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Technical Memorandum

To: Mary Beth Marks

Gallatin National Forest

From: Mark F. Pearson

Geologist

Company: Tetra Tech

Date: 1/25/2010

Re: Results of Data Collection using
Teledyne ISCO Instrumentation
McLaren Drains DCSW-101, 102, 103
New World Response and Restoration

Project #: 114-710105.200

CC: Allan R. Kirk, Tetra Tech

There are three subsurface drains located below the road to Lulu Pass from Daisy Pass in the McLaren pit area of the New World Mining District. The drains were installed during the reclamation of the McLaren pit. The uppermost drain is DCSW-101 and is a 12-inch diameter high density polyethylene (HDPE) dual wall, smooth wall pipe. The middle drain is DCSW-102 and is a 4-inch diameter single wall HDPE pipe. The lowest drain is DCSW-103 and is also a 4-inch diameter single wall HDPE pipe.

Tetra Tech acquired three Teledyne ISCO Flowlink 2150 Area Velocity (ISCO) Monitors in August, 2008 for use at New World. Don May of Tetra Tech, Missoula office installed the units in each of the three drains, DCSW-101, 102, and 103 in the McLaren Pit area. Don's installation work was a culmination of research into the optimal flow logger that would withstand cold and wet weather, ice accumulation, deep snow pack, and relative inaccessibility for eight months a year.

Minimum operating parameters for the monitors included having a minimum water level of one-inch (0.08 foot) and a minimum water velocity of 0.2 foot per second. Table 1 summarizes the time periods where the ISCO monitors were in or out of water level and/or water velocity specifications.

After one winter season, the ISCO unit in drain DCSW-103 malfunctioned and could not accurately record parameters. The other two ISCO units continued recording through the spring, summer, and early fall of 2009. However, calibration was difficult to maintain and parameters, especially the ISCO flow rate values, at certain time periods are suspected of lacking accuracy. In my opinion, careful review and interpretation of the combination of parameters measured by the ISCO units along with field measurement data has yielded some reasonable data that is presented in the Results section.

The units consist of a computer and battery module connected to a sensor that goes in the pipe or channel. Five parameters are measured and include water level, velocity, flow rate, total flow, and battery power. The sensor measures water level and velocity. Flow rate and total flow are calculated from the level and velocity measurements. The units began collecting data on August 22, 2009 and were set up to record water level, velocity, and flow rate every 12 hours and total flow every 24 hours.

As explained in Don May's, Tetra Tech Technical Memorandum dated November 20, 2008, the sensor actually consists of two types of sensors; 1) an ultrasonic Doppler device that analyzes the movement of particles in the water and calculates a velocity and 2) a pressure transducer that measured the sensor's depth below the water surface and calculates a water level. The ISCO velocity and water level measurements are used in combination with pipe diameter, angle and type of weir, and angle of the pipe to determine the area of water with the resultant calculation of flow rate. Total flow is also a calculated value from the resulting ISCO flow value. It is important to note that if there is no velocity measurement when there is no flow of water in the drain pipe, even if there are level and flow rate values generated. ISCO technicians confirmed that water level values and corresponding flow rate values can be generated due to ice formation against the ISCO sensor and is, hence, suspected in review of data from all three of the ISCO units during the winter of 2008/2009. Suspect flow rates and total flow values were then, disregarded for those winter time periods.

As mentioned above, 24-hour total flow values were calculated from velocity and level measurements generated every 12 hours by the ISCO units. "Spot" review of the accuracy of these ISCO total flow values compared with corresponding flow rates indicated mathematical errors. In the opinion of the ISCO technicians, the most accurate total flow values are generated when measurements are set to at least 15 minute intervals not the 12 hour interval that the units are currently set at. The 12 hour interval setting combined with un-calibrated measurements, change to below minimum water level and velocity specifications, and/or equipment malfunction may contribute to erroneous total flow values. Therefore, the ISCO total flow values should not be relied on. Instead total flow was calculated from those corresponding ISCO flow rate values on a 12-hour measurement basis.

In addition, total flow was calculated from either ISCO flow rate values or interpolated values between field measurements of flow rate. A comparison was made between the ISCO flow rate trend line in the charts with the flow rate trend from field measurement interpolated values and segments of either were selected depending on which provided a most realistic appearance of the hydrograph. In the case of drain DCSW-103, where the sensor did not provide velocity measurements and hence, flow rate measurements after October 2008; a change in level data and an assumption of a peak flow rate value complimented the field flow rate measurements for the construction of a hydrograph (flow rate) trend line. The malfunction of the sensor to provide reasonably accurate level and velocity measurements resulted in the removal of the ISCO unit and sensor from drain DCSW-103 in July 2009. Therefore, through the 2009/2010 winter and spring, only drains DCSW-101 and DCSW-102 have ISCO units/sensors in operation.

Results

Results are presented in Tables 1 through 4 and Charts 1 through 3. These summarize and chart water flow rates, flow cessation due to winter conditions and falling groundwater levels, the start of flow in spring 2009, peak flow rates and times, and the falling limb of the hydrographs in all three of the drains.

Field measurement data, specific to operation of the ISCO units, was collected between August 12, 2008 and September 28, 2009. ISCO units contributed data between August 22, 2008 and September 23, 2009. Observation of level, velocity, and flow rate data allowed the creation of a hydrograph for each of the drains between August 2008 and September 2009.

Upon first examination of the ISCO units in July 6, 2009, drain DCSW-101 was observed to have several inches of sediment backed up against the v-notch weir and covering the ISCO sensor. Review of velocity measurements indicated that the sediment covered the sensor on June 22, 2009. Occurrence of sediment is likely the result of construction of the drains in 2003. Movement of the sediment down the pipe was probably in response to increasing flows in the drain pipe in response to rising groundwater levels and snowmelt. The other two drains did not exhibit any sediment. The sediment consisted of small, angular rock fragments; sand; and mud that appeared strongly oxidized.

Recommendations

In consideration of continued operation of the ISCO units in drains DCSW-101 and DCSW-102, the following is recommended:

- 1) Field measurements (bucket/stopwatch discharge measurements) of the drain discharge and calibration of the ISCO units should be conducted during every site visit made to complete surface and/or groundwater monitoring obligations. This would include the following anticipated site visit times: mid-May, late-June, early-July, late-July, and late-September. Additional field visits should be conducted as other field activities permit to collect as many field measurements as possible.
- 2) Each field visit would consist of a bucket/stopwatch discharge measurements, an operation check and calibration of the sensor, and data download. Other pertinent observations during each field visit would be noted, such as the occurrence of sediment in any of the drain pipes.
- 3) ISCO measurement intervals should be changed to a 15-minute interval to produce the highest quality flow data while insuring adequate battery power for about 10 months of operation between battery change out and maintenance activities.

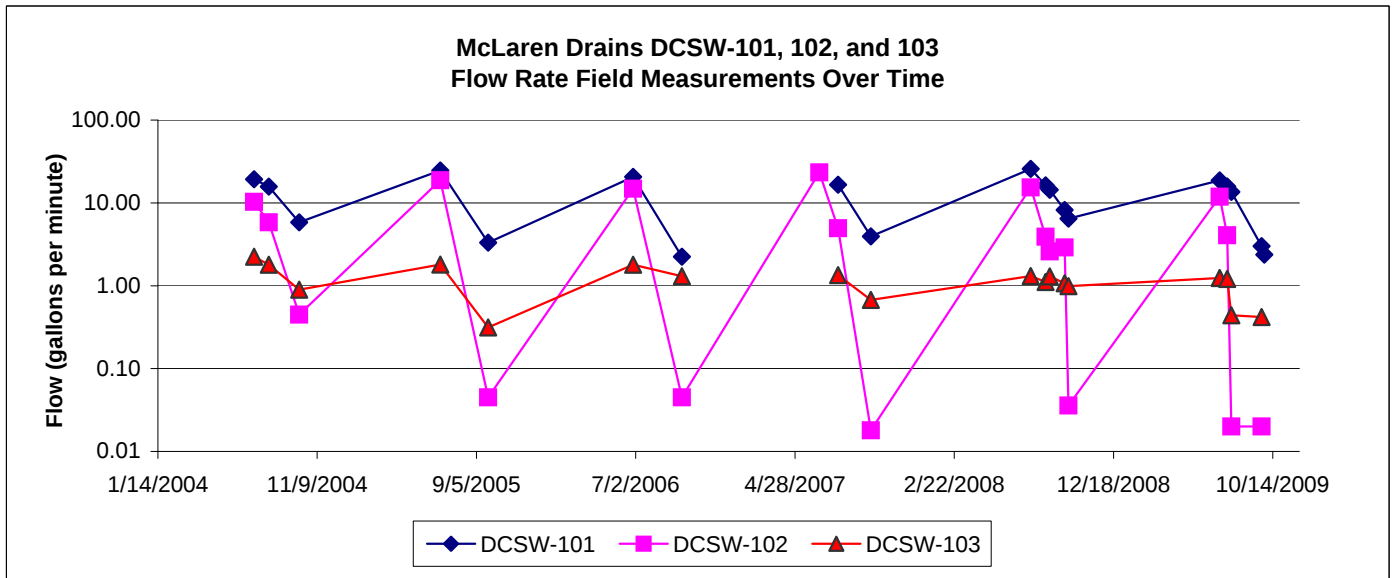
TABLE 1
ISCO UNITS COMPLIANCE WITH VELOCITY AND LEVEL MINIMUMS
McLAREN PIT DRAINS
NEW WORLD RESPONSE AND RESTORATION

Drain	Time Period	Minimum 0.2-foot per second Water Velocity	Minimum 1-inch (0.08 foot) Water Level
DCSW-101	8/22/2008 to 11/1/2008		
	11/1/2008 to 11/11/2008		
	11/11/2008 to 5/18/2009		
	5/18/2009 to 9/28/2009		
DCSW-102	8/22/2008 to 9/7/2008		
	9/7/2008 to 9/16/2008		
	9/16/2008 to 5/23/2009	malfunction	
	5/23/2009 to 8/11/2009	malfunction	
	8/11/2009 to 9/28/2009		
DCSW-103	8/22/2008 to 9/28/2009	malfunction	below minimum & malfunction

Note : Green At or above minimum condition

Red Below minimum condition

TABLE 2
FLOW RATE FIELD MEASUREMENTS OVER TIME
McLAREN PIT DRAINS DCSW-101, 102, AND 103
NEW WORLD RESPONSE AND RESTORATION



McLaren Drain	Date	Flow (cfs)	Flow (gpm)	McLaren Drain	Date	Flow (cfs)	Flow (gpm)	McLaren Drain	Date	Flow (cfs)	Flow (gpm)
101	7/13/2004	0.043	19.30	102	7/13/2004	0.023	10.32	103	7/13/2004	0.005	2.24
	8/10/2004	0.035	15.71		8/10/2004	0.013	5.83		8/10/2004	0.004	1.80
	10/6/2004	0.013	5.83		10/6/2004	0.001	0.45		10/6/2004	0.002	0.90
	6/29/2005	0.05481	24.60		6/29/2005	0.04184	18.78		6/29/2005	0.00401	1.80
	9/27/2005	0.0074	3.32		9/27/2005	0.0001	0.04		9/27/2005	0.0007	0.31
	6/27/2006	0.046	20.65		6/27/2006	0.033	14.81		6/27/2006	0.004	1.80
	9/27/2006	0.005	2.24		9/27/2006	0.0001	0.04		9/27/2006	0.0029	1.30
	6/13/2007	Snow Cover			6/13/2007	0.052	23.34		6/13/2007	Snow Cover	
	7/18/2007	0.037	16.61		7/18/2007	0.011	4.94		7/18/2007	0.003	1.35
	9/18/2007	0.0088	3.95		9/18/2007	0.00004	0.02		9/18/2007	0.0015	0.67
	7/15/2008	0.0575	25.81		7/15/2008	0.03420	15.35		7/15/2008	0.0029	1.31
	8/12/2008	0.0362	16.26		8/12/2008	0.00869	3.90		8/12/2008	0.0025	1.11
	8/20/2008	0.0321	14.40		8/20/2008	0.00579	2.60		8/20/2008	0.0029	1.30
	9/17/2008	0.0183	8.22		9/17/2008	0.00646	2.90		9/17/2008	0.0024	1.07
	9/24/2008	0.0144	6.45		9/24/2008	0.000080	0.04		9/24/2008	0.002200	0.99
	7/6/2009	0.0416	18.67		7/6/2009	0.02649	11.89		7/6/2009	0.0028	1.24
	7/20/2009	0.0352	15.81		7/20/2009	0.01310	5.89		7/20/2009	0.0025	1.12
	7/28/2009	0.0302	13.55		7/28/2009	0.00905	4.06		7/28/2009	0.0027	1.21
	9/23/2009	0.0067	3.00		9/23/2009	0.00004	0.02		9/23/2009	0.0010	0.44
	9/28/2009	0.0053	2.37		9/28/2009	0.00003	0.02		9/28/2009	0.0009	0.42
Avg high flow		0.0408	18.30			0.0199	8.94			0.0033	1.48
Avg low flow		0.0099	4.42			0.0002	0.09			0.0016	0.72

Note: Avg high flow was considered to be discharge during June and July

TABLE 3
SUMMARY OF FLOW RATES AND WATER LEVELS
McLAREN PIT DRAINS DCSW-101, 102, AND 103
NEW WORLD RESPONSE AND RESTORATION

Underdrain	Date	Flow Rate Field Measure (gpm)	ISCO Flowlink Measurement	McLaren Waste Rock Wells DCGW-105 DCGW-104		
DCSW-101	8/12/2008	16.26	Installation			
	8/20/2008	14.40				
	8/22/2008					
	9/17/2008	8.22				
	9/24/2008	6.45				
	11/17/2008		Freeze-up	DTGW = 28.28 ft		
	5/17/2009		Spring-thaw - drain starts flowing	DTGW = 29.93 ft		
	5/20/2009			GW starts rising		
	6/5/2009		Sediment covers sensor until 7/6/09		GW starts rising	
	7/3/2009	18.67	Peak Flow: ISCO measure 27.55 gpm	Peak GW level 6/30 to 7/7/2009	Peak GW level 6/21 to 7/14/2009	
	7/6/2009					
	7/7/2009					
	7/20/2009	15.81				
	7/28/2009	13.55				
	9/23/2009	3.00				
	9/28/2009	2.37				
DCSW-102	8/12/2008	3.90	Installation			
	8/20/2008	2.60				
	8/22/2008					
	9/17/2008	2.90				
	9/24/2008	0.04				
	9/25/2008		Freeze-up (estimated)	DTGW = 22.47 ft		
	5/21/2009		Spring-thaw - drain starts flowing	GW starts rising	DTGW = 24.79 ft	
	6/6/2009				GW starts rising	
	6/22/2009	11.89	Peak Flow: ISCO measure 26.45 gpm		Peak GW level 6/21 to 7/14/2009	
	7/6/2009					
	7/20/2009					
	7/28/2009	5.89				
	9/23/2009	4.06				
	9/28/2009	0.02				
DCSW-103	8/12/2008	1.11				
	8/20/2008	1.30				
	9/17/2008	1.07				
	9/24/2008	0.96				
	10/10/2008		Freeze-up			
	5/20/2009		Spring-thaw - drain starts flowing	GW starts rising	Peak GW level 6/21 to 7/14/2009	
	6/22/2009	1.24	Peak Flow: Assume 1.8 gpm	Peak GW level 6/30 to 7/7/2009		
	7/6/2009		No Spring-thaw and Peak Flow data			
	7/20/2009					
	7/28/2009	1.12				
	7/28/2009	1.21				
	9/23/2009	0.44				
9/28/2009	0.42					

TABLE 4
TOTAL FLOW FOR WATER YEAR AUGUST 12, 2008 TO AUGUST 12, 2009
McLAREN PIT UNDERDRAINS
NEW WORLD RESPONSE AND RESTORATION

Underdrain	Total Flow (gallons)
DCSW-101	2,641,587
DCSW-102	1,147,675
DCSW-103	218,675
Total	4,007,937

