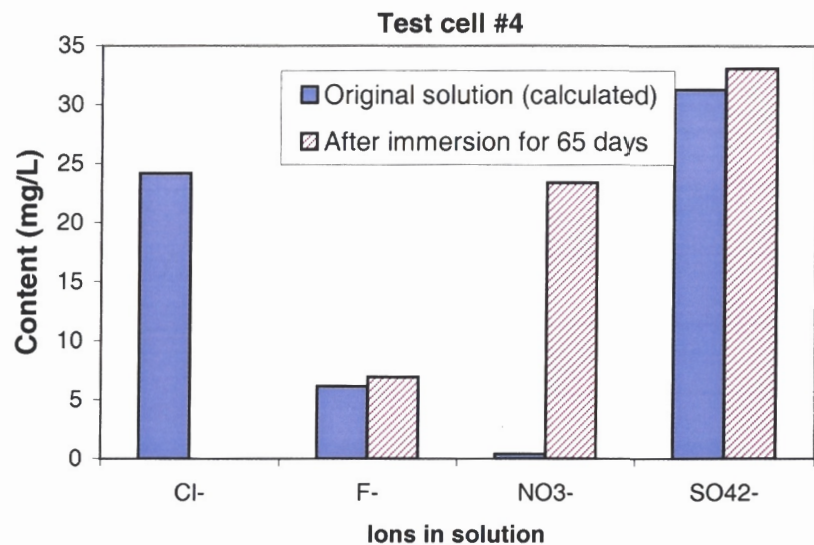
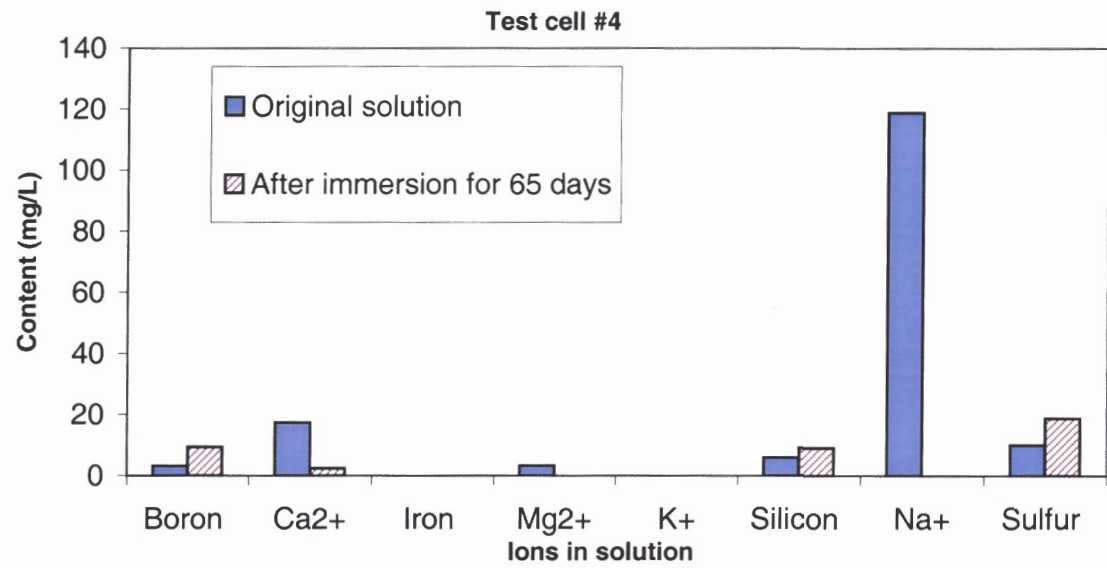


ICP Analysis Results Summary for Test cell #4

	Cell #4													
	Time (days)	pH	Content (mg/L)											
			Boron	Ca ²⁺	Iron	Mg ²⁺	K ⁺	Silicon	Na ⁺	Sulfur	Cl ⁻	F ⁻	NO ₃ ⁻	SO ₄ ²⁻
Calculated			0	18.2	0	3.37	6.16	0	120	10.43	24.2	6.15	0.42	31.3
NB#706, pg#112	original stock after 2 months		2.8	8.58	<2.50	2.88	6.52	6.05	130	11.9	22.9	5.68	<1	31
Original solution	0	8.29	3.17	17.3	<1.25	3.32	<7.50	5.9	119	10				
NB#706, pg#119	64.851	9.06	9.43	2.38	<2.50	<2.50		9.09		18.8		6.94	23.4	33.1
								1360	2120	4000				



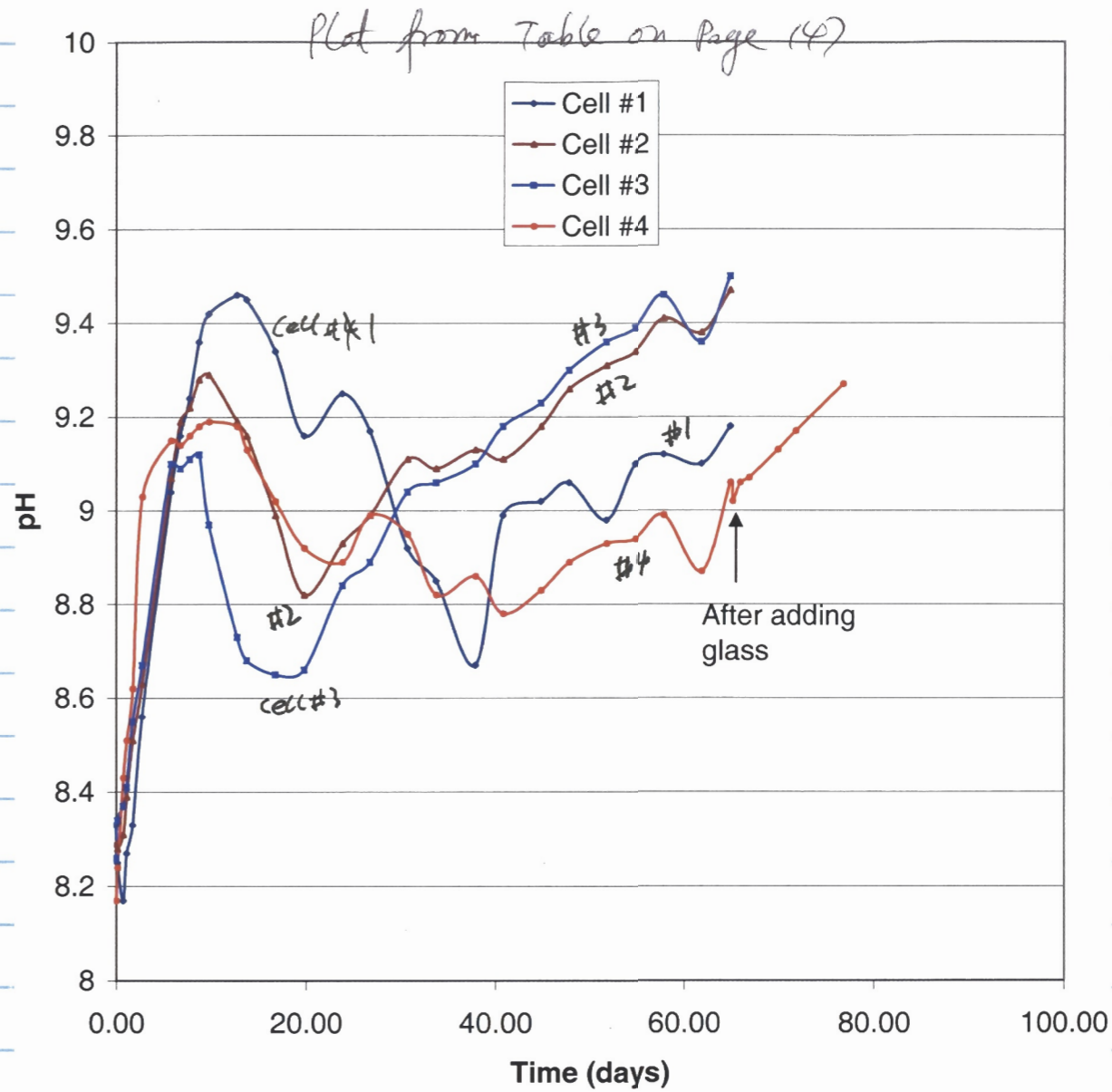
Xihua He 5/2/06

pH measurement summary for Test cells #1, #2, #3, and #4

plot is on p. 148

DATE TIME	Time (minutes)	Time (days)	Cell #1	Cell #2	Cell #3	Cell #4	Solution ID for ICP from Cell #1	Solution ID for ICP from Cell #4
			pH	pH	pH	pH		
1/17/2006 13:30	0.00	0.00	8.33					
1/17/2006 16:50	200.00	0.14	8.25	8.29	8.26	8.17		
1/18/2006 7:50	1100.00	0.76	8.17	8.28	8.34	8.24		
1/18/2006 17:00	1650.00	1.15	8.27	8.31	8.37	8.43	PORECS1	
1/19/2006 8:00	2550.00	1.77	8.33	8.39	8.41	8.51		
1/20/2006 8:30	4020.00	2.79	8.56	8.51	8.55	8.62	PORECS2	
1/23/2006 8:30	8340.00	5.79	9.04	8.63	8.67	9.03	PORECS3	
1/24/2006 8:30	9780.00	6.79	9.16	9.07	9.1	9.15		
1/25/2006 8:10	11200.00	7.78	9.24	9.19	9.09	9.14		
1/26/2006 8:00	12610.00	8.76	9.36	9.22	9.11	9.16		
1/27/2006 9:30	14140.00	9.82	9.42	9.28	9.12	9.18		
1/30/2006 8:05	18375.00	12.76	9.46	9.29	8.97	9.19	PORECS4	
1/31/2006 8:30	19840.00	13.78	9.45	9.19	8.73	9.18		
2/3/2006 8:15	24145.00	16.77	9.34	9.16	8.68	9.13		
2/6/2006 9:00	28510.00	19.80	9.16	8.99	8.65	9.02		
2/10/2006 10:20	34350.00	23.85	9.25	8.82	8.66	8.92	PORECS5	
2/13/2006 9:00	38590.00	26.80	9.17	8.93	8.84	8.89		
2/17/2006 8:00	44290.00	30.76	8.92	8.99	8.89	8.99		
2/20/2006 8:00	48610.00	33.76	8.85	9.11	9.04	8.95	PORECS6	
2/24/2006 12:00	54610.00	37.92	8.67	9.09	9.06	8.82		
2/27/2006 9:00	58750.00	40.80	8.99	9.13	9.1	8.86		
3/3/2006 8:30	64480.00	44.78	9.02	9.11	9.18	8.78		
3/6/2006 8:00	68770.00	47.76	9.06	9.18	9.23	8.83		
3/10/2006 7:30	74500.00	51.74	8.98	9.26	9.3	8.89	PORECS7	
3/13/2006 9:00	78910.00	54.80	9.1	9.31	9.36	8.93		
3/16/2006 9:30	83260.00	57.82	9.12	9.34	9.39	8.94		
3/20/2006 9:30	89020.00	61.82	9.1	9.41	9.46	8.99		
3/22/2006 9:00	93385.00	64.85	9.18	9.38	9.36	8.87	PORECS8	
3/22/2006 2:05	93690.00	65.06		9.47	9.5	9.06		
3/23/2006 9:05	94830.00	65.85				9.02		
3/24/2006 9:15	96176.00	66.79				9.06		
3/27/2006 9:30	100511.00	69.80				9.07 G3		
3/29/2006 7:20	103261.00	71.71				9.13 G4		
4/3/2006 8:00	110501.00	76.74				9.17		
4/5/2006 8:45	113426.00	78.77				9.27 G5		
4/7/2006 8:25	116286.00	80.75				9.3		
4/11/2006 9:00	122081.00	84.78				9.28 G6		
4/13/2006 6:45	124826.00	86.68				9.36		
4/17/2006 8:00	130661.00	90.74				9.43		
4/21/2006 5:10	136251.00	94.62				9.47 G7		
4/24/2006 8:00	140741.00	97.74				9.48 G8		
4/26/2006 8:00	143621.00	99.74				9.43		
						9.41		

Xihua He 5/2/06



X.A 6/13/06

Xihua He
4/28/06

Performed by SWRI Div

Particle Sizing Systems, Inc.
Santa Barbara, Calif., USA

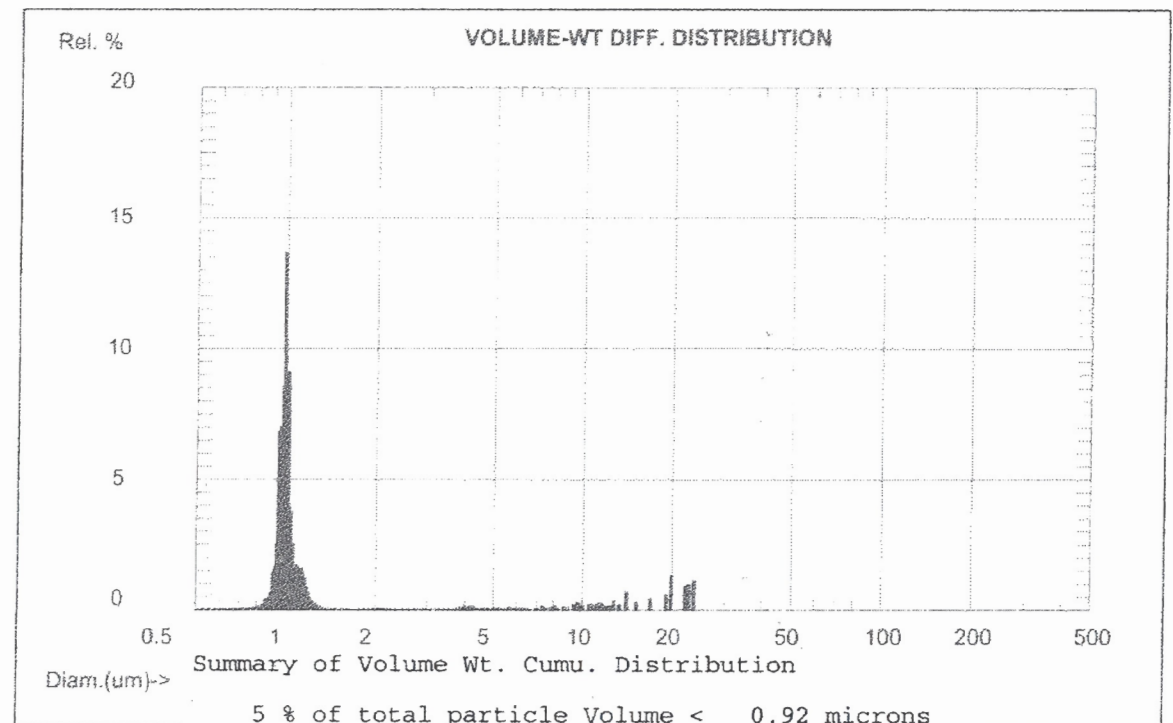
P. 149-155, 158-159

Model 770 AccuSizer

IPA-std lum #1 042506
File Name = IRONSTD.9 Time Date = 15:29:1 4/25/2006
Sensor Model: 400-0.5 SUM S/N: 0405907 Cal. File: 0405907.SNS

Elapsed Time of Data Collection = 120 Sec.
Background File = IRONBLK.4
Total # Part. Sized (>=Thres. 0.50 um) = 1075560
Calculated Total No. of Particles in Sample = 3809856
Dilution Factor = 3.54
Fluid Volume Sampled = 120.0 ml No. of Channels = 512
NUM-WT Mean = 1.00 um Mode = 1.00 um Median = 0.99
VOL-WT Mean = 2.79 um Mode = 1.00 um Median = 1.01 (0.000 % Threshold)

Summary for the Indicated Size Range of 0.50 um to 493.30 um :
No. of Particles Sized = 1075560 (Volume = 6.66E-007 cc)
X Dilution Factor of 3.542 Yields
Cal. Total # of Particles = 3809856 (Volume = 2.358E-006 cc)
= 0.024 % of Total Particle Volume Inj. (1.000E+000 cc, Conc= 1.00 %)



IRONSTD.9

Summary of Volume Wt. Cumu. Distribution

5 % of total particle Volume <	0.92 microns
10 % of total particle Volume <	0.95 microns
15 % of total particle Volume <	0.96 microns
20 % of total particle Volume <	0.97 microns
25 % of total particle Volume <	0.98 microns
30 % of total particle Volume <	0.99 microns
35 % of total particle Volume <	0.99 microns
40 % of total particle Volume <	1.00 microns
45 % of total particle Volume <	1.00 microns
50 % of total particle Volume <	1.01 microns
55 % of total particle Volume <	1.02 microns
60 % of total particle Volume <	1.03 microns
65 % of total particle Volume <	1.04 microns
70 % of total particle Volume <	1.06 microns
75 % of total particle Volume <	1.10 microns
80 % of total particle Volume <	1.15 microns
85 % of total particle Volume <	1.25 microns
90 % of total particle Volume <	9.01 microns
95 % of total particle Volume <	17.21 microns
99 % of total particle Volume <	23.89 microns

Xihua He
4/29/06

User Defined Peaks:

Volume Weighted Mean Diameter = 2.79 um (Full Range; System defined)
Std Dev. = 5.14 um (184.2 %); Mode = 1.00 um; Median = 1.01 um
of Particles in Range = 1075560; Skewness = 3.02;

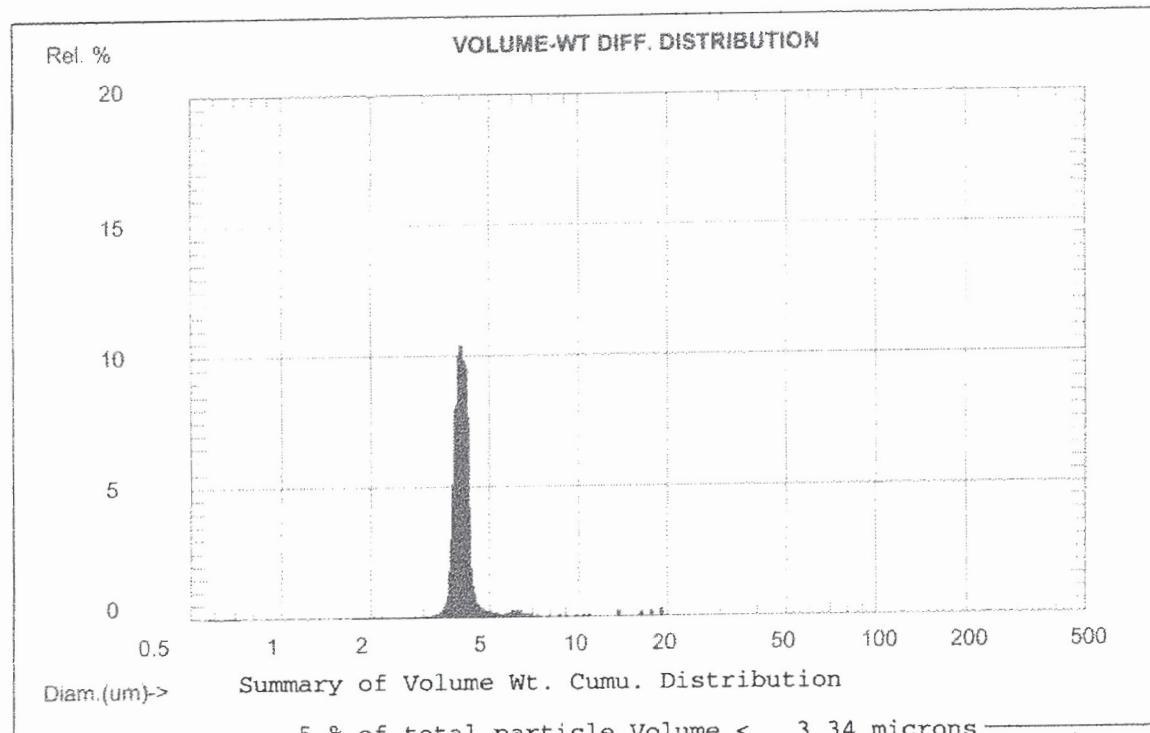
Xihua He

Model 770 AccuSizer

IPA-std 5um #1 042506
File Name = IRONSTD.5 Time Date = 14:48: 5 4/25/2006
Sensor Model: 400-0.5 SUM S/N: 0405907 Cal. File: 0405907.SNS

Elapsed Time of Data Collection = 120 Sec.
Background File = IRONBLK.4
Total # Part. Sized (>=Thres. 0.50 um) = 42778
Calculated Total No. of Particles in Sample = 74180
Dilution Factor = 1.73
Fluid Volume Sampled = 120.0 ml No. of Channels = 512
NUM-WT Mean = 4.05 um Mode = 4.02 um Median = 4.04
VOL-WT Mean = 4.28 um Mode = 4.07 um Median = 4.08 (0.000 % Threshold)

Summary for the Indicated Size Range of 0.50 um to 493.30 um :
No. of Particles Sized = 42778 (Volume = 1.55E-006 cc)
X Dilution Factor of 1.734 Yields
Cal. Total # of Particles = 74180 (Volume = 2.691E-006 cc)
= 0.027 % of Total Particle Volume Inj. (1.000E+000 cc, Conc= 1.00 %)



IRONSTD.5

5 % of total particle Volume <	3.34 microns
10 % of total particle Volume <	3.51 microns
15 % of total particle Volume <	3.61 microns
20 % of total particle Volume <	3.69 microns
25 % of total particle Volume <	3.75 microns
30 % of total particle Volume <	3.81 microns
35 % of total particle Volume <	3.87 microns
40 % of total particle Volume <	3.92 microns
45 % of total particle Volume <	3.98 microns
50 % of total particle Volume <	4.04 microns
55 % of total particle Volume <	4.11 microns
60 % of total particle Volume <	4.21 microns
65 % of total particle Volume <	4.41 microns
70 % of total particle Volume <	4.93 microns
75 % of total particle Volume <	5.42 microns
80 % of total particle Volume <	5.75 microns
85 % of total particle Volume <	6.02 microns
90 % of total particle Volume <	6.35 microns
95 % of total particle Volume <	7.36 microns
99 % of total particle Volume <	19.63 microns

User Defined Peaks:

Volume Weighted Mean Diameter = 4.87 um (Full Range; System defined)
Std Dev. = 2.71 um (55.6 %); Mode = 3.91 um; Median = 4.04 um
of Particles in Range = 994100; Skewness = 6.27;

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4/29/06

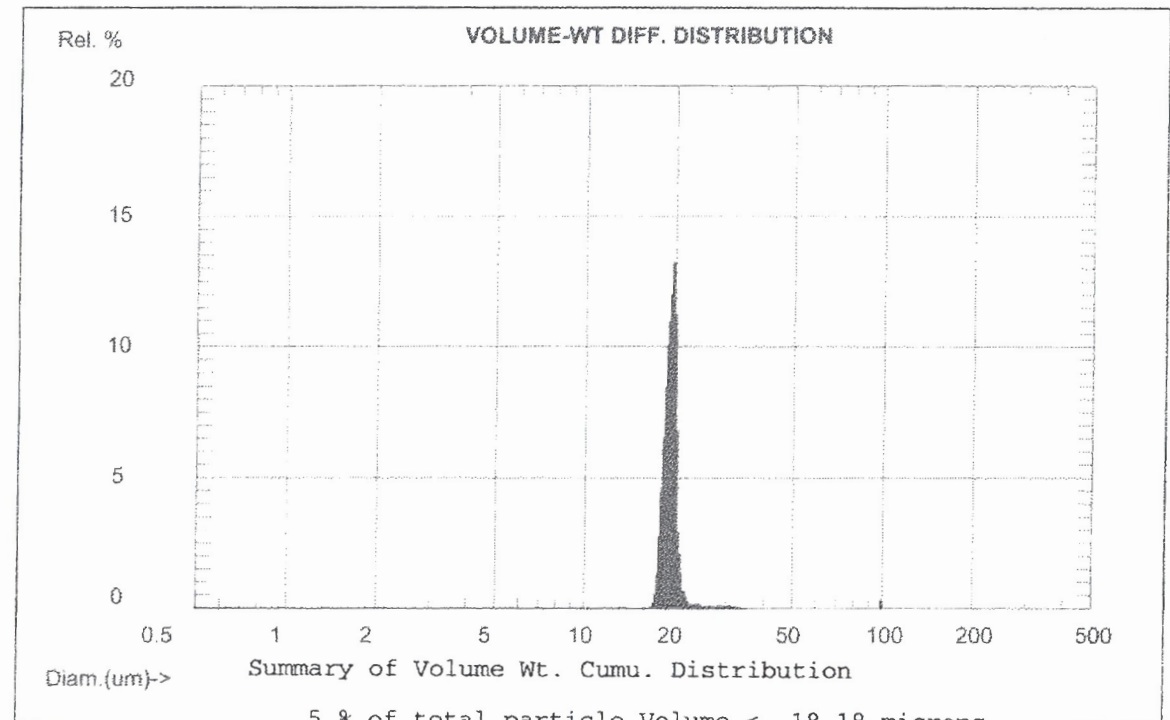
Xihua He

Model 770 AccuSizer

IPA-std 20um #1 042506
File Name = IRONSTD.4 Time Date = 14:18:44 4/25/2006
Sensor Model: 400-0.5 SUM S/N: 0405907 Cal. File: 0405907.SNS

Elapsed Time of Data Collection = 120 Sec.
Background File = IRONBLK.4
Total # Part. Sized (>=Thres. 0.50 um) = 124022
Calculated Total No. of Particles in Sample = 219397
Dilution Factor = 1.77
Fluid Volume Sampled = 120.0 ml No. of Channels = 512
NUM-WT Mean = 8.52 um Mode = 20.02 um Median = 2.18
VOL-WT Mean = 20.01 um Mode = 20.02 um Median = 19.58 (0.000 % Threshold)

Summary for the Indicated Size Range of 0.50 um to 493.30 um :
No. of Particles Sized = 124022 (Volume = 1.86E-004 cc)
X Dilution Factor of 1.769 Yields
Cal. Total # of Particles = 219397 (Volume = 3.294E-004 cc)
= 3.294 % of Total Particle Volume Inj. (1.000E+000 cc, Conc= 1.00 %)



IRONSTD.4

5 % of total particle Volume <	18.18 microns
10 % of total particle Volume <	18.47 microns
15 % of total particle Volume <	18.66 microns
20 % of total particle Volume <	18.82 microns
25 % of total particle Volume <	18.97 microns
30 % of total particle Volume <	19.10 microns
35 % of total particle Volume <	19.23 microns
40 % of total particle Volume <	19.35 microns
45 % of total particle Volume <	19.47 microns
50 % of total particle Volume <	19.58 microns
55 % of total particle Volume <	19.69 microns
60 % of total particle Volume <	19.79 microns
65 % of total particle Volume <	19.90 microns
70 % of total particle Volume <	20.00 microns
75 % of total particle Volume <	20.11 microns
80 % of total particle Volume <	20.23 microns
85 % of total particle Volume <	20.40 microns
90 % of total particle Volume <	20.64 microns
95 % of total particle Volume <	21.30 microns
99 % of total particle Volume <	28.99 microns

User Defined Peaks:

Volume Weighted Mean Diameter = 20.01 um (Full Range; System defined)
Std Dev. = 4.70 um (23.5 %); Mode = 20.02 um; Median = 19.58 um
of Particles in Range = 124022; Skewness = 14.88;

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4/29/06

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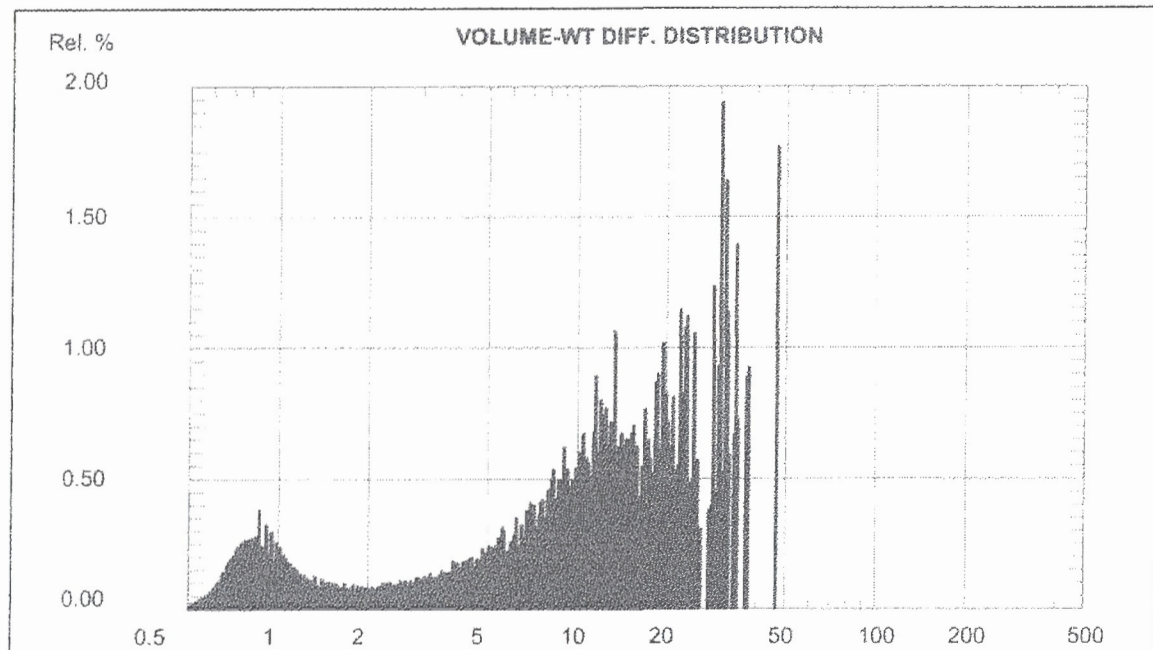
Sample from Cell #1

Model 770 AccuSizer

XH #1 (50ul) 042506
File Name = IRONSAM.1 Time Date = 15:56:20 4/25/2006
Sensor Model: 400-0.5 SUM S/N: 0405907 Cal. File: 0405907.SNS

Elapsed Time of Data Collection = 120 Sec.
Background File = IRONBLK.4
Total # Part. Sized (>=Thres. 0.50 um) = 1263938
Calculated Total No. of Particles in Sample = 4159760
Dilution Factor = 3.29
Fluid Volume Sampled = 120.0 ml No. of Channels = 512
NUM-WT Mean = 0.87 um Mode = 0.74 um Median = 0.77
VOL-WT Mean = 14.65 um Mode = 30.83 um Median = 12.40 (0.000 % Threshold)

Summary for the Indicated Size Range of 0.50 um to 493.30 um :
No. of Particles Sized = 1263938 (Volume = 3.17E-006 cc)
X Dilution Factor of 3.291 Yields
Cal. Total # of Particles = 4159760 (Volume = 1.043E-005 cc)
= 0.104 % of Total Particle Volume Inj. (1.000E+000 cc, Conc= 1.00 %)



Diam.(um)-> Summary of Volume Wt. Cumu. Distribution

IRONSAM.1	% of total particle Volume <	microns
	5 %	0.85
	10 %	1.16
	15 %	2.39
	20 %	4.17
	25 %	5.74
	30 %	7.24
	35 %	8.57
	40 %	9.86
	45 %	11.18
	50 %	12.40
	55 %	13.75
	60 %	15.39
	65 %	17.42
	70 %	19.32
	75 %	21.34
	80 %	23.58
	85 %	28.65
	90 %	31.47
	95 %	34.58
	99 %	47.12

Xihera Ro
4/29/06

User Defined Peaks:

Volume Weighted Mean Diameter = 14.65 um (Full Range; System defined)
Std Dev. = 11.07 um (75.6 %); Mode = 30.83 um; Median = 12.40 um
of Particles in Range = 1263938; Skewness = 0.77;

Sample was drawn from
Cell #1 on 3/22/06
p 80

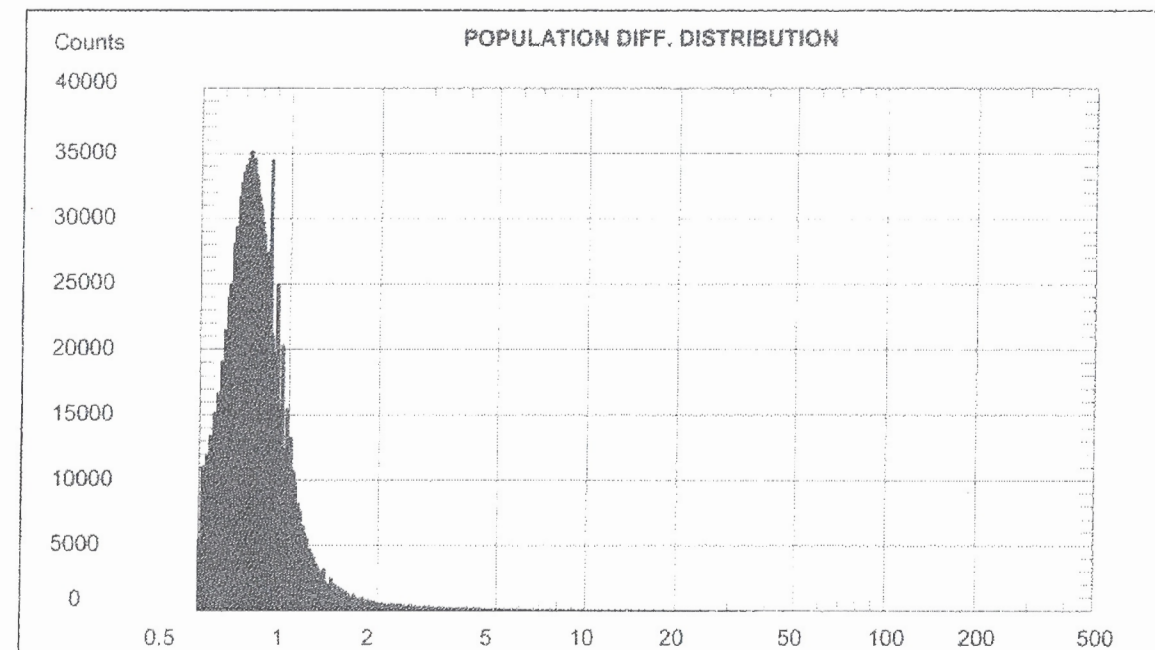
*Solution with
partides*

Model 770 AccuSizer

XH #1 (50ul) 042506
File Name = IRONSAM.1 Time Date = 15:56:20 4/25/2006
Sensor Model: 400-0.5 SUM S/N: 0405907 Cal. File: 0405907.SNS

Elapsed Time of Data Collection = 120 Sec.
Background File = IRONBLK.4
Total # Part. Sized (>=Thres. 0.50 um) = 1263938
Calculated Total No. of Particles in Sample = 4159760
Dilution Factor = 3.29
Fluid Volume Sampled = 120.0 ml No. of Channels = 512
NUM-WT Mean = 0.87 um Mode = 0.74 um Median = 0.77
VOL-WT Mean = 14.65 um Mode = 30.83 um Median = 12.40 (0.000 % Threshold)

Summary for the Indicated Size Range of 0.50 um to 493.30 um :
No. of Particles Sized = 1263938 (Volume = 3.17E-006 cc)
X Dilution Factor of 3.291 Yields
Cal. Total # of Particles = 4159760 (Volume = 1.043E-005 cc)
= 0.104 % of Total Particle Volume Inj. (1.000E+000 cc, Conc= 1.00 %)



Diam.(um)-> Summary of Number Wt. Cumu. Distribution

IRONSAM.1	% of total particle Number <	microns
	5 %	0.56
	10 %	0.60
	15 %	0.63
	20 %	0.65
	25 %	0.68
	30 %	0.70
	35 %	0.71
	40 %	0.74
	45 %	0.76
	50 %	0.77
	55 %	0.80
	60 %	0.82
	65 %	0.84
	70 %	0.87
	75 %	0.90
	80 %	0.95
	85 %	1.00
	90 %	1.10
	95 %	1.32
	99 %	2.63

Xihera Ho
4/29/06

User Defined Peaks:

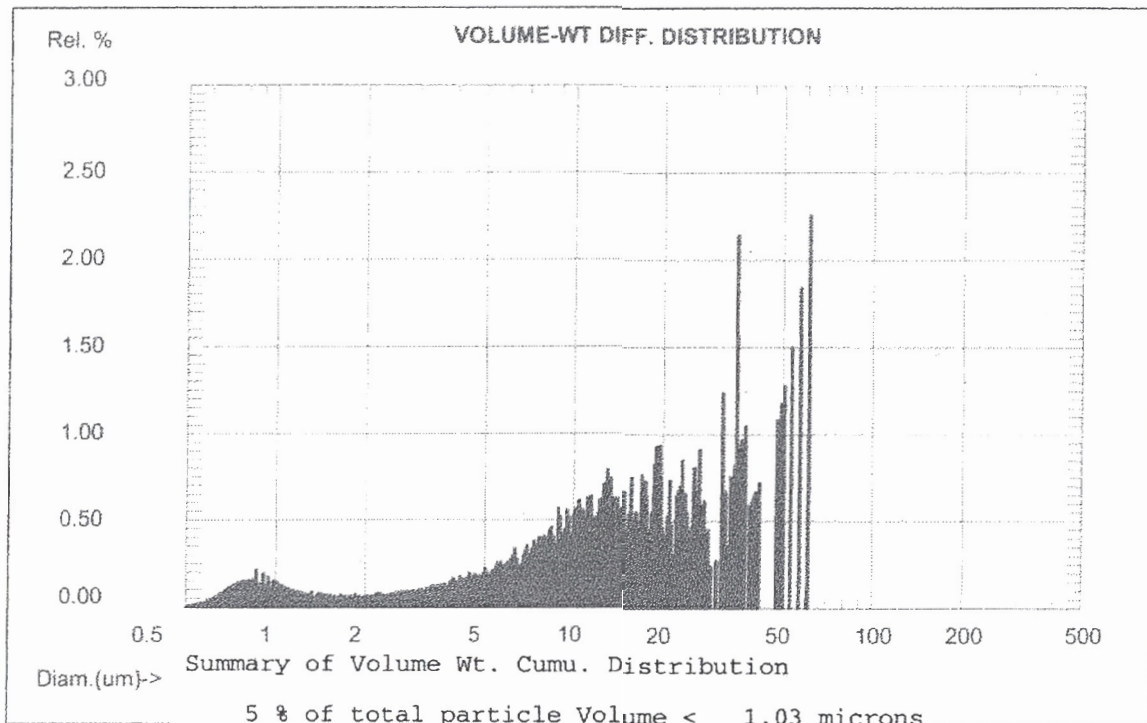
Number Weight Mean Diameter = 0.87 um (Full Range; System defined)
Std Dev. = 0.58 um (67.1 %); Mode = 0.74 um; Median = 0.77 um
of Particles in Range = 1263938; Skewness = 16.22;

Model 770 AccuSizer

XH #1x (50ul) 042506
File Name = IRONSAM.2 Time Date = 16:32: 4 4/25/2006
Sensor Model: 400-0.5 SUM S/N: 0405907 Cal. File: 0405907.SNS

Elapsed Time of Data Collection = 120 Sec.
Background File = IRONBLK.4
Total # Part. Sized (>=Thres. 0.50 um) = 1328365
Calculated Total No. of Particles in Sample = 4784543
Dilution Factor = 3.60
Fluid Volume Sampled = 120.0 ml No. of Channels = 512
NUM-WT Mean = 0.91 um Mode = 0.74 um Median = 0.78
VOL-WT Mean = 19.62 um Mode = 62.19 um Median = 14.99 (0.000 % Threshold)

Summary for the Indicated Size Range of 0.50 um to 493.30 um :
No. of Particles Sized = 1328365 (Volume = 5.58E-006 cc)
X Dilution Factor of 3.602 Yields
Cal. Total # of Particles = 4784543 (Volume = 2.009E-005 cc)
= 0.201 % of Total Particle Volume Inj. (1.000E+000 cc, Conc= 1.00 %)



IRONSAM.2

Summary of Volume Wt. Cumu. Distribution	Volume <	microns
5 % of total particle	1.03	microns
10 % of total particle	2.57	microns
15 % of total particle	4.56	microns
20 % of total particle	6.26	microns
25 % of total particle	7.76	microns
30 % of total particle	9.13	microns
35 % of total particle	10.54	microns
40 % of total particle	11.99	microns
45 % of total particle	13.39	microns
50 % of total particle	14.99	microns
55 % of total particle	17.13	microns
60 % of total particle	19.12	microns
65 % of total particle	21.30	microns
70 % of total particle	24.14	microns
75 % of total particle	27.18	microns
80 % of total particle	33.31	microns
85 % of total particle	36.44	microns
90 % of total particle	41.39	microns
95 % of total particle	53.90	microns
99 % of total particle	61.82	microns

Xihua He
4/29/06

User Defined Peaks:

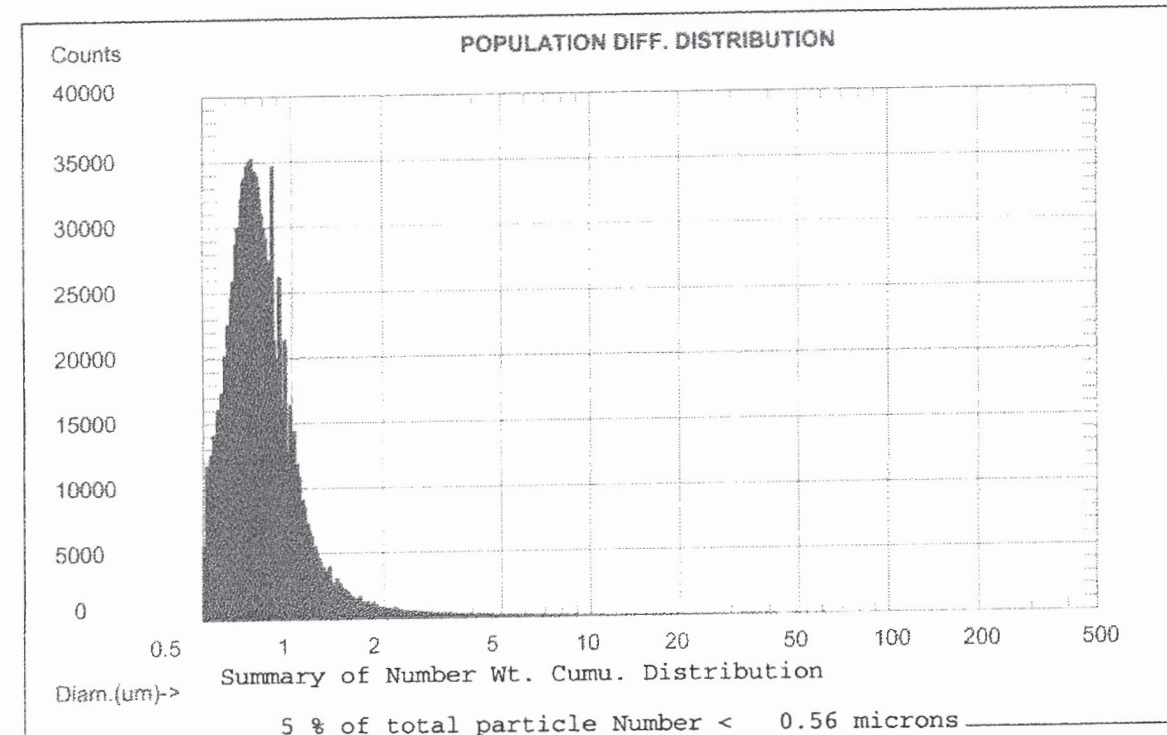
Volume Weighted Mean Diameter = 19.62 um (Full Range; System defined)
Std Dev. = 15.73 um (80.2 %); Mode = 62.19 um; Median = 14.99 um
of Particles in Range = 1328365; Skewness = 1.02;

Model 770 AccuSizer

XH #1x (50ul) 042506
File Name = IRONSAM.2 Time Date = 16:32: 4 4/25/2006
Sensor Model: 400-0.5 SUM S/N: 0405907 Cal. File: 0405907.SNS

Elapsed Time of Data Collection = 120 Sec.
Background File = IRONBLK.4
Total # Part. Sized (>=Thres. 0.50 um) = 1328365
Calculated Total No. of Particles in Sample = 4784543
Dilution Factor = 3.60
Fluid Volume Sampled = 120.0 ml No. of Channels = 512
NUM-WT Mean = 0.91 um Mode = 0.74 um Median = 0.78
VOL-WT Mean = 19.62 um Mode = 62.19 um Median = 14.99 (0.000 % Threshold)

Summary for the Indicated Size Range of 0.50 um to 493.30 um :
No. of Particles Sized = 1328365 (Volume = 5.58E-006 cc)
X Dilution Factor of 3.602 Yields
Cal. Total # of Particles = 4784543 (Volume = 2.009E-005 cc)
= 0.201 % of Total Particle Volume Inj. (1.000E+000 cc, Conc= 1.00 %)



IRONSAM.2

Summary of Number Wt. Cumu. Distribution	Number <	microns
5 % of total particle	0.56	microns
10 % of total particle	0.60	microns
15 % of total particle	0.63	microns
20 % of total particle	0.66	microns
25 % of total particle	0.68	microns
30 % of total particle	0.70	microns
35 % of total particle	0.72	microns
40 % of total particle	0.74	microns
45 % of total particle	0.76	microns
50 % of total particle	0.78	microns
55 % of total particle	0.80	microns
60 % of total particle	0.83	microns
65 % of total particle	0.85	microns
70 % of total particle	0.88	microns
75 % of total particle	0.92	microns
80 % of total particle	0.97	microns
85 % of total particle	1.04	microns
90 % of total particle	1.15	microns
95 % of total particle	1.45	microns
99 % of total particle	3.34	microns

Xihua He
4/29/06

User Defined Peaks:

Number Weight Mean Diameter = 0.91 um (Full Range; System defined)
Std Dev. = 0.72 um (79.6 %); Mode = 0.74 um; Median = 0.78 um
of Particles in Range = 1328365; Skewness = 15.64;

Continued from p. 155



PCS Submicron Particle Size Analyzer

Page 1 of 1
Sample: cal ck 050206

Sample Name: cal ck 050206

Comments: std L100

Operator: jdt

Temperature: 20.0°C

Start Time: 02-May-06 02:37:56 PM

Auto SDP: Yes

Angle: 90.0 °

Run Time(manual): 600s

Sample Time(auto): 2.5 us

Prescale(auto): 8

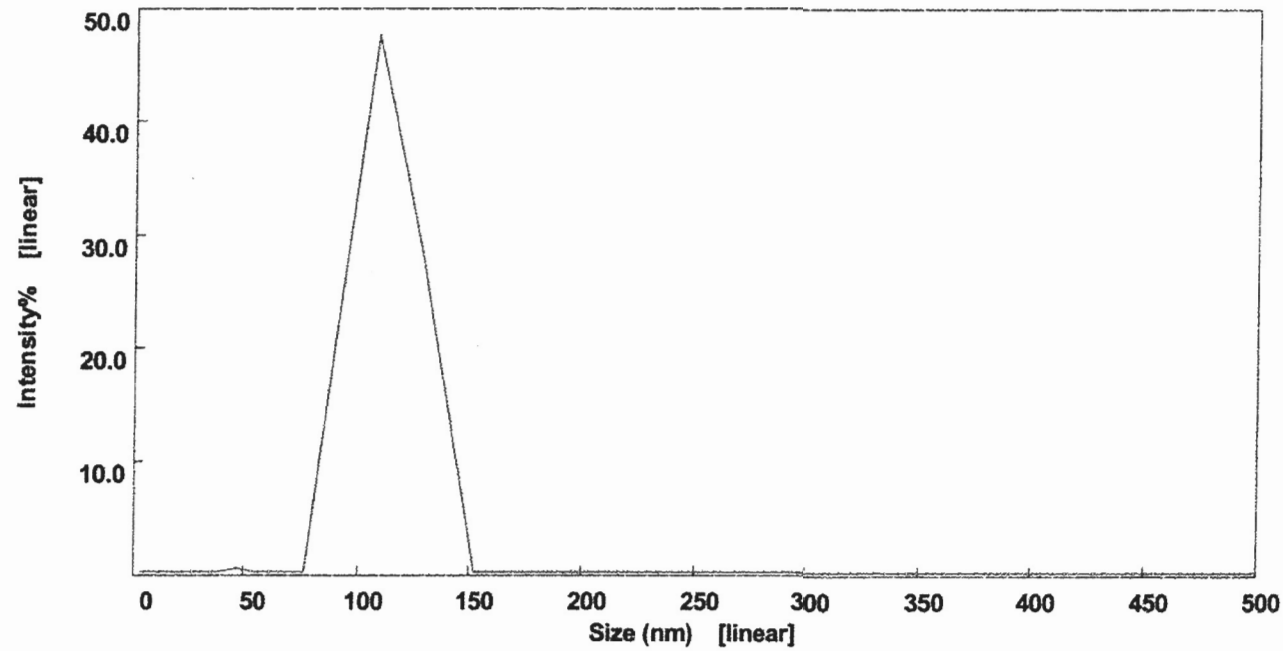
SOM / SOP Name: L100.som

Diluent: WATER

End Time: 02-May-06 03:01:33 PM

90.0°, Repetition 1 SDP Set 1 Intensity Analysis
SDP Results Summary

Angle	Parameter SDP Range (nm)	Calculated Results					
		Size (nm)	%amt (nm)	Std.Dev (nm)	Mean Size (nm)	Mean SD (nm)	%Dust
90.0°	3.0-500.0	45.9	0.40	2.4	109.5	16.7	0.000
		109.7	99.60	14.6			



Xi-hua He 5/3/06

Continued from p. 158



PCS Submicron Particle Size Analyzer

Page 1 of 1
Sample: XH1.1 050206

Sample Name: XH1.1 050206

Comments: Carbon Steel 10ul/2ml

Operator: jdt

Temperature: 20.0°C

Start Time: 02-May-06 03:11:35 PM

Auto SDP: Yes

Angle: 90.0 °

Run Time(manual): 180s

Sample Time(auto): 19 us

Prescale(auto): 16

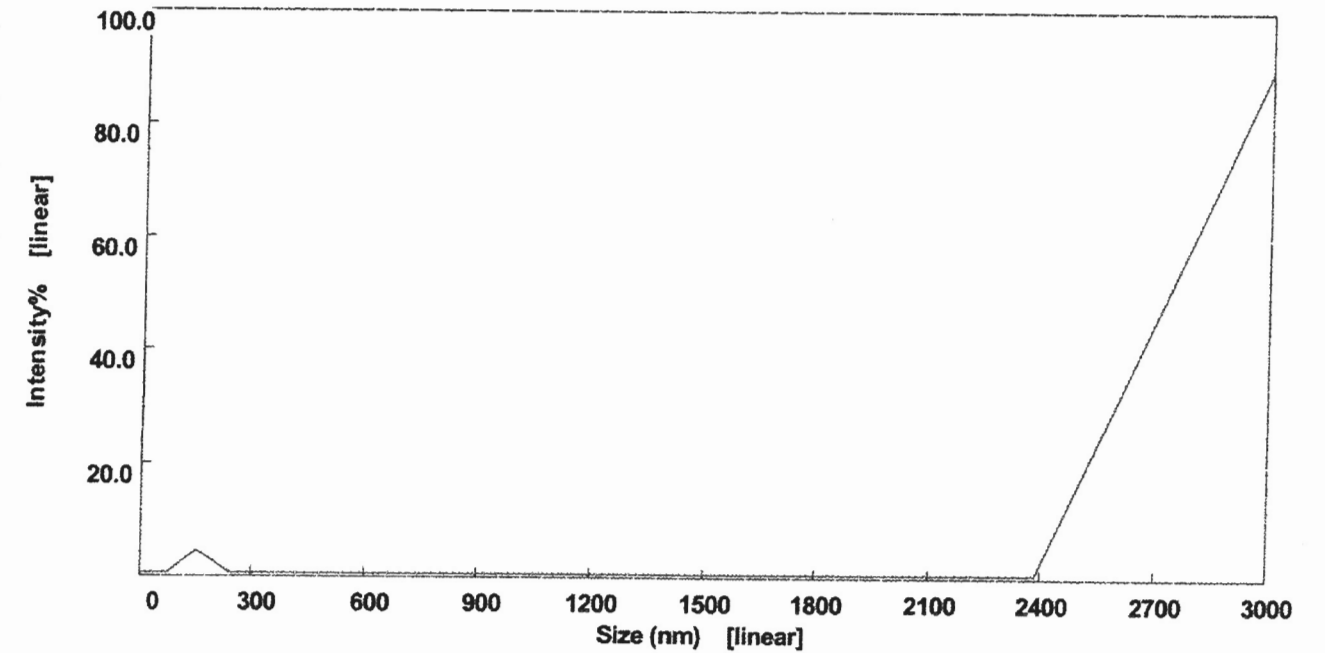
SOM / SOP Name: InAHurry - water.som

Diluent: WATER

End Time: 02-May-06 03:17:08 PM

90.0°, Repetition 1 SDP Set 1 Intensity Analysis
SDP Results Summary

Angle	Parameter SDP Range (nm)	Calculated Results					
		Size (nm)	%amt (nm)	Std.Dev (nm)	Mean Size (nm)	Mean SD (nm)	%Dust
90.0°	3.0-3000.0	145.9	9.75	32.4	2721.7	1016.0	11.477
		3000.0	90.25	205.5			



Xi-hua He 5/3/06

Corrosion Potential Measurement (cell #4 page 78)

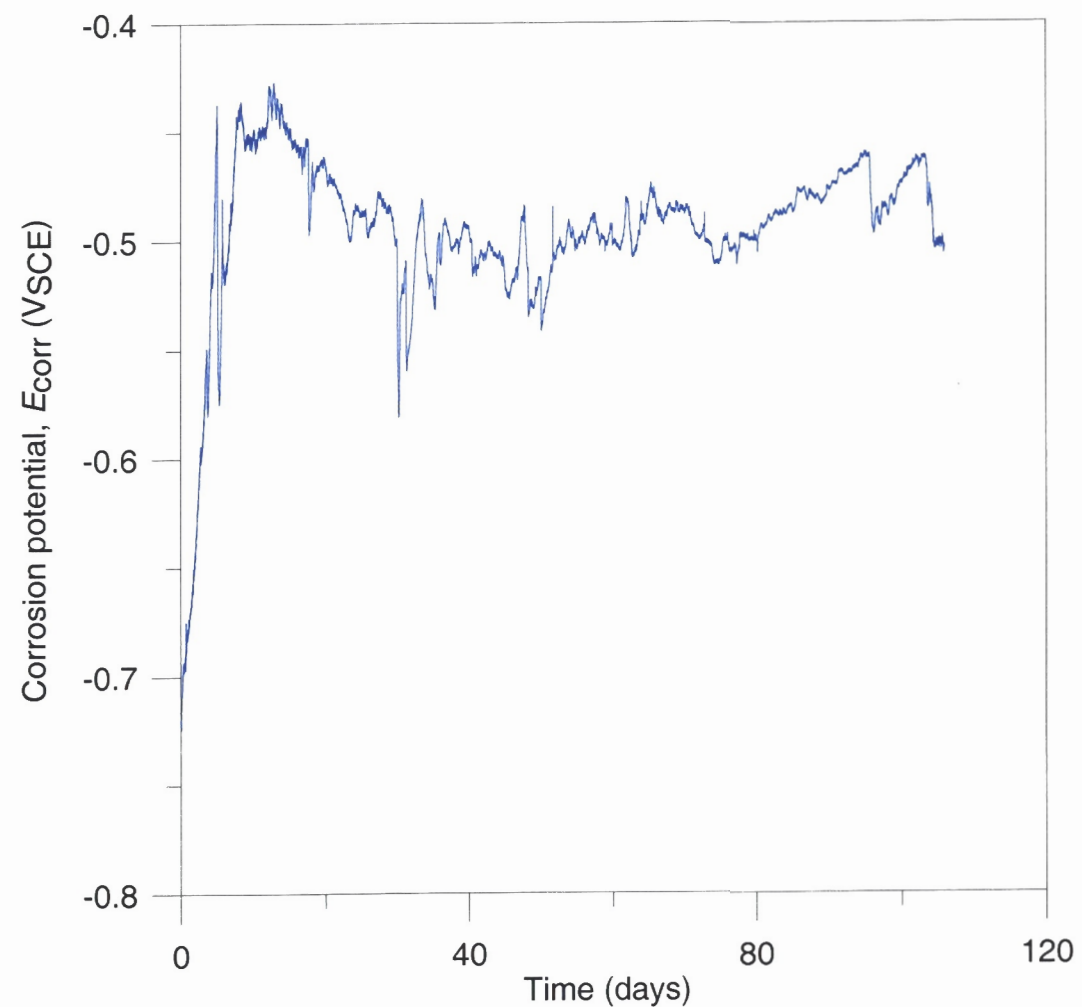
1480 Multistat SN: 00238265

Cal: 12/21/05 Due: 6/21/06

Reference electrode: SCE 13-620-52
SN 4028023P

Data files: CSteel600c0430-Unich8 CSteel600c0409-Unich8, CSteel600c0321-Unich8

0427	0406	0318
0424	0403	0315
0421	0331	0312
0418	0328	0309
0415	0325	0306
0412	0322	0303



Xitua He 5/8/06

~~0328~~ x.H
5/8/06
0228
0225
0222
0219
0216
0213
0210
0207
0204
0201
0129
0126
0123
0120
0117

x.H 7/14/08

Cleaning Procedure for
A516 Carbon Steel HT# 084944

Used 50/50 Volume of HCl Acid Lot# 650750 And DI Water
Placed Specimen In Acid Solution then Ultra Sonic cleaning
Began Removes Specimens After 30 seconds Rinsed In DI
water - some specimens were cleaned of scale or deposit
on surface After this short time - But I continued
for At least one more cleaning - the longest Duration
for this procedure was 2 minutes - But It has been
removed And Rinsed with DI every 30 seconds - what
follows Are All the End wts. for the Specimens

Test Specimens from pg #78

Cell #1 End wt = 18.24019g
Cell #2 End wt = 17.23708g
Cell #3 End wt = 16.49849g

Test Specimen from pg #7 End wt = 17.04560g (90°C)

Test Specimen from pg #36 End wt = 2.57041g x.H 6/27/06

Test Specimen from pg #48 End wt = 2.30890g

Scale Used for Measurement Sartorius Genius SN# 12809099
Cal: 5/9/06 Due: 11/9/06

[Signature] 5/24/06

cell # 4, continued from page # 100

Date / Time Temperature (°C) pH

4/26/2006 8:00 AM 60.6 9.41
 4/28/2006 9:00 AM 61.2 9.38

1mL solution was drawn from cell #4 for ICP analysis, then 1 mL fresh original solution was added in.

Solution ID: G9

5/1/2006 8:00 AM 60.8 9.26
 5/3/2006 8:15 AM 61.2 9.34
 5/5/2006 8:09 AM 60.4 9.32

5/8/2006 New pH electrode Fisher 13-620-108 sn# 6100190 GEL FILLED

5/8/2006 8:30 AM 60.6 9.68
 5/15/2006 8:30 AM 60.4 9.65
 5/19/2006 8:55 AM 60.2 9.91
 5/22/2006 8:15 AM 60.4 9.89
 5/30/2006 8:30 AM 60.6 10.27

1mL solution was drawn from cell #4 for ICP analysis, then 1 mL fresh original solution was added in.

Solution ID: G10

6/2/2006 8:25 AM 60.4 10.34
 6/12/2006 8:40 AM 60.4 10.32

1mL solution was drawn from cell #4 for ICP analysis, then 1 mL fresh original solution was added in. Solution ID: G11

Xi Hua He 6/13/06

6/16/2006 8:35 60.6 10.34
 6/19/2006 8:30 60.2 10.36
 6/27/2006 9:10 60.4 10.18
 6/30/2006 8:10 60.2 10.22
 7/6/2006 1:35 60.4 10.19

7/14/06 7:00 a.m. solution level low - solution evaporated since last pH measurement. Xi Hua He 7/7/06

Test Error 7/14/06 To much Solution Evaporation Removes Specimens

Took Pictures See pg # 183

Extracted 55 ml of solution with sediment out of bottom of test cell started Test with 229 ml of simulated pore water see pg # 79 for initial set up

[Signature] 7/20/06

observation of test cell # 4 after test:

Carbon steel specimens were severely corroded. The glass specimens remained intact, but covered with carbon steel corrosion product. Xi Hua He 8/1/06

ICP analysis results from Test CSPORE H201
 IC cell # 4 (page 78, 79, 80, 100)

Sample ID

G1

Lab Name: Southwest Research Institute

(62)

Client: Division 20

Lab Code: SwRI

Date Received: 05/01/06

Matrix: Liquid

Project No.: 06002.01.222

Lab System ID: 278582

SRR: 29083

Sample Collection Date: 05/01/06

Task Order: 060501-10

Method: ICP - 6010B		
Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<2.50	2.50
Antimony	<0.500	0.500
Arsenic	<0.250	0.250
Barium	<0.250	0.250
Beryllium	<0.250	0.250
Bismuth	<0.500	0.500
Boron	6.12	1.00
Cadmium	<0.250	0.250
Calcium	<2.50	2.50
Chromium	<0.250	0.250
Cobalt	<0.250	0.250
Copper	<0.250	0.250
Iron	<3.00	3.00
Lanthanum	<0.250	0.250
Lead	<0.250	0.250
Lithium	<0.250	0.250
Magnesium	<2.50	2.50
Manganese	<0.250	0.250
Molybdenum	<0.250	0.250
Nickel	<0.250	0.250
Palladium	<0.750	0.750
Phosphorus	<1.00	1.00
Potassium	1330	12.5
Selenium	<0.250	0.250
Silicon	2.59	1.00
Silver	<0.250	0.250
Sodium	2040	12.5
Strontium	<0.250	0.250
Sulfur	17.7	1.00
Thallium	<0.500	0.500
Thorium	<1.25	1.25
Tin	<0.250	0.250
Titanium	<0.250	0.250
Tungsten	<0.500	0.500
Uranium	<5.00	5.00
Vanadium	<0.250	0.250
Yttrium	<0.250	0.250
Zinc	<0.250	0.250
Zirconium	<0.250	0.250

Xi Hua He 6/15/06

Sample ID

G1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/01/06

Matrix: Liquid

Project No.: 06002.01.222

Lab System ID: 278582

SRR: 29083

Sample Collection Date: 05/01/06

Task Order: 060501-10

Method: ICP - 6010B			
Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Aluminum	<2.50	<2.50	0.00%
Antimony	<0.500	<0.500	0.00%
Arsenic	<0.250	<0.250	0.00%
Barium	<0.250	<0.250	0.00%
Beryllium	<0.250	<0.250	0.00%
Bismuth	<0.500	<0.500	0.00%
Boron	6.12	5.79	5.54%
Cadmium	<0.250	<0.250	0.00%
Calcium	<2.50	<2.50	0.00%
Chromium	<0.250	<0.250	0.00%
Cobalt	<0.250	<0.250	0.00%
Copper	<0.250	<0.250	0.00%
Iron	<3.00	<3.00	0.00%
Lanthanum	<0.250	<0.250	0.00%
Lead	<0.250	<0.250	0.00%
Lithium	<0.250	<0.250	0.00%
Magnesium	<2.50	<2.50	0.00%
Manganese	<0.250	<0.250	0.00%
Molybdenum	<0.250	<0.250	0.00%
Nickel	<0.250	<0.250	0.00%
Palladium	<0.750	<0.750	0.00%
Phosphorus	<1.00	<1.00	0.00%
Potassium	1330	1340	0.75%
Selenium	<0.250	<0.250	0.00%
Silicon	2.59	2.53	2.34%
Silver	<0.250	<0.250	0.00%
Sodium	2040	2060	0.98%
Strontium	<0.250	<0.250	0.00%
Sulfur	17.7	18.1	2.23%
Thallium	<0.500	<0.500	0.00%
Thorium	<1.25	<1.25	0.00%
Tin	<0.250	<0.250	0.00%
Titanium	<0.250	<0.250	0.00%
Tungsten	<0.500	<0.500	0.00%
Uranium	<5.00	<5.00	0.00%
Vanadium	<0.250	<0.250	0.00%
Yttrium	<0.250	<0.250	0.00%
Zinc	<0.250	<0.250	0.00%
Zirconium	<0.250	<0.250	0.00%

Xihua He 6/15/06

Sample ID

G2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/01/06

Matrix: Liquid

Project No.: 06002.01.222

Lab System ID: 278583

SRR: 29083

Sample Collection Date: 05/01/06

Task Order: 060501-10

Method: ICP - 6010B		
Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<2.50	2.50
Antimony	<0.500	0.500
Arsenic	<0.250	0.250
Barium	<0.250	0.250
Beryllium	<0.250	0.250
Bismuth	<0.500	0.500
Boron	5.78	1.00
Cadmium	<0.250	0.250
Calcium	<2.50	2.50
Chromium	<0.250	0.250
Cobalt	<0.250	0.250
Copper	<0.250	0.250
Iron	<3.00	3.00
Lanthanum	<0.250	0.250
Lead	<0.250	0.250
Lithium	<0.250	0.250
Magnesium	<2.50	2.50
Manganese	<0.250	0.250
Molybdenum	<0.250	0.250
Nickel	<0.250	0.250
Palladium	<0.750	0.750
Phosphorus	<1.00	1.00
Potassium	1370	12.5
Selenium	<0.250	0.250
Silicon	3.04	1.00
Silver	<0.250	0.250
Sodium	2070	12.5
Strontium	<0.250	0.250
Sulfur	17.9	1.00
Thallium	<0.500	0.500
Thorium	<1.25	1.25
Tin	<0.250	0.250
Titanium	<0.250	0.250
Tungsten	<0.500	0.500
Uranium	<5.00	5.00
Vanadium	<0.250	0.250
Yttrium	<0.250	0.250
Zinc	<0.250	0.250
Zirconium	<0.250	0.250

Xihua He 6/15/06

Sample ID

G3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/01/06

Matrix: Liquid

Project No.: 06002.01.222

Lab System ID: 278584

SRR: 29083

Sample Collection Date: 05/01/06

Task Order: 060501-10

Method: ICP - 6010B		
Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<2.50	2.50
Antimony	<0.500	0.500
Arsenic	<0.250	0.250
Barium	<0.250	0.250
Beryllium	<0.250	0.250
Bismuth	<0.500	0.500
Boron	5.86	1.00
Cadmium	<0.250	0.250
Calcium	<2.50	2.50
Chromium	<0.250	0.250
Cobalt	<0.250	0.250
Copper	<0.250	0.250
Iron	<3.00	3.00
Lanthanum	<0.250	0.250
Lead	<0.250	0.250
Lithium	<0.250	0.250
Magnesium	<2.50	2.50
Manganese	<0.250	0.250
Molybdenum	<0.250	0.250
Nickel	<0.250	0.250
Palladium	<0.750	0.750
Phosphorus	<1.00	1.00
Potassium	1420	12.5
Selenium	<0.250	0.250
Silicon	3.05	1.00
Silver	<0.250	0.250
Sodium	2080	12.5
Strontium	<0.250	0.250
Sulfur	18.1	1.00
Thallium	<0.500	0.500
Thorium	<1.25	1.25
Tin	<0.250	0.250
Titanium	<0.250	0.250
Tungsten	<0.500	0.500
Uranium	<5.00	5.00
Vanadium	<0.250	0.250
Yttrium	<0.250	0.250
Zinc	<0.250	0.250
Zirconium	<0.250	0.250

Xihua He 6/15/06

Sample ID

G3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/01/06

Matrix: Liquid

Project No.: 06002.01.222

Lab System ID: 278584

SRR: 29083

Sample Collection Date: 05/01/06

Task Order: 060501-10

Method: ICP - 6010B				
Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	<2.50	97.9	100	97.9%
Antimony	<0.500	25.2	25.0	100.8%
Arsenic	<0.250	103	100	103.0%
Barium	<0.250	101	100	101.0%
Beryllium	<0.250	2.48	2.50	99.2%
Bismuth	NA	NA	NA	NA
Boron	5.86	211	200	102.6%
Cadmium	<0.250	2.51	2.50	100.4%
Calcium	<2.50	996	1000	99.6%
Chromium	<0.250	9.77	10.0	97.7%
Cobalt	<0.250	25.3	25.0	101.2%
Copper	<0.250	12.5	12.5	100.0%
Iron	<3.00	53.1	50.0	106.2%
Lanthanum	NA	NA	NA	NA
Lead	<0.250	24.5	25.0	98.0%
Lithium	<0.250	202	200	101.0%
Magnesium	<2.50	999	1000	99.9%
Manganese	<0.250	25.2	25.0	100.8%
Molybdenum	NA	NA	NA	NA
Nickel	<0.250	24.9	25.0	99.6%
Palladium	NA	NA	NA	NA
Phosphorus	NA	NA	NA	NA
Potassium	1420	2430	1000	101.0%
Selenium	<0.250	105	100	105.0%
Silicon	3.05	210	200	103.5%
Silver	<0.250	2.45	2.50	98.0%
Sodium	2080	3050	1000	97.0%
Strontium	NA	NA	NA	NA
Sulfur	18.1	224	200	103.0%
Thallium	<0.500	106	100	106.0%
Thorium	NA	NA	NA	NA
Tin	NA	NA	NA	NA
Titanium	NA	NA	NA	NA
Tungsten	NA	NA	NA	NA
Uranium	NA	NA	NA	NA
Vanadium	<0.250	24.6	25.0	98.4%
Yttrium	NA	NA	NA	NA
Zinc	<0.250	25.2	25.0	100.8%
Zirconium	NA	NA	NA	NA

NA- Not Applicable.

Xihua He 6/15/06

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Liquid

Lab System ID: 278585

Sample Collection Date: 05/01/06

Sample ID

G4

Client: Division 20

Date Received: 05/01/06

Project No.: 06002.01.222

SRR: 29083

Task Order: 060501-10

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Liquid

Lab System ID: 278586

Sample Collection Date: 05/01/06

G5

Client: Division 20

Date Received: 05/01/06

Project No.: 06002.01.222

SRR: 29083

Task Order: 060501-10

Method: ICP - 6010B		
Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<2.50	2.50
Antimony	<0.500	0.500
Arsenic	<0.250	0.250
Barium	<0.250	0.250
Beryllium	<0.250	0.250
Bismuth	<0.500	0.500
Boron	6.50	1.00
Cadmium	<0.250	0.250
Calcium	<2.50	2.50
Chromium	<0.250	0.250
Cobalt	<0.250	0.250
Copper	<0.250	0.250
Iron	<3.00	3.00
Lanthanum	<0.250	0.250
Lead	<0.250	0.250
Lithium	0.327	0.250
Magnesium	<2.50	2.50
Manganese	<0.250	0.250
Molybdenum	<0.250	0.250
Nickel	<0.250	0.250
Palladium	<0.750	0.750
Phosphorus	<1.00	1.00
Potassium	1560	12.5
Selenium	<0.250	0.250
Silicon	3.62	1.00
Silver	<0.250	0.250
Sodium	2140	12.5
Strontium	<0.250	0.250
Sulfur	18.6	1.00
Thallium	<0.500	0.500
Thorium	<1.25	1.25
Tin	<0.250	0.250
Titanium	<0.250	0.250
Tungsten	<0.500	0.500
Uranium	<5.00	5.00
Vanadium	<0.250	0.250
Yttrium	<0.250	0.250
Zinc	<0.250	0.250
Zirconium	<0.250	0.250

Xihua He 6/15/06

Method: ICP - 6010B		
Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<2.50	2.50
Antimony	<0.500	0.500
Arsenic	<0.250	0.250
Barium	<0.250	0.250
Beryllium	<0.250	0.250
Bismuth	<0.500	0.500
Boron	7.12	1.00
Cadmium	<0.250	0.250
Calcium	<2.50	2.50
Chromium	<0.250	0.250
Cobalt	<0.250	0.250
Copper	<0.250	0.250
Iron	<3.00	3.00
Lanthanum	<0.250	0.250
Lead	<0.250	0.250
Lithium	0.626	0.250
Magnesium	<2.50	2.50
Manganese	<0.250	0.250
Molybdenum	<0.250	0.250
Nickel	<0.250	0.250
Palladium	<0.750	0.750
Phosphorus	<1.00	1.00
Potassium	2010	12.5
Selenium	<0.250	0.250
Silicon	3.94	1.00
Silver	<0.250	0.250
Sodium	2390	12.5
Strontium	<0.250	0.250
Sulfur	20.1	1.00
Thallium	<0.500	0.500
Thorium	<1.25	1.25
Tin	<0.250	0.250
Titanium	<0.250	0.250
Tungsten	<0.500	0.500
Uranium	<5.00	5.00
Vanadium	<0.250	0.250
Yttrium	<0.250	0.250
Zinc	<0.250	0.250
Zirconium	<0.250	0.250

Xihua He 6/15/06

G6

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/01/06

Matrix: Liquid

Project No.: 06002.01.222

Lab System ID: 278587

SRR: 29083

Sample Collection Date: 05/01/06

Task Order: 060501-10

Method: ICP - 6010B		
Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<2.50	2.50
Antimony	<0.500	0.500
Arsenic	<0.250	0.250
Barium	<0.250	0.250
Beryllium	<0.250	0.250
Bismuth	<0.500	0.500
Boron	7.34	1.00
Cadmium	<0.250	0.250
Calcium	<2.50	2.50
Chromium	<0.250	0.250
Cobalt	<0.250	0.250
Copper	<0.250	0.250
Iron	<3.00	3.00
Lanthanum	<0.250	0.250
Lead	<0.250	0.250
Lithium	0.771	0.250
Magnesium	<2.50	2.50
Manganese	<0.250	0.250
Molybdenum	<0.250	0.250
Nickel	<0.250	0.250
Palladium	<0.750	0.750
Phosphorus	<1.00	1.00
Potassium	2190	12.5
Selenium	<0.250	0.250
Silicon	3.71	1.00
Silver	<0.250	0.250
Sodium	2420	12.5
Strontium	<0.250	0.250
Sulfur	20.2	1.00
Thallium	<0.500	0.500
Thorium	<1.25	1.25
Tin	<0.250	0.250
Titanium	<0.250	0.250
Tungsten	<0.500	0.500
Uranium	<5.00	5.00
Vanadium	<0.250	0.250
Yttrium	<0.250	0.250
Zinc	<0.250	0.250
Zirconium	<0.250	0.250

Xihua He 6/15/06

G7

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/01/06

Matrix: Liquid

Project No.: 06002.01.222

Lab System ID: 278588

SRR: 29083

Sample Collection Date: 05/01/06

Task Order: 060501-10

Method: ICP - 6010B		
Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<2.50	2.50
Antimony	<0.500	0.500
Arsenic	<0.250	0.250
Barium	<0.250	0.250
Beryllium	<0.250	0.250
Bismuth	<0.500	0.500
Boron	8.35	1.00
Cadmium	<0.250	0.250
Calcium	<2.50	2.50
Chromium	<0.250	0.250
Cobalt	<0.250	0.250
Copper	<0.250	0.250
Iron	<3.00	3.00
Lanthanum	<0.250	0.250
Lead	<0.250	0.250
Lithium	1.15	0.250
Magnesium	<2.50	2.50
Manganese	<0.250	0.250
Molybdenum	<0.250	0.250
Nickel	<0.250	0.250
Palladium	<0.750	0.750
Phosphorus	<1.00	1.00
Potassium	2720	12.5
Selenium	<0.250	0.250
Silicon	4.14	1.00
Silver	<0.250	0.250
Sodium	2690	12.5
Strontium	<0.250	0.250
Sulfur	22.0	1.00
Thallium	<0.500	0.500
Thorium	<1.25	1.25
Tin	<0.250	0.250
Titanium	<0.250	0.250
Tungsten	<0.500	0.500
Uranium	<5.00	5.00
Vanadium	<0.250	0.250
Yttrium	<0.250	0.250
Zinc	<0.250	0.250
Zirconium	<0.250	0.250

Xihua He 6/15/06

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Liquid

Lab System ID: 278589

Sample Collection Date: 05/01/06

Sample ID

G8

Client: Division 20

Date Received: 05/01/06

Project No.: 06002.01.222

SRR: 29083

Task Order: 060501-10

Method: ICP - 6010B		
Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<2.50	2.50
Antimony	<0.500	0.500
Arsenic	<0.250	0.250
Barium	<0.250	0.250
Beryllium	<0.250	0.250
Bismuth	<0.500	0.500
Boron	8.39	1.00
Cadmium	<0.250	0.250
Calcium	<2.50	2.50
Chromium	<0.250	0.250
Cobalt	<0.250	0.250
Copper	<0.250	0.250
Iron	<3.00	3.00
Lanthanum	<0.250	0.250
Lead	<0.250	0.250
Lithium	1.29	0.250
Magnesium	<2.50	2.50
Manganese	<0.250	0.250
Molybdenum	<0.250	0.250
Nickel	<0.250	0.250
Palladium	<0.750	0.750
Phosphorus	<1.00	1.00
Potassium	2920	12.5
Selenium	<0.250	0.250
Silicon	3.96	1.00
Silver	<0.250	0.250
Sodium	2720	12.5
Strontium	<0.250	0.250
Sulfur	21.9	1.00
Thallium	<0.500	0.500
Thorium	<1.25	1.25
Tin	<0.250	0.250
Titanium	<0.250	0.250
Tungsten	<0.500	0.500
Uranium	<5.00	5.00
Vanadium	<0.250	0.250
Yttrium	<0.250	0.250
Zinc	<0.250	0.250
Zirconium	<0.250	0.250

Xihua He 6/15/06

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Liquid

Lab System ID: 278590

Sample Collection Date: 05/01/06

Sample ID

G9

Client: Division 20

Date Received: 05/01/06

Project No.: 06002.01.222

SRR: 29083

Task Order: 060501-10

Method: ICP - 6010B		
Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<2.50	2.50
Antimony	<0.500	0.500
Arsenic	<0.250	0.250
Barium	<0.250	0.250
Beryllium	<0.250	0.250
Bismuth	<0.500	0.500
Boron	9.54	1.00
Cadmium	<0.250	0.250
Calcium	<2.50	2.50
Chromium	<0.250	0.250
Cobalt	<0.250	0.250
Copper	<0.250	0.250
Iron	<3.00	3.00
Lanthanum	<0.250	0.250
Lead	<0.250	0.250
Lithium	1.70	0.250
Magnesium	<2.50	2.50
Manganese	<0.250	0.250
Molybdenum	<0.250	0.250
Nickel	<0.250	0.250
Palladium	<0.750	0.750
Phosphorus	<1.00	1.00
Potassium	4400	12.5
Selenium	<0.250	0.250
Silicon	2.97	1.00
Silver	<0.250	0.250
Sodium	3120	12.5
Strontium	<0.250	0.250
Sulfur	25.1	1.00
Thallium	<0.500	0.500
Thorium	<1.25	1.25
Tin	<0.250	0.250
Titanium	<0.250	0.250
Tungsten	<0.500	0.500
Uranium	<5.00	5.00
Vanadium	<0.250	0.250
Yttrium	<0.250	0.250
Zinc	<0.250	0.250
Zirconium	<0.250	0.250

Xihua He 6/15/06

Sample ID
LCSW - E15H1

Lab Name: Southwest Research Institute
Lab Code: SwRI
Matrix: Liquid
Lab System ID: NA
Sample Collection Date: NA

Client: Division 20
Date Received: NA
Project No.: 06002.01.222
SRR: 29083
Task Order: 060501-10

Method: ICP - 6010B			
Analysis	Sample Result (mg/L)	True Value (mg/L)	Recovery
Aluminum	95.7	100	95.7%
Antimony	25.0	25.0	100.0%
Arsenic	102	100	102.0%
Barium	101	100	101.0%
Beryllium	2.49	2.50	99.6%
Bismuth	NA	NA	NA
Boron	206	200	103.0%
Cadmium	2.53	2.50	101.2%
Calcium	1010	1000	101.0%
Chromium	9.73	10.0	97.3%
Cobalt	25.2	25.0	100.8%
Copper	12.2	12.5	97.6%
Iron	54.9	50.0	109.8%
Lanthanum	NA	NA	NA
Lead	24.6	25.0	98.4%
Lithium	185	200	92.5%
Magnesium	1010	1000	101.0%
Manganese	25.3	25.0	101.2%
Molybdenum	NA	NA	NA
Nickel	24.8	25.0	99.2%
Palladium	NA	NA	NA
Phosphorus	NA	NA	NA
Potassium	1000	1000	100.0%
Selenium	105	100	105.0%
Silicon	207	200	103.5%
Silver	2.46	2.50	98.4%
Sodium	993	1000	99.3%
Strontium	NA	NA	NA
Sulfur	205	200	102.5%
Thallium	105	100	105.0%
Thorium	NA	NA	NA
Tin	NA	NA	NA
Titanium	NA	NA	NA
Tungsten	NA	NA	NA
Uranium	NA	NA	NA
Vanadium	24.6	25.0	98.4%
Yttrium	NA	NA	NA
Zinc	25.3	25.0	101.2%
Zirconium	NA	NA	NA

NA- Not Applicable.

Xi Hua He 6/15/06

Sample ID
PBW - E15H1

Lab Name: Southwest Research Institute
Lab Code: SwRI
Matrix: Liquid
Lab System ID: NA
Sample Collection Date: NA

Client: Division 20
Date Received: NA
Project No.: 06002.01.222
SRR: 29083
Task Order: 060501-10

Method: ICP - 6010B		
Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<2.50	2.50
Antimony	<0.500	0.500
Arsenic	<0.250	0.250
Barium	<0.250	0.250
Beryllium	<0.250	0.250
Bismuth	<0.500	0.500
Boron	<1.00	1.00
Cadmium	<0.250	0.250
Calcium	<2.50	2.50
Chromium	<0.250	0.250
Cobalt	<0.250	0.250
Copper	<0.250	0.250
Iron	<3.00	3.00
Lanthanum	<0.250	0.250
Lead	<0.250	0.250
Lithium	<0.250	0.250
Magnesium	<2.50	2.50
Manganese	<0.250	0.250
Molybdenum	<0.250	0.250
Nickel	<0.250	0.250
Palladium	<0.750	0.750
Phosphorus	<1.00	1.00
Potassium	<12.5	12.5
Selenium	<0.250	0.250
Silicon	<1.00	1.00
Silver	<0.250	0.250
Sodium	<12.5	12.5
Strontium	<0.250	0.250
Sulfur	<1.00	1.00
Thallium	<0.500	0.500
Thorium	<1.25	1.25
Tin	<0.250	0.250
Titanium	<0.250	0.250
Tungsten	<0.500	0.500
Uranium	<5.00	5.00
Vanadium	<0.250	0.250
Yttrium	<0.250	0.250
Zinc	<0.250	0.250
Zirconium	<0.250	0.250

NA- Not Applicable.

Xi Hua He 6/15/06

Lab Name: Southwest Research Institute
 Lab Code: SwRI
 Matrix: Liquid
 Lab System ID: 278582
 Sample Collection Date: 05/01/06
 Method: IC - EPA 300

Sample ID
G1

Client: Division 20
 Date Received: 05/01/06
 Project No.: 06002.01.222
 SRR: 29083
 Task Order: 060501-10

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Chloride	4650	50
Fluoride	6.58	1
Nitrate-N	23.4	1
Sulfate	33.9	1

Lab Name: Southwest Research Institute
 Lab Code: SwRI
 Matrix: Liquid
 Lab System ID: 278583
 Sample Collection Date: 05/01/06
 Method: IC - EPA 300

Sample ID
G2

Client: Division 20
 Date Received: 05/01/06
 Project No.: 06002.01.222
 SRR: 29083
 Task Order: 060501-10

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Chloride	4660	50
Fluoride	6.52	1
Nitrate-N	23.4	1
Sulfate	33.6	1

X.H. 6/15/06

Lab Name: Southwest Research Institute
 Lab Code: SwRI
 Matrix: Liquid
 Lab System ID: 278583
 Sample Collection Date: 05/01/06
 Method: IC - EPA 300

Sample ID
G2

Client: Division 20
 Date Received: 05/01/06
 Project No.: 06002.01.222
 SRR: 29083
 Task Order: 060501-10

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Chloride	4660	4620	0.86%
Fluoride	6.52	6.50	0.31%
Nitrate-N	23.4	23.2	0.86%
Sulfate	33.6	34.0	1.18%

Lab Name: Southwest Research Institute
 Lab Code: SwRI
 Matrix: Liquid
 Lab System ID: 278583
 Sample Collection Date: 05/01/06
 Method: IC - EPA 300

Sample ID
G2

Client: Division 20
 Date Received: 05/01/06
 Project No.: 06002.01.222
 SRR: 29083
 Task Order: 060501-10

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Chloride	4660	5650	1000	99.0%
Fluoride	6.52	17.7	10.0	112%
Nitrate-N	23.4	33.4	9.04	111%
Sulfate	33.6	76.0	40.0	106%

X.H. 6/15/06

X.H. 7/14/08

Lab Name: Southwest Research Institute
 Lab Code: SwRI
 Matrix: Liquid
 Lab System ID: 278584
 Sample Collection Date: 05/01/06
 Method: IC - EPA 300

Sample ID
 G3

Client: Division 20
 Date Received: 05/01/06
 Project No.: 06002.01.222
 SRR: 29083
 Task Order: 060501-10

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Chloride	4690	50
Fluoride	6.59	1
Nitrate-N	23.1	1
Sulfate	33.8	1

Sample ID
 G4

Lab Name: Southwest Research Institute
 Lab Code: SwRI
 Matrix: Liquid
 Lab System ID: 278585
 Sample Collection Date: 05/01/06
 Method: IC - EPA 300

Client: Division 20
 Date Received: 05/01/06
 Project No.: 06002.01.222
 SRR: 29083
 Task Order: 060501-10

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Chloride	4970	50
Fluoride	6.55	1
Nitrate-N	22.6	1
Sulfate	34.1	1

Xihua He 6/15/08

X.H. 7/14/08

Sample ID
 G5

Lab Name: Southwest Research Institute
 Lab Code: SwRI
 Matrix: Liquid
 Lab System ID: 278586
 Sample Collection Date: 05/01/06
 Method: IC - EPA 300

Client: Division 20
 Date Received: 05/01/06
 Project No.: 06002.01.222
 SRR: 29083
 Task Order: 060501-10

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Chloride	5550	50
Fluoride	6.52	1
Nitrate-N	21.1	1
Sulfate	34.0	1

Sample ID
 G6

Lab Name: Southwest Research Institute
 Lab Code: SwRI
 Matrix: Liquid
 Lab System ID: 278587
 Sample Collection Date: 05/01/06
 Method: IC - EPA 300

Client: Division 20
 Date Received: 05/01/06
 Project No.: 06002.01.222
 SRR: 29083
 Task Order: 060501-10

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Chloride	5950	50
Fluoride	6.51	1
Nitrate-N	20.1	1
Sulfate	34.7	1

Xihua He 6/15/08

Sample ID
G7

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Liquid

Lab System ID: 278588

Sample Collection Date: 05/01/06

Method: IC - EPA 300

Client: Division 20

Date Received: 05/01/06

Project No.: 06002.01.222

SRR: 29083

Task Order: 060501-10

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Chloride	6870	50
Fluoride	6.53	1
Nitrate-N	18.2	1
Sulfate	34.2	1

Sample ID
G8

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Liquid

Lab System ID: 278589

Sample Collection Date: 05/01/06

Method: IC - EPA 300

Client: Division 20

Date Received: 05/01/06

Project No.: 06002.01.222

SRR: 29083

Task Order: 060501-10

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Chloride	7210	50
Fluoride	6.59	1
Nitrate-N	17.5	1
Sulfate	35.0	1

Xihua He 6/15/06

Y.H. 7/14/08

Sample ID
G9

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Liquid

Lab System ID: 278590

Sample Collection Date: 05/01/06

Method: IC - EPA 300

Client: Division 20

Date Received: 05/01/06

Project No.: 06002.01.222

SRR: 29083

Task Order: 060501-10

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Chloride	9070	50
Fluoride	6.81	1
Nitrate-N	16.3	1
Sulfate	37.4	1

Sample ID
LCS

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Liquid

Lab System ID: NA

Sample Collection Date: NA

Method: IC - EPA 300

Client: Division 20

Date Received: NA

Project No.: 06002.01.222

SRR: 29083

Task Order: 060501-10

Analysis	Sample Result (mg/L)	True Value (mg/L)	Recovery
Chloride	208	200	104%
Fluoride	100	100	100%
Nitrate-N	91.4	90.4	101%
Sulfate	403	400	101%

NA- Not Applicable.

Xihua He 6/15/06

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Liquid

Lab System ID: NA

Sample Collection Date: NA

Method: IC - EPA 300

Sample ID

PB

Client: Division 20

Date Received: NA

Project No.: 06002.01.222

SRR: 29083

Task Order: 060501-10

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Chloride	<0.1	0.1
Fluoride	<0.1	0.1
Nitrate-N	<0.1	0.1
Sulfate	<0.1	0.1

NA- Not Applicable.

X. Hua He 6/15/06

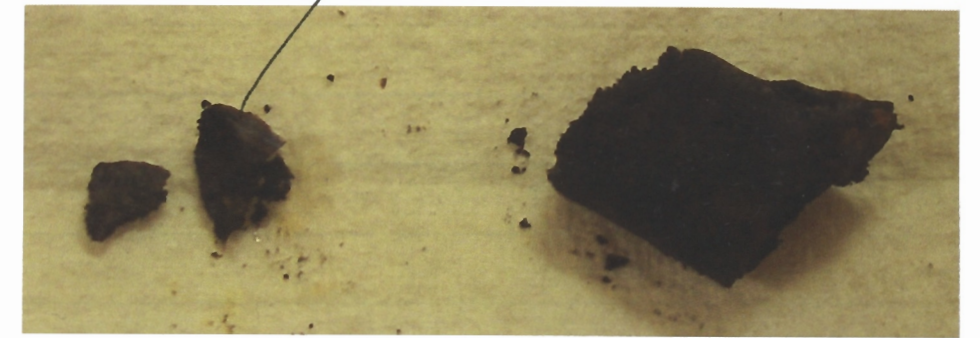
X.H 7/14/08

Post-test observation of test cell #4, continued from page 162

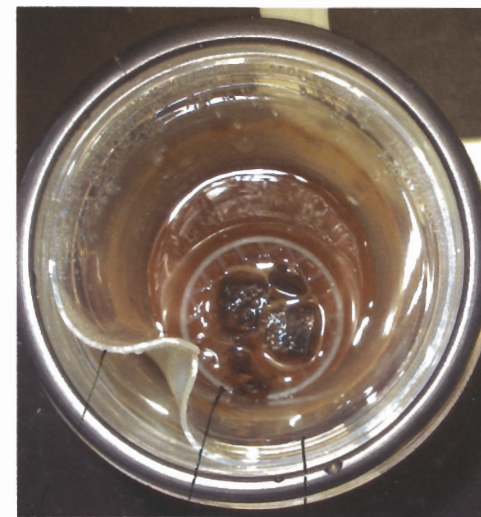
connecting rod for Carbon steel specimen thermocouple well



Corrosion products



glass specimens



Teflon crater Test cell after test

Teflon liner

X. Hua He 8/1/06

ADDITIONAL INFORMATION FOR SCIENTIFIC NOTEBOOK NO. 706

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