	<0.005	<0.00002	<0.0002	0.43	0.0691	<0.05	0.0001	<0.0005	<0.1	1.57	<0.0005	0.95	<0.00001	1.26	0.0171	0.8
70668	0.012	<0.00002	0.0004	1.04	0.0868	<0.05	0.00069	0.0023	<0.1	3.53	0.0011	0.81	0.00002	1.35	0.023	9.9
70652	<0.005	0.00009	0.0003	1.43	0.0142	<0.05	0.00021	0.0005	<0.1	0.232	<0.0005	0.97	<0.00001	1.97	0.0662	0.5
70653	<0.005	0.00012	0.0003	1.16	0.0185	<0.05	0.00014	<0.0005	<0.1	0.336	<0.0005	0.97	<0.00001	2.19	0.108	2.4
70656	0.006	0.00012	0.0003	1.36	0.0138	<0.05	0.00015	<0.0005	<0.1	1.34	<0.0005	0.88	<0.00001	3.91	0.103	0.6
C217455	<0.005	<0.00002	0.0007	0.93	0.0172	<0.05	0.00023	<0.0005	<0.1	1.84	<0.0005	0.86	<0.00001	1.38	0.0634	0.1
BLANK	<0.005	0.00003	<0.0002	<0.05	0.00008	<0.05	<0.00002	<0.0005	<0.1	<0.05	<0.0005	<0.05	<0.00001	0.07	0.00003	<0.1

Table B-6. Shake Flask Extraction Results (liquid to solid ratio of 3:1)

Dissolved Metals							
Sample ID	Tl	Sn	Ti	U	V	Zn	Zr
Method	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
70651	<0.00005	0.00005	<0.0005	<0.00001	0.0079	0.0006	<0.005
70659	<0.00005	0.00006	<0.0005	<0.00001	0.00087	<0.0005	<0.005
70663	<0.00005	0.00014	0.0005	<0.00001	0.00487	<0.0005	<0.005
C217463	<0.00005	<0.00005	0.0008	<0.00001	0.00397	<0.0005	<0.005
70654	<0.00005	0.00011	<0.0005	<0.00001	0.00024	0.0006	<0.005
70655	<0.00005	0.00021	<0.0005	<0.00001	0.00024	<0.0005	<0.005
70660	<0.00005	<0.00005	<0.0005	<0.00001	0.00016	<0.0005	<0.005
70661	<0.00005	0.00016	<0.0005	<0.00001	0.00023	<0.0005	<0.005
70662	<0.00005	0.00013	0.0009	<0.00001	0.00042	<0.0005	<0.005
70667	<0.00005	0.00012	0.0007	<0.00001	0.00056	<0.0005	<0.005
70657	<0.00005	0.00018	<0.0005	0.00002	0.00126	0.0008	<0.005
70658	<0.00005	0.00012	0.0009	0.00003	0.00166	0.0007	<0.005
70664	<0.00005	0.00013	0.0006	<0.00001	0.00088	0.0007	<0.005
70665	<0.00005	0.00018	0.0007	<0.00001	0.00049	<0.0005	<0.005
70666	<0.00005	0.00023	0.0007	<0.00001	0.00041	<0.0005	<0.005
70668	<0.00005	0.00015	0.0013	<0.00001	0.00015	0.0588	<0.005
70652	<0.00005	0.00015	<0.0005	<0.00001	0.00083	0.001	<0.005
70653	<0.00005	0.00018	<0.0005	<0.00001	0.00116	<0.0005	<0.005
70656	<0.00005	0.00019	<0.0005	0.00004	0.00072	0.0006	<0.005
C217455	<0.00005	<0.00005	0.0007	<0.00001	0.00073	<0.0005	<0.005
BLANK	<0.00005	<0.00005	<0.0005	<0.00001	0.00008	0.0006	<0.005

Table B-7. Quantitative XRD Data

XRD Lab ID	Sample ID	hole-id	from	to	Unit	Company	Program	Date	Analytical Lab	Quartz	Clinchlore	Plagioclase	Actinolite	Magnetite	Calcite	Ankerite	K-feldspar	Pyrite	Epidote	Muscovite	Dolomite	Paragonite	Hematite	Pargasite	Total
1Mesh70651	70651	LO-180	450	455	HW	MESH	Verification	2007	UBC	7.7	22.5	55.6	3.8	6.3	4.1										100.0
2Mesh70652	70652	LO-188	1065	1069	MD	MESH	Verification	2007	UBC	20.5	34.3	24.4			15.8	1.0	3.4	0.7							100.0
3Mesh70653	70653	LO-190	1023	1029.6	MD	MESH	Verification	2007	UBC	24.0	22.2	22.0			11.3		2.7	1.2	10.6	6.0					100.0
4Mesh70654	70654	LO-161	830	835	FW	MESH	Verification	2007	UBC	62.5	12.3						2.0	2.2		21.2					100.0
5Mesh70655	70655	LO-161	924	927.6	FW	MESH	Verification	2007	UBC	60.0	13.4	1.3					2.1	0.5		22.2	0.6				100.0
6Mesh70656	70656	LO-161	927.7	935	MD	MESH	Verification	2007	UBC	8.4	23.0	32.4			13.8					21.8	0.5				100.0
7Mesh70657	70657	LO-191	1178	1183	LO	MESH	Verification	2007	UBC	28.2							2.9	0.5		68.4					100.0
8Mesh70658	70658	LO-161	1488	1491	LO	MESH	Verification	2007	UBC	24.2	8.7	55.9			0.2		3.2	0.7		7.2					100.0
9Mesh70659	70659	LO-161	1554.2	1559.2	HW	MESH	Verification	2007	UBC	43.1	18.2	26.3		1.0	3.6		2.8	2.2		2.8					100.0
10Mesh70660	70660	LO-186	350	355	FW	MESH	Verification	2007	UBC	30.0	40.8	8.7					2.9				15.1	2.5			100.0
11Mesh70661	70661	LO-159	163.2	168.2	FW	MESH	Verification	2007	UBC	25.8	32.5	24.2			10.9		2.6	0.3		3.6					100.0
12Mesh70662	70662	LO-181	404.9	408.9	FW	MESH	Verification	2007	UBC	38.9	27.7	5.6					3.0	9.3		14.0	1.6				100.0
13Mesh70663	70663	LO-180	342.5	345	HW	MESH	Verification	2007	UBC	9.0	23.7	53.6	2.1	6.4	2.9		2.4								100.0
14Mesh70664	70664	LO-190	1145.7	1150.7	LO	MESH	Verification	2007	UBC	31.8	2.9	1.8					4.5	1.4		57.7					100.0
15Mesh70665	70665	LO-182	936	941	LO	MESH	Verification	2007	UBC	29.3	9.2	55.5			0.7			3.5		1.8					100.0
16Mesh70666	70666	LO-184	829.5	832.5	LO	MESH	Verification	2007	UBC	40.5	6.8	14.5			1.9		1.5	0.6	19.8	14.4					100.0
17Mesh70667	70667	LO-182	660	665	FW	MESH	Verification	2007	UBC	26.7	48.2	8.7			12.9		3.4								100.0
18Mesh70668	70668	LO-191	871	874.5	LO	MESH	Verification	2007	UBC	51.9	4.1	6.9					1.5	9.0		26.6					100.0
19MeshC217455	C217455	PORTAL	40	50	MD	MESH	Verification	2007	UBC	15.7	26.8	25.1			14.4		4.2			13.0	0.9				100.0
20MeshC217463	C217463	PORTAL	120	130	HW	MESH	Verification	2007	UBC	3.5	10.4	53.4		5.6	4.1		7.5		4.6		1.0		3.2	6.6	100.0

Table B-8. Acid Base Characterization Curve Data

Sample ID	hole-id	from	to	Unit	Company	Program	Analytical Lab	Date	Vol. 0.1N HCl (mL)	Consumption (as kg CaCO ₃ /t)	Stable pH after 1000 sec.	Consumption (kg H ₂ SO ₄ /t)
70664	LO-190	1145.7	1150.7	LO	MESH	Verification	CEMI	2007	0	0.00	6.40	0.00
70664	LO-190	1145.7	1150.7	LO	MESH	Verification	CEMI	2007	4.65	11.63	2.53	11.39
70664	LO-190	1145.7	1150.7	LO	MESH	Verification	CEMI	2007	5.15	12.88	2.52	12.62
70664	LO-190	1145.7	1150.7	LO	MESH	Verification	CEMI	2007	5.35	13.38	2.52	13.11
70664	LO-190	1145.7	1150.7	LO	MESH	Verification	CEMI	2007	5.55	13.88	2.52	13.60
70664	LO-190	1145.7	1150.7	LO	MESH	Verification	CEMI	2007	5.7	14.25	2.51	13.97
70664	LO-190	1145.7	1150.7	LO	MESH	Verification	CEMI	2007	5.95	14.88	2.53	14.58
70664	LO-190	1145.7	1150.7	LO	MESH	Verification	CEMI	2007	6.2	15.50	2.51	15.19
70665	LO-182	936	941	LO	MESH	Verification	CEMI	2007	0	0.00	8.22	0.00
70665	LO-182	936	941	LO	MESH	Verification	CEMI	2007	5.1	12.75	2.80	12.50
70665	LO-182	936	941	LO	MESH	Verification	CEMI	2007	6.6	16.50	2.70	16.17
70665	LO-182	936	941	LO	MESH	Verification	CEMI	2007	8.5	21.25	2.52	20.83
70665	LO-182	936	941	LO	MESH	Verification	CEMI	2007	8.7	21.75	2.53	21.32
70665	LO-182	936	941	LO	MESH	Verification	CEMI	2007	9.1	22.75	2.50	22.30
70665	LO-182	936	941	LO	MESH	Verification	CEMI	2007	9.1	22.75	2.52	22.30
70665	LO-182	936	941	LO	MESH	Verification	CEMI	2007	9.5	23.75	2.51	23.28
70657	LO-191	1178	1183	LO	MESH	Verification	CEMI	2007	0	0.00	7.09	0.00
70657	LO-191	1178	1183	LO	MESH	Verification	CEMI	2007	4.3	10.75	2.60	10.54
70657	LO-191	1178	1183	LO	MESH	Verification	CEMI	2007	5.3	13.25	2.56	12.99
70657	LO-191	1178	1183	LO	MESH	Verification	CEMI	2007	5.8	14.50	2.58	14.21
70657	LO-191	1178	1183	LO	MESH	Verification	CEMI	2007	6.5	16.25	2.56	15.93
70657	LO-191	1178	1183	LO	MESH	Verification	CEMI	2007	7.1	17.75	2.55	17.40
70657	LO-191	1178	1183	LO	MESH	Verification	CEMI	2007	7.6	19.00	2.54	18.62
70657	LO-191	1178	1183	LO	MESH	Verification	CEMI	2007	8.05	20.13	2.55	19.72
70658	LO-161	1488	1491	LO	MESH	Verification	CEMI	2007	0	0.00	7.77	0.00
70658	LO-161	1488	1491	LO	MESH	Verification	CEMI	2007	6.2	15.50	2.71	15.19
70658	LO-161	1488	1491	LO	MESH	Verification	CEMI	2007	9.1	22.75	2.54	22.30
70658	LO-161	1488	1491	LO	MESH	Verification	CEMI	2007	9.8	24.50	2.54	24.01
70658	LO-161	1488	1491	LO	MESH	Verification	CEMI	2007	10.45	26.13	2.53	25.60
70658	LO-161	1488	1491	LO	MESH	Verification	CEMI	2007	10.95	27.38	2.53	26.83
70658	LO-161	1488	1491	LO	MESH	Verification	CEMI	2007	11.35	28.38	2.52	27.81
70658	LO-161	1488	1491	LO	MESH	Verification	CEMI	2007	11.7	29.26	2.51	28.67
70668	LO-191	871	874.5	LO	MESH	Verification	CEMI	2007	0	0.00	6.85	0.00
70668	LO-191	871	874.5	LO	MESH	Verification	CEMI	2007	6	15.00	2.59	14.70
70668	LO-191	871	874.5	LO	MESH	Verification	CEMI	2007	8.2	20.50	2.42	20.09
70668	LO-191	871	874.5	LO	MESH	Verification	CEMI	2007	8.2	20.50	2.42	20.09
70668	LO-191	871	874.5	LO	MESH	Verification	CEMI	2007	8.2	20.50	2.38	20.09
70668	LO-191	871	874.5	LO	MESH	Verification	CEMI	2007	8.2	20.50	2.39	20.09
70668	LO-191	871	874.5	LO	MESH	Verification	CEMI	2007	8.2	20.50	2.39	20.09
70668	LO-191	871	874.5	LO	MESH	Verification	CEMI	2007	8.2	20.50	2.38	20.09
70666	LO-184	829.5	832.5	LO	MESH	Verification	CEMI	2007	0	0.00	9.30	0.00
70666	LO-184	829.5	832.5	LO	MESH	Verification	CEMI	2007	11.4	28.51	2.67	27.93
70666	LO-184	829.5	832.5	LO	MESH	Verification	CEMI	2007	14.7	36.76	2.41	36.02
70666	LO-184	829.5	832.5	LO	MESH	Verification	CEMI	2007	14.7	36.76	2.38	36.02
70666	LO-184	829.5	832.5	LO	MESH	Verification	CEMI	2007	14.7	36.76	2.38	36.02
70666	LO-184	829.5	832.5	LO	MESH	Verification	CEMI	2007	14.7	36.76	2.38	36.02
70666	LO-184	829.5	832.5	LO	MESH	Verification	CEMI	2007	14.7	36.76	2.38	36.02
70666	LO-184	829.5	832.5	LO	MESH	Verification	CEMI	2007	14.7	36.76	2.38	36.02
70661	LO-159	163.2	168.2	FW	MESH	Verification	CEMI	2007	0	0.00	8.93	0.00
70661	LO-159	163.2	168.2	FW	MESH	Verification	CEMI	2007	7.05	88.14	5.22	86.36
70661	LO-159	163.2	168.2	FW	MESH	Verification	CEMI	2007	8.25	103.14	4.80	101.06
70661	LO-159	163.2	168.2	FW	MESH	Verification	CEMI	2007	9.25	115.65	2.65	113.31
70661	LO-159	163.2	168.2	FW	MESH	Verification	CEMI	2007	9.5	118.77	2.61	116.38
70661	LO-159	163.2	168.2	FW	MESH	Verification	CEMI	2007	9.86	123.27	2.51	120.79
70661	LO-159	163.2	168.2	FW	MESH	Verification	CEMI	2007	9.91	123.90	2.57	121.40
70661	LO-159	163.2	168.2	FW	MESH	Verification	CEMI	2007	10.01	125.15	2.55	122.62
70661	LO-159	163.2	168.2	FW	MESH	Verification	CEMI	2007	11.01	137.65	2.53	134.87
70661	LO-159	163.2	168.2	FW	MESH	Verification	CEMI	2007	11.06	138.28	2.52	135.49
70661	LO-159	163.2	168.2	FW	MESH	Verification	CEMI	2007	11.16	139.53	2.54	136.71
70661	LO-159	163.2	168.2	FW	MESH	Verification	CEMI	2007	11.21	140.15	2.53	137.32
70661	LO-159	163.2	168.2	FW	MESH	Verification	CEMI	2007	11.31	141.40	2.51	138.55
70662	LO-181	404.9	408.9	FW	MESH	Verification	CEMI	2007	0	0.00	8.55	0.00
70662	LO-181	404.9	408.9	FW	MESH	Verification	CEMI	2007	5.8	14.50	2.94	14.21
70662	LO-181	404.9	408.9	FW	MESH	Verification	CEMI	2007	9	22.50	2.65	22.05
70662	LO-181	404.9	408.9	FW	MESH	Verification	CEMI	2007	10.45	26.13	2.63	25.60
70662	LO-181	404.9	408.9	FW	MESH	Verification	CEMI	2007	12.05	30.13	2.58	29.52
70662	LO-181	404.9	408.9	FW	MESH	Verification	CEMI	2007	13.05	32.63	2.53	31.97
70662	LO-181	404.9	408.9	FW	MESH	Verification	CEMI	2007	13.35	33.38	2.55	32.71
70662	LO-181	404.9	408.9	FW	MESH	Verification	CEMI	2007	13.95	34.88	2.53	34.18
70662	LO-181	404.9	408.9	FW	MESH	Verification	CEMI	2007	14.4	36.01	2.53	35.28
70662	LO-181	404.9	408.9	FW	MESH	Verification	CEMI	2007	14.75	36.88	2.52	36.14
70662	LO-181	404.9	408.9	FW	MESH	Verification	CEMI	2007	14.95	37.38	2.52	36.63
70662	LO-181	404.9	408.9	FW	MESH	Verification	CEMI	2007	15.3	38.26	2.52	37.49

Table B-8. Acid Base Characterization Curve Data (cont'd)

Sample ID	hole-id	from	to	Unit	Company	Program	Analytical Lab	Date	Vol. 0.1N HCl (mL)	Consumption (as kg CaCO3/t)	Stable pH after 1000 sec.	Consumption (kg H ₂ SO ₄ /t)
70667	LO-182	660	665	FW	MESH	Verification	CEMI	2007	0	0.00	9.13	0.00
70667	LO-182	660	665	FW	MESH	Verification	CEMI	2007	7.5	93.77	5.94	91.88
70667	LO-182	660	665	FW	MESH	Verification	CEMI	2007	9.2	115.02	5.95	112.70
70667	LO-182	660	665	FW	MESH	Verification	CEMI	2007	10.51	131.40	2.75	128.75
70667	LO-182	660	665	FW	MESH	Verification	CEMI	2007	11.01	137.65	2.56	134.87
70667	LO-182	660	665	FW	MESH	Verification	CEMI	2007	11.11	138.90	2.55	136.10
70667	LO-182	660	665	FW	MESH	Verification	CEMI	2007	11.31	141.40	2.53	138.55
70667	LO-182	660	665	FW	MESH	Verification	CEMI	2007	11.41	142.65	2.51	139.77
70667	LO-182	660	665	FW	MESH	Verification	CEMI	2007	11.46	143.28	2.50	140.39
70667	LO-182	660	665	FW	MESH	Verification	CEMI	2007	11.46	143.28	2.53	140.39
70654	LO-161	830	835	FW	MESH	Verification	CEMI	2007	0	0.00	6.80	0.00
70654	LO-161	830	835	FW	MESH	Verification	CEMI	2007	3.8	9.50	2.67	9.31
70654	LO-161	830	835	FW	MESH	Verification	CEMI	2007	5.45	13.63	2.55	13.35
70654	LO-161	830	835	FW	MESH	Verification	CEMI	2007	6.5	16.25	2.52	15.93
70654	LO-161	830	835	FW	MESH	Verification	CEMI	2007	6.8	17.00	2.53	16.66
70654	LO-161	830	835	FW	MESH	Verification	CEMI	2007	7.05	17.63	2.52	17.27
70654	LO-161	830	835	FW	MESH	Verification	CEMI	2007	7.25	18.13	2.53	17.76
70654	LO-161	830	835	FW	MESH	Verification	CEMI	2007	7.55	18.88	2.53	18.50
70654	LO-161	830	835	FW	MESH	Verification	CEMI	2007	7.9	19.75	2.53	19.36
70654	LO-161	830	835	FW	MESH	Verification	CEMI	2007	8.3	20.75	2.54	20.34
70654	LO-161	830	835	FW	MESH	Verification	CEMI	2007	8.75	21.88	2.53	21.44
70654	LO-161	830	835	FW	MESH	Verification	CEMI	2007	9	22.50	2.53	22.05
70654	LO-161	830	835	FW	MESH	Verification	CEMI	2007	9.35	23.38	2.52	22.91
70655	LO-161	924	927.6	FW	MESH	Verification	CEMI	2007	0	0.00	8.06	0.00
70655	LO-161	924	927.6	FW	MESH	Verification	CEMI	2007	3.05	7.63	3.41	7.47
70655	LO-161	924	927.6	FW	MESH	Verification	CEMI	2007	5.1	12.75	2.95	12.50
70655	LO-161	924	927.6	FW	MESH	Verification	CEMI	2007	7.35	18.38	2.63	18.01
70655	LO-161	924	927.6	FW	MESH	Verification	CEMI	2007	8.35	20.88	2.60	20.46
70655	LO-161	924	927.6	FW	MESH	Verification	CEMI	2007	9.35	23.38	2.55	22.91
70655	LO-161	924	927.6	FW	MESH	Verification	CEMI	2007	9.85	24.63	2.54	24.13
70655	LO-161	924	927.6	FW	MESH	Verification	CEMI	2007	10.25	25.63	2.55	25.11
70655	LO-161	924	927.6	FW	MESH	Verification	CEMI	2007	10.65	26.63	2.52	26.09
70655	LO-161	924	927.6	FW	MESH	Verification	CEMI	2007	10.95	27.38	2.52	26.83
70655	LO-161	924	927.6	FW	MESH	Verification	CEMI	2007	11.15	27.88	2.52	27.32