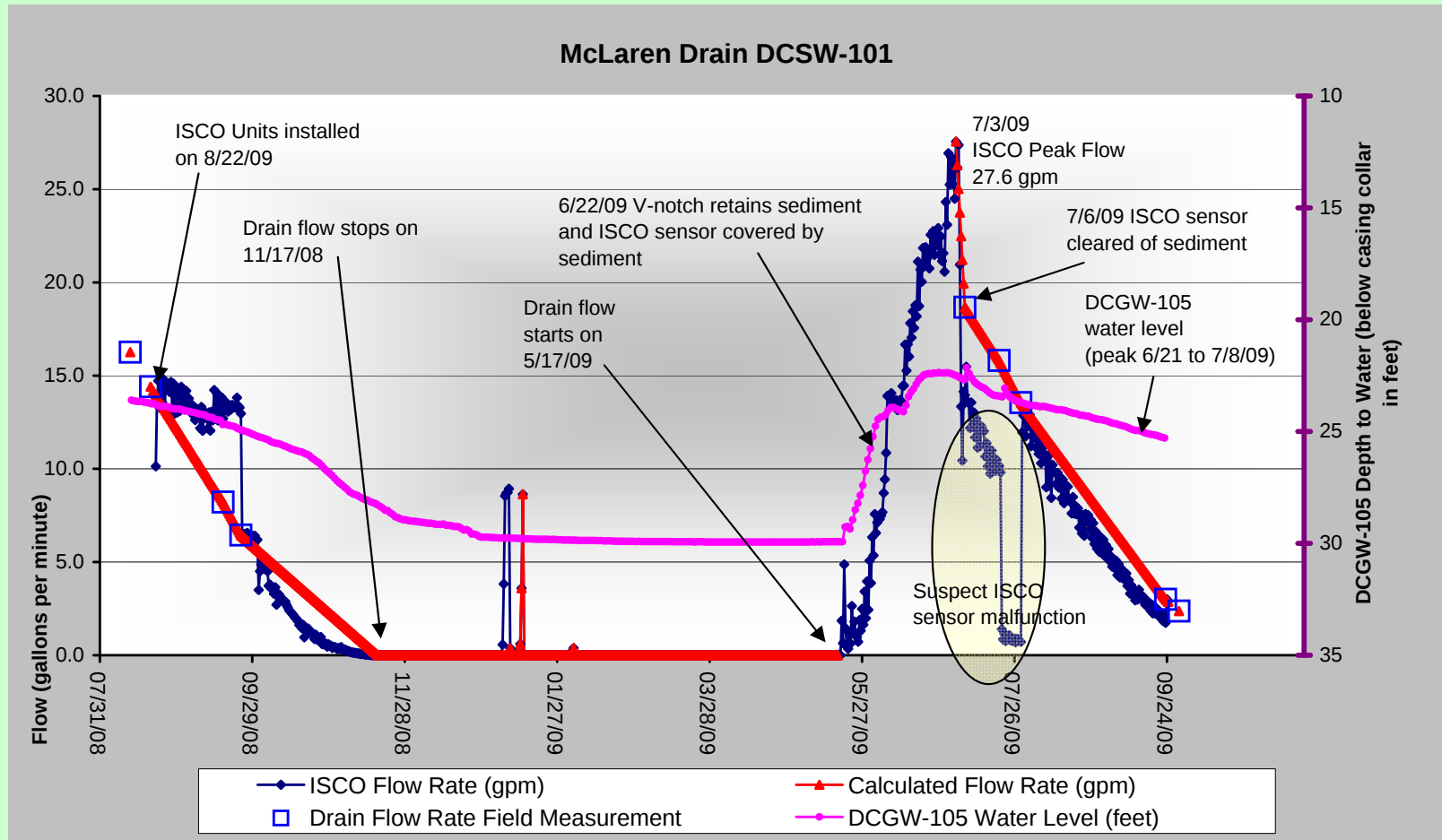


CHART 1

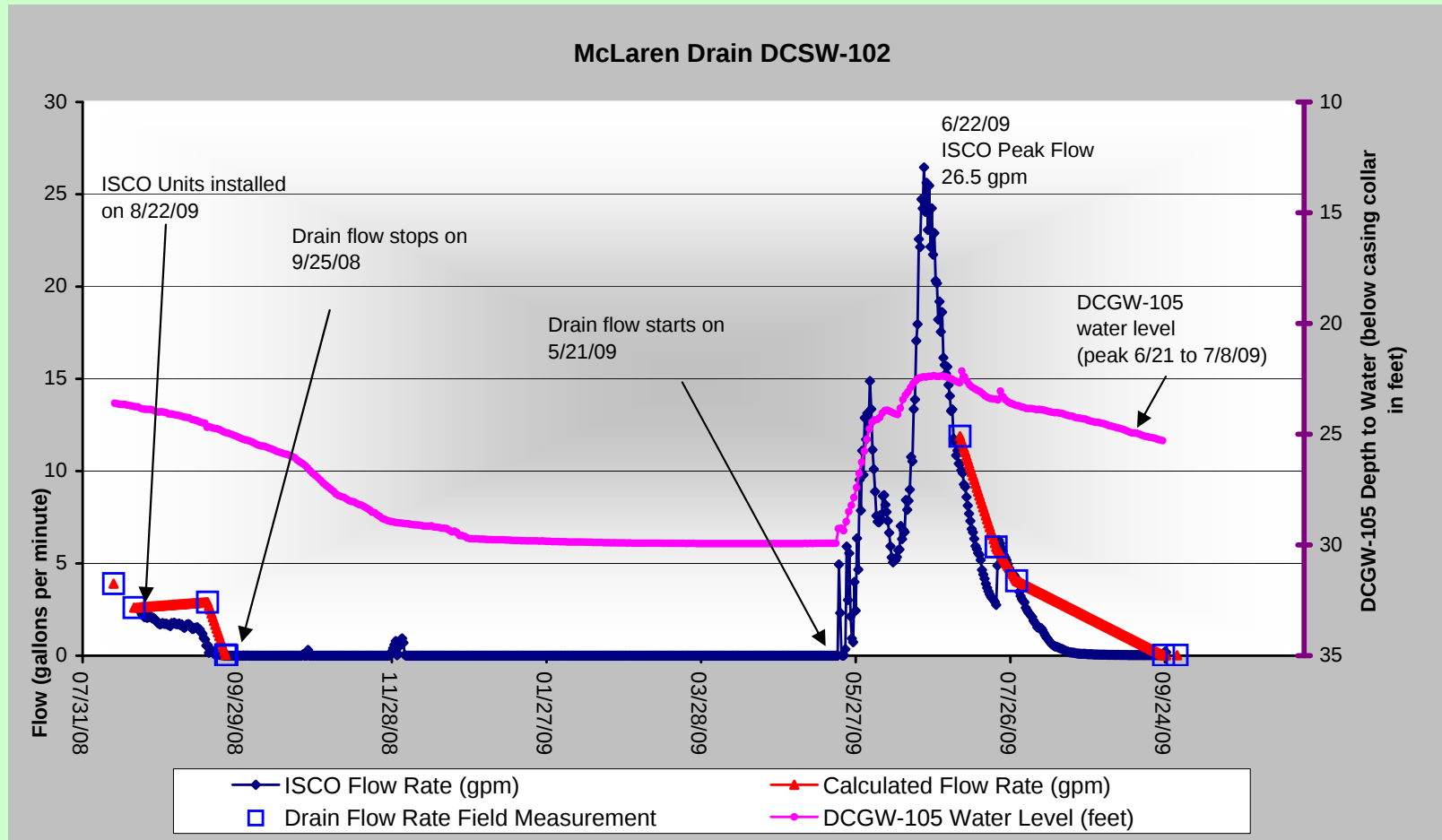


CHART 2

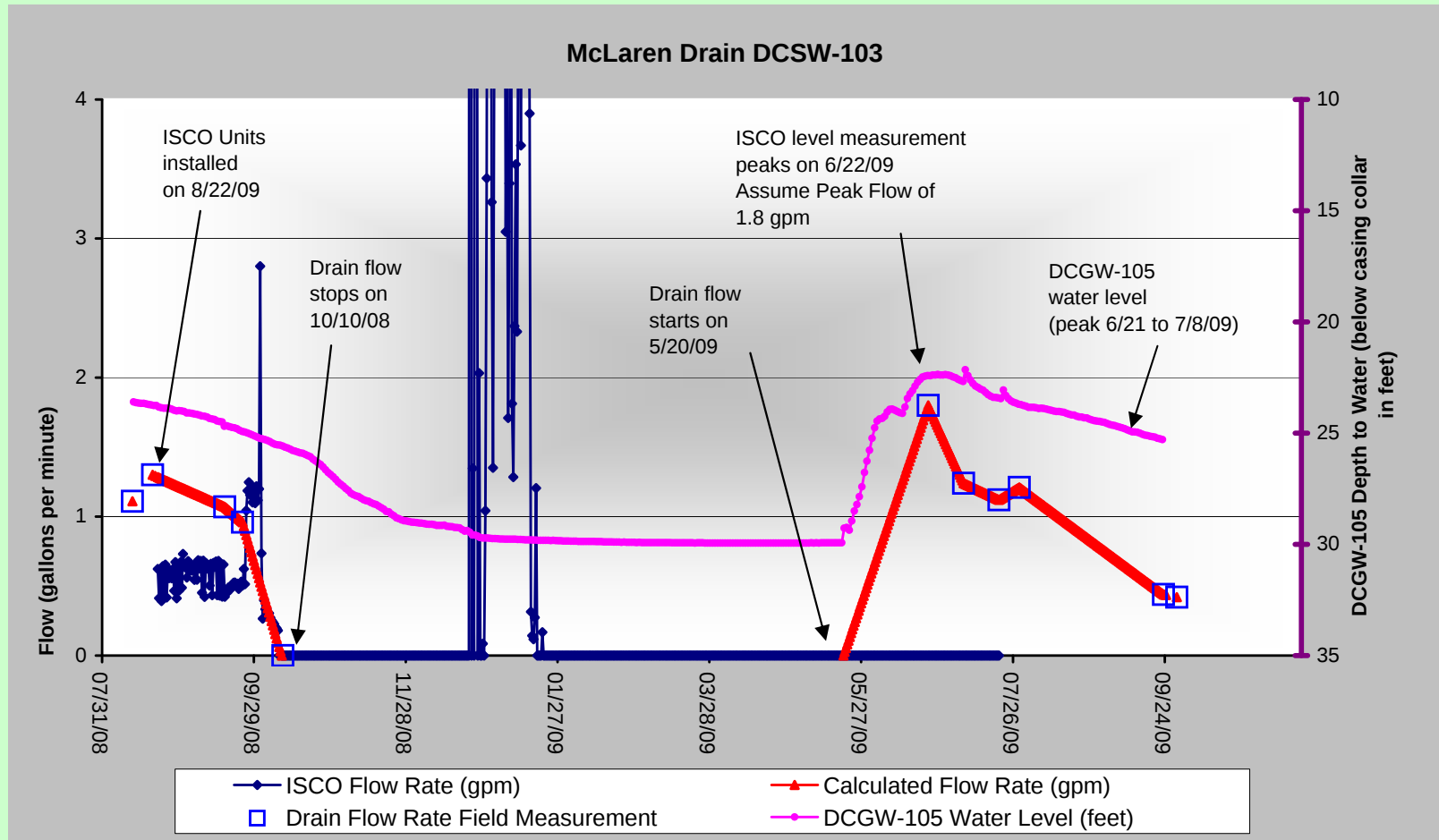


CHART 3

DCSW-101

Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
8/12/2008	39672.0					16.26		16.26					
								16.03 15.80 15.56 15.33 15.10 14.87 14.63	23,247 22,912 22,577 22,243 21,908 21,573 21,238				
8/20/2008	39680.0	8.0				14.40	-0.23	14.40	20,903				
8/21/2008	39681.0							14.18	20,580				
8/22/2008 0:00	39682.0		10.136					13.97	20,268			0.915	-1781.67
8/22/2008 12:00	39682.5		13.517					13.86	10,017			0.915	0.402
8/23/2008 0:00	39683.0		14.722					13.75	9,939			0.699	0.421
8/23/2008 12:00	39683.5		13.282					13.64	9,861			0.699	0.398
8/24/2008 0:00	39684.0		14.845					13.53	9,783			0.779	0.423
8/24/2008 12:00	39684.5		13.570					13.42	9,704			0.779	0.403
8/25/2008 0:00	39685.0		14.806					13.32	9,626			0.779	0.423
8/25/2008 12:00	39685.5		13.281					13.21	9,548			0.779	0.398
8/26/2008 0:00	39686.0		14.612					13.10	9,470			0.779	0.42
8/26/2008 12:00	39686.5		14.278					12.99	9,392			0.716	0.414
8/27/2008 0:00	39687.0		14.576					12.88	9,314			0.716	0.419
8/27/2008 12:00	39687.5		14.120					12.77	9,236			0.716	0.412
8/28/2008 0:00	39688.0		14.654					12.67	9,158			0.794	0.42
8/28/2008 12:00	39688.5		13.239					12.56	9,080			0.794	0.397
8/29/2008 0:00	39689.0		14.565					12.45	9,002			1.079	0.419
8/29/2008 12:00	39689.5		12.963					12.34	8,924			0.659	0.393
8/30/2008 0:00	39690.0		14.286					12.23	8,846			0.743	0.414
8/30/2008 12:00	39690.5		13.029					12.12	8,768			0.743	0.394
8/31/2008 0:00	39691.0		14.112					12.01	8,690			0.715	0.411
8/31/2008 12:00	39691.5		13.108					11.91	8,612			0.715	0.395
9/1/2008 0:00	39692.0		14.404					11.80	8,534			0.679	0.416
9/1/2008 12:00	39692.5		13.794					11.69	8,455			0.74	0.406
9/2/2008 0:00	39693.0		13.956					11.58	8,377			0.74	0.409
9/2/2008 12:00	39693.5		13.497					11.47	8,299			0.695	0.401
9/3/2008 0:00	39694.0		14.183					11.36	8,221			0.695	0.413
9/3/2008 12:00	39694.5		13.705					11.26	8,143			0.695	0.405
9/4/2008 0:00	39695.0		13.772					11.15	8,065			0.994	0.406
9/4/2008 12:00	39695.5		13.304					11.04	7,987			0.994	0.398
9/5/2008 0:00	39696.0		13.472					10.93	7,909			0.994	0.401
9/5/2008 12:00	39696.5		12.923					10.82	7,831			0.688	0.392
9/6/2008 0:00	39697.0		13.326					10.71	7,753			0.688	0.399
9/6/2008 12:00	39697.5		12.622					10.61	7,675			0.938	0.387
9/7/2008 0:00	39698.0		13.232					10.50	7,597			0.938	0.397
9/7/2008 12:00	39698.5		12.861					10.39	7,519			1.022	0.391
9/8/2008 0:00	39699.0		13.095					10.28	7,441			1.022	0.395
9/8/2008 12:00	39699.5		12.182					10.17	7,363			1.153	0.379
9/9/2008 0:00	39700.0		13.316					10.06	7,285			0.97	0.398
9/9/2008 12:00	39700.5		12.041					9.95	7,206			0.68	0.377
9/10/2008 0:00	39701.0		13.095					9.85	7,128			1.229	0.395
9/10/2008 12:00	39701.5		12.733					9.74	7,050			1.048	0.389
9/11/2008 0:00	39702.0		12.853					9.63	6,972			0.602	0.391
9/11/2008 12:00	39702.5		12.167					9.52	6,894			0.602	0.379
9/12/2008 0:00	39703.0		13.023					9.41	6,816			0.533	0.394
9/12/2008 12:00	39703.5		12.050					9.30	6,738			0.533	0.377
9/13/2008 0:00	39704.0		13.065					9.20	6,660			0.533	0.394
9/13/2008 12:00	39704.5		12.610					9.09	6,582			0.858	0.387
9/14/2008 0:00	39705.0		14.229					8.98	6,504			0.858	0.413
9/14/2008 12:00	39705.5		12.678					8.87	6,426			0.858	0.388
9/15/2008 0:00	39706.0		14.064					8.76	6,348			0.559	0.411
9/15/2008 12:00	39706.5		12.598					8.65	6,270			0.681	0.386
9/16/2008 0:00	39707.0		13.875					8.55	6,192			0.627	0.408
9/16/2008 12:00	39707.5		12.617					8.44	6,114			0.633	0.387
9/17/2008 0:00	39708.0		13.825					8.33	6,035			0.547	0.407
9/17/2008 12:00	39708.5	28.5	12.697			8.22	-0.108	8.22	5,957			0.671	0.388
9/18/2008 0:00	39709.0		13.596					8.09	5,873			0.548	0.403
9/18/2008 12:00	39709.5		13.148					7.97	5,782			0.548	0.396
9/19/2008 0:00	39710.0		13.528					7.84	5,691			0.596	0.402
9/19/2008 12:00	39710.5		13.069					7.71	5,600			0.596	0.394
9/20/2008 0:00	39711.0		13.399					7.59	5,509			0.541	0.4
9/20/2008 12:00	39711.5		13.169					7.46	5,418			0.541	0.396
9/21/2008 0:00	39712.0		13.426					7.34	5,327			0.566	0.4
9/21/2008 12:00	39712.5		13.405					7.21	5,236			0.566	0.4
9/22/2008 0:00	39713.0		13.308					7.08	5,145			0.566	0.398
9/22/2008 12:00	39713.5		13.280					6.96	5,054			0.566	0.398
9/23/2008 0:00	39714.0		13.820					6.83	4,963			0.656	0.407
9/23/2008 12:00	39714.5		13.374					6.70	4,872			0.568	0.399
9/24/2008 0:00	39715.0		13.284					6.58	4,781			0.568	0.398
9/24/2008 12:00	39715.5	7.0	12.963			6.45	-0.126	6.45	4,690	714,701	8/12/2008 to 9/24/2008	0.568	0.393
9/25/2008 0:00	39716.0		6.500	7.007	13.148 changed to 6.500			6.39	4,623			0.626	-380.997
9/25/2008 12:00	39716.5		6.500	4,680	11.527 changed to 6.500			6.33	4,580			0.626	-1930.22
9/26/2008 0:00	39717.0		6.505	4,682				6.27	4,537			0.626	0.362
9/26/2008 12:00	39717.5		6.360	4,631				6.21	4,494			0.626	0.358
9/27/2008 0:00	39718.0		6.564	4,653				6.15	4,451			0.58	0.364
9/27/2008 12:00	39718.5		6.307	4,634				6.09	4,408			0.58	0.356
9/28/2008 0:00	39719.0		6.445	4,591				6.03	4,365			0.559	0.36
9/28/2008 12:00	39719.5		6.182	4,546				5.97	4,322			0.48	0.352
9/29/2008 0:00	39720.0		6.417	4,536				5.91	4,279			0.5	0.36

DCSW-101

Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
9/29/2008 12:00	39720.5		6.170	4,531				5.85	4,236			0.5	0.352
9/30/2008 0:00	39721.0		6.413	4,530				5.79	4,193			0.444	0.359
9/30/2008 12:00	39721.5		6.197	4,540				5.73	4,150			0.489	0.353
10/1/2008 0:00	39722.0		6.197	4,462				5.67	4,107			0.489	0.353
10/1/2008 12:00	39722.5		3.501	3,491				5.61	4,064			0.489	0.19
10/2/2008 0:00	39723.0		4.508	2,883				5.55	4,021			0.489	-965.057
10/2/2008 12:00	39723.5		4.873	3,377				5.49	3,978			0.489	0.217
10/3/2008 0:00	39724.0		5.143	3,606				5.43	3,935			0.7	0.221
10/3/2008 12:00	39724.5		4.629	3,518				5.38	3,892			0.7	0.212
10/4/2008 0:00	39725.0		4.928	3,441				5.32	3,849			0.7	0.218
10/4/2008 12:00	39725.5		4.660	3,452				5.26	3,806			0.7	0.213
10/5/2008 0:00	39726.0		4.504	3,299				5.20	3,763			0.7	0.21
10/5/2008 12:00	39726.5		3.726	2,963				5.14	3,720			0.7	0.195
10/6/2008 0:00	39727.0		3.797	2,708				5.08	3,677			0.7	0.196
10/6/2008 12:00	39727.5		3.581	2,656				5.02	3,634			0.7	0.192
10/7/2008 0:00	39728.0		3.578	2,577				4.96	3,591			0.7	0.191
10/7/2008 12:00	39728.5		3.298	2,475				4.90	3,548			0.7	0.185
10/8/2008 0:00	39729.0		3.648	2,501				4.84	3,505			0.7	0.193
10/8/2008 12:00	39729.5		2.712	2,290				4.78	3,462			1.295	0.171
10/9/2008 0:00	39730.0		3.297	2,163				4.72	3,419			1.251	0.185
10/9/2008 12:00	39730.5		3.288	2,363				4.66	3,376			1.218	0.185
10/10/2008 0:00	39731.0		3.157	2,313				4.60	3,333			1.218	0.182
10/10/2008 12:00	39731.5		3.008	2,219				4.54	3,290			1.218	0.179
10/11/2008 0:00	39732.0		2.973	2,153				4.48	3,247			1.257	0.178
10/11/2008 12:00	39732.5		2.846	2,095				4.42	3,204			1.161	0.175
10/12/2008 0:00	39733.0		2.881	2,062				4.36	3,161			1.205	0.176
10/12/2008 12:00	39733.5		2.698	2,008				4.30	3,118			1.205	0.171
10/13/2008 0:00	39734.0		2.571	1,897				4.24	3,075			1.205	0.168
10/13/2008 12:00	39734.5		2.416	1,795				4.18	3,032			1.258	0.164
10/14/2008 0:00	39735.0		2.336	1,711				4.12	2,989			1.258	0.161
10/14/2008 12:00	39735.5		2.251	1,651				4.06	2,946			1.233	0.159
10/15/2008 0:00	39736.0		2.186	1,597				4.00	2,903			1.025	0.157
10/15/2008 12:00	39736.5		2.070	1,532				3.94	2,860			1.025	0.154
10/16/2008 0:00	39737.0		2.004	1,467				3.88	2,817			1.025	0.152
10/16/2008 12:00	39737.5		1.941	1,420				3.82	2,774			1.025	0.15
10/17/2008 0:00	39738.0		1.816	1,353				3.76	2,731			1.025	0.146
10/17/2008 12:00	39738.5		1.613	1,234				3.70	2,688			0.802	0.139
10/18/2008 0:00	39739.0		1.708	1,196				3.64	2,645			0.398	0.142
10/18/2008 12:00	39739.5		1.452	1,138				3.58	2,602			0.934	0.133
10/19/2008 0:00	39740.0		1.635	1,111				3.52	2,559			0.934	0.14
10/19/2008 12:00	39740.5		0.959	934				3.46	2,516			0.683	0.113
10/20/2008 0:00	39741.0		1.419	856				3.40	2,473			0.683	0.132
10/20/2008 12:00	39741.5		1.270	968				3.34	2,430			0.683	0.127
10/21/2008 0:00	39742.0		1.434	973				3.28	2,387			0.445	0.133
10/21/2008 12:00	39742.5		1.288	980				3.23	2,344			0.445	0.127
10/22/2008 0:00	39743.0		1.192	893				3.17	2,301			0.445	0.123
10/22/2008 12:00	39743.5		1.141	840				3.11	2,258			0.445	0.121
10/23/2008 0:00	39744.0		1.162	829				3.05	2,215			0.86	0.122
10/23/2008 12:00	39744.5		0.870	732				2.99	2,172			0.911	0.109
10/24/2008 0:00	39745.0		1.101	710				2.93	2,129			0.911	0.119
10/24/2008 12:00	39745.5		0.836	697				2.87	2,086			0.911	0.107
10/25/2008 0:00	39746.0		0.945	641				2.81	2,043			0.383	0.112
10/25/2008 12:00	39746.5		0.860	650				2.75	2,000			0.327	0.108
10/26/2008 0:00	39747.0		0.974	660				2.69	1,957			0.327	0.114
10/26/2008 12:00	39747.5		0.601	567				2.63	1,914			0.327	0.094
10/27/2008 0:00	39748.0		0.679	461				2.57	1,871			0.327	0.098
10/27/2008 12:00	39748.5		0.568	449				2.51	1,828			0.309	0.092
10/28/2008 0:00	39749.0		0.625	429				2.45	1,785			0.309	0.095
10/28/2008 12:00	39749.5		0.460	391				2.39	1,742			0.309	0.084
10/29/2008 0:00	39750.0		0.581	375				2.33	1,699			0.309	0.093
10/29/2008 12:00	39750.5		0.502	390				2.27	1,656			0.309	0.087
10/30/2008 0:00	39751.0		0.513	365				2.21	1,613			0.309	0.088
10/30/2008 12:00	39751.5		0.396	327				2.15	1,570			0.4	0.079
10/31/2008 0:00	39752.0		0.449	304				2.09	1,527			0.4	0.083
10/31/2008 12:00	39752.5		0.438	319				2.03	1,484			0.4	0.083
11/1/2008 0:00	39753.0		0.400	302				1.97	1,441			0.4	0.08
11/1/2008 12:00	39753.5		0.325	261				1.91	1,398			0.371	0.073
11/2/2008 0:00	39754.0		0.395	259				1.85	1,355			0.4	0.079
11/2/2008 12:00	39754.5		0.342	265				1.79	1,312			0.371	0.075
11/3/2008 0:00	39755.0		0.442	282				1.73	1,269			0.371	0.083
11/3/2008 12:00	39755.5		0.306	269				1.67	1,226			0.356	0.072
11/4/2008 0:00	39756.0		0.298	217				1.61	1,183			0.356	0.071
11/4/2008 12:00	39756.5		0.310	219				1.55	1,140			0.356	0.072
11/5/2008 0:00	39757.0		0.256	204				1.49	1,097			0.342	0.067
11/5/2008 12:00	39757.5		0.231	175				1.43	1,054			0.326	0.064
11/6/2008 0:00	39758.0		0.222	163				1.37	1,011			0.326	0.063
11/6/2008 12:00	39758.5		0.167	140				1.31	968			0.295	0.056
11/7/2008 0:00	39759.0		0.167	120				1.25	925			0.295	0.056
11/7/2008 12:00	39759.5		0.139	110				1.19	882			0.264	0.052
11/8/2008 0:00	39760.0		0.141	101				1.13	839			0.28	0.053
11/8/2008 12:00	39760.5		0.126	96				1.08	796			0.264	0.05
11/9/2008 0:00	39761.0		0.118	88				1.02	753			0.248	0.049
11/9/2008 12:00	39761.5		0.100	78				0.96	710			0.231	0.046
11/10/2008 0:00	39762.0		0.097	71				0.90	667			0.231	0.045
11/10/2008 12:00	39762.5		0.059	56				0.84	624			0.198	0.037
11/11/2008 0:00	39763.0		0.072	47				0.78	581			0.215	0.04
11/11/2008 12:00	39763.5		0.069	51				0.72	538			0.215	0.04
11/12/2008 0:00	39764.0		0.061	47				0.66	495			0.198	0.038

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
11/12/2008 12:00	39764.5		0.033	34				0.60	452			0.146	0.029
11/13/2008 0:00	39765.0		0.037	25				0.54	409			0.164	0.031
11/13/2008 12:00	39765.5		0.033	25				0.48	366			0.146	0.029
11/14/2008 0:00	39766.0		0.022	20				0.42	323			0.129	0.025
11/14/2008 12:00	39766.5		0.011	12				0.36	280			0.093	0.019
11/15/2008 0:00	39767.0		0.007	6				0.30	237			0.075	0.015
11/15/2008 12:00	39767.5		0.002	3				0.24	194			0.056	0.01
11/16/2008 0:00	39768.0		0.003	2				0.18	151			0.056	0.011
11/16/2008 12:00	39768.5		0.001	1	ISCO total flow values not used			0.12	108			0.038	0.007
11/17/2008 0:00	39769.0		0.0005	1	Calculated volume = ISCO Flow Rate x 720 min			0.06	65	From bucket/stopwatch flow rate meas		0.019	0.005
11/17/2008 12:00	39769.5	54.0	0.000	0	163,229		-0.060	0.00	22	250,776	8/12/2008 to 11/17/2008	0	-0.002
11/18/2008 0:00	39770.0		0.000					0.00				0	-0.007
11/18/2008 12:00	39770.5		0.000					0.00				0	-0.012
11/19/2008 0:00	39771.0		0.000					0.00				0	-0.009
11/19/2008 12:00	39771.5		0.000					0.00				0	-0.01
11/20/2008 0:00	39772.0		0.000					0.00				0	-0.008
11/20/2008 12:00	39772.5		0.000					0.00				0	-0.014
11/21/2008 0:00	39773.0		0.000					0.00				0	-0.006
11/21/2008 12:00	39773.5		0.000					0.00				0	-0.011
11/22/2008 0:00	39774.0		0.000					0.00				0	-0.014
11/22/2008 12:00	39774.5		0.000					0.00				0	-0.015
11/23/2008 0:00	39775.0		0.000					0.00				0	-0.014
11/23/2008 12:00	39775.5		0.000					0.00				0	-0.016
11/24/2008 0:00	39776.0		0.000					0.00				0	-0.017
11/24/2008 12:00	39776.5		0.000					0.00				0	-0.018
11/25/2008 0:00	39777.0		0.000					0.00				0	-0.016
11/25/2008 12:00	39777.5		0.000					0.00				0	-0.02
11/26/2008 0:00	39778.0		0.000					0.00				0	-0.018
11/26/2008 12:00	39778.5		0.000					0.00				0	-0.02
11/27/2008 0:00	39779.0		0.000					0.00				0	-0.017
11/27/2008 12:00	39779.5		0.000					0.00				0	-0.024
11/28/2008 0:00	39780.0		0.000					0.00				0	-0.021
11/28/2008 12:00	39780.5		0.000					0.00				0	-0.02
11/29/2008 0:00	39781.0		0.000					0.00				0	-0.018
11/29/2008 12:00	39781.5		0.000					0.00				0	-0.017
11/30/2008 0:00	39782.0		0.000					0.00				0	-0.018
11/30/2008 12:00	39782.5		0.000					0.00				0	-0.025
12/1/2008 0:00	39783.0		0.000					0.00				0	-0.026
12/1/2008 12:00	39783.5		0.000					0.00				0	-0.027
12/2/2008 0:00	39784.0		0.000					0.00				0	-0.03
12/2/2008 12:00	39784.5		0.000					0.00				0	-0.026
12/3/2008 0:00	39785.0		0.000					0.00				0	-0.025
12/3/2008 12:00	39785.5		0.000					0.00				0	-0.028
12/4/2008 0:00	39786.0		0.000					0.00				0	-0.027
12/4/2008 12:00	39786.5		0.000					0.00				0	-0.028
12/5/2008 0:00	39787.0		0.000					0.00				0	-0.027
12/5/2008 12:00	39787.5		0.000					0.00				0	-0.002
12/6/2008 0:00	39788.0		0.000					0.00				0	-0.013
12/6/2008 12:00	39788.5		0.000					0.00				0	-0.026
12/7/2008 0:00	39789.0		0.000					0.00				0	-0.024
12/7/2008 12:00	39789.5		0.000					0.00				0	-0.023
12/8/2008 0:00	39790.0		0.000					0.00				0	-0.023
12/8/2008 12:00	39790.5		0.000					0.00				0	-0.023
12/9/2008 0:00	39791.0		0.000					0.00				0	-0.022
12/9/2008 12:00	39791.5		0.000					0.00				0	-0.026
12/10/2008 0:00	39792.0		0.000					0.00				0	-0.025
12/10/2008 12:00	39792.5		0.000					0.00				0	-0.027
12/11/2008 0:00	39793.0		0.000					0.00				0	-0.026
12/11/2008 12:00	39793.5		0.000					0.00				0	-0.027
12/12/2008 0:00	39794.0		0.000					0.00				0	-0.026
12/12/2008 12:00	39794.5		0.000					0.00				0	-0.029
12/13/2008 0:00	39795.0		0.000					0.00				0	-0.027
12/13/2008 12:00	39795.5		0.000					0.00				0	-0.027
12/14/2008 0:00	39796.0		0.000					0.00				0	-0.026
12/14/2008 12:00	39796.5		0.000					0.00				0	-0.029
12/15/2008 0:00	39797.0		0.000					0.00				0	-0.028
12/15/2008 12:00	39797.5		0.000					0.00				0	-0.031
12/16/2008 0:00	39798.0		0.000					0.00				0	-0.028
12/16/2008 12:00	39798.5		0.000					0.00				0	-0.029
12/17/2008 0:00	39799.0		0.000					0.00				0	-0.024
12/17/2008 12:00	39799.5		0.000					0.00				0	-0.024
12/18/2008 0:00	39800.0		0.000					0.00				0	-0.03
12/18/2008 12:00	39800.5		0.000					0.00				0	-0.023
12/19/2008 0:00	39801.0		0.000					0.00				0	0.092
12/19/2008 12:00	39801.5		0.000					0.00				0	0.116
12/20/2008 0:00	39802.0		0.000					0.00				0	0.128
12/20/2008 12:00	39802.5		0.000					0.00				0	0.14
12/21/2008 0:00	39803.0		0.000					0.00				0	0.156
12/21/2008 12:00	39803.5		0.000					0.00				0	0.161
12/22/2008 0:00	39804.0		0.000					0.00				0	0.167
12/22/2008 12:00	39804.5		0.000					0.00				0	0.176
12/23/2008 0:00	39805.0		0.000					0.00				0	0.182
12/23/2008 12:00	39805.5		0.000					0.00				0	0.188
12/24/2008 0:00	39806.0		0.000					0.00				0	0.19
12/24/2008 12:00	39806.5		0.000					0.00				0	0.199
12/25/2008 0:00	39807.0		0.000					0.00				0	0.203
12/25/2008 12:00	39807.5		0.000					0.00				0	0.209
12/26/2008 0:00	39808.0		0.000					0.00				0	0.222

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
12/26/2008 12:00	39808.5		0.000					0.00				0	0.231
12/27/2008 0:00	39809.0		0.000					0.00				0	0.229
12/27/2008 12:00	39809.5		0.000					0.00				0	0.237
12/28/2008 0:00	39810.0		0.000					0.00				0	0.241
12/28/2008 12:00	39810.5		0.000					0.00				0	0.169
12/29/2008 0:00	39811.0		0.000					0.00				0	0.136
12/29/2008 12:00	39811.5		0.000					0.00				0	0.245
12/30/2008 0:00	39812.0		0.000					0.00				0	0.253
12/30/2008 12:00	39812.5		0.000					0.00				0	0.246
12/31/2008 0:00	39813.0		0.000					0.00				0	0.231
12/31/2008 12:00	39813.5		0.000					0.00				0	0.257
1/1/2009 0:00	39814.0		0.000					0.00				0	0.27
1/1/2009 12:00	39814.5		0.000					0.00				0	0.265
1/2/2009 0:00	39815.0		0.000					0.00				0	0.262
1/2/2009 12:00	39815.5		0.000					0.00				0	0.276
1/3/2009 0:00	39816.0		0.000					0.00				0	-0.098
1/3/2009 12:00	39816.5		0.000					0.00				0	-0.077
1/4/2009 0:00	39817.0		0.000					0.00				0	-0.077
1/4/2009 12:00	39817.5		0.000					0.00				0	-0.084
1/5/2009 0:00	39818.0		0.000					0.00				0	-0.004
1/5/2009 12:00	39818.5		0.567					0.00				0	0.092
1/6/2009 0:00	39819.0		3.822					0.00				0	0.197
1/6/2009 12:00	39819.5		8.551					0.00				0	0.271
1/7/2009 0:00	39820.0		8.693					0.00				0	0.273
1/7/2009 12:00	39820.5		8.734					0.00				0	0.274
1/8/2009 0:00	39821.0		8.931					0.00				0	0.276
1/8/2009 12:00	39821.5		0.374					0.37	269			0.386	0.078
1/9/2009 0:00	39822.0		0.000					0.00				0	-0.094
1/9/2009 12:00	39822.5		0.000					0.00				0	-0.117
1/10/2009 0:00	39823.0		0.000					0.00				0	-0.018
1/10/2009 12:00	39823.5		0.000					0.00				0	-0.029
1/11/2009 0:00	39824.0		0.000					0.00				0	-0.043
1/11/2009 12:00	39824.5		0.000					0.00				0	-0.005
1/12/2009 0:00	39825.0		0.268					0.268	193			0.342	0.068
1/12/2009 12:00	39825.5		0.599					0.599	431			0.342	0.094
1/13/2009 0:00	39826.0		3.596					3.596	2,589			0.342	0.192
1/13/2009 12:00	39826.5		8.633					8.633	6,216			0.342	0.272
1/14/2009 0:00	39827.0		0.000					0.00				0	-0.087
1/14/2009 12:00	39827.5		0.000					0.00				0	-0.08
1/15/2009 0:00	39828.0		0.000					0.00				0	-0.103
1/15/2009 12:00	39828.5		0.000					0.00				0	-0.038
1/16/2009 0:00	39829.0		0.000					0.00				0	0.16
1/16/2009 12:00	39829.5		0.000					0.00				0	0.271
1/17/2009 0:00	39830.0		0.000					0.00				0	0.187
1/17/2009 12:00	39830.5		0.000					0.00				0	-0.117
1/18/2009 0:00	39831.0		0.000					0.00				0	-0.117
1/18/2009 12:00	39831.5		0.000					0.00				0	-0.104
1/19/2009 0:00	39832.0		0.000					0.00				0	-0.074
1/19/2009 12:00	39832.5		0.000					0.00				0	0.088
1/20/2009 0:00	39833.0		0.000					0.00				0	0.228
1/20/2009 12:00	39833.5		0.000					0.00				0	0.276
1/21/2009 0:00	39834.0		0.000					0.00				0	0.286
1/21/2009 12:00	39834.5		0.000					0.00				0	0.293
1/22/2009 0:00	39835.0		0.000					0.00				0	0.297
1/22/2009 12:00	39835.5		0.000					0.00				0	0.306
1/23/2009 0:00	39836.0		0.000					0.00				0	-0.089
1/23/2009 12:00	39836.5		0.000					0.00				0	-0.093
1/24/2009 0:00	39837.0		0.000					0.00				0	-0.106
1/24/2009 12:00	39837.5		0.000					0.00				0	-0.107
1/25/2009 0:00	39838.0		0.000					0.00				0	-0.1
1/25/2009 12:00	39838.5		0.000					0.00				0	-0.082
1/26/2009 0:00	39839.0		0.000					0.00				0	-0.077
1/26/2009 12:00	39839.5		0.000					0.00				0	-0.072
1/27/2009 0:00	39840.0		0.000					0.00				0	-0.067
1/27/2009 12:00	39840.5		0.000					0.00				0	-0.078
1/28/2009 0:00	39841.0		0.000					0.00				0	-0.059
1/28/2009 12:00	39841.5		0.000					0.00				0	-0.074
1/29/2009 0:00	39842.0		0.000					0.00				0	-0.052
1/29/2009 12:00	39842.5		0.000					0.00				0	-0.061
1/30/2009 0:00	39843.0		0.000					0.00				0	-0.057
1/30/2009 12:00	39843.5		0.000					0.00				0	-0.027
1/31/2009 0:00	39844.0		0.000					0.00				0	-0.01
1/31/2009 12:00	39844.5		0.011					0.011	8			0.093	0.019
2/1/2009 0:00	39845.0		0.001					0.001	1			0.019	0.006
2/1/2009 12:00	39845.5		0.045					0.045	32			0.181	0.033
2/2/2009 0:00	39846.0		0.240					0.240	173			0.326	0.065
2/2/2009 12:00	39846.5		0.387					0.387	279	10,191	11/18/2008 to 2/2/2009	0.386	0.079
2/3/2009 0:00	39847.0		0.000					0.00				0	-0.079
2/3/2009 12:00	39847.5		0.000					0.00				0	-0.069
2/4/2009 0:00	39848.0		0.000					0.00				0	-0.067
2/4/2009 12:00	39848.5		0.000					0.00				0	-0.066
2/5/2009 0:00	39849.0		0.000					0.00				0	-0.065
2/5/2009 12:00	39849.5		0.000					0.00				0	-0.064
2/6/2009 0:00	39850.0		0.000					0.00				0	-0.058
2/6/2009 12:00	39850.5		0.000					0.00				0	-0.066
2/7/2009 0:00	39851.0		0.000					0.00				0	-0.061
2/7/2009 12:00	39851.5		0.000					0.00				0	-0.063
2/8/2009 0:00	39852.0		0.000					0.00				0	-0.061

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
2/8/2009 12:00	39852.5		0.000					0.00				0	-0.062
2/9/2009 0:00	39853.0		0.000					0.00				0	-0.063
2/9/2009 12:00	39853.5		0.000					0.00				0	-0.06
2/10/2009 0:00	39854.0		0.000					0.00				0	-0.056
2/10/2009 12:00	39854.5		0.000					0.00				0	-0.057
2/11/2009 0:00	39855.0		0.000					0.00				0	-0.063
2/11/2009 12:00	39855.5		0.000					0.00				0	-0.062
2/12/2009 0:00	39856.0		0.000					0.00				0	-0.064
2/12/2009 12:00	39856.5		0.000					0.00				0	-0.064
2/13/2009 0:00	39857.0		0.000					0.00				0	-0.064
2/13/2009 12:00	39857.5		0.000					0.00				0	-0.066
2/14/2009 0:00	39858.0		0.000					0.00				0	-0.066
2/14/2009 12:00	39858.5		0.000					0.00				0	-0.068
2/15/2009 0:00	39859.0		0.000					0.00				0	-0.067
2/15/2009 12:00	39859.5		0.000					0.00				0	-0.068
2/16/2009 0:00	39860.0		0.000					0.00				0	-0.069
2/16/2009 12:00	39860.5		0.000					0.00				0	-0.071
2/17/2009 0:00	39861.0		0.000					0.00				0	-0.071
2/17/2009 12:00	39861.5		0.000					0.00				0	-0.07
2/18/2009 0:00	39862.0		0.000					0.00				0	-0.071
2/18/2009 12:00	39862.5		0.000					0.00				0	-0.072
2/19/2009 0:00	39863.0		0.000					0.00				0	-0.072
2/19/2009 12:00	39863.5		0.000					0.00				0	-0.07
2/20/2009 0:00	39864.0		0.000					0.00				0	-0.072
2/20/2009 12:00	39864.5		0.000					0.00				0	-0.071
2/21/2009 0:00	39865.0		0.000					0.00				0	-0.072
2/21/2009 12:00	39865.5		0.000					0.00				0	-0.072
2/22/2009 0:00	39866.0		0.000					0.00				0	-0.072
2/22/2009 12:00	39866.5		0.000					0.00				0	-0.071
2/23/2009 0:00	39867.0		0.000					0.00				0	-0.071
2/23/2009 12:00	39867.5		0.000					0.00				0	-0.07
2/24/2009 0:00	39868.0		0.000					0.00				0	-0.074
2/24/2009 12:00	39868.5		0.000					0.00				0	-0.072
2/25/2009 0:00	39869.0		0.000					0.00				0	-0.074
2/25/2009 12:00	39869.5		0.000					0.00				0	-0.072
2/26/2009 0:00	39870.0		0.000					0.00				0	-0.07
2/26/2009 12:00	39870.5		0.000					0.00				0	-0.072
2/27/2009 0:00	39871.0		0.000					0.00				0	-0.074
2/27/2009 12:00	39871.5		0.000					0.00				0	-0.072
2/28/2009 0:00	39872.0		0.000					0.00				0	-0.073
2/28/2009 12:00	39872.5		0.000					0.00				0	-0.076
3/1/2009 0:00	39873.0		0.000					0.00				0	-0.072
3/1/2009 12:00	39873.5		0.000					0.00				0	-0.073
3/2/2009 0:00	39874.0		0.000					0.00				0	-0.071
3/2/2009 12:00	39874.5		0.000					0.00				0	-0.068
3/3/2009 0:00	39875.0		0.000					0.00				0	-0.073
3/3/2009 12:00	39875.5		0.000					0.00				0	-0.075
3/4/2009 0:00	39876.0		0.000					0.00				0	-0.071
3/4/2009 12:00	39876.5		0.000					0.00				0	-0.071
3/5/2009 0:00	39877.0		0.000					0.00				0	-0.072
3/5/2009 12:00	39877.5		0.000					0.00				0	-0.071
3/6/2009 0:00	39878.0		0.000					0.00				0	-0.075
3/6/2009 12:00	39878.5		0.000					0.00				0	-0.071
3/7/2009 0:00	39879.0		0.000					0.00				0	-0.071
3/7/2009 12:00	39879.5		0.000					0.00				0	-0.072
3/8/2009 0:00	39880.0		0.000					0.00				0	-0.071
3/8/2009 12:00	39880.5		0.000					0.00				0	-0.077
3/9/2009 0:00	39881.0		0.000					0.00				0	-0.074
3/9/2009 12:00	39881.5		0.000					0.00				0	-0.073
3/10/2009 0:00	39882.0		0.000					0.00				0	-0.073
3/10/2009 12:00	39882.5		0.000					0.00				0	-0.069
3/11/2009 0:00	39883.0		0.000					0.00				0	-0.073
3/11/2009 12:00	39883.5		0.000					0.00				0	-0.073
3/12/2009 0:00	39884.0		0.000					0.00				0	-0.074
3/12/2009 12:00	39884.5		0.000					0.00				0	-0.074
3/13/2009 0:00	39885.0		0.000					0.00				0	-0.076
3/13/2009 12:00	39885.5		0.000					0.00				0	-0.074
3/14/2009 0:00	39886.0		0.000					0.00				0	-0.075
3/14/2009 12:00	39886.5		0.000					0.00				0	-0.077
3/15/2009 0:00	39887.0		0.000					0.00				0	-0.078
3/15/2009 12:00	39887.5		0.000					0.00				0	-0.073
3/16/2009 0:00	39888.0		0.000					0.00				0	-0.072
3/16/2009 12:00	39888.5		0.000					0.00				0	-0.07
3/17/2009 0:00	39889.0		0.000					0.00				0	-0.071
3/17/2009 12:00	39889.5		0.000					0.00				0	-0.076
3/18/2009 0:00	39890.0		0.000					0.00				0	-0.076
3/18/2009 12:00	39890.5		0.000					0.00				0	-0.077
3/19/2009 0:00	39891.0		0.000					0.00				0	-0.077
3/19/2009 12:00	39891.5		0.000					0.00				0	-0.075
3/20/2009 0:00	39892.0		0.000					0.00				0	-0.076
3/20/2009 12:00	39892.5		0.000					0.00				0	-0.077
3/21/2009 0:00	39893.0		0.000					0.00				0	-0.076
3/21/2009 12:00	39893.5		0.000					0.00				0	-0.076
3/22/2009 0:00	39894.0		0.000					0.00				0	-0.074
3/22/2009 12:00	39894.5		0.000					0.00				0	-0.078
3/23/2009 0:00	39895.0		0.000					0.00				0	-0.076
3/23/2009 12:00	39895.5		0.000					0.00				0	-0.076
3/24/2009 0:00	39896.0		0.000					0.00				0	-0.079

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
3/24/2009 12:00	39896.5		0.000					0.00				0	-0.078
3/25/2009 0:00	39897.0		0.000					0.00				0	-0.077
3/25/2009 12:00	39897.5		0.000					0.00				0	-0.079
3/26/2009 0:00	39898.0		0.000					0.00				0	-0.079
3/26/2009 12:00	39898.5		0.000					0.00				0	-0.079
3/27/2009 0:00	39899.0		0.000					0.00				0	-0.081
3/27/2009 12:00	39899.5		0.000					0.00				0	-0.079
3/28/2009 0:00	39900.0		0.000					0.00				0	-0.079
3/28/2009 12:00	39900.5		0.000					0.00				0	-0.081
3/29/2009 0:00	39901.0		0.000					0.00				0	-0.079
3/29/2009 12:00	39901.5		0.000					0.00				0	-0.081
3/30/2009 0:00	39902.0		0.000					0.00				0	-0.078
3/30/2009 12:00	39902.5		0.000					0.00				0	-0.081
3/31/2009 0:00	39903.0		0.000					0.00				0	-0.079
3/31/2009 12:00	39903.5		0.000					0.00				0	-0.08
4/1/2009 0:00	39904.0		0.000					0.00				0	-0.081
4/1/2009 12:00	39904.5		0.000					0.00				0	-0.08
4/2/2009 0:00	39905.0		0.000					0.00				0	-0.078
4/2/2009 12:00	39905.5		0.000					0.00				0	-0.081
4/3/2009 0:00	39906.0		0.000					0.00				0	-0.081
4/3/2009 12:00	39906.5		0.000					0.00				0	-0.08
4/4/2009 0:00	39907.0		0.000					0.00				0	-0.084
4/4/2009 12:00	39907.5		0.000					0.00				0	-0.082
4/5/2009 0:00	39908.0		0.000					0.00				0	-0.08
4/5/2009 12:00	39908.5		0.000					0.00				0	-0.08
4/6/2009 0:00	39909.0		0.000					0.00				0	-0.08
4/6/2009 12:00	39909.5		0.000					0.00				0	-0.082
4/7/2009 0:00	39910.0		0.000					0.00				0	-0.043
4/7/2009 12:00	39910.5		0.000					0.00				0	-0.06
4/8/2009 0:00	39911.0		0.000					0.00				0	-0.04
4/8/2009 12:00	39911.5		0.000					0.00				0	-0.05
4/9/2009 0:00	39912.0		0.000					0.00				0	-0.059
4/9/2009 12:00	39912.5		0.000					0.00				0	-0.063
4/10/2009 0:00	39913.0		0.000					0.00				0	-0.074
4/10/2009 12:00	39913.5		0.000					0.00				0	-0.076
4/11/2009 0:00	39914.0		0.000					0.00				0	-0.075
4/11/2009 12:00	39914.5		0.000					0.00				0	-0.05
4/12/2009 0:00	39915.0		0.000					0.00				0	-0.042
4/12/2009 12:00	39915.5		0.000					0.00				0	-0.046
4/13/2009 0:00	39916.0		0.000					0.00				0	-0.047
4/13/2009 12:00	39916.5		0.000					0.00				0	-0.045
4/14/2009 0:00	39917.0		0.000					0.00				0	-0.049
4/14/2009 12:00	39917.5		0.000					0.00				0	-0.055
4/15/2009 0:00	39918.0		0.000					0.00				0	-0.06
4/15/2009 12:00	39918.5		0.000					0.00				0	-0.064
4/16/2009 0:00	39919.0		0.000					0.00				0	-0.069
4/16/2009 12:00	39919.5		0.000					0.00				0	-0.079
4/17/2009 0:00	39920.0		0.000					0.00				0	-0.079
4/17/2009 12:00	39920.5		0.000					0.00				0	-0.08
4/18/2009 0:00	39921.0		0.000					0.00				0	-0.037
4/18/2009 12:00	39921.5		0.000					0.00				0	-0.042
4/19/2009 0:00	39922.0		0.000					0.00				0	-0.039
4/19/2009 12:00	39922.5		0.000					0.00				0	-0.044
4/20/2009 0:00	39923.0		0.000					0.00				0	-0.043
4/20/2009 12:00	39923.5		0.000					0.00				0	-0.046
4/21/2009 0:00	39924.0		0.000					0.00				0	-0.038
4/21/2009 12:00	39924.5		0.000					0.00				0	-0.043
4/22/2009 0:00	39925.0		0.000					0.00				0	-0.038
4/22/2009 12:00	39925.5		0.000					0.00				0	-0.046
4/23/2009 0:00	39926.0		0.000					0.00				0	-0.039
4/23/2009 12:00	39926.5		0.000					0.00				0	-0.04
4/24/2009 0:00	39927.0		0.000					0.00				0	-0.037
4/24/2009 12:00	39927.5		0.000					0.00				0	-0.047
4/25/2009 0:00	39928.0		0.000					0.00				0	-0.048
4/25/2009 12:00	39928.5		0.000					0.00				0	-0.056
4/26/2009 0:00	39929.0		0.000					0.00				0	-0.061
4/26/2009 12:00	39929.5		0.000					0.00				0	-0.053
4/27/2009 0:00	39930.0		0.000					0.00				0	-0.058
4/27/2009 12:00	39930.5		0.000					0.00				0	-0.064
4/28/2009 0:00	39931.0		0.000					0.00				0	-0.077
4/28/2009 12:00	39931.5		0.000					0.00				0	-0.081
4/29/2009 0:00	39932.0		0.000					0.00				0	-0.075
4/29/2009 12:00	39932.5		0.000					0.00				0	-0.09
4/30/2009 0:00	39933.0		0.000					0.00				0	-0.09
4/30/2009 12:00	39933.5		0.000					0.00				0	-0.095
5/1/2009 0:00	39934.0		0.000					0.00				0	-0.096
5/1/2009 12:00	39934.5		0.000					0.00				0	-0.096
5/2/2009 0:00	39935.0		0.000					0.00				0	-0.092
5/2/2009 12:00	39935.5		0.000					0.00				0	-0.092
5/3/2009 0:00	39936.0		0.000					0.00				0	-0.044
5/3/2009 12:00	39936.5		0.000					0.00				0	-0.048
5/4/2009 0:00	39937.0		0.000					0.00				0	-0.074
5/4/2009 12:00	39937.5		0.000					0.00				0	-0.078
5/5/2009 0:00	39938.0		0.000					0.00				0	-0.092
5/5/2009 12:00	39938.5		0.000					0.00				0	-0.09
5/6/2009 0:00	39939.0		0.000					0.00				0	-0.092
5/6/2009 12:00	39939.5		0.000					0.00				0	-0.093
5/7/2009 0:00	39940.0		0.000					0.00				0	-0.097

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
5/7/2009 12:00	39940.5		0.000					0.00				0	-0.096
5/8/2009 0:00	39941.0		0.000					0.00				0	-0.097
5/8/2009 12:00	39941.5		0.000					0.00				0	-0.098
5/9/2009 0:00	39942.0		0.000					0.00				0	-0.099
5/9/2009 12:00	39942.5		0.000					0.00				0	-0.098
5/10/2009 0:00	39943.0		0.000					0.00				0	-0.093
5/10/2009 12:00	39943.5		0.000					0.00				0	-0.064
5/11/2009 0:00	39944.0		0.000					0.00				0	-0.089
5/11/2009 12:00	39944.5		0.000					0.00				0	-0.092
5/12/2009 0:00	39945.0		0.000					0.00				0	-0.098
5/12/2009 12:00	39945.5		0.000					0.00				0	-0.097
5/13/2009 0:00	39946.0		0.000					0.00				0	-0.097
5/13/2009 12:00	39946.5		0.000					0.00				0	-0.098
5/14/2009 0:00	39947.0		0.000					0.00				0	-0.046
5/14/2009 12:00	39947.5		0.000					0.00				0	-0.05
5/15/2009 0:00	39948.0		0.000					0.00				0	-0.062
5/15/2009 12:00	39948.5		0.000					0.00				0	-0.067
5/16/2009 0:00	39949.0		0.000					0.00				0	-0.044
5/16/2009 12:00	39949.5		0.000					0.00				0	-0.051
5/17/2009 0:00	39950.0		0.000					0.00				0	-0.009
5/17/2009 12:00	39950.5		0.000	0				0.00				0	-0.047
5/18/2009 0:00	39951.0		0.042	15								0.164	0.032
5/18/2009 12:00	39951.5		0.000	15								0	-0.023
5/19/2009 0:00	39952.0		1.856	668								1.17	0.147
5/19/2009 12:00	39952.5		0.650	902								0.569	0.097
5/20/2009 0:00	39953.0		4.870	1,987								0.971	0.217
5/20/2009 12:00	39953.5		1.446	2,274								0.971	0.133
5/21/2009 0:00	39954.0		0.548	718								0.467	0.09
5/21/2009 12:00	39954.5		0.345	321								0.428	0.075
5/22/2009 0:00	39955.0		1.244	572								0.428	0.125
5/22/2009 12:00	39955.5		0.633	676								0.428	0.096
5/23/2009 0:00	39956.0		2.637	1,177								0.763	0.169
5/23/2009 12:00	39956.5		1.227	1,391								0.749	0.125
5/24/2009 0:00	39957.0		1.810	1,093								0.776	0.146
5/24/2009 12:00	39957.5		1.176	1,075								0.776	0.123
5/25/2009 0:00	39958.0		0.963	770								0.654	0.113
5/25/2009 12:00	39958.5		0.725	608								0.499	0.101
5/26/2009 0:00	39959.0		1.884	939								0.499	0.148
5/26/2009 12:00	39959.5		1.318	1,153								0.724	0.128
5/27/2009 0:00	39960.0		2.489	1,371								0.77	0.166
5/27/2009 12:00	39960.5		1.640	1,486								0.683	0.14
5/28/2009 0:00	39961.0		3.419	1,821								0.807	0.188
5/28/2009 12:00	39961.5		1.982	1,944								0.779	0.151
5/29/2009 0:00	39962.0		3.963	2,140								0.859	0.199
5/29/2009 12:00	39962.5		2.440	2,305								0.741	0.164
5/30/2009 0:00	39963.0		5.075	2,705								0.713	0.22
5/30/2009 12:00	39963.5		3.873	3,221								0.619	0.198
5/31/2009 0:00	39964.0		6.333	3,674								0.906	0.241
5/31/2009 12:00	39964.5		5.356	4,208								0.687	0.225
6/1/2009 0:00	39965.0		7.572	4,654								0.907	0.258
6/1/2009 12:00	39965.5		6.557	5,086								0.72	0.244
6/2/2009 0:00	39966.0		7.116	4,922								0.74	0.252
6/2/2009 12:00	39966.5		7.336	5,203								0.735	0.255
6/3/2009 0:00	39967.0		7.312	5,273								0.751	0.255
6/3/2009 12:00	39967.5		7.493	5,330								0.697	0.257
6/4/2009 0:00	39968.0		7.675	5,460								0.806	0.26
6/4/2009 12:00	39968.5		8.699	5,895								0.825	0.273
6/5/2009 0:00	39969.0		9.435	6,528								0.789	0.282
6/5/2009 12:00	39969.5		10.855	7,304								0.558	0.298
6/6/2009 0:00	39970.0		13.913	8,916								0.558	0.33
6/6/2009 12:00	39970.5		13.866	10,000								0.558	0.329
6/7/2009 0:00	39971.0		13.912	10,000								0.558	0.33
6/7/2009 12:00	39971.5		14.054	10,068								0.558	0.331
6/8/2009 0:00	39972.0		13.574	9,946								0.558	0.326
6/8/2009 12:00	39972.5		13.714	9,824								0.558	0.328
6/9/2009 0:00	39973.0		13.618	9,840								0.558	0.327
6/9/2009 12:00	39973.5		13.681	9,828								0.558	0.327
6/10/2009 0:00	39974.0		13.153	9,660								0.558	0.322
6/10/2009 12:00	39974.5		13.539	9,609								0.558	0.326
6/11/2009 0:00	39975.0		13.693	9,804								0.558	0.328
6/11/2009 12:00	39975.5		13.599	9,825								0.558	0.327
6/12/2009 0:00	39976.0		14.434	10,092								0.558	0.334
6/12/2009 12:00	39976.5		14.467	10,404								0.558	0.335
6/13/2009 0:00	39977.0		16.665	11,208								0.558	0.354
6/13/2009 12:00	39977.5		15.264	11,494								0.558	0.342
6/14/2009 0:00	39978.0		16.684	11,501								0.558	0.354
6/14/2009 12:00	39978.5		16.016	11,772								0.558	0.349
6/15/2009 0:00	39979.0		17.810	12,177								0.558	0.364
6/15/2009 12:00	39979.5		17.043	12,547								0.558	0.357
6/16/2009 0:00	39980.0		18.449	12,777								0.558	0.369
6/16/2009 12:00	39980.5		17.556	12,962								0.558	0.362
6/17/2009 0:00	39981.0		18.775	13,079								0.558	0.372
6/17/2009 12:00	39981.5		18.184	13,305								0.558	0.367
6/18/2009 0:00	39982.0		21.114	14,147								0.558	0.389
6/18/2009 12:00	39982.5		18.726	14,342								0.558	0.371
6/19/2009 0:00	39983.0		20.684	14,188								0.558	0.386
6/19/2009 12:00	39983.5		20.036	14,659								0.558	0.381
6/20/2009 0:00	39984.0		21.847	15,078								0.558	0.395

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
6/20/2009 12:00	39984.5		20.873	15,379								0.558	0.388
6/21/2009 0:00	39985.0		21.888	15,394								0.558	0.395
6/21/2009 12:00	39985.5		21.263	15,534								0.558	0.391
6/22/2009 0:00	39986.0		21.650	15,449								0.558	0.393
6/22/2009 12:00	39986.5		20.750	15,264								0.558	0.387
6/23/2009 0:00	39987.0		22.553	15,589								0.558	0.4
6/23/2009 12:00	39987.5		21.559	15,880								0.558	0.393
6/24/2009 0:00	39988.0		22.752	15,952								0.558	0.401
6/24/2009 12:00	39988.5		21.474	15,921								0.558	0.392
6/25/2009 0:00	39989.0		22.525	15,840								0.558	0.4
6/25/2009 12:00	39989.5		21.982	16,023								0.558	0.396
6/26/2009 0:00	39990.0		22.916	16,163								0.558	0.402
6/26/2009 12:00	39990.5		21.488	15,985								0.558	0.392
6/27/2009 0:00	39991.0		22.465	15,823								0.558	0.399
6/27/2009 12:00	39991.5		21.144	15,699								0.558	0.39
6/28/2009 0:00	39992.0		21.570	15,377								0.558	0.393
6/28/2009 12:00	39992.5		20.577	15,173								0.558	0.385
6/29/2009 0:00	39993.0		24.314	16,161								0.558	0.412
6/29/2009 12:00	39993.5		23.090	17,065								0.558	0.404
6/30/2009 0:00	39994.0		26.929	18,007								0.558	0.429
6/30/2009 12:00	39994.5		25.247	18,783								0.558	0.418
7/1/2009 0:00	39995.0		26.740	18,715								0.558	0.428
7/1/2009 12:00	39995.5		25.286	18,729								0.558	0.419
7/2/2009 0:00	39996.0		26.338	18,585	ISCO total flow values not used							0.558	0.425
7/2/2009 12:00	39996.5		24.492	18,299	Calculated volume = ISCO Flow Rate x 720 min							0.558	0.413
7/3/2009 0:00	39997.0	46.5	27.550	18,735	859,467			27.55			5/17/2009 to 7/3/2009	0.558	0.433
7/3/2009 12:00	39997.5		26.159					26.28	19,379			0.558	0.424
7/4/2009 0:00	39998.0		27.372					25.01	18,466			0.558	0.432
7/4/2009 12:00	39998.5		20.948					23.74	17,553			0.558	0.388
7/5/2009 0:00	39999.0		13.344					22.48	16,639			0.558	0.324
7/5/2009 12:00	39999.5		10.438					21.21	15,726			0.558	0.294
7/6/2009 0:00	40000.0		14.141					19.94	14,812			0.558	0.332
7/6/2009 12:00	40000.5	3.5	13.947			18.67	-1.27	18.67	13,899	116,474	7/3/2009 to 7/6/2009	0.558	0.33
7/7/2009 0:00	40001.0		15.474					18.56	13,404			0.558	0.344
7/7/2009 12:00	40001.5		13.614					18.46	13,328			0.558	0.327
7/8/2009 0:00	40002.0		13.526					18.35	13,252			0.558	0.326
7/8/2009 12:00	40002.5		12.179					18.25	13,175			0.558	0.313
7/9/2009 0:00	40003.0		13.557					18.14	13,099			0.558	0.326
7/9/2009 12:00	40003.5		12.252					18.03	13,023			0.558	0.313
7/10/2009 0:00	40004.0		13.026					17.93	12,947			0.558	0.321
7/10/2009 12:00	40004.5		11.690					17.82	12,870			0.558	0.307
7/11/2009 0:00	40005.0		12.697					17.72	12,794			0.558	0.318
7/11/2009 12:00	40005.5		11.137					17.61	12,718			0.558	0.302
7/12/2009 0:00	40006.0		12.347					17.50	12,642			0.558	0.314
7/12/2009 12:00	40006.5		11.221					17.40	12,565			0.558	0.302
7/13/2009 0:00	40007.0		12.279					17.29	12,489			0.558	0.314
7/13/2009 12:00	40007.5		12.075					17.19	12,413			0.558	0.311
7/14/2009 0:00	40008.0		12.015					17.08	12,337			0.558	0.311
7/14/2009 12:00	40008.5		10.667					16.98	12,260			0.558	0.296
7/15/2009 0:00	40009.0		11.379					16.87	12,184			0.558	0.304
7/15/2009 12:00	40009.5		10.142					16.76	12,108			0.558	0.29
7/16/2009 0:00	40010.0		11.018					16.66	12,031			0.558	0.3
7/16/2009 12:00	40010.5		9.740					16.55	11,955			0.558	0.286
7/17/2009 0:00	40011.0		10.977					16.45	11,879			0.558	0.3
7/17/2009 12:00	40011.5		10.017					16.34	11,803			0.558	0.289
7/18/2009 0:00	40012.0		10.569					16.23	11,726			0.558	0.295
7/18/2009 12:00	40012.5		9.892					16.13	11,650			0.558	0.288
7/19/2009 0:00	40013.0		10.481					16.02	11,574			0.558	0.294
7/19/2009 12:00	40013.5		10.078					15.92	11,498			0.558	0.29
7/20/2009 0:00	40014.0	13.5	10.155			15.81	-0.11	15.81	11,421	335,146	7/6/2009 to 7/20/2009	0.558	0.291
7/20/2009 12:00	40014.5		9.813					15.68	11,335			0.558	0.287
7/21/2009 0:00	40015.0		1.389					15.54	11,240			1.071	-7082.34
7/21/2009 12:00	40015.5		0.846					15.41	11,144			2.132	0.108
7/22/2009 0:00	40016.0		1.155					15.28	11,048			1.972	0.122
7/22/2009 12:00	40016.5		0.760					15.15	10,952			2.206	0.103
7/23/2009 0:00	40017.0		1.040					15.01	10,857			2.311	0.117
7/23/2009 12:00	40017.5		0.861					14.88	10,761			2.261	0.108
7/24/2009 0:00	40018.0		1.074					14.75	10,665			2.265	0.118
7/24/2009 12:00	40018.5		0.804					14.61	10,570			2.174	0.105
7/25/2009 0:00	40019.0		0.871					14.48	10,474			2.109	0.109
7/25/2009 12:00	40019.5		0.760					14.35	10,378			1.935	0.103
7/26/2009 0:00	40020.0		0.895					14.21	10,282			2.124	0.11
7/26/2009 12:00	40020.5		0.693					14.08	10,187			2.014	0.099
7/27/2009 0:00	40021.0		0.877					13.95	10,091			2.157	0.109
7/27/2009 12:00	40021.5		0.865					13.82	9,995			2.022	0.108
7/28/2009 0:00	40022.0		0.762					13.68	9,900			2.191	0.103
7/28/2009 12:00	40022.5	8.5	0.719			13.55	-0.13	13.55	9,804	179,683	7/20/2009 to 7/28/2009	2.039	0.101
7/29/2009 0:00	40023.0		11.957					13.46	9,723			1.28	-140.085
7/29/2009 12:00	40023.5		12.864					13.36	9,656			1.354	0.319
7/30/2009 0:00	40024.0		13.407					13.27	9,589			0.996	0.325
7/30/2009 12:00	40024.5		11.759					13.18	9,523			0.996	0.308
7/31/2009 0:00	40025.0		12.863					13.09	9,456			1.244	0.319
7/31/2009 12:00	40025.5		12.293					12.99	9,390			1.229	0.314
8/1/2009 0:00	40026.0		12.896					12.90	9,323			1.345	0.32
8/1/2009 12:00	40026.5		11.216					12.81	9,256			1.283	0.302
8/2/2009 0:00	40027.0		12.602					12.72	9,190			1.415	0.317
8/2/2009 12:00	40027.5		11.672					12.62	9,123			1.39	0.307
8/3/2009 0:00	40028.0		12.325					12.53	9,056			1.334	0.314

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
8/3/2009 12:00	40028.5		11.143					12.44	8,990			1.29	0.302
8/4/2009 0:00	40029.0		11.572					12.35	8,923			1.397	0.306
8/4/2009 12:00	40029.5		10.803					12.25	8,856			1.481	0.298
8/5/2009 0:00	40030.0		11.459					12.16	8,790			1.41	0.305
8/5/2009 12:00	40030.5		10.306					12.07	8,723			1.441	0.292
8/6/2009 0:00	40031.0		11.293					11.98	8,657			1.327	0.303
8/6/2009 12:00	40031.5		10.700					11.88	8,590			1.486	0.297
8/7/2009 0:00	40032.0		11.576					11.79	8,523			1.458	0.306
8/7/2009 12:00	40032.5		9.013					11.70	8,457			1.391	0.277
8/8/2009 0:00	40033.0		10.646					11.61	8,390			1.346	0.296
8/8/2009 12:00	40033.5		9.089					11.51	8,323			1.501	0.278
8/9/2009 0:00	40034.0		10.812					11.42	8,257			1.371	0.298
8/9/2009 12:00	40034.5		8.444					11.33	8,190			1.48	0.27
8/10/2009 0:00	40035.0		10.209					11.24	8,124			1.453	0.291
8/10/2009 12:00	40035.5		9.866					11.14	8,057			1.395	0.287
8/11/2009 0:00	40036.0		9.795					11.05	7,990			1.227	0.286
8/11/2009 12:00	40036.5		9.193					10.96	7,924			1.543	0.279
8/12/2009 0:00	40037.0		9.783					10.87	7,857			1.218	0.286
8/12/2009 12:00	40037.5		8.998	Arbitrary Water Year : 8/12/2008 to 8/12/2009				10.77	7,790	262,696	7/28/2009 to 8/12/2009	1.47	0.277
8/13/2009 0:00	40038.0		9.556					10.68	7,724			1.392	0.284
8/13/2009 12:00	40038.5		8.403					10.59	7,657			1.536	0.269
8/14/2009 0:00	40039.0		9.415					10.50	7,590			1.388	0.282
8/14/2009 12:00	40039.5		8.157					10.40	7,524			1.523	0.266
8/15/2009 0:00	40040.0		9.149					10.31	7,457			1.495	0.279
8/15/2009 12:00	40040.5		8.410					10.22	7,391			1.603	0.269
8/16/2009 0:00	40041.0		9.038					10.13	7,324			1.369	0.277
8/16/2009 12:00	40041.5		8.293					10.03	7,257			1.662	0.268
8/17/2009 0:00	40042.0		8.234					9.94	7,191			1.411	0.267
8/17/2009 12:00	40042.5		7.608					9.85	7,124			1.505	0.259
8/18/2009 0:00	40043.0		8.485					9.76	7,057			1.48	0.27
8/18/2009 12:00	40043.5		7.602					9.66	6,991			1.554	0.259
8/19/2009 0:00	40044.0		8.011					9.57	6,924			1.392	0.264
8/19/2009 12:00	40044.5		7.562					9.48	6,858			1.33	0.258
8/20/2009 0:00	40045.0		7.875					9.39	6,791			1.392	0.262
8/20/2009 12:00	40045.5		6.845					9.29	6,724			1.541	0.248
8/21/2009 0:00	40046.0		7.550					9.20	6,658			1.375	0.258
8/21/2009 12:00	40046.5		6.541					9.11	6,591			1.257	0.244
8/22/2009 0:00	40047.0		7.506					9.02	6,524			1.352	0.258
8/22/2009 12:00	40047.5		6.406					8.92	6,458			1.428	0.242
8/23/2009 0:00	40048.0		7.577					8.83	6,391			1.349	0.258
8/23/2009 12:00	40048.5		7.179					8.74	6,324			1.478	0.253
8/24/2009 0:00	40049.0		7.516					8.65	6,258			1.443	0.258
8/24/2009 12:00	40049.5		6.741					8.55	6,191			1.583	0.247
8/25/2009 0:00	40050.0		7.261					8.46	6,125			1.166	0.254
8/25/2009 12:00	40050.5		6.308					8.37	6,058			1.221	0.24
8/26/2009 0:00	40051.0		7.076					8.28	5,991			1.221	0.252
8/26/2009 12:00	40051.5		5.969					8.18	5,925			1.145	0.235
8/27/2009 0:00	40052.0		6.621					8.09	5,858			0.876	0.245
8/27/2009 12:00	40052.5		5.719					8.00	5,791			0.998	0.231
8/28/2009 0:00	40053.0		6.445					7.90	5,725			0.98	0.242
8/28/2009 12:00	40053.5		5.542					7.81	5,658			1.017	0.228
8/29/2009 0:00	40054.0		6.323					7.72	5,592			1.09	0.24
8/29/2009 12:00	40054.5		5.497					7.63	5,525			1.071	0.227
8/30/2009 0:00	40055.0		6.197					7.53	5,458			0.945	0.239
8/30/2009 12:00	40055.5		5.326					7.44	5,392			1.045	0.224
8/31/2009 0:00	40056.0		5.907					7.35	5,325			0.912	0.234
8/31/2009 12:00	40056.5		5.661					7.26	5,258			1.05	0.23
9/1/2009 0:00	40057.0		5.704					7.16	5,192			1.316	0.231
9/1/2009 12:00	40057.5		5.057					7.07	5,125			1.426	0.22
9/2/2009 0:00	40058.0		5.294					6.98	5,058			1.235	0.224
9/2/2009 12:00	40058.5		4.756					6.89	4,992			0.975	0.215
9/3/2009 0:00	40059.0		5.150					6.79	4,925			1.01	0.221
9/3/2009 12:00	40059.5		4.669					6.70	4,859			0.888	0.213
9/4/2009 0:00	40060.0		5.073					6.61	4,792			0.917	0.22
9/4/2009 12:00	40060.5		4.304					6.52	4,725			0.899	0.206
9/5/2009 0:00	40061.0		4.894					6.42	4,659			0.89	0.217
9/5/2009 12:00	40061.5		4.175					6.33	4,592			0.935	0.204
9/6/2009 0:00	40062.0		4.656					6.24	4,525			0.935	0.213
9/6/2009 12:00	40062.5		4.138					6.15	4,459			0.83	0.203
9/7/2009 0:00	40063.0		4.460					6.05	4,392			0.839	0.209
9/7/2009 12:00	40063.5		4.040					5.96	4,326			0.914	0.201
9/8/2009 0:00	40064.0		4.382					5.87	4,259			0.914	0.208
9/8/2009 12:00	40064.5		3.724					5.78	4,192			0.954	0.195
9/9/2009 0:00	40065.0		4.035					5.68	4,126			0.954	0.201
9/9/2009 12:00	40065.5		3.305					5.59	4,059			0.988	0.185
9/10/2009 0:00	40066.0		3.745					5.50	3,992			0.934	0.195
9/10/2009 12:00	40066.5		3.226					5.41	3,926			0.947	0.184
9/11/2009 0:00	40067.0		3.505					5.31	3,859			1.007	0.19
9/11/2009 12:00	40067.5		2.945					5.22	3,792			0.991	0.177
9/12/2009 0:00	40068.0		3.429					5.13	3,726			1.044	0.188
9/12/2009 12:00	40068.5		2.994					5.04	3,659			0.977	0.178
9/13/2009 0:00	40069.0		3.518					4.94	3,593			0.983	0.19
9/13/2009 12:00	40069.5		3.041					4.85	3,526			0.853	0.179
9/14/2009 0:00	40070.0		3.218					4.76	3,459			1.088	0.184
9/14/2009 12:00	40070.5		2.949					4.67	3,393			0.979	0.177
9/15/2009 0:00	40071.0		3.092					4.57	3,326			0.848	0.181
9/15/2009 12:00	40071.5		2.709					4.48	3,259			0.788	0.171
9/16/2009 0:00	40072.0		2.901					4.39	3,193			0.839	0.176

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
9/16/2009 12:00	40072.5		2.622					4.30	3,126			0.742	0.169
9/17/2009 0:00	40073.0		2.821					4.20	3,060			0.731	0.174
9/17/2009 12:00	40073.5		2.397					4.11	2,993			0.794	0.163
9/18/2009 0:00	40074.0		2.714					4.02	2,926			0.767	0.171
9/18/2009 12:00	40074.5		2.250					3.93	2,860			0.76	0.159
9/19/2009 0:00	40075.0		2.619					3.83	2,793			0.769	0.169
9/19/2009 12:00	40075.5		2.240					3.74	2,726			0.76	0.159
9/20/2009 0:00	40076.0		2.501					3.65	2,660			0.791	0.166
9/20/2009 12:00	40076.5		2.242					3.56	2,593			0.782	0.159
9/21/2009 0:00	40077.0		2.333					3.46	2,526			0.782	0.161
9/21/2009 12:00	40077.5		2.004					3.37	2,460			0.834	0.152
9/22/2009 0:00	40078.0		2.256					3.28	2,393			0.848	0.159
9/22/2009 12:00	40078.5		1.842					3.19	2,327			0.845	0.147
9/23/2009 0:00	40079.0		2.063					3.09	2,260			0.765	0.154
9/23/2009 12:00	40079.5	57.0	1.737			3.00	-0.09	3.00	2,193	679,212	7/29/2009 to 9/23/2009	0.765	0.143
9/24/2009 0:00	40080.0		3.000					2.93	2,135			0.765	-257.451
9/24/2009 12:00	40080.5		2.900					2.86	2,084			0.765	0.176
								2.79	2,034				
								2.72	1,984				
								2.65	1,933				
								2.58	1,883				
								2.51	1,832				
								2.44	1,782				
9/28/2009 18:00	40084.0	4.5				2.37	-0.07	2.37	1,732	17,399	9/23/2009 to 9/28/2009		

Note: 2.37: Bucket/stopwatch Field Measurement

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For Arbitrary Water Year	Total Calculated Flow: 2,641,587
August 12, 2008 to August 12, 2009	

Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft	
8/12/2008	39672.0					3.90		3.90						
								3.74	5,499					
								3.58	5,265					
								3.41	5,031					
								3.25	4,797					
								3.09	4,563					
								2.93	4,329					
								2.76	4,095					
8/20/2008	39680.0	8.0					2.60	-0.16	2.60	3,861				
8/21/2008	39681.0						2.61		3,752					
8/22/2008 0:00	39682.0		2.466			2.62		3,767				0	0.149	
8/22/2008 12:00	39682.5		2.375			2.63		1,889				0	0.146	
8/23/2008 0:00	39683.0		2.227			2.63		1,893				0.31	0.141	
8/23/2008 12:00	39683.5		2.206			2.64		1,897				0.31	0.14	
8/24/2008 0:00	39684.0		2.085			2.64		1,900				0.31	0.136	
8/24/2008 12:00	39684.5		2.119			2.65		1,904				0.31	0.137	
8/25/2008 0:00	39685.0		2.05			2.65		1,908				0.31	0.134	
8/25/2008 12:00	39685.5		2.077			2.66		1,912				0.31	0.135	
8/26/2008 0:00	39686.0		2.107			2.66		1,916				0.31	0.136	
8/26/2008 12:00	39686.5		2.125			2.67		1,919				0.31	0.137	
8/27/2008 0:00	39687.0		2.017			2.67		1,923				0.31	0.133	
8/27/2008 12:00	39687.5		2.041			2.68		1,927				0.31	0.134	
8/28/2008 0:00	39688.0		1.991			2.68		1,931				0.31	0.132	
8/28/2008 12:00	39688.5		1.902			2.69		1,935				0.31	0.129	
8/29/2008 0:00	39689.0		1.787			2.69		1,938				0.31	0.125	
8/29/2008 12:00	39689.5		1.744			2.70		1,942				0.31	0.123	
8/30/2008 0:00	39690.0		1.696			2.71		1,946				0.31	0.121	
8/30/2008 12:00	39690.5		1.724			2.71		1,950				0.31	0.122	
8/31/2008 0:00	39691.0		1.763			2.72		1,953				0.31	0.124	
8/31/2008 12:00	39691.5		1.732			2.72		1,957				0.31	0.123	
9/1/2008 0:00	39692.0		1.715			2.73		1,961				0.206	0.122	
9/1/2008 12:00	39692.5		1.733			2.73		1,965				0.206	0.123	
9/2/2008 0:00	39693.0		1.682			2.74		1,969				0.206	0.121	
9/2/2008 12:00	39693.5		1.653			2.74		1,972				0.206	0.12	
9/3/2008 0:00	39694.0		1.602			2.75		1,976				0.206	0.118	
9/3/2008 12:00	39694.5		1.762			2.75		1,980				0.206	0.124	
9/4/2008 0:00	39695.0		1.738			2.76		1,984				0.206	0.123	
9/4/2008 12:00	39695.5		1.789			2.76		1,988				0.206	0.125	
9/5/2008 0:00	39696.0		1.722			2.77		1,991				0.206	0.122	
9/5/2008 12:00	39696.5													

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
11/12/2008 12:00	39764.5		0	0								0	-0.024
11/13/2008 0:00	39765.0		0	0								0	-0.019
11/13/2008 12:00	39765.5		0	0								0	-0.019
11/14/2008 0:00	39766.0		0	0								0	-0.022
11/14/2008 12:00	39766.5		0	0								0	-0.028
11/15/2008 0:00	39767.0		0	0								0	-0.03
11/15/2008 12:00	39767.5		0	0								0	-0.03
11/16/2008 0:00	39768.0		0	0								0	-0.029
11/16/2008 12:00	39768.5		0	0								0	-0.029
11/17/2008 0:00	39769.0		0	0								0	-0.03
11/17/2008 12:00	39769.5		0	0								0	-0.031
11/18/2008 0:00	39770.0		0	0								0	-0.033
11/18/2008 12:00	39770.5		0	0								0	-0.029
11/19/2008 0:00	39771.0		0	0								0	-0.029
11/19/2008 12:00	39771.5		0	0								0	-0.033
11/20/2008 0:00	39772.0		0	0								0	-0.034
11/20/2008 12:00	39772.5		0	0								0	-0.035
11/21/2008 0:00	39773.0		0	0								0	-0.031
11/21/2008 12:00	39773.5		0	0								0	-0.029
11/22/2008 0:00	39774.0		0	0								0	-0.034
11/22/2008 12:00	39774.5		0	0								0	-0.034
11/23/2008 0:00	39775.0		0	0								0	-0.034
11/23/2008 12:00	39775.5		0	0								0	-0.035
11/24/2008 0:00	39776.0		0	0								0	-0.038
11/24/2008 12:00	39776.5		0	0								0	-0.039
11/25/2008 0:00	39777.0		0	0								0	-0.039
11/25/2008 12:00	39777.5		0	0								0	-0.04
11/26/2008 0:00	39778.0		0	0								0	-0.04
11/26/2008 12:00	39778.5		0	0								0	-0.033
11/27/2008 0:00	39779.0		0.004	1.4								0.009	0.009
11/27/2008 12:00	39779.5		0.073	27.7								0.044	0.035
11/28/2008 0:00	39780.0		0.223	106.6								0.07	0.055
11/28/2008 12:00	39780.5		0.406	226.4								0.092	0.071
11/29/2008 0:00	39781.0		0.592	359.3								0.092	0.082
11/29/2008 12:00	39781.5		0.79	497.5								0.092	0.092
11/30/2008 0:00	39782.0		0.024	293.0								0	-0.029
11/30/2008 12:00	39782.5		0.082	38.2								0.039	0.032
12/1/2008 0:00	39783.0		0.512	213.8								0.1	0.077
12/1/2008 12:00	39783.5		0.881	501.5								0.1	0.097
12/2/2008 0:00	39784.0		0.934	653.4								0.1	0.099
12/2/2008 12:00	39784.5		0.696	586.8								0.1	0.088
12/3/2008 0:00	39785.0		0.035	263.2								0	-0.036
12/3/2008 12:00	39785.5		0	12.6								0	-0.05
12/4/2008 0:00	39786.0		0	0								0	-0.049
12/4/2008 12:00	39786.5		0	0								0	-0.049
12/5/2008 0:00	39787.0		0	0								0	-0.049
12/5/2008 12:00	39787.5		0	0								0	-0.05
12/6/2008 0:00	39788.0		0	0								0	-0.047
12/6/2008 12:00	39788.5		0	0								0	-0.027
12/7/2008 0:00	39789.0		0	0								0	-0.015
12/7/2008 12:00	39789.5		0	0								0	-0.007
12/8/2008 0:00	39790.0		0	0								0	-0.003
12/8/2008 12:00	39790.5		0	0								0	0
12/9/2008 0:00	39791.0		0	0								0	0
12/9/2008 12:00	39791.5		0	0								0	0
12/10/2008 0:00	39792.0		0	0								0	-0.002
12/10/2008 12:00	39792.5		0	0								0	-0.003
12/11/2008 0:00	39793.0		0	0								0	-0.005
12/11/2008 12:00	39793.5		0	0								0	-0.007
12/12/2008 0:00	39794.0		0	0								0	-0.012
12/12/2008 12:00	39794.5		0	0								0	-0.014
12/13/2008 0:00	39795.0		0	0								0	-0.016
12/13/2008 12:00	39795.5		0	0								0	-0.03
12/14/2008 0:00	39796.0		0	0								0	-0.055
12/14/2008 12:00	39796.5		0	0								0	-0.055
12/15/2008 0:00	39797.0		0	0								0	-0.054
12/15/2008 12:00	39797.5		0	0								0	-0.055
12/16/2008 0:00	39798.0		0	0								0	-0.055
12/16/2008 12:00	39798.5		0	0								0	-0.055
12/17/2008 0:00	39799.0		0	0								0	-0.055
12/17/2008 12:00	39799.5		0	0								0	-0.056
12/18/2008 0:00	39800.0		0	0								0	-0.056
12/18/2008 12:00	39800.5		0	0								0	-0.055
12/19/2008 0:00	39801.0		0	0								0	-0.054
12/19/2008 12:00	39801.5		0	0								0	-0.055
12/20/2008 0:00	39802.0		0	0								0	-0.058
12/20/2008 12:00	39802.5		0	0								0	-0.058
12/21/2008 0:00	39803.0		0	0								0	-0.06
12/21/2008 12:00	39803.5		0	0								0	-0.061
12/22/2008 0:00	39804.0		0	0								0	-0.061
12/22/2008 12:00	39804.5		0	0								0	-0.066
12/23/2008 0:00	39805.0		0	0								0	-0.066
12/23/2008 12:00	39805.5		0	0								0	-0.063
12/24/2008 0:00	39806.0		0	0								0	-0.065
12/24/2008 12:00	39806.5		0	0								0	-0.066
12/25/2008 0:00	39807.0		0	0								0	-0.066
12/25/2008 12:00	39807.5		0	0								0	-0.066
12/26/2008 0:00	39808.0		0	0								0	-0.066

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
2/8/2009 12:00	39852.5		0	0								0	-0.062
2/9/2009 0:00	39853.0		0	0								0	-0.061
2/9/2009 12:00	39853.5		0	0								0	-0.061
2/10/2009 0:00	39854.0		0	0								0	-0.061
2/10/2009 12:00	39854.5		0	0								0	-0.061
2/11/2009 0:00	39855.0		0	0								0	-0.061
2/11/2009 12:00	39855.5		0	0								0	-0.061
2/12/2009 0:00	39856.0		0	0								0	-0.061
2/12/2009 12:00	39856.5		0	0								0	-0.062
2/13/2009 0:00	39857.0		0	0								0	-0.062
2/13/2009 12:00	39857.5		0	0								0	-0.062
2/14/2009 0:00	39858.0		0	0								0	-0.062
2/14/2009 12:00	39858.5		0	0								0	-0.062
2/15/2009 0:00	39859.0		0	0								0	-0.062
2/15/2009 12:00	39859.5		0	0								0	-0.063
2/16/2009 0:00	39860.0		0	0								0	-0.063
2/16/2009 12:00	39860.5		0	0								0	-0.062
2/17/2009 0:00	39861.0		0	0								0	-0.062
2/17/2009 12:00	39861.5		0	0								0	-0.062
2/18/2009 0:00	39862.0		0	0								0	-0.062
2/18/2009 12:00	39862.5		0	0								0	-0.062
2/19/2009 0:00	39863.0		0	0								0	-0.062
2/19/2009 12:00	39863.5		0	0								0	-0.063
2/20/2009 0:00	39864.0		0	0								0	-0.063
2/20/2009 12:00	39864.5		0	0								0	-0.062
2/21/2009 0:00	39865.0		0	0								0	-0.062
2/21/2009 12:00	39865.5		0	0								0	-0.062
2/22/2009 0:00	39866.0		0	0								0	-0.063
2/22/2009 12:00	39866.5		0	0								0	-0.061
2/23/2009 0:00	39867.0		0	0								0	-0.062
2/23/2009 12:00	39867.5		0	0								0	-0.061
2/24/2009 0:00	39868.0		0	0								0	-0.062
2/24/2009 12:00	39868.5		0	0								0	-0.062
2/25/2009 0:00	39869.0		0	0								0	-0.061
2/25/2009 12:00	39869.5		0	0								0	-0.062
2/26/2009 0:00	39870.0		0	0								0	-0.062
2/26/2009 12:00	39870.5		0	0								0	-0.062
2/27/2009 0:00	39871.0		0	0								0	-0.062
2/27/2009 12:00	39871.5		0	0								0	-0.061
2/28/2009 0:00	39872.0		0	0								0	-0.062
2/28/2009 12:00	39872.5		0	0								0	-0.062
3/1/2009 0:00	39873.0		0	0								0	-0.062
3/1/2009 12:00	39873.5		0	0								0	-0.064
3/2/2009 0:00	39874.0		0	0								0	-0.064
3/2/2009 12:00	39874.5		0	0								0	-0.064
3/3/2009 0:00	39875.0		0	0								0	-0.064
3/3/2009 12:00	39875.5		0	0								0	-0.064
3/4/2009 0:00	39876.0		0	0								0	-0.063
3/4/2009 12:00	39876.5		0	0								0	-0.064
3/5/2009 0:00	39877.0		0	0								0	-0.064
3/5/2009 12:00	39877.5		0	0								0	-0.064
3/6/2009 0:00	39878.0		0	0								0	-0.064
3/6/2009 12:00	39878.5		0	0								0	-0.064
3/7/2009 0:00	39879.0		0	0								0	-0.064
3/7/2009 12:00	39879.5		0	0								0	-0.064
3/8/2009 0:00	39880.0		0	0								0	-0.064
3/8/2009 12:00	39880.5		0	0								0	-0.062
3/9/2009 0:00	39881.0		0	0								0	-0.062
3/9/2009 12:00	39881.5		0	0								0	-0.062
3/10/2009 0:00	39882.0		0	0								0	-0.062
3/10/2009 12:00	39882.5		0	0								0	-0.062
3/11/2009 0:00	39883.0		0	0								0	-0.062
3/11/2009 12:00	39883.5		0	0								0	-0.062
3/12/2009 0:00	39884.0		0	0								0	-0.063
3/12/2009 12:00	39884.5		0	0								0	-0.063
3/13/2009 0:00	39885.0		0	0								0	-0.063
3/13/2009 12:00	39885.5		0	0								0	-0.062
3/14/2009 0:00	39886.0		0	0								0	-0.063
3/14/2009 12:00	39886.5		0	0								0	-0.063
3/15/2009 0:00	39887.0		0	0								0	-0.062
3/15/2009 12:00	39887.5		0	0								0	-0.063
3/16/2009 0:00	39888.0		0	0								0	-0.063
3/16/2009 12:00	39888.5		0	0								0	-0.061
3/17/2009 0:00	39889.0		0	0								0	-0.063
3/17/2009 12:00	39889.5		0	0								0	-0.063
3/18/2009 0:00	39890.0		0	0								0	-0.064
3/18/2009 12:00	39890.5		0	0								0	-0.064
3/19/2009 0:00	39891.0		0	0								0	-0.064
3/19/2009 12:00	39891.5		0	0								0	-0.064
3/20/2009 0:00	39892.0		0	0								0	-0.064
3/20/2009 12:00	39892.5		0	0								0	-0.068
3/21/2009 0:00	39893.0		0	0								0	-0.071
3/21/2009 12:00	39893.5		0	0								0	-0.071
3/22/2009 0:00	39894.0		0	0								0	-0.071
3/22/2009 12:00	39894.5		0	0								0	-0.072
3/23/2009 0:00	39895.0		0	0								0	-0.072
3/23/2009 12:00	39895.5		0	0								0	-0.072
3/24/2009 0:00	39896.0		0	0								0	-0.072

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
6/20/2009 12:00	39984.5		22.573	14,593.3								-4.941	0.354
6/21/2009 0:00	39985.0		22.140	16,096.7								-6.553	0.351
6/21/2009 12:00	39985.5		24.730	16,873.2								-5.313	0.367
6/22/2009 0:00	39986.0		24.230	17,625.6								-6.083	0.364
6/22/2009 12:00	39986.5		26.454	18,246.2	peak flow							-6.119	0.377
6/23/2009 0:00	39987.0		24.045	18,179.6								-5.539	0.363
6/23/2009 12:00	39987.5		25.621	17,879.8								-5.668	0.372
6/24/2009 0:00	39988.0		23.066	17,527.3								-6.145	0.357
6/24/2009 12:00	39988.5		25.471	17,473.3								-5.524	0.371
6/25/2009 0:00	39989.0		22.156	17,145.7								-6.078	0.351
6/25/2009 12:00	39989.5		24.243	16,703.6								-5.907	0.364
6/26/2009 0:00	39990.0		21.729	16,549.9								-5.466	0.348
6/26/2009 12:00	39990.5		22.904	16,067.9								-5.986	0.356
6/27/2009 0:00	39991.0		20.319	15,560.3								-5.986	0.339
6/27/2009 12:00	39991.5		20.179	14,579.3								-5.259	0.338
6/28/2009 0:00	39992.0		18.211	13,820.4								-5.301	0.325
6/28/2009 12:00	39992.5		19.187	13,463.3								-4.864	0.331
6/29/2009 0:00	39993.0		17.547	13,224.2								-5.272	0.32
6/29/2009 12:00	39993.5		18.617	13,019.0								-4.644	0.327
6/30/2009 0:00	39994.0		16.142	12,513.2								-5.118	0.309
6/30/2009 12:00	39994.5		15.748	11,480.4								-5.118	0.306
7/1/2009 0:00	39995.0		15.285	11,171.9								-5.118	0.303
7/1/2009 12:00	39995.5		15.651	11,137.0								-5.058	0.305
7/2/2009 0:00	39996.0		14.663	10,913.0								-4.691	0.298
7/2/2009 12:00	39996.5		14.072	10,344.6								-4.691	0.293
7/3/2009 0:00	39997.0		13.256	9,838.1								-4.691	0.286
7/3/2009 12:00	39997.5		13.341	9,574.9								-4.691	0.287
7/4/2009 0:00	39998.0		11.757	9,035.3								-4.691	0.272
7/4/2009 12:00	39998.5		11.549	8,390.2								-4.691	0.27
7/5/2009 0:00	39999.0		10.847	8,062.6	ISCO total flow values not used							-4.691	0.264
7/5/2009 12:00	39999.5		11.111	7,904.9	Calculated volume = ISCO Flow Rate x 720 min							-4.165	0.266
7/6/2009 0:00	40000.0		10.404	7,745.4								-4.165	0.259
7/6/2009 12:00	40000.5	46.5	10.387	7,484.8	762,204	11.89		11.89				-4.165	0.259
7/7/2009 0:00	40001.0		10.041	7,354.1				11.68	8,484			-4.165	0.256
7/7/2009 12:00	40001.5		9.897	7,177.7				11.46	8,329			-4.165	0.254
7/8/2009 0:00	40002.0		9.277	6,902.6				11.25	8,175			-4.165	0.248
7/8/2009 12:00	40002.5		9.137	6,629.0				11.03	8,021			-4.165	0.246
7/9/2009 0:00	40003.0		8.597	6,384.2				10.82	7,867			-3.459	0.24
7/9/2009 12:00	40003.5		8.130	6,021.7				10.60	7,712			-3.884	0.235
7/10/2009 0:00	40004.0		7.693	5,696.3				10.39	7,558			-3.884	0.23
7/10/2009 12:00	40004.5		7.295	5,395.7				10.18	7,404			-3.884	0.225
7/11/2009 0:00	40005.0		6.863	5,096.9				9.96	7,249			-3.682	0.22
7/11/2009 12:00	40005.5		6.682	4,876.2				9.75	7,095			-3.643	0.217
7/12/2009 0:00	40006.0		6.331	4,684.7				9.53	6,941			-3.643	0.213
7/12/2009 12:00	40006.5		5.938	4,416.8				9.32	6,787			-3.643	0.207
7/13/2009 0:00	40007.0		5.772	4,215.6				9.10	6,632			-3.643	0.205
7/13/2009 12:00	40007.5		5.561	4,079.9				8.89	6,478			-3.911	0.202
7/14/2009 0:00	40008.0		5.467	3,970.1				8.68	6,324			-3.911	0.201
7/14/2009 12:00	40008.5		5.186	3,835.1				8.46	6,169			-3.911	0.196
7/15/2009 0:00	40009.0		4.651	3,541.3				8.25	6,015			-3.911	0.188
7/15/2009 12:00	40009.5		4.398	3,257.6				8.03	5,861			-3.776	0.184
7/16/2009 0:00	40010.0		4.175	3,086.3				7.82	5,707			-4.102	0.18
7/16/2009 12:00	40010.5		3.901	2,907.4				7.60	5,552			-4.27	0.175
7/17/2009 0:00	40011.0		3.677	2,728.1				7.39	5,398			-4.031	0.171
7/17/2009 12:00	40011.5		3.490	2,580.1				7.18	5,244			-4.487	0.168
7/18/2009 0:00	40012.0		3.330	2,455.2				6.96	5,089			-4.487	0.164
7/18/2009 12:00	40012.5		3.188	2,346.5				6.75	4,935			-4.487	0.162
7/19/2009 0:00	40013.0		3.098	2,263.0				6.53	4,781			-3.853	0.16
7/19/2009 12:00	40013.5		3.007	2,197.8				6.32	4,627			-3.853	0.158
7/20/2009 0:00	40014.0		2.917	2,132.6				6.10	4,472			-3.853	0.156
7/20/2009 12:00	40014.5	14.0	2.753	2,041.2		5.89	-0.21	5.89	4,318	179,222		-4.297	0.152
7/21/2009 0:00	40015.0		4.878	2,747.2				5.78	4,200			-3.868	0.212
7/21/2009 12:00	40015.5		6.267	4,012.2				5.66	4,117			-3.819	0.212
7/22/2009 0:00	40016.0		6.088	4,447.8				5.55	4,035			-3.352	0.209
7/22/2009 12:00	40016.5		5.851	4,298.0				5.43	3,953			-3.352	0.206
7/23/2009 0:00	40017.0		5.650	4,140.4				5.32	3,870			-3.352	0.203
7/23/2009 12:00	40017.5		5.454	3,997.4				5.20	3,788			-3.488	0.2
7/24/2009 0:00	40018.0		5.326	3,880.8				5.09	3,706			-3.254	0.198
7/24/2009 12:00	40018.5		5.175	3,780.4				4.98	3,623			-3.254	0.196
7/25/2009 0:00	40019.0		4.965	3,650.4				4.86	3,541			-3.254	0.193
7/25/2009 12:00	40019.5		4.748	3,496.7				4.75	3,458			-3.429	0.19
7/26/2009 0:00	40020.0		4.590	3,361.7				4.63	3,376			-2.814	0.187
7/26/2009 12:00	40020.5		4.487	3,267.7				4.52	3,294			-3.199	0.185
7/27/2009 0:00	40021.0		4.429	3,209.8				4.40	3,211			-3.172	0.184
7/27/2009 12:00	40021.5		4.355	3,162.2				4.29	3,129			-3.326	0.183
7/28/2009 0:00	40022.0		4.227	3,089.5				4.17	3,047			-3.326	0.181
7/28/2009 12:00	40022.5	8.0	4.095	2,995.9	175,812	4.06	-0.11	4.06	2,964	57,312		-3.326	0.179
7/29/2009 0:00	40023.0		4.063	2,936.9				4.02	2,910			-3.326	0.174
7/29/2009 12:00	40023.5		3.461	2,708.6				3.99	2,885			-3.326	0.167
7/30/2009 0:00	40024.0		3.234	2,410.2				3.95	2,859			-3.326	0.163
7/30/2009 12:00	40024.5		3.070	2,269.4				3.92	2,834			-3.326	0.159
7/31/2009 0:00	40025.0		2.958	2,170.1				3.88	2,808			-3.326	0.157
7/31/2009 12:00	40025.5		2.891	2,105.6				3.85	2,783			-3.326	0.155
8/1/2009 0:00	40026.0		2.593	1,974.2				3.81	2,757			-3.326	0.149
8/1/2009 12:00	40026.5		2.465	1,820.9				3.78	2,732			-3.326	0.146
8/2/2009 0:00	40027.0		2.336	1,728.4				3.74	2,706			-3.326	0.143
8/2/2009 12:00	40027.5		2.272	1,658.9				3.71	2,681			-3.326	0.141
8/3/2009 0:00	40028.0		2.159	1,595.2				3.67	2,655			-3.326	0.138

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
8/3/2009 12:00	40028.5		2.088	1,528.9				3.63	2,630			-3.326	0.136
8/4/2009 0:00	40029.0		1.904	1,437.1				3.60	2,604			-3.326	0.131
8/4/2009 12:00	40029.5		1.795	1,331.6				3.56	2,579			-3.326	0.128
8/5/2009 0:00	40030.0		1.704	1,259.6				3.53	2,553			-3.326	0.126
8/5/2009 12:00	40030.5		1.530	1,164.2				3.49	2,528			-3.326	0.12
8/6/2009 0:00	40031.0		1.518	1,097.3				3.46	2,502			-3.326	0.12
8/6/2009 12:00	40031.5		1.501	1,086.8				3.42	2,477			-3.326	0.12
8/7/2009 0:00	40032.0		1.496	1,078.9				3.39	2,451			-3.326	0.119
8/7/2009 12:00	40032.5		1.375	1,033.6				3.35	2,426			-3.326	0.115
8/8/2009 0:00	40033.0		1.237	940.3				3.32	2,400			-3.326	0.111
8/8/2009 12:00	40033.5		1.100	841.3				3.28	2,375			-3.326	0.106
8/9/2009 0:00	40034.0		0.986	751.0				3.24	2,349			-3.326	0.101
8/9/2009 12:00	40034.5		0.906	681.1				3.21	2,324			-3.326	0.098
8/10/2009 0:00	40035.0		0.815	619.6				3.17	2,298			-3.326	0.094
8/10/2009 12:00	40035.5		0.716	551.2				3.14	2,273			-3.326	0.089
8/11/2009 0:00	40036.0		0.634	486.0				3.10	2,247			2.309	0.085
8/11/2009 12:00	40036.5		0.574	434.9				3.07	2,222			1.49	0.081
8/12/2009 0:00	40037.0		0.522	394.6				3.03	2,196			1.427	0.078
8/12/2009 12:00	40037.5		0.498	367.2	40,464			3.00	2,170	76,214	7/28/2009 to 8/12/2009	1.427	0.077
8/13/2009 0:00	40038.0		0.481	352.4				2.96	2,145			1.427	0.076
8/13/2009 12:00	40038.5		0.452	335.9				2.93	2,119			1.365	0.074
8/14/2009 0:00	40039.0		0.420	313.9				2.89	2,094			1.303	0.072
8/14/2009 12:00	40039.5		0.387	290.5				2.86	2,068			1.303	0.069
8/15/2009 0:00	40040.0		0.367	271.4				2.82	2,043			1.241	0.068
8/15/2009 12:00	40040.5		0.340	254.5				2.78	2,017			1.241	0.066
8/16/2009 0:00	40041.0		0.299	230.0				2.75	1,992			1.179	0.063
8/16/2009 12:00	40041.5		0.258	200.5				2.71	1,966			1.117	0.059
8/17/2009 0:00	40042.0		0.239	178.9				2.68	1,941			1.055	0.057
8/17/2009 12:00	40042.5		0.206	160.2				2.64	1,915			0.993	0.054
8/18/2009 0:00	40043.0		0.182	139.7				2.61	1,890			0.931	0.051
8/18/2009 12:00	40043.5		0.179	130.0				2.57	1,864			0.931	0.051
8/19/2009 0:00	40044.0		0.166	124.2				2.54	1,839			0.931	0.049
8/19/2009 12:00	40044.5		0.163	118.4				2.50	1,813			0.869	0.049
8/20/2009 0:00	40045.0		0.145	110.9				2.47	1,788			0.869	0.047
8/20/2009 12:00	40045.5		0.134	100.4				2.43	1,762			0.807	0.045
8/21/2009 0:00	40046.0		0.119	91.1				2.39	1,737			0.807	0.043
8/21/2009 12:00	40046.5		0.112	83.2				2.36	1,711			0.745	0.042
8/22/2009 0:00	40047.0		0.108	79.2				2.32	1,686			0.745	0.041
8/22/2009 12:00	40047.5		0.103	76.0				2.29	1,660			0.745	0.04
8/23/2009 0:00	40048.0		0.104	74.5				2.25	1,635			0.745	0.041
8/23/2009 12:00	40048.5		0.103	74.5				2.22	1,609			0.745	0.041
8/24/2009 0:00	40049.0		0.102	73.8				2.18	1,584			0.745	0.041
8/24/2009 12:00	40049.5		0.095	70.9				2.15	1,558			0.745	0.04
8/25/2009 0:00	40050.0		0.081	63.4				2.11	1,533			0.683	0.037
8/25/2009 12:00	40050.5		0.079	57.6				2.08	1,507			0.683	0.037
8/26/2009 0:00	40051.0		0.075	55.4				2.04	1,482			0.621	0.035
8/26/2009 12:00	40051.5		0.076	54.4				2.00	1,456			0.621	0.036
8/27/2009 0:00	40052.0		0.072	53.3				1.97	1,431			0.621	0.035
8/27/2009 12:00	40052.5		0.066	49.7				1.93	1,405			0.621	0.034
8/28/2009 0:00	40053.0		0.064	46.8				1.90	1,379			0.621	0.034
8/28/2009 12:00	40053.5		0.059	44.3				1.86	1,354			0.559	0.032
8/29/2009 0:00	40054.0		0.059	42.5				1.83	1,328			0.559	0.032
8/29/2009 12:00	40054.5		0.057	41.8				1.79	1,303			0.559	0.032
8/30/2009 0:00	40055.0		0.058	41.4				1.76	1,277			0.559	0.032
8/30/2009 12:00	40055.5		0.053	40.0				1.72	1,252			0.559	0.031
8/31/2009 0:00	40056.0		0.057	39.6				1.69	1,226			0.559	0.032
8/31/2009 12:00	40056.5		0.055	40.3				1.65	1,201			0.559	0.032
9/1/2009 0:00	40057.0		0.053	38.9				1.61	1,175			0.559	0.031
9/1/2009 12:00	40057.5		0.049	36.7				1.58	1,150			0.559	0.03
9/2/2009 0:00	40058.0		0.046	34.2				1.54	1,124			0.497	0.029
9/2/2009 12:00	40058.5		0.044	32.4				1.51	1,099			0.497	0.029
9/3/2009 0:00	40059.0		0.046	32.4				1.47	1,073			0.497	0.029
9/3/2009 12:00	40059.5		0.044	32.4				1.44	1,048			0.497	0.029
9/4/2009 0:00	40060.0		0.047	32.8				1.40	1,022			0.497	0.029
9/4/2009 12:00	40060.5		0.042	32.0				1.37	997			0.497	0.028
9/5/2009 0:00	40061.0		0.044	31.0				1.33	971			0.497	0.029
9/5/2009 12:00	40061.5		0.042	31.0				1.30	946			0.497	0.028
9/6/2009 0:00	40062.0		0.043	30.6				1.26	920			0.497	0.029
9/6/2009 12:00	40062.5		0.037	28.8				1.22	895			0.497	0.027
9/7/2009 0:00	40063.0		0.038	27.0				1.19	869			0.497	0.027
9/7/2009 12:00	40063.5		0.036	26.6				1.15	844			0.497	0.026
9/8/2009 0:00	40064.0		0.040	27.4				1.12	818			0.497	0.028
9/8/2009 12:00	40064.5		0.036	27.4				1.08	793			0.497	0.027
9/9/2009 0:00	40065.0		0.036	25.9				1.05	767			0.497	0.027
9/9/2009 12:00	40065.5		0.033	24.8				1.01	742			0.434	0.025
9/10/2009 0:00	40066.0		0.034	24.1				0.98	716			0.434	0.026
9/10/2009 12:00	40066.5		0.032	23.8				0.94	691			0.434	0.025
9/11/2009 0:00	40067.0		0.034	23.8				0.91	665			0.434	0.026
9/11/2009 12:00	40067.5		0.033	24.1				0.87	640			0.434	0.025
9/12/2009 0:00	40068.0		0.033	23.8				0.84	614			0.434	0.025
9/12/2009 12:00	40068.5		0.032	23.4				0.80	589			0.434	0.025
9/13/2009 0:00	40069.0		0.034	23.8				0.76	563			0.434	0.026
9/13/2009 12:00	40069.5		0.033	24.1				0.73	537			0.434	0.026
9/14/2009 0:00	40070.0		0.032	23.4				0.69	512			0.434	0.025
9/14/2009 12:00	40070.5		0.032	23.0				0.66	486			0.434	0.025
9/15/2009 0:00	40071.0		0.033	23.4				0.62	461			0.434	0.026
9/15/2009 12:00	40071.5		0.031	23.0				0.59	435			0.434	0.025
9/16/2009 0:00	40072.0		0.032	22.7				0.55	410			0.434	0.026

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
9/16/2009 12:00	40072.5		0.030	22.3				0.52	384			0.434	0.025
9/17/2009 0:00	40073.0		0.032	22.3				0.48	359			0.434	0.025
9/17/2009 12:00	40073.5		0.028	21.6				0.45	333			0.434	0.024
9/18/2009 0:00	40074.0		0.030	20.9				0.41	308			0.434	0.025
9/18/2009 12:00	40074.5		0.028	20.9				0.37	282			0.434	0.024
9/19/2009 0:00	40075.0		0.031	21.2				0.34	257			0.434	0.025
9/19/2009 12:00	40075.5		0.028	21.2				0.30	231			0.434	0.024
9/20/2009 0:00	40076.0		0.031	21.2				0.27	206			0.434	0.025
9/20/2009 12:00	40076.5		0.034	23.4				0.23	180			0.434	0.026
9/21/2009 0:00	40077.0		0.034	24.5				0.20	155			0.434	0.026
9/21/2009 12:00	40077.5		0.031	23.4				0.16	129			0.434	0.025
9/22/2009 0:00	40078.0		0.031	22.3				0.13	104			0.434	0.025
9/22/2009 12:00	40078.5		0.028	21.2				0.09	78			0.434	0.024
9/23/2009 0:00	40079.0		0.029	20.5				0.06	53			0.434	0.024
9/23/2009 12:00	40079.5	57.0	0.027	20.2	5,791	0.02	-0.04	0.02	27	91,229	8/12/2009 to 9/23/2009	0.434	0.023
9/24/2009 0:00	40080.0		0.214					0.02	14			0.941	0.054
9/24/2009 12:00	40080.5		0.181					0.02	14			0.931	0.051
								0.02	14				
								0.02	14				
								0.02	14				
								0.02	14				
								0.02	14				
								0.02	14				
9/28/2009 18:00	40084.0	4.5				0.02	0.00	0.02	14	130	9/23/2009 to 9/28/2009		

Note: 0.02: Bucket/stopwatch Field Measurement

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For Arbitrary Water Year	Total Calculated Flow: 1,244,148
August 12, 2008 to August 12, 2009	
	Total Calculated Flow Following ISCO Flow Rate Values: *
	7/6/09 to 8/12/09 1,147,675

* The ISCO Flow Rates may be more accurate as they appear in a logarithmic curve, flattening into September, 2009.

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
8/12/2008	39672.0					1.11		1.11					
								1.13	1,616				
								1.16	1,650				
								1.18	1,684				
								1.21	1,718				
								1.23	1,752				
								1.25	1,787				
8/20/2008	39680.0	8.0				1.30	0.02	1.30	1,855				
8/21/2008	39681.0							1.29	1,866				
8/22/2008 0:00	39682.0		0.623					1.28	1,855				0.077
8/22/2008 12:00	39682.5		0.413					1.28	923				0.063
8/23/2008 0:00	39683.0		0.611					1.28	920				0.076
8/23/2008 12:00	39683.5		0.392					1.27	917				0.061
8/24/2008 0:00	39684.0		0.642					1.27	914				0.078
8/24/2008 12:00	39684.5		0.418					1.26	911				0.063
8/25/2008 0:00	39685.0		0.654					1.26	908				0.079
8/25/2008 12:00	39685.5		0.418					1.26	905				0.063
8/26/2008 0:00	39686.0		0.616					1.25	903				0.076
8/26/2008 12:00	39686.5		0.557					1.25	900				0.073
8/27/2008 0:00	39687.0		0.613					1.24	897				0.076
8/27/2008 12:00	39687.5		0.556					1.24	894				0.072
8/28/2008 0:00	39688.0		0.622					1.24	891				0.077
8/28/2008 12:00	39688.5		0.466					1.23	888				0.066
8/29/2008 0:00	39689.0		0.672					1.23	885				0.08
8/29/2008 12:00	39689.5		0.412					1.22	882				0.062
8/30/2008 0:00	39690.0		0.654					1.22	879				0.079
8/30/2008 12:00	39690.5		0.468					1.22	876				0.067
8/31/2008 0:00	39691.0		0.671					1.21	874				0.08
8/31/2008 12:00	39691.5		0.488					1.21	871				0.068
9/1/2008 0:00	39692.0		0.731					1.20	868				0.083
9/1/2008 12:00	39692.5		0.638					1.20	865				0.078
9/2/2008 0:00	39693.0		0.659					1.20	862				0.079
9/2/2008 12:00	39693.5		0.561					1.19	859				0.073
9/3/2008 0:00	39694.0		0.68					1.19	856				0.08
9/3/2008 12:00	39694.5		0.606					1.18	853				0.076
9/4/2008 0:00	39695.0		0.659					1.18	850				0.079
9/4/2008 12:00	39695.5		0.612					1.17	847				0.076
9/5/2008 0:00	39696.0		0.648					1.17	844				0.078
9/5/2008 12:00	39696.5		0.545					1.17	842				0.072
9/6/2008 0:00	39697.0		0.637					1.16	839				0.078
9/6/2008 12:00	39697.5		0.546					1.16	836				0.072
9/7/2008 0:00	39698.0		0.686					1.15	833				0.08
9/7/2008 12:00	39698.5		0.626					1.15	830				0.077
9/8/2008 0:00	39699.0		0.681					1.15	827				0.08
9/8/2008 12:00	39699.5		0.452					1.14	824				0.065
9/9/2008 0:00	39700.0		0.683					1.14	821				0.08
9/9/2008 12:00	39700.5		0.422					1.13	818				0.063
9/10/2008 0:00	39701.0		0.665					1.13	815				0.079
9/10/2008 12:00	39701.5		0.626					1.13	813				0.077
9/11/2008 0:00	39702.0		0.652					1.12	810				0.078
9/11/2008 12:00	39702.5		0.503					1.12	807				0.069
9/12/2008 0:00	39703.0		0.66					1.11	804				0.079
9/12/2008 12:00	39703.5		0.434					1.11	801				0.064
9/13/2008 0:00	39704.0		0.666					1.11	798				0.079
9/13/2008 12:00	39704.5		0.637					1.10	795				0.078
9/14/2008 0:00	39705.0		0.676					1.10	792				0.08
9/14/2008 12:00	39705.5		0.434					1.09	789				0.064
9/15/2008 0:00	39706.0		0.681					1.09	786				0.08
9/15/2008 12:00	39706.5		0.431					1.09	783				0.064
9/16/2008 0:00	39707.0		0.659					1.08	781				0.079
9/16/2008 12:00	39707.5		0.424					1.08	778				0.063
9/17/2008 0:00	39708.0		0.655					1.07	775				0.079
9/17/2008 12:00	39708.5	28.5	0.423			1.07	-0.004	1.07	772				0.063
9/18/2008 0:00	39709.0		0.467					1.06	768				0.066
9/18/2008 12:00	39709.5		0.455					1.05	762				0.066
9/19/2008 0:00	39710.0		0.491					1.05	756				0.068
9/19/2008 12:00	39710.5		0.473					1.04	751				0.067
9/20/2008 0:00	39711.0		0.489					1.03	745				0.068
9/20/2008 12:00	39711.5		0.494					1.02	739				0.068
9/21/2008 0:00	39712.0		0.524					1.02	734				0.07
9/21/2008 12:00	39712.5		0.525					1.01	728				0.07
9/22/2008 0:00	39713.0		0.504					1.00	722				0.069
9/22/2008 12:00	39713.5		0.517					0.99	717				0.07
9/23/2008 0:00	39714.0		0.48					0.98	711				0.067
9/23/2008 12:00	39714.5		0.512					0.98	705				0.07
9/24/2008 0:00	39715.0		0.531					0.97	700				0.071
9/24/2008 12:00	39715.5	7.0	0.504			0.96	-0.008	0.96	694	72,745	8/12/2008 to 9/24/2008		0.069
9/25/2008 0:00	39716.0		0.623	406				0.93	680				0.077
9/25/2008 12:00	39716.5		0.514	409				0.90	658				0.07
9/26/2008 0:00	39717.0		1.043	561				0.87	635				0.071
9/26/2008 12:00	39717.5		1.186	802				0.84	613				0.075
9/27/2008 0:00	39718.0		1.247	876				0.81	591				0.077
9/27/2008 12:00	39718.5		1.155	865				0.77	569				0.074
9/28/2008 0:00	39719.0		1.21	851				0.74	546				0.076
9/28/2008 12:00	39719.5		1.102	832				0.71	524				0.073
9/29/2008 0:00	39720.0		1.21	832				0.68	502				0.076
9/29/2008 12:00	39720.5		1.097	831				0.65	479				0.073
9/30/2008 0:00	39721.0		1.218	833				0.62	457				0.076
9/30/2008 12:00	39721.5		1.117	841				0.59	435				0.073
10/1/2008 0:00	39722.0		1.198	833				0.56	412				0.076
10/1/2008 12:00	39722.5		2.801	1,440				0.53	390				0.117

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
10/2/2008 0:00	39723.0		0.735	1,273				0.50	368				0.101
10/2/2008 12:00	39723.5		0.266	360				0.46	346				0.068
10/3/2008 0:00	39724.0		0.397	239				0.43	323				0.079
10/3/2008 12:00	39724.5		0.334	263				0.40	301				0.074
10/4/2008 0:00	39725.0		0.337	242				0.37	279				0.074
10/4/2008 12:00	39725.5		0.303	230				0.34	256				0.071
10/5/2008 0:00	39726.0		0.305	219				0.31	234				0.072
10/5/2008 12:00	39726.5		0.273	208				0.28	212				0.068
10/6/2008 0:00	39727.0		0.253	189				0.25	190				0.066
10/6/2008 12:00	39727.5		0.241	178				0.22	167				0.065
10/7/2008 0:00	39728.0		0.227	168				0.19	145				0.064
10/7/2008 12:00	39728.5		0.206	156				0.15	123				0.061
10/8/2008 0:00	39729.0		0.196	145				0.12	100				0.06
10/8/2008 12:00	39729.5		0.18	135				0.09	78				0.058
10/9/2008 0:00	39730.0		0.001	65	ISCO Cum Volume calculated			0.06	56	Cumulative Volume calculated			0.007
10/9/2008 12:00	39730.5		0.003	1	only for comparison			0.03	33	is considered more accurate			0.011
10/10/2008 0:00	39731.0	15.5	0	1	15,286		-0.031	0.00	11	10,714	9/25/2008 to 10/10/2008		0.004
10/10/2008 12:00	39731.5		0	0		Freeze-up	Flow stops						-0.002
10/11/2008 0:00	39732.0		0	0									-0.007
10/11/2008 12:00	39732.5		0	0									-0.009
10/12/2008 0:00	39733.0		0	0									-0.006
10/12/2008 12:00	39733.5		0	0									-0.008
10/13/2008 0:00	39734.0		0	0									-0.007
10/13/2008 12:00	39734.5		0	0									-0.007
10/14/2008 0:00	39735.0		0	0									-0.006
10/14/2008 12:00	39735.5		0	0									-0.002
10/15/2008 0:00	39736.0		0	0									-0.005
10/15/2008 12:00	39736.5		0	0									-0.004
10/16/2008 0:00	39737.0		0	0									-0.001
10/16/2008 12:00	39737.5		0	0									-0.003
10/17/2008 0:00	39738.0		0	0									-0.002
10/17/2008 12:00	39738.5		0	0									-0.003
10/18/2008 0:00	39739.0		0	0									-0.006
10/18/2008 12:00	39739.5		0	0									-0.006
10/19/2008 0:00	39740.0		0	0									-0.005
10/19/2008 12:00	39740.5		0	0									-0.007
10/20/2008 0:00	39741.0		0	0									-0.006
10/20/2008 12:00	39741.5		0	0									-0.01
10/21/2008 0:00	39742.0		0	0									-0.006
10/21/2008 12:00	39742.5		0	0									-0.005
10/22/2008 0:00	39743.0		0	0									-0.003
10/22/2008 12:00	39743.5		0	0									-0.005
10/23/2008 0:00	39744.0		0	0									-0.004
10/23/2008 12:00	39744.5		0	0									-0.008
10/24/2008 0:00	39745.0		0	0									-0.003
10/24/2008 12:00	39745.5		0	0									-0.008
10/25/2008 0:00	39746.0		0	0									-0.005
10/25/2008 12:00	39746.5		0	0									-0.008
10/26/2008 0:00	39747.0		0	0									-0.011
10/26/2008 12:00	39747.5		0	0									-0.017
10/27/2008 0:00	39748.0		0	0									-0.012
10/27/2008 12:00	39748.5		0	0									-0.018
10/28/2008 0:00	39749.0		0	0									-0.012
10/28/2008 12:00	39749.5		0	0									-0.019
10/29/2008 0:00	39750.0		0	0									-0.016
10/29/2008 12:00	39750.5		0	0									-0.014
10/30/2008 0:00	39751.0		0	0									-0.014
10/30/2008 12:00	39751.5		0	0									-0.02
10/31/2008 0:00	39752.0		0	0									-0.014
10/31/2008 12:00	39752.5		0	0									-0.019
11/1/2008 0:00	39753.0		0	0									-0.016
11/1/2008 12:00	39753.5		0	0									-0.014
11/2/2008 0:00	39754.0		0	0									-0.012
11/2/2008 12:00	39754.5		0	0									-0.015
11/3/2008 0:00	39755.0		0	0									-0.013
11/3/2008 12:00	39755.5		0	0									-0.015
11/4/2008 0:00	39756.0		0	0									-0.015
11/4/2008 12:00	39756.5		0	0									-0.015
11/5/2008 0:00	39757.0		0	0									-0.015
11/5/2008 12:00	39757.5		0	0									-0.016
11/6/2008 0:00	39758.0		0	0									-0.017
11/6/2008 12:00	39758.5		0	0									-0.018
11/7/2008 0:00	39759.0		0	0									-0.017
11/7/2008 12:00	39759.5		0	0									-0.018
11/8/2008 0:00	39760.0		0	0									-0.018
11/8/2008 12:00	39760.5		0	0									-0.019
11/9/2008 0:00	39761.0		0	0									-0.02
11/9/2008 12:00	39761.5		0	0									-0.02
11/10/2008 0:00	39762.0		0	0									-0.021
11/10/2008 12:00	39762.5		0	0									-0.022
11/11/2008 0:00	39763.0		0	0									-0.022
11/11/2008 12:00	39763.5		0	0									-0.021
11/12/2008 0:00	39764.0		0	0									-0.024
11/12/2008 12:00	39764.5		0	0									-0.022
11/13/2008 0:00	39765.0		0	0									-0.023
11/13/2008 12:00	39765.5		0	0									-0.023
11/14/2008 0:00	39766.0		0	0									-0.023
11/14/2008 12:00	39766.5		0	0									-0.023
11/15/2008 0:00	39767.0		0	0									-0.023
11/15/2008 12:00	39767.5		0	0									-0.023
11/16/2008 0:00	39768.0		0	0									-0.022
11/16/2008 12:00	39768.5		0	0									-0.023
11/17/2008 0:00	39769.0		0	0									-0.024

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
1/3/2009 0:00	39816.0		4.752	0									0.214
1/3/2009 12:00	39816.5		7.404	0									0.256
1/4/2009 0:00	39817.0		6.557	0									0.244
1/4/2009 12:00	39817.5		9.133	0									0.279
1/5/2009 0:00	39818.0		13.856	0									0.329
1/5/2009 12:00	39818.5		10.466	0									0.294
1/6/2009 0:00	39819.0		6.726	0									0.246
1/6/2009 12:00	39819.5		3.049	0									0.18
1/7/2009 0:00	39820.0		4.379	0									0.208
1/7/2009 12:00	39820.5		1.709	0									0.142
1/8/2009 0:00	39821.0		3.397	0									0.188
1/8/2009 12:00	39821.5		6.039	0									0.236
1/9/2009 0:00	39822.0		1.812	0									0.146
1/9/2009 12:00	39822.5		1.284	0									0.127
1/10/2009 0:00	39823.0		2.37	0									0.162
1/10/2009 12:00	39823.5		3.534	0									0.191
1/11/2009 0:00	39824.0		2.33	0									0.161
1/11/2009 12:00	39824.5		4.82	0									0.216
1/12/2009 0:00	39825.0		4.983	0									0.219
1/12/2009 12:00	39825.5		3.669	0									0.193
1/13/2009 0:00	39826.0		6.075	0									0.237
1/13/2009 12:00	39826.5		6.49	0									0.243
1/14/2009 0:00	39827.0		6.904	0									0.249
1/14/2009 12:00	39827.5		7.604	0									0.259
1/15/2009 0:00	39828.0		6.494	0									0.243
1/15/2009 12:00	39828.5		5.232	0									0.223
1/16/2009 0:00	39829.0		3.899	0									0.198
1/16/2009 12:00	39829.5		0.315	0									0.072
1/17/2009 0:00	39830.0		0.143	0									0.053
1/17/2009 12:00	39830.5		0.117	0									0.049
1/18/2009 0:00	39831.0		0.274	0									0.069
1/18/2009 12:00	39831.5		1.205	0									0.124
1/19/2009 0:00	39832.0		0	0									-0.009
1/19/2009 12:00	39832.5		0	0									-0.05
1/20/2009 0:00	39833.0		0	0									-0.169
1/20/2009 12:00	39833.5		0	0									-0.214
1/21/2009 0:00	39834.0		0.168	0									0.056
1/21/2009 12:00	39834.5		0	0	System Malfunction - no flow rates calculated								-0.164
1/22/2009 0:00	39835.0		0	0									0.003
1/22/2009 12:00	39835.5		0	0									-0.207
1/23/2009 0:00	39836.0		0	0									-0.211
1/23/2009 12:00	39836.5		0	0									-0.309
1/24/2009 0:00	39837.0		0	0									-0.265
1/24/2009 12:00	39837.5		0	0									-0.372
1/25/2009 0:00	39838.0		0	0									-0.344
1/25/2009 12:00	39838.5		0	0									-0.364
1/26/2009 0:00	39839.0		0	0									-0.381
1/26/2009 12:00	39839.5		0	0									-0.432
1/27/2009 0:00	39840.0		0	0									-0.384
1/27/2009 12:00	39840.5		0	0									-0.419
1/28/2009 0:00	39841.0		0	0									-0.401
1/28/2009 12:00	39841.5		0	0									-0.408
1/29/2009 0:00	39842.0		0	0									-0.418
1/29/2009 12:00	39842.5		0	0									-0.423
1/30/2009 0:00	39843.0		0	0									-0.422
1/30/2009 12:00	39843.5		0	0									-0.421
1/31/2009 0:00	39844.0		0	0									-0.396
1/31/2009 12:00	39844.5		0	0									-0.395
2/1/2009 0:00	39845.0		0	0									-0.411
2/1/2009 12:00	39845.5		0	0									-0.435
2/2/2009 0:00	39846.0		0	0									-0.434
2/2/2009 12:00	39846.5		0	0									-0.444
2/3/2009 0:00	39847.0		0	0									-0.437
2/3/2009 12:00	39847.5		0	0									-0.436
2/4/2009 0:00	39848.0		0	0									-0.413
2/4/2009 12:00	39848.5		0	0									-0.475
2/5/2009 0:00	39849.0		0	0									-0.392
2/5/2009 12:00	39849.5		0	0									-0.379
2/6/2009 0:00	39850.0		0	0									-0.352
2/6/2009 12:00	39850.5		0	0									-0.386
2/7/2009 0:00	39851.0		0	0									-0.41
2/7/2009 12:00	39851.5		0	0									-0.43
2/8/2009 0:00	39852.0		0	0									-0.406
2/8/2009 12:00	39852.5		0	0									-0.376
2/9/2009 0:00	39853.0		0	0									-0.385
2/9/2009 12:00	39853.5		0	0									-0.395
2/10/2009 0:00	39854.0		0	0									-0.416
2/10/2009 12:00	39854.5		0	0									-0.425
2/11/2009 0:00	39855.0		0	0									-0.421
2/11/2009 12:00	39855.5		0	0									-0.409
2/12/2009 0:00	39856.0		0	0									-0.416
2/12/2009 12:00	39856.5		0	0									-0.415
2/13/2009 0:00	39857.0		0	0									-0.423
2/13/2009 12:00	39857.5		0	0									-0.422
2/14/2009 0:00	39858.0		0	0									-0.411
2/14/2009 12:00	39858.5		0	0									-0.421
2/15/2009 0:00	39859.0		0	0									-0.426
2/15/2009 12:00	39859.5		0	0									-0.426
2/16/2009 0:00	39860.0		0	0									-0.404
2/16/2009 12:00	39860.5		0	0									-0.405
2/17/2009 0:00	39861.0		0	0									-0.398
2/17/2009 12:00	39861.5		0	0									-0.404
2/18/2009 0:00	39862.0		0	0									-0.44

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
2/18/2009 12:00	39862.5		0	0	0								-0.449
2/19/2009 0:00	39863.0		0	0	0								-0.445
2/19/2009 12:00	39863.5		0	0	0								-0.439
2/20/2009 0:00	39864.0		0	0	0								-0.425
2/20/2009 12:00	39864.5		0	0	0								-0.436
2/21/2009 0:00	39865.0		0	0	0								-0.438
2/21/2009 12:00	39865.5		0	0	0								-0.473
2/22/2009 0:00	39866.0		0	0	0								-0.421
2/22/2009 12:00	39866.5		0	0	0								-0.423
2/23/2009 0:00	39867.0		0	0	0								-0.405
2/23/2009 12:00	39867.5		0	0	0								-0.417
2/24/2009 0:00	39868.0		0	0	0								-0.346
2/24/2009 12:00	39868.5		0	0	0								-0.312
2/25/2009 0:00	39869.0		0	0	0								-0.318
2/25/2009 12:00	39869.5		0	0	0								-0.342
2/26/2009 0:00	39870.0		0	0	0								-0.322
2/26/2009 12:00	39870.5		0	0	0								-0.363
2/27/2009 0:00	39871.0		0	0	0								-0.334
2/27/2009 12:00	39871.5		0	0	0								-0.339
2/28/2009 0:00	39872.0		0	0	0								-0.318
2/28/2009 12:00	39872.5		0	0	0								-0.334
3/1/2009 0:00	39873.0		0	0	0								-0.323
3/1/2009 12:00	39873.5		0	0	0								-0.311
3/2/2009 0:00	39874.0		0	0	0								-0.3
3/2/2009 12:00	39874.5		0	0	0								-0.291
3/3/2009 0:00	39875.0		0	0	0								-0.306
3/3/2009 12:00	39875.5		0	0	0								-0.295
3/4/2009 0:00	39876.0		0	0	0								-0.301
3/4/2009 12:00	39876.5		0	0	0								-0.298
3/5/2009 0:00	39877.0		0	0	0								-0.31
3/5/2009 12:00	39877.5		0	0	0								-0.318
3/6/2009 0:00	39878.0		0	0	0								-0.308
3/6/2009 12:00	39878.5		0	0	0								-0.285
3/7/2009 0:00	39879.0		0	0	0								-0.273
3/7/2009 12:00	39879.5		0	0	0								-0.239
3/8/2009 0:00	39880.0		0	0	0								-0.287
3/8/2009 12:00	39880.5		0	0	0								-0.278
3/9/2009 0:00	39881.0		0	0	0								-0.275
3/9/2009 12:00	39881.5		0	0	0								-0.27
3/10/2009 0:00	39882.0		0	0	0								-0.264
3/10/2009 12:00	39882.5		0	0	0								-0.252
3/11/2009 0:00	39883.0		0	0	0								-0.248
3/11/2009 12:00	39883.5		0	0	0								-0.244
3/12/2009 0:00	39884.0		0	0	0								-0.255
3/12/2009 12:00	39884.5		0	0	0								-0.237
3/13/2009 0:00	39885.0		0	0	0								-0.215
3/13/2009 12:00	39885.5		0	0	0								-0.247
3/14/2009 0:00	39886.0		0	0	0								-0.243
3/14/2009 12:00	39886.5		0	0	0								-0.225
3/15/2009 0:00	39887.0		0	0	0								-0.247
3/15/2009 12:00	39887.5		0	0	0								-0.214
3/16/2009 0:00	39888.0		0	0	0								-0.209
3/16/2009 12:00	39888.5		0	0	0								-0.215
3/17/2009 0:00	39889.0		0	0	0								-0.194
3/17/2009 12:00	39889.5		0	0	0								-0.276
3/18/2009 0:00	39890.0		0	0	0								-0.183
3/18/2009 12:00	39890.5		0	0	0								-0.182
3/19/2009 0:00	39891.0		0	0	0								-0.313
3/19/2009 12:00	39891.5		0	0	0								-0.182
3/20/2009 0:00	39892.0		0	0	0								-0.181
3/20/2009 12:00	39892.5		0	0	0								-0.25
3/21/2009 0:00	39893.0		0	0	0								-0.304
3/21/2009 12:00	39893.5		0	0	0								-0.212
3/22/2009 0:00	39894.0		0	0	0								-0.18
3/22/2009 12:00	39894.5		0	0	0								-0.176
3/23/2009 0:00	39895.0		0	0	0								-0.176
3/23/2009 12:00	39895.5		0	0	0								-0.176
3/24/2009 0:00	39896.0		0	0	0								-0.17
3/24/2009 12:00	39896.5		0	0	0								-0.168
3/25/2009 0:00	39897.0		0	0	0								-0.169
3/25/2009 12:00	39897.5		0	0	0								-0.175
3/26/2009 0:00	39898.0		0	0	0								-0.205
3/26/2009 12:00	39898.5		0	0	0								-0.235
3/27/2009 0:00	39899.0		0	0	0								-0.26
3/27/2009 12:00	39899.5		0	0	0								-0.3
3/28/2009 0:00	39900.0		0	0	0								-0.242
3/28/2009 12:00	39900.5		0	0	0								-0.254
3/29/2009 0:00	39901.0		0	0	0								-0.179
3/29/2009 12:00	39901.5		0	0	0								-0.175
3/30/2009 0:00	39902.0		0	0	0								-0.274
3/30/2009 12:00	39902.5		0	0	0								-0.312
3/31/2009 0:00	39903.0		0	0	0								-0.317
3/31/2009 12:00	39903.5		0	0	0								-0.335
4/1/2009 0:00	39904.0		0	0	0								-0.277
4/1/2009 12:00	39904.5		0	0	0								-0.28
4/2/2009 0:00	39905.0		0	0	0								-0.233
4/2/2009 12:00	39905.5		0	0	0								-0.222
4/3/2009 0:00	39906.0		0	0	0								-0.236
4/3/2009 12:00	39906.5		0	0	0								-0.234
4/4/2009 0:00	39907.0		0	0	0								-0.24
4/4/2009 12:00	39907.5		0	0	0								-0.234
4/5/2009 0:00	39908.0		0	0	0								-0.258
4/5/2009 12:00	39908.5		0	0	0								-0.265

