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Analytical Parameters:



Analytical Parameters:



Analytical Parameters:

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Purge Forms May 2011 ts.xlsx (MW-103)

Purge Forms May 2011 ts.xlsx (MW-104)

Purge Forms May 2011 ts.xlsx (MW-116S)

Purge Forms May 2011 ts.xlsx (MW-116D)

Purge Forms May 2011 ts.xlsx (MW-119)

Purge Forms May 2011 ts.xlsx (DP-3)

Purge Forms May 2011 ts.xlsx (DP-4S)

Purge Forms May 2011 ts.xlsx (DP-4D)

Purge Forms May 2011 ts.xlsx (DP-14S)

Purge Forms May 2011 ts.xlsx (DP-14D)

Purge Forms May 2011 ts.xlsx (DP-16S)

Purge Forms May 2011 ts.xlsx (DP-16D)

Purge forms.xlsx (MW-103)

Purge forms.xlsx (MW-116S)

Monitoring Well Purging / Sampling Form

Project Name and Number: Former Kenco Chemical Company 60272656.2.1

Monitoring Well Number: MW-102S Date: September 25, 2013

Samplers: Ross McCredy

Sample Number: MW-102S 092513 QA/QC Collected?

Purging / Sampling Method: 1.5-inch bailer and twine

1. L = Well Depth: 24.5 feet
2. D = Riser Diameter (I.D.): 0.17 feet
3. W = Depth to Water: 6.83 feet
4. C = Column of Water in Well: 17.67 feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ 2.88 gal
6. 3(V) = Target Purge Volume 8.64 gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50
1.5-inch	0.125

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch	1.5-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5	0.088

Water Quality Readings Collected Using YSI 556 and Lamotte 2020 turbidity meter

Parameter	Units	Readings					
Time	24 hr	14:15	14:22	14:33	14:40		
Water Level (0.33)	feet	6.83	6.88	6.89	6.88		
Volume Purged	gal	0.00	3.00	6.00	9.00		
Flow Rate	mL/min	-	-	-	-		
Turbidity (+/- 10%)	NTU	317.0	Limit	Limit	Limit		
Dissolved Oxygen (+/- 10%)	%	22.30	9.50	12.90	19.30		
Dissolved Oxygen (+/- 10%)	mg/L	1.31	0.90	1.31	1.92		
Eh / ORP (+/- 10)	MeV	-61.7	-69.7	-66.3	-65.8		
Specific Conductance (+/- 3%)	mS/cm ^c	0.669	0.85	0.85	0.84		
Conductivity (+/- 3%)	mS/cm	0.564	0.682	0.681	0.67		
pH (+/- 0.1)	pH unit	7.34	7.15	7.13	7.14		
Temp (+/- 0.5)	C°	16.62	14.56	14.54	14.36		
Color	Visual	Brown	Brownish	Brownish	Brown		
Odor	Olfactory	No	No	No	No		

Comments:

Purge start time: 14:15
Sample collection time: 14:40

Monitoring Well Purging / Sampling Form

Project Name and Number: Former Kenco Chemical Company 60272656.2.1

Monitoring Well Number: MW-102D Date: September 25, 2013

Samplers: Ross McCredy

Sample Number: MW-102D 092513 QA/QC Collected?

Purging / Sampling Method: 1.5-inch bailer and twine

1. L = Well Depth: 38.8 feet
2. D = Riser Diameter (I.D.): 0.17 feet
3. W = Depth to Water: 15.87 feet
4. C = Column of Water in Well: 22.93 feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ 3.74 gal
6. 3(V) = Target Purge Volume 11.21 gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50
1.5-inch	0.125

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch	1.5-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5	0.088

Water Quality Readings Collected Using YSI 556 and Lamotte 2020 turbidity meter

Parameter	Units	Readings					
Time	24 hr	12:33	12:45	12:55	13:31		
Water Level (0.33)	feet	15.87	19.75	19.00	18.44		
Volume Purged	gal	0.00	3.75	7.50	11.50		
Flow Rate	mL/min	-	-	-	-		
Turbidity (+/- 10%)	NTU	177.0	84.6	276.0	Limit		
Dissolved Oxygen (+/- 10%)	%	60.10	24.40	23.90	18.30		
Dissolved Oxygen (+/- 10%)	mg/L	5.98	2.57	2.90	1.91		
Eh / ORP (+/- 10)	MeV	-26.7	-95.8	-90	-93.4		
Specific Conductance (+/- 3%)	mS/cm ^c	0.495	0.687	0.73	0.78		
Conductivity (+/- 3%)	mS/cm	0.401	0.522	0.554	0.595		
pH (+/- 0.1)	pH unit	8.54	7.86	7.58	7.53		
Temp (+/- 0.5)	C°	15.02	12.41	12.31	12.60		
Color	Visual	Clear	Clear	Cloudy	Cloudy		
Odor	Olfactory	No	No	No	No		

Comments:

Purge start time: 12:33
Sample collection time: 13:31

Monitoring Well Purging / Sampling Form

Project Name and Number: Former Kenco Chemical Company 60272656.2.1

Monitoring Well Number: MW-1 Date: September 25, 2013

Samplers: Ross McCredy

Sample Number: MW-1 092513 QA/QC Collected?