70655	LO-161	924	927.6	FW	MESH	Verification	CEMI	2007	11.45	28.63	2.52	28.05
70655	LO-161	924	927.6	FW	MESH	Verification	CEMI	2007	11.6	29.01	2.52	28.42
70655	LO-161	924	927.6	FW	MESH	Verification	CEMI	2007	11.6	29.01	2.51	28.42
70660	LO-186	350	355	FW	MESH	Verification	CEMI	2007	0	0.00	8.09	0.00
70660	LO-186	350	355	FW	MESH	Verification	CEMI	2007	1.75	21.88	5.96	21.44
70660	LO-186	350	355	FW	MESH	Verification	CEMI	2007	3.25	40.63	5.40	39.81
70660	LO-186	350	355	FW	MESH	Verification	CEMI	2007	4.5	56.26	5.02	55.13
70660	LO-186	350	355	FW	MESH	Verification	CEMI	2007	5.5	68.76	5.40	67.38
70660	LO-186	350	355	FW	MESH	Verification	CEMI	2007	6.3	78.76	4.95	77.18
70660	LO-186	350	355	FW	MESH	Verification	CEMI	2007	7.25	90.64	4.66	88.81
70660	LO-186	350	355	FW	MESH	Verification	CEMI	2007	8.2	102.52	4.36	100.45
70660	LO-186	350	355	FW	MESH	Verification	CEMI	2007	9.1	113.77	3.28	111.48
70660	LO-186	350	355	FW	MESH	Verification	CEMI	2007	9.75	121.90	3.12	119.44
70660	LO-186	350	355	FW	MESH	Verification	CEMI	2007	11.1	138.78	2.82	135.98
70660	LO-186	350	355	FW	MESH	Verification	CEMI	2007	11.65	145.65	2.65	142.71
70660	LO-186	350	355	FW	MESH	Verification	CEMI	2007	11.95	149.40	2.63	146.39
70660	LO-186	350	355	FW	MESH	Verification	CEMI	2007	12.25	153.15	2.54	150.06
70660	LO-186	350	355	FW	MESH	Verification	CEMI	2007	12.35	154.40	2.56	151.29
70660	LO-186	350	355	FW	MESH	Verification	CEMI	2007	13.6	170.03	2.50	166.60
70660	LO-186	350	355	FW	MESH	Verification	CEMI	2007	13.6	170.03	2.50	166.60
70660	LO-186	350	355	FW	MESH	Verification	CEMI	2007	13.6	170.03	2.51	166.60
C217463	PORTAL	120	130	HW	MESH	Verification	CEMI	2007	0	0.00	9.47	0.00
C217463	PORTAL	120	130	HW	MESH	Verification	CEMI	2007	4.2	52.51	2.92	51.45
C217463	PORTAL	120	130	HW	MESH	Verification	CEMI	2007	5.1	63.76	2.47	62.48
C217463	PORTAL	120	130	HW	MESH	Verification	CEMI	2007	5.1	63.76	2.52	62.48
C217463	PORTAL	120	130	HW	MESH	Verification	CEMI	2007	5.3	66.26	2.52	64.93
C217463	PORTAL	120	130	HW	MESH	Verification	CEMI	2007	5.4	67.51	2.50	66.15
C217463	PORTAL	120	130	HW	MESH	Verification	CEMI	2007	5.4	67.51	2.51	66.15
C217463	PORTAL	120	130	HW	MESH	Verification	CEMI	2007	5.5	68.76	2.50	67.38
C217463	PORTAL	120	130	HW	MESH	Verification	CEMI	2007	5.5	68.76	2.51	67.38
C217463	PORTAL	120	130	HW	MESH	Verification	CEMI	2007	5.55	69.39	2.50	67.99

Table B-8. Acid Base Characterization Curve Data (end)

Sample ID	hole-id	from	to	Unit	Company	Program	Analytical Lab	Date	Vol. 0.1N HCl (mL)	Consumption (as kg CaCO ₃ /t)	Stable pH after 1000 sec.	Consumption (kg H ₂ SO ₄ /t)
70663	LO-180	342.5	345	HW	MESH	Verification	CEMI	2007	0	0.00	8.65	0.00
70663	LO-180	342.5	345	HW	MESH	Verification	CEMI	2007	13.7	34.26	2.93	33.57
70663	LO-180	342.5	345	HW	MESH	Verification	CEMI	2007	17.6	44.01	2.47	43.12
70663	LO-180	342.5	345	HW	MESH	Verification	CEMI	2007	17.6	44.01	2.51	43.12
70663	LO-180	342.5	345	HW	MESH	Verification	CEMI	2007	17.7	44.26	2.53	43.37
70663	LO-180	342.5	345	HW	MESH	Verification	CEMI	2007	18.4	46.01	2.53	45.08
70663	LO-180	342.5	345	HW	MESH	Verification	CEMI	2007	18.8	47.01	2.53	46.06
70663	LO-180	342.5	345	HW	MESH	Verification	CEMI	2007	19.2	48.01	2.53	47.04
70663	LO-180	342.5	345	HW	MESH	Verification	CEMI	2007	19.45	48.63	2.52	47.65
70663	LO-180	342.5	345	HW	MESH	Verification	CEMI	2007	19.75	49.38	2.51	48.39
70663	LO-180	342.5	345	HW	MESH	Verification	CEMI	2007	19.85	49.63	2.51	48.63
70663	LO-180	342.5	345	HW	MESH	Verification	CEMI	2007	20.25	50.63	2.53	49.61
70663	LO-180	342.5	345	HW	MESH	Verification	CEMI	2007	20.4	51.01	2.51	49.98
70659	LO-161	1554.2	1559.2	HW	MESH	Verification	CEMI	2007	0	0.00	9.21	0.00
70659	LO-161	1554.2	1559.2	HW	MESH	Verification	CEMI	2007	11.05	27.63	6.72	27.07
70659	LO-161	1554.2	1559.2	HW	MESH	Verification	CEMI	2007	17.05	42.63	3.25	41.77
70659	LO-161	1554.2	1559.2	HW	MESH	Verification	CEMI	2007	20.2	50.51	2.58	49.49
70659	LO-161	1554.2	1559.2	HW	MESH	Verification	CEMI	2007	20.9	52.26	2.57	51.21
70659	LO-161	1554.2	1559.2	HW	MESH	Verification	CEMI	2007	21.55	53.88	2.51	52.80
70659	LO-161	1554.2	1559.2	HW	MESH	Verification	CEMI	2007	21.85	54.63	2.55	53.53
70651	LO-180	450	455	HW	MESH	Verification	CEMI	2007	0	0.00	9.31	0.00
70651	LO-180	450	455	HW	MESH	Verification	CEMI	2007	2.7	33.76	4.62	33.08
70651	LO-180	450	455	HW	MESH	Verification	CEMI	2007	4.6	57.51	2.89	56.35
70651	LO-180	450	455	HW	MESH	Verification	CEMI	2007	5.3	66.26	2.55	64.93
70651	LO-180	450	455	HW	MESH	Verification	CEMI	2007	5.5	68.76	2.61	67.38
70651	LO-180	450	455	HW	MESH	Verification	CEMI	2007	5.7	71.26	2.54	69.83
70651	LO-180	450	455	HW	MESH	Verification	CEMI	2007	5.8	72.51	2.56	71.05
70651	LO-180	450	455	HW	MESH	Verification	CEMI	2007	6.1	76.26	2.50	74.73
70651	LO-180	450	455	HW	MESH	Verification	CEMI	2007	6.1	76.26	2.58	74.73
70651	LO-180	450	455	HW	MESH	Verification	CEMI	2007	6.3	78.76	2.58	77.18
70651	LO-180	450	455	HW	MESH	Verification	CEMI	2007	6.4	80.01	2.59	78.40
70651	LO-180	450	455	HW	MESH	Verification	CEMI	2007	6.6	82.51	2.54	80.85
70651	LO-180	450	455	HW	MESH	Verification	CEMI	2007	6.7	83.77	2.55	82.08
70653	LO-190	1023	1029.6	MD	MESH	Verification	CEMI	2007	0	0.00	9.50	0.00
70653	LO-190	1023	1029.6	MD	MESH	Verification	CEMI	2007	8.15	101.89	5.76	99.84
70653	LO-190	1023	1029.6	MD	MESH	Verification	CEMI	2007	9.4	117.52	2.79	115.15
70653	LO-190	1023	1029.6	MD	MESH	Verification	CEMI	2007	10	125.02	2.50	122.50
70653	LO-190	1023	1029.6	MD	MESH	Verification	CEMI	2007	10	125.02	2.50	122.50
70653	LO-190	1023	1029.6	MD	MESH	Verification	CEMI	2007	10	125.02	2.50	122.50
70653	LO-190	1023	1029.6	MD	MESH	Verification	CEMI	2007	10	125.02	2.50	122.50
70653	LO-190	1023	1029.6	MD	MESH	Verification	CEMI	2007	10	125.02	2.50	122.50
70656	LO-161	927.7	935	MD	MESH	Verification	CEMI	2007	0	0.00	9.58	0.00
70656	LO-161	927.7	935	MD	MESH	Verification	CEMI	2007	6.15	76.89	5.74	75.34
70656	LO-161	927.7	935	MD	MESH	Verification	CEMI	2007	8.7	108.77	5.38	106.58
70656	LO-161	927.7	935	MD	MESH	Verification	CEMI	2007	9.95	124.40	3.82	121.89
70656	LO-161	927.7	935	MD	MESH	Verification	CEMI	2007	10.85	135.65	2.50	132.91
70656	LO-161	927.7	935	MD	MESH	Verification	CEMI	2007	10.85	135.65	2.51	132.91
70656	LO-161	927.7	935	MD	MESH	Verification	CEMI	2007	10.95	136.90	2.50	134.14
70656	LO-161	927.7	935	MD	MESH	Verification	CEMI	2007	10.95	136.90	2.50	134.14
C217455	PORTAL	40	50	MD	MESH	Verification	CEMI	2007	0	0.00	8.68	0.00
C217455	PORTAL	40	50	MD	MESH	Verification	CEMI	2007	10.16	127.02	5.22	124.46
C217455	PORTAL	40	50	MD	MESH	Verification	CEMI	2007	12.1	151.28	2.53	148.23
C217455	PORTAL	40	50	MD	MESH	Verification	CEMI	2007	12.2	152.53	2.49	149.45
C217455	PORTAL	40	50	MD	MESH	Verification	CEMI	2007	12.2	152.53	2.56	149.45
C217455	PORTAL	40	50	MD	MESH	Verification	CEMI	2007	12.35	154.40	2.53	151.29
C217455	PORTAL	40	50	MD	MESH	Verification	CEMI	2007	12.4	155.03	2.53	151.90
C217455	PORTAL	40	50	MD	MESH	Verification	CEMI	2007	12.5	156.28	2.52	153.13
C217455	PORTAL	40	50	MD	MESH	Verification	CEMI	2007	12.6	157.53	2.52	154.35
C217455	PORTAL	40	50	MD	MESH	Verification	CEMI	2007	12.7	158.78	2.52	155.58
70652	LO-188	1065	1069	MD	MESH	Verification	CEMI	2007	0	0.00	9.33	0.00
70652	LO-188	1065	1069	MD	MESH	Verification	CEMI	2007	7.1	88.77	6.29	86.98
70652	LO-188	1065	1069	MD	MESH	Verification	CEMI	2007	9.5	118.77	6.17	116.38
70652	LO-188	1065	1069	MD	MESH	Verification	CEMI	2007	11.1	138.78	4.69	135.98
70652	LO-188	1065	1069	MD	MESH	Verification	CEMI	2007	12.1	151.28	2.57	148.23
70652	LO-188	1065	1069	MD	MESH	Verification	CEMI	2007	12.25	153.15	2.52	150.06
70652	LO-188	1065	1069	MD	MESH	Verification	CEMI	2007	12.35	154.40	2.51	151.29
70652	LO-188	1065	1069	MD	MESH	Verification	CEMI	2007	12.35	154.40	2.53	151.29
70652	LO-188	1065	1069	MD	MESH	Verification	CEMI	2007	13.85	173.16	2.50	169.66
70652	LO-188	1065	1069	MD	MESH	Verification	CEMI	2007	13.85	173.16	2.52	169.66
70652	LO-188	1065	1069	MD	MESH	Verification	CEMI	2007	13.95	174.41	2.50	170.89
70652	LO-188	1065	1069	MD	MESH	Verification	CEMI	2007	13.95	174.41	2.51	170.89