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
4/6/2009 0:00	39909.0		0	0									-0.271
4/6/2009 12:00	39909.5		0	0									-0.271
4/7/2009 0:00	39910.0		0	0									-0.279
4/7/2009 12:00	39910.5		0	0									-0.28
4/8/2009 0:00	39911.0		0	0									-0.272
4/8/2009 12:00	39911.5		0	0									-0.259
4/9/2009 0:00	39912.0		0	0									-0.279
4/9/2009 12:00	39912.5		0	0									-0.283
4/10/2009 0:00	39913.0		0	0									-0.28
4/10/2009 12:00	39913.5		0	0									-0.27
4/11/2009 0:00	39914.0		0	0									-0.23
4/11/2009 12:00	39914.5		0	0									-0.207
4/12/2009 0:00	39915.0		0	0									-0.185
4/12/2009 12:00	39915.5		0	0									-0.196
4/13/2009 0:00	39916.0		0	0									-0.203
4/13/2009 12:00	39916.5		0	0									-0.203
4/14/2009 0:00	39917.0		0	0									-0.209
4/14/2009 12:00	39917.5		0	0									-0.211
4/15/2009 0:00	39918.0		0	0									-0.216
4/15/2009 12:00	39918.5		0	0									-0.204
4/16/2009 0:00	39919.0		0	0									-0.147
4/16/2009 12:00	39919.5		0	0									-0.214
4/17/2009 0:00	39920.0		0	0									-0.245
4/17/2009 12:00	39920.5		0	0									-0.252
4/18/2009 0:00	39921.0		0	0									-0.253
4/18/2009 12:00	39921.5		0	0									-0.265
4/19/2009 0:00	39922.0		0	0									-0.061
4/19/2009 12:00	39922.5		0	0									-0.085
4/20/2009 0:00	39923.0		0	0									-0.06
4/20/2009 12:00	39923.5		0	0									-0.06
4/21/2009 0:00	39924.0		0	0									-0.067
4/21/2009 12:00	39924.5		0	0									-0.051
4/22/2009 0:00	39925.0		0	0									-0.057
4/22/2009 12:00	39925.5		0	0									-0.049
4/23/2009 0:00	39926.0		0	0									-0.054
4/23/2009 12:00	39926.5		0	0									-0.067
4/24/2009 0:00	39927.0		0	0									-0.065
4/24/2009 12:00	39927.5		0	0									-0.065
4/25/2009 0:00	39928.0		0	0									-0.068
4/25/2009 12:00	39928.5		0	0									-0.067
4/26/2009 0:00	39929.0		0	0									-0.065
4/26/2009 12:00	39929.5		0	0									-0.066
4/27/2009 0:00	39930.0		0	0									-0.066
4/27/2009 12:00	39930.5		0	0									-0.067
4/28/2009 0:00	39931.0		0	0									-0.067
4/28/2009 12:00	39931.5		0	0									-0.066
4/29/2009 0:00	39932.0		0	0									-0.065
4/29/2009 12:00	39932.5		0	0									-0.064
4/30/2009 0:00	39933.0		0	0									-0.064
4/30/2009 12:00	39933.5		0	0									-0.064
5/1/2009 0:00	39934.0		0	0									-0.064
5/1/2009 12:00	39934.5		0	0									-0.065
5/2/2009 0:00	39935.0		0	0									-0.064
5/2/2009 12:00	39935.5		0	0									-0.064
5/3/2009 0:00	39936.0		0	0									-0.062
5/3/2009 12:00	39936.5		0	0									-0.061
5/4/2009 0:00	39937.0		0	0									-0.062
5/4/2009 12:00	39937.5		0	0									-0.061
5/5/2009 0:00	39938.0		0	0									-0.061
5/5/2009 12:00	39938.5		0	0									-0.062
5/6/2009 0:00	39939.0		0	0									-0.06
5/6/2009 12:00	39939.5		0	0									-0.06
5/7/2009 0:00	39940.0		0	0									-0.062
5/7/2009 12:00	39940.5		0	0									-0.059
5/8/2009 0:00	39941.0		0	0									-0.06
5/8/2009 12:00	39941.5		0	0									-0.061
5/9/2009 0:00	39942.0		0	0									-0.061
5/9/2009 12:00	39942.5		0	0									-0.062
5/10/2009 0:00	39943.0		0	0									-0.06
5/10/2009 12:00	39943.5		0	0									-0.061
5/11/2009 0:00	39944.0		0	0									-0.06
5/11/2009 12:00	39944.5		0	0									-0.059
5/12/2009 0:00	39945.0		0	0									-0.059
5/12/2009 12:00	39945.5		0	0									-0.06
5/13/2009 0:00	39946.0		0	0									-0.057
5/13/2009 12:00	39946.5		0	0									-0.059
5/14/2009 0:00	39947.0		0	0									-0.06
5/14/2009 12:00	39947.5		0	0									-0.059
5/15/2009 0:00	39948.0		0	0									-0.059
5/15/2009 12:00	39948.5		0	0									-0.058
5/16/2009 0:00	39949.0		0	0									-0.058
5/16/2009 12:00	39949.5		0	0									-0.057
5/17/2009 0:00	39950.0		0	0									-0.064
5/17/2009 12:00	39950.5		0	0									-0.069
5/18/2009 0:00	39951.0		0	0									-0.067
5/18/2009 12:00	39951.5		0	0									-0.067
5/19/2009 0:00	39952.0		0	0									-0.073
5/19/2009 12:00	39952.5		0	0									-0.07
5/20/2009 0:00	39953.0		0	0				0.00					-0.066
5/20/2009 12:00	39953.5		0	0	Spring Thaw - Flow starts			0.03	10				-0.07
5/21/2009 0:00	39954.0		0	0				0.05	29				-0.047
5/21/2009 12:00	39954.5		0	0				0.08	48				-0.026
5/22/2009 0:00	39955.0		0	0				0.11	68				-0.013

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
5/22/2009 12:00	39955.5		0	0				0.13	87				-0.011
5/23/2009 0:00	39956.0		0	0				0.16	106				-0.01
5/23/2009 12:00	39956.5		0	0				0.19	126				-0.006
5/24/2009 0:00	39957.0		0	0				0.21	145				-0.008
5/24/2009 12:00	39957.5		0	0				0.24	164				-0.012
5/25/2009 0:00	39958.0		0	0				0.27	184				-0.012
5/25/2009 12:00	39958.5		0	0				0.30	203				-0.01
5/26/2009 0:00	39959.0		0	0				0.32	222				-0.013
5/26/2009 12:00	39959.5		0	0				0.35	242				-0.011
5/27/2009 0:00	39960.0		0	0				0.38	261				-0.012
5/27/2009 12:00	39960.5		0	0				0.40	280				-0.012
5/28/2009 0:00	39961.0		0	0				0.43	300				-0.009
5/28/2009 12:00	39961.5		0	0				0.46	319				-0.01
5/29/2009 0:00	39962.0		0	0				0.48	339				-0.009
5/29/2009 12:00	39962.5		0	0				0.51	358				-0.009
5/30/2009 0:00	39963.0		0	0				0.54	377				-0.007
5/30/2009 12:00	39963.5		0	0				0.56	397				-0.007
5/31/2009 0:00	39964.0		0	0				0.59	416				-0.006
5/31/2009 12:00	39964.5		0	0				0.62	435				-0.006
6/1/2009 0:00	39965.0		0	0				0.64	455				-0.006
6/1/2009 12:00	39965.5		0	0				0.67	474				-0.006
6/2/2009 0:00	39966.0		0	0				0.70	493				-0.008
6/2/2009 12:00	39966.5		0	0				0.73	513				-0.006
6/3/2009 0:00	39967.0		0	0				0.75	532				-0.005
6/3/2009 12:00	39967.5		0	0				0.78	551				-0.007
6/4/2009 0:00	39968.0		0	0				0.81	571				-0.005
6/4/2009 12:00	39968.5		0	0				0.83	590				-0.006
6/5/2009 0:00	39969.0		0	0				0.86	609				-0.007
6/5/2009 12:00	39969.5		0	0				0.89	629				-0.007
6/6/2009 0:00	39970.0		0	0				0.91	648				-0.006
6/6/2009 12:00	39970.5		0	0				0.94	667				-0.006
6/7/2009 0:00	39971.0		0	0				0.97	687				-0.005
6/7/2009 12:00	39971.5		0	0				0.99	706				-0.004
6/8/2009 0:00	39972.0		0	0				1.02	725				-0.005
6/8/2009 12:00	39972.5		0	0				1.05	745				-0.005
6/9/2009 0:00	39973.0		0	0				1.07	764				-0.003
6/9/2009 12:00	39973.5		0	0				1.10	783				-0.005
6/10/2009 0:00	39974.0		0	0				1.13	803				-0.004
6/10/2009 12:00	39974.5		0	0				1.16	822				-0.005
6/11/2009 0:00	39975.0		0	0				1.18	841				-0.005
6/11/2009 12:00	39975.5		0	0				1.21	861				-0.004
6/12/2009 0:00	39976.0		0	0				1.24	880				-0.006
6/12/2009 12:00	39976.5		0	0				1.26	899				-0.004
6/13/2009 0:00	39977.0		0	0				1.29	919				-0.004
6/13/2009 12:00	39977.5		0	0				1.32	938				-0.004
6/14/2009 0:00	39978.0		0	0				1.34	957				-0.005
6/14/2009 12:00	39978.5		0	0				1.37	977				-0.004
6/15/2009 0:00	39979.0		0	0				1.40	996				-0.005
6/15/2009 12:00	39979.5		0	0				1.42	1,016				-0.003
6/16/2009 0:00	39980.0		0	0				1.45	1,035				-0.004
6/16/2009 12:00	39980.5		0	0				1.48	1,054				-0.004
6/17/2009 0:00	39981.0		0	0				1.50	1,074				-0.002
6/17/2009 12:00	39981.5		0	0				1.53	1,093				-0.001
6/18/2009 0:00	39982.0		0	0				1.56	1,112				-0.001
6/18/2009 12:00	39982.5		0	0				1.59	1,132				0
6/19/2009 0:00	39983.0		0	0				1.61	1,151				-0.001
6/19/2009 12:00	39983.5		0	0				1.64	1,170				0
6/20/2009 0:00	39984.0		0	0				1.67	1,190				0.003
6/20/2009 12:00	39984.5		0	0				1.69	1,209				0.004
6/21/2009 0:00	39985.0		0	0				1.72	1,228				0.003
6/21/2009 12:00	39985.5		0	0				1.75	1,248				0.002
6/22/2009 0:00	39986.0		0	0				1.77	1,267				0.003
6/22/2009 12:00	39986.5	33.5	0	0	Assume a peak flow rate peak flow	1.80	0.027	1.80	1,286	43,416			0.005
6/23/2009 0:00	39987.0		0	0				1.78	1,289				-0.001
6/23/2009 12:00	39987.5		0	0				1.76	1,274				0.001
6/24/2009 0:00	39988.0		0	0				1.74	1,260				-0.003
6/24/2009 12:00	39988.5		0	0				1.72	1,246				-0.001
6/25/2009 0:00	39989.0		0	0				1.70	1,231				-0.004
6/25/2009 12:00	39989.5		0	0				1.68	1,217				-0.007
6/26/2009 0:00	39990.0		0	0				1.66	1,202				-0.002
6/26/2009 12:00	39990.5		0	0				1.64	1,188				-0.005
6/27/2009 0:00	39991.0		0	0				1.62	1,174				-0.007
6/27/2009 12:00	39991.5		0	0				1.60	1,159				-0.011
6/28/2009 0:00	39992.0		0	0				1.58	1,145				-0.006
6/28/2009 12:00	39992.5		0	0				1.56	1,130				-0.011
6/29/2009 0:00	39993.0		0	0				1.54	1,116				-0.007
6/29/2009 12:00	39993.5		0	0				1.52	1,102				-0.012
6/30/2009 0:00	39994.0		0	0				1.50	1,087				-0.008
6/30/2009 12:00	39994.5		0	0				1.48	1,073				-0.014
7/1/2009 0:00	39995.0		0	0				1.46	1,058				-0.008
7/1/2009 12:00	39995.5		0	0				1.44	1,044				-0.013
7/2/2009 0:00	39996.0		0	0				1.42	1,030				-0.01
7/2/2009 12:00	39996.5		0	0				1.40	1,015				-0.019
7/3/2009 0:00	39997.0		0	0				1.38	1,001				-0.01
7/3/2009 12:00	39997.5		0	0				1.36	986				-0.013
7/4/2009 0:00	39998.0		0	0				1.34	972				-0.012
7/4/2009 12:00	39998.5		0	0				1.32	958				-0.019
7/5/2009 0:00	39999.0		0	0				1.30	943	Assume that this would be a minimum volume:			-0.013
7/5/2009 12:00	39999.5		0	0				1.28	929				-0.018
7/6/2009 0:00	40000.0		0	0				1.26	914				-0.015
7/6/2009 12:00	40000.5	14.0	0	0	0	1.24	-0.020	1.24	900	30,643			-0.021
7/7/2009 0:00	40001.0		0	0				1.24	891				-0.015
7/7/2009 12:00	40001.5		0	0				1.23	888				-0.019

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
7/8/2009 0:00	40002.0		0	0				1.23	885				-0.016
7/8/2009 12:00	40002.5		0	0				1.22	882				-0.023
7/9/2009 0:00	40003.0		0	0				1.22	879				-0.017
7/9/2009 12:00	40003.5		0	0				1.21	876				-0.023
7/10/2009 0:00	40004.0		0	0				1.21	873				-0.021
7/10/2009 12:00	40004.5		0	0				1.21	870				-0.025
7/11/2009 0:00	40005.0		0	0				1.20	867				-0.019
7/11/2009 12:00	40005.5		0	0				1.20	863				-0.025
7/12/2009 0:00	40006.0		0	0				1.19	860				-0.019
7/12/2009 12:00	40006.5		0	0				1.19	857				-0.024
7/13/2009 0:00	40007.0		0	0				1.18	854				-0.018
7/13/2009 12:00	40007.5		0	0				1.18	851				-0.021
7/14/2009 0:00	40008.0		0	0				1.18	848				-0.017
7/14/2009 12:00	40008.5		0	0				1.17	845				-0.021
7/15/2009 0:00	40009.0		0	0				1.17	842				-0.021
7/15/2009 12:00	40009.5		0	0				1.16	839				-0.026
7/16/2009 0:00	40010.0		0	0				1.16	836				-0.021
7/16/2009 12:00	40010.5		0	0				1.15	833				-0.021
7/17/2009 0:00	40011.0		0	0				1.15	830				-0.021
7/17/2009 12:00	40011.5		0	0				1.15	826				-0.021
7/18/2009 0:00	40012.0		0	0				1.14	823				-0.021
7/18/2009 12:00	40012.5		0	0				1.14	820				-0.021
7/19/2009 0:00	40013.0		0	0				1.13	817				-0.021
7/19/2009 12:00	40013.5		0	0				1.13	814				-0.021
7/20/2009 0:00	40014.0		0	0				1.12	811				-0.021
7/20/2009 12:00	40014.5	14.0	0	0		1.12	-0.004	1.12	808				-0.021
7/21/2009 0:00	40015.0			0				1.13	808				
7/21/2009 12:00	40015.5			0				1.13	812				
7/22/2009 0:00	40016.0			0				1.14	817				
7/22/2009 12:00	40016.5			0				1.14	821				
7/23/2009 0:00	40017.0			0				1.15	825				
7/23/2009 12:00	40017.5			0				1.15	829				
7/24/2009 0:00	40018.0			0				1.16	833				
7/24/2009 12:00	40018.5			0				1.17	837				
7/25/2009 0:00	40019.0			0				1.17	841				
7/25/2009 12:00	40019.5			0				1.18	845				
7/26/2009 0:00	40020.0			0				1.18	849				
7/26/2009 12:00	40020.5			0				1.19	853				
7/27/2009 0:00	40021.0			0				1.19	857				
7/27/2009 12:00	40021.5			0				1.20	861				
7/28/2009 0:00	40022.0			0				1.20	865				
7/28/2009 12:00	40022.5	8.0		0	0	1.21	0.006	1.21	869	37,210			
7/29/2009 0:00	40023.0			0				1.20	869				
7/29/2009 12:00	40023.5			0				1.20	864				
7/30/2009 0:00	40024.0			0				1.19	859				
7/30/2009 12:00	40024.5			0				1.18	854				
7/31/2009 0:00	40025.0			0				1.18	849				
7/31/2009 12:00	40025.5			0				1.17	844				
8/1/2009 0:00	40026.0			0				1.16	840				
8/1/2009 12:00	40026.5			0				1.16	835				
8/2/2009 0:00	40027.0			0				1.15	830				
8/2/2009 12:00	40027.5			0				1.14	825				
8/3/2009 0:00	40028.0			0				1.14	820				
8/3/2009 12:00	40028.5			0				1.13	815				
8/4/2009 0:00	40029.0			0				1.12	810				
8/4/2009 12:00	40029.5			0				1.12	806				
8/5/2009 0:00	40030.0			0				1.11	801				
8/5/2009 12:00	40030.5			0				1.10	796				
8/6/2009 0:00	40031.0			0				1.10	791				
8/6/2009 12:00	40031.5			0				1.09	786				
8/7/2009 0:00	40032.0			0				1.08	781				
8/7/2009 12:00	40032.5			0				1.07	776				
8/8/2009 0:00	40033.0			0				1.07	772				
8/8/2009 12:00	40033.5			0				1.06	767				
8/9/2009 0:00	40034.0			0				1.05	762				
8/9/2009 12:00	40034.5			0				1.05	757				
8/10/2009 0:00	40035.0			0				1.04	752				
8/10/2009 12:00	40035.5			0				1.03	747				
8/11/2009 0:00	40036.0			0				1.03	742				
8/11/2009 12:00	40036.5			0				1.02	737				
8/12/2009 0:00	40037.0			0				1.01	733				
8/12/2009 12:00	40037.5			0	0			1.01	728	23,948	7/28/2009 to 8/12/2009		
8/13/2009 0:00	40038.0			0				1.00	723				
8/13/2009 12:00	40038.5			0				0.99	718				
8/14/2009 0:00	40039.0			0				0.99	713				
8/14/2009 12:00	40039.5			0				0.98	708				
8/15/2009 0:00	40040.0			0				0.97	703				
8/15/2009 12:00	40040.5			0				0.97	699				
8/16/2009 0:00	40041.0			0				0.96	694				
8/16/2009 12:00	40041.5			0				0.95	689				
8/17/2009 0:00	40042.0			0				0.95	684				
8/17/2009 12:00	40042.5			0				0.94	679				
8/18/2009 0:00	40043.0			0				0.93	674				
8/18/2009 12:00	40043.5			0				0.93	669				
8/19/2009 0:00	40044.0			0				0.92	665				
8/19/2009 12:00	40044.5			0				0.91	660				
8/20/2009 0:00	40045.0			0				0.91	655				
8/20/2009 12:00	40045.5			0				0.90	650				
8/21/2009 0:00	40046.0			0				0.89	645				
8/21/2009 12:00	40046.5			0				0.89	640				
8/22/2009 0:00	40047.0			0				0.88	635				
8/22/2009 12:00	40047.5			0				0.87	630				
8/23/2009 0:00	40048.0			0				0.87	626				

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Date Time	Absolute Time Days	Time Duration betw field m. days	ISCO Flow Rate gpm	Calculated Volume from ISCO flow rate gal/day or 12 hrs	ISCO Cum Volume gal	Field Meas Flow Rate gpm	▲ Flow Change Increment	Calculated Flow Rate gpm	Calculated Volume gal/day or 12 hrs	Cumulative Volume gal	Cumulative Volume Time Duration	Velocity ft/sec	Level ft
8/23/2009 12:00	40048.5			0				0.86	621				
8/24/2009 0:00	40049.0			0				0.85	616				
8/24/2009 12:00	40049.5			0				0.85	611				
8/25/2009 0:00	40050.0			0				0.84	606				
8/25/2009 12:00	40050.5			0				0.83	601				
8/26/2009 0:00	40051.0			0				0.83	596				
8/26/2009 12:00	40051.5			0				0.82	592				
8/27/2009 0:00	40052.0			0				0.81	587				
8/27/2009 12:00	40052.5			0				0.80	582				
8/28/2009 0:00	40053.0			0				0.80	577				
8/28/2009 12:00	40053.5			0				0.79	572				
8/29/2009 0:00	40054.0			0				0.78	567				
8/29/2009 12:00	40054.5			0				0.78	562				
8/30/2009 0:00	40055.0			0				0.77	558				
8/30/2009 12:00	40055.5			0				0.76	553				
8/31/2009 0:00	40056.0			0				0.76	548				
8/31/2009 12:00	40056.5			0				0.75	543				
9/1/2009 0:00	40057.0			0				0.74	538				
9/1/2009 12:00	40057.5			0				0.74	533				
9/2/2009 0:00	40058.0			0				0.73	528				
9/2/2009 12:00	40058.5			0				0.72	523				
9/3/2009 0:00	40059.0			0				0.72	519				
9/3/2009 12:00	40059.5			0				0.71	514				
9/4/2009 0:00	40060.0			0				0.70	509				
9/4/2009 12:00	40060.5			0				0.70	504				
9/5/2009 0:00	40061.0			0				0.69	499				
9/5/2009 12:00	40061.5			0				0.68	494				
9/6/2009 0:00	40062.0			0				0.68	489				
9/6/2009 12:00	40062.5			0				0.67	485				
9/7/2009 0:00	40063.0			0				0.66	480				
9/7/2009 12:00	40063.5			0				0.66	475				
9/8/2009 0:00	40064.0			0				0.65	470				
9/8/2009 12:00	40064.5			0				0.64	465				
9/9/2009 0:00	40065.0			0				0.64	460				
9/9/2009 12:00	40065.5			0				0.63	455				
9/10/2009 0:00	40066.0			0				0.62	451				
9/10/2009 12:00	40066.5			0				0.62	446				
9/11/2009 0:00	40067.0			0				0.61	441				
9/11/2009 12:00	40067.5			0				0.60	436				
9/12/2009 0:00	40068.0			0				0.60	431				
9/12/2009 12:00	40068.5			0				0.59	426				
9/13/2009 0:00	40069.0			0				0.58	421				
9/13/2009 12:00	40069.5			0				0.58	416				
9/14/2009 0:00	40070.0			0				0.57	412				
9/14/2009 12:00	40070.5			0				0.56	407				
9/15/2009 0:00	40071.0			0				0.55	402				
9/15/2009 12:00	40071.5			0				0.55	397				
9/16/2009 0:00	40072.0			0				0.54	392				
9/16/2009 12:00	40072.5			0				0.53	387				
9/17/2009 0:00	40073.0			0				0.53	382				
9/17/2009 12:00	40073.5			0				0.52	378				
9/18/2009 0:00	40074.0			0				0.51	373				
9/18/2009 12:00	40074.5			0				0.51	368				
9/19/2009 0:00	40075.0			0				0.50	363				
9/19/2009 12:00	40075.5			0				0.49	358				
9/20/2009 0:00	40076.0			0				0.49	353				
9/20/2009 12:00	40076.5			0				0.48	348				
9/21/2009 0:00	40077.0			0				0.47	344				
9/21/2009 12:00	40077.5			0				0.47	339				
9/22/2009 0:00	40078.0			0				0.46	334				
9/22/2009 12:00	40078.5			0				0.45	329				
9/23/2009 0:00	40079.0			0				0.45	324				
9/23/2009 12:00	40079.5	57.0		0	0	0.44	-0.01	0.44	319	43,768	8/12/2009 to 9/23/2009		
9/24/2009 0:00	40080.0							0.44	316				
9/24/2009 12:00	40080.5							0.44	314				
								0.43	313				
								0.43	311				
								0.43	310				
								0.43	308				
								0.42	306				
								0.42	305				
9/28/2009 18:00	40084.0	4.5				0.42	-0.002	0.42	303	2,786	9/23/2009 to 9/28/2009		

Note: 0.42: Bucket/stopwatch Field Measurement

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For Arbitrary Water Year	Total Calculated Flow: 218,675
August 12, 2008 to August 12, 2009	

Total calculated flow has an assumed peak flow of 1.80 gpm on 6/22/09.
The 1.8 gpm was measured in late June 2005 and 2006 in DCSW-103