Purging / Sampling Method: Peristaltic pump and 1/4" OD polyethylene tubing

1. L = Well Depth: 10.5 feet

2. D = Riser Diameter (I.D.): 0.083333 feet

3. W = Depth to Water: 3.96 feet

4. C = Column of Water in Well: 6.54 feet

5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ 0.268 gal

6. 3(V) = Target Purge Volume 0.80 gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50
1.5-inch	0.125

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch	1.5-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5	0.088

Water Quality Readings Collected Using YSI 556 and Lamotte 2020 turbidity meter

Parameter	Units	Readings					
Time	24 hr	9:40	9:44	9:47	9:57		
Water Level (0.33)	feet	3.96	-	-	-		
Volume Purged	gal	0.00	0.30	0.70	2.00		
Flow Rate	mL/min	-	-	-	-		
Turbidity (+/- 10%)	NTU	12.4	155.0	144.0	123		
Dissolved Oxygen (+/- 10%)	%	46.00	51.50	52.00	13.50		
Dissolved Oxygen (+/- 10%)	mg/L	4.29	4.86	4.88	1.27		
Eh / ORP (+/- 10)	MeV	-10.9	-44.7	-49.7	-66.3		
Specific Conductance (+/- 3%)	mS/cm ^c	1.051	1.06	1.04	1.02		
Conductivity (+/- 3%)	mS/cm	0.926	0.932	0.914	0.901		
pH (+/- 0.1)	pH unit	7.37	7.44	7.38	7.30		
Temp (+/- 0.5)	C°	18.52	18.37	18.53	18.57		
Color	Visual	Brown/mud	Clear	Clear	Clear		
Odor	Olfactory	No	No	No	No		

Comments:

Purge start time: 9:40

Sample collection time: 9:57

Monitoring Well Purging / Sampling Form

Project Name and Number: Former Kenco Chemical Company 60272656.2.1

Monitoring Well Number: MW-3 Date: September 25, 2013

Samplers: Ross McCredy

Sample Number: MW-3 092513 QA/QC Collected?

Purging / Sampling Method: Peristaltic pump and 1/4" OD polyethylene tubing

1. L = Well Depth: 9.65 feet

2. D = Riser Diameter (I.D.): 0.083333 feet

3. W = Depth to Water: 6.3 feet

4. C = Column of Water in Well: 3.35 feet

5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ 0.13 gal

6. 3(V) = Target Purge Volume 0.41 gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50
1.5-inch	0.125

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch	1.5-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5	0.088

Water Quality Readings Collected Using YSI 556 and Lamotte 2020 turbidity meter

Parameter	Units	Readings					
Time	24 hr	15:20	15:22	15:27	15:29		
Water Level (0.33)	feet	6.30	-	-	-		
Volume Purged	gal	0.00	0.10	0.45	1.50		
Flow Rate	mL/min	-	-	-	-		
Turbidity (+/- 10%)	NTU	Limit	Limit	Limit	Limit		
Dissolved Oxygen (+/- 10%)	%	15.10	13.60	52.30	46.60		
Dissolved Oxygen (+/- 10%)	mg/L	1.29	1.16	4.72	4.23		
Eh / ORP (+/- 10)	MeV	-50.2	1.4	-62.7	-72.2		
Specific Conductance (+/- 3%)	mS/cm ^c	0.813	0.784	0.822	0.82		
Conductivity (+/- 3%)	mS/cm	0.741	0.699	0.739	0.74		
pH (+/- 0.1)	pH unit	7.22	7.29	7.31	7.29		
Temp (+/- 0.5)	C°	20.26	19.29	19.64	19.46		
Color	Visual	Br/Orange	Br/Orange	Clear	Clear		
Odor	Olfactory	-	-	-	-		

Comments:

Purge start time: 15:20

Sample collection time: 15:29

Monitoring Well Purging / Sampling Form

Project Name and Number: Former Kenco Chemical Company 60272656.2.1

Monitoring Well Number: MW-4 Date: September 25, 2013

Samplers: Ross McCredy

Sample Number: MW-4 092513 QA/QC Collected?

Purging / Sampling Method: Peristaltic pump and 1/4" OD polyethylene tