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Operator: yv  
Submitter: ruby  
File: C:\9500\DATA\000-149.SMP

LP Analysis Time: 06/12/2008 9:45:33  
HP Analysis Time: 06/12/2008 11:59:43  
Report Time: 12/12/2008 15:52:09

Sample Weight: 0.9000 g  
Correction Type: Formula  
Show Neg. Int: No

### Summary Report

#### Penetrometer parameters

Penetrometer:	#s/n - (10) 5 Bulb, 1.131 Stem, Powder		
Pen. Constant:	22.065 $\mu\text{L/pF}$	Pen. Weight:	61.1900 g
Stem Volume:	1.1310 mL	Max. Head Pressure:	0.030682 MPa
Pen. Volume:	6.7600 mL	Assembly Weight:	144.3800 g

#### Hg Parameters

Adv. Contact Angle:	130.000 degrees	Rec. Contact Angle:	130.000 degrees
Hg Surface Tension:	485.000 dynes/cm	Hg Density:	13.5335 g/mL

#### User Parameters

Param 1:	0.000	Param 2:	0.000	Param 3:	0.000
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#### Low Pressure:

Evacuation Pressure:	100 $\mu\text{mHg}$
Evacuation Time:	5 mins
Mercury Filling Pressure:	0.0040 MPa
Equilibration Time:	20 secs

#### High Pressure:

Equilibration Time:	60 secs
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Blank Correction by Formula

(From Pressure 0.0007 to 413.6854 MPa)

#### Intrusion Data Summary

Total Intrusion Volume =	0.4159 mL/g
Total Pore Area =	2.503 $\text{m}^2/\text{g}$
Median Pore Diameter (Volume) =	1.3215 $\mu\text{m}$
Median Pore Diameter (Area) =	0.2974 $\mu\text{m}$
Average Pore Diameter (4V/A) =	0.6648 $\mu\text{m}$
Apparent (skeletal) Density =	2.9490 g/mL
Porosity =	55.0892 %
Stem Volume Used =	34 %



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0.0040	309.2055	0.0000	$0.000 \times 10^0$	$0.000 \times 10^0$
0.0095	131.7970	0.0075	$4.209 \times 10^{-5}$	$2.016 \times 10^{-2}$
0.0110	113.6271	0.0081	$3.543 \times 10^{-5}$	$9.991 \times 10^{-3}$
0.0127	98.2000	0.0086	$3.338 \times 10^{-5}$	$8.126 \times 10^{-3}$
0.0147	85.0969	0.0096	$7.532 \times 10^{-5}$	$1.587 \times 10^{-2}$
0.0170	73.4658	0.0103	$5.903 \times 10^{-5}$	$1.076 \times 10^{-2}$
0.0197	63.2352	0.0112	$9.228 \times 10^{-5}$	$1.450 \times 10^{-2}$
0.0229	54.4964	0.0120	$8.839 \times 10^{-5}$	$1.196 \times 10^{-2}$
0.0266	46.8489	0.0128	$1.066 \times 10^{-4}$	$1.242 \times 10^{-2}$
0.0314	39.7595	0.0136	$1.150 \times 10^{-4}$	$1.144 \times 10^{-2}$
0.0366	34.1069	0.0150	$2.353 \times 10^{-4}$	$1.997 \times 10^{-2}$
0.0425	29.3384	0.0166	$3.330 \times 10^{-4}$	$2.428 \times 10^{-2}$
0.0495	25.1745	0.0181	$3.710 \times 10^{-4}$	$2.324 \times 10^{-2}$
0.0578	21.5666	0.0203	$6.185 \times 10^{-4}$	$3.322 \times 10^{-2}$
0.0674	18.4903	0.0225	$7.114 \times 10^{-4}$	$3.274 \times 10^{-2}$
0.0788	15.8281	0.0264	$1.451 \times 10^{-3}$	$5.720 \times 10^{-2}$
0.0919	13.5625	0.0312	$2.121 \times 10^{-3}$	$7.164 \times 10^{-2}$
0.1074	11.6086	0.0346	$1.735 \times 10^{-3}$	$5.018 \times 10^{-2}$
0.1253	9.9547	0.0382	$2.179 \times 10^{-3}$	$5.400 \times 10^{-2}$
0.1469	8.4896	0.0425	$2.958 \times 10^{-3}$	$6.268 \times 10^{-2}$
0.1715	7.2724	0.0461	$2.926 \times 10^{-3}$	$5.300 \times 10^{-2}$
0.1999	6.2373	0.0502	$3.980 \times 10^{-3}$	$6.178 \times 10^{-2}$
0.2477	5.0352	0.0547	$3.750 \times 10^{-3}$	$4.848 \times 10^{-2}$
0.3167	3.9373	0.0635	$8.025 \times 10^{-3}$	$8.248 \times 10^{-2}$
0.4056	3.0746	0.0751	$1.336 \times 10^{-2}$	$1.073 \times 10^{-1}$
0.5219	2.3893	0.0919	$2.461 \times 10^{-2}$	$1.540 \times 10^{-1}$
0.6682	1.8661	0.1215	$5.652 \times 10^{-2}$	$2.755 \times 10^{-1}$
0.8555	1.4577	0.1808	$1.453 \times 10^{-1}$	$5.533 \times 10^{-1}$
1.0884	1.1457	0.2500	$2.217 \times 10^{-1}$	$6.613 \times 10^{-1}$
1.3958	0.8934	0.2998	$1.972 \times 10^{-1}$	$4.606 \times 10^{-1}$
1.7843	0.6989	0.3330	$1.707 \times 10^{-1}$	$3.114 \times 10^{-1}$
2.2778	0.5475	0.3546	$1.431 \times 10^{-1}$	$2.043 \times 10^{-1}$
2.9133	0.4280	0.3692	$1.223 \times 10^{-1}$	$1.367 \times 10^{-1}$
3.7142	0.3357	0.3796	$1.122 \times 10^{-1}$	$9.816 \times 10^{-2}$



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**Tabular Report**

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4.7491	0.2626	0.3871	$1.031 \times 10^{-1}$	$7.068 \times 10^{-2}$
6.0627	0.2057	0.3934	$1.091 \times 10^{-1}$	$5.851 \times 10^{-2}$
7.7338	0.1612	0.3977	$9.707 \times 10^{-2}$	$4.080 \times 10^{-2}$
9.8733	0.1263	0.4018	$1.177 \times 10^{-1}$	$3.876 \times 10^{-2}$
12.6036	0.0989	0.4053	$1.290 \times 10^{-1}$	$3.328 \times 10^{-2}$
16.0871	0.0775	0.4084	$1.422 \times 10^{-1}$	$2.875 \times 10^{-2}$
20.5256	0.0608	0.4110	$1.551 \times 10^{-1}$	$2.457 \times 10^{-2}$
26.1910	0.0476	0.4130	$1.580 \times 10^{-1}$	$1.961 \times 10^{-2}$
33.4336	0.0373	0.4147	$1.641 \times 10^{-1}$	$1.597 \times 10^{-2}$
42.6644	0.0292	0.4156	$1.072 \times 10^{-1}$	$8.168 \times 10^{-3}$
54.4516	0.0229	0.4159	$5.637 \times 10^{-2}$	$3.367 \times 10^{-3}$
69.4849	0.0179	0.4159	$0.000 \times 10^0$	$0.000 \times 10^0$
88.6823	0.0141	0.4159	$0.000 \times 10^0$	$0.000 \times 10^0$
113.1737	0.0110	0.4159	$0.000 \times 10^0$	$0.000 \times 10^0$
144.4273	0.0086	0.4159	$0.000 \times 10^0$	$0.000 \times 10^0$
184.3309	0.0068	0.4159	$0.000 \times 10^0$	$0.000 \times 10^0$
219.9813	0.0057	0.4159	$0.000 \times 10^0$	$0.000 \times 10^0$
187.0312	0.0067	0.4079	$8.013 \times 10^0$	$1.136 \times 10^{-1}$
147.7302	0.0084	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
116.6440	0.0107	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
92.0940	0.0135	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
72.7134	0.0171	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
57.4076	0.0217	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
45.3173	0.0275	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
35.7722	0.0349	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
28.2493	0.0441	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
22.3278	0.0559	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
17.6169	0.0708	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
13.9334	0.0895	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
10.9222	0.1142	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
8.6448	0.1442	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
6.8407	0.1823	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
5.4096	0.2305	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
4.2805	0.2913	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$



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3.3806	0.3689	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
2.6700	0.4671	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
2.1044	0.5926	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
1.6645	0.7492	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
1.3154	0.9480	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
1.0424	1.1963	0.4079	$0.000 \times 10^0$	$0.000 \times 10^0$
0.8266	1.5086	0.4060	$6.214 \times 10^{-3}$	$1.926 \times 10^{-2}$
0.6545	1.9054	0.4029	$7.930 \times 10^{-3}$	$3.103 \times 10^{-2}$
0.5187	2.4039	0.3988	$8.132 \times 10^{-3}$	$4.017 \times 10^{-2}$
0.4079	3.0570	0.3932	$8.622 \times 10^{-3}$	$5.395 \times 10^{-2}$
0.3244	3.8443	0.3862	$8.899 \times 10^{-3}$	$7.040 \times 10^{-2}$
0.2591	4.8123	0.3753	$1.126 \times 10^{-2}$	$1.118 \times 10^{-1}$
0.3112	4.0077	0.3753	$0.000 \times 10^0$	$0.000 \times 10^0$
0.3929	3.1738	0.3753	$0.000 \times 10^0$	$0.000 \times 10^0$
0.5021	2.4836	0.3756	$5.420 \times 10^{-4}$	$3.512 \times 10^{-3}$
0.6376	1.9559	0.3764	$1.361 \times 10^{-3}$	$6.924 \times 10^{-3}$
0.8031	1.5528	0.3778	$3.631 \times 10^{-3}$	$1.460 \times 10^{-2}$
1.0251	1.2165	0.3807	$8.667 \times 10^{-3}$	$2.750 \times 10^{-2}$
1.2972	0.9613	0.3851	$1.703 \times 10^{-2}$	$4.251 \times 10^{-2}$
1.6443	0.7584	0.3903	$2.563 \times 10^{-2}$	$5.051 \times 10^{-2}$
2.0905	0.5965	0.3958	$3.393 \times 10^{-2}$	$5.267 \times 10^{-2}$
2.6435	0.4717	0.4006	$3.895 \times 10^{-2}$	$4.769 \times 10^{-2}$
3.3547	0.3717	0.4046	$3.976 \times 10^{-2}$	$3.843 \times 10^{-2}$
4.2490	0.2935	0.4080	$4.270 \times 10^{-2}$	$3.255 \times 10^{-2}$
5.3867	0.2315	0.4107	$4.368 \times 10^{-2}$	$2.628 \times 10^{-2}$
6.8234	0.1828	0.4132	$5.145 \times 10^{-2}$	$2.443 \times 10^{-2}$
8.6502	0.1442	0.4155	$6.084 \times 10^{-2}$	$2.279 \times 10^{-2}$
10.9623	0.1138	0.4176	$6.810 \times 10^{-2}$	$2.013 \times 10^{-2}$
13.8870	0.0898	0.4195	$7.968 \times 10^{-2}$	$1.859 \times 10^{-2}$
17.5850	0.0709	0.4212	$9.164 \times 10^{-2}$	$1.688 \times 10^{-2}$
22.2807	0.0560	0.4228	$1.039 \times 10^{-1}$	$1.511 \times 10^{-2}$
28.2170	0.0442	0.4236	$7.170 \times 10^{-2}$	$8.230 \times 10^{-3}$
35.7501	0.0349	0.4241	$5.590 \times 10^{-2}$	$5.065 \times 10^{-3}$
45.2858	0.0275	0.4241	$0.000 \times 10^0$	$0.000 \times 10^0$



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57.3623	0.0217	0.4241	$0.000 \times 10^0$	$0.000 \times 10^0$
72.6628	0.0172	0.4241	$0.000 \times 10^0$	$0.000 \times 10^0$
92.0550	0.0135	0.4241	$0.000 \times 10^0$	$0.000 \times 10^0$
116.6089	0.0107	0.4241	$0.000 \times 10^0$	$0.000 \times 10^0$
147.7101	0.0084	0.4241	$0.000 \times 10^0$	$0.000 \times 10^0$
187.1244	0.0067	0.4241	$0.000 \times 10^0$	$0.000 \times 10^0$
219.9805	0.0057	0.4241	$0.000 \times 10^0$	$0.000 \times 10^0$



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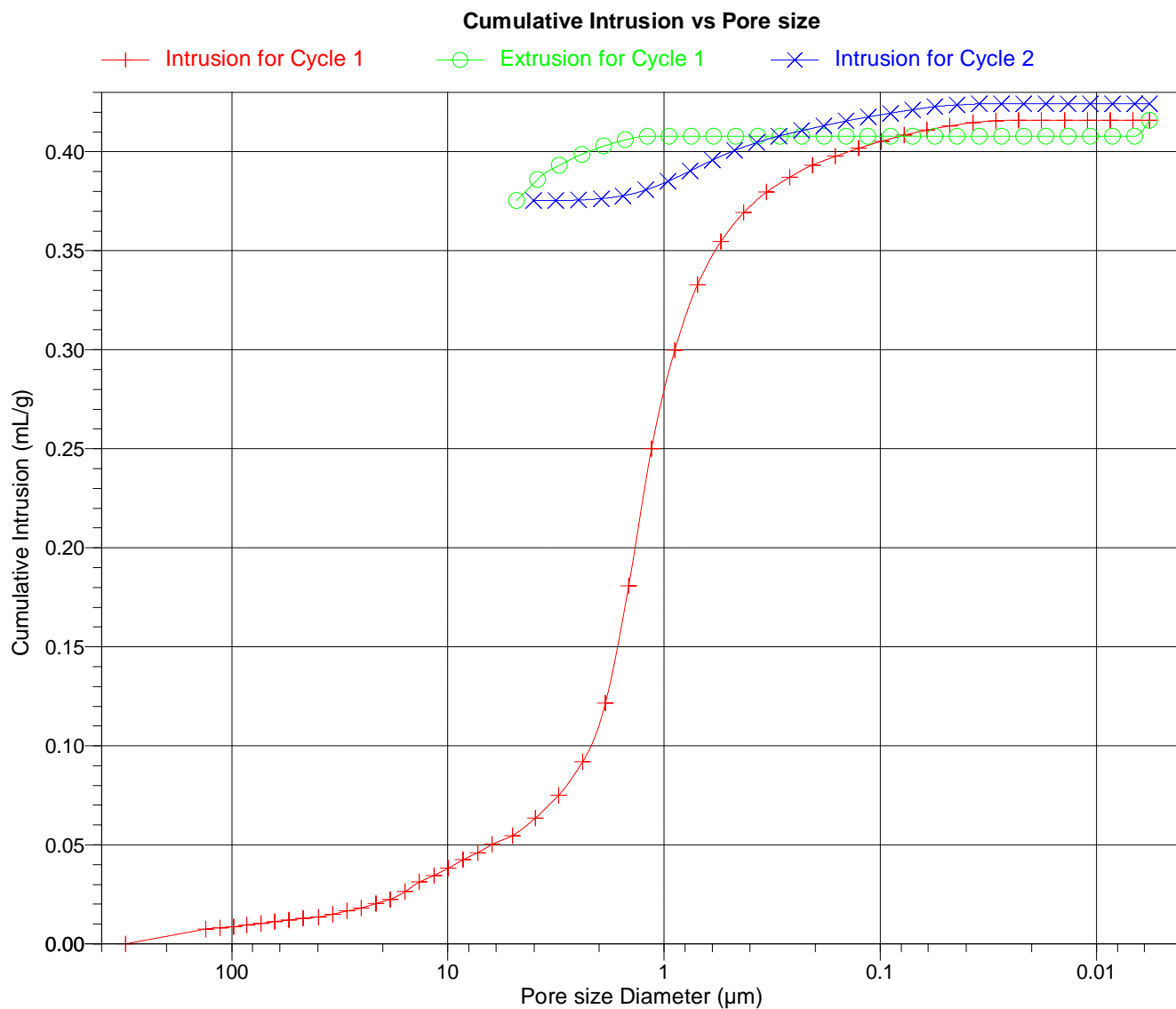
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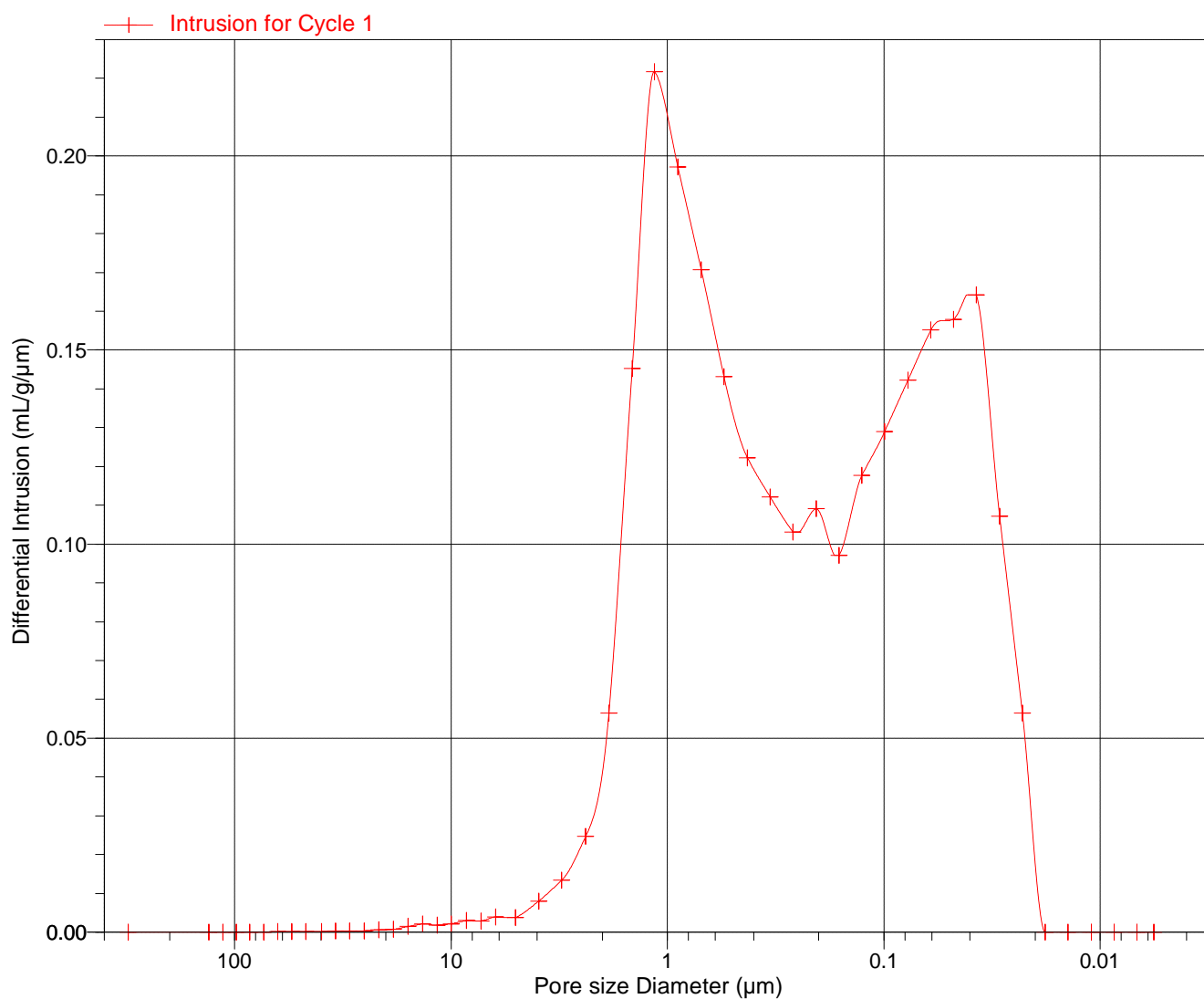
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### Differential Intrusion vs Pore size





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### Log Differential Intrusion vs Pore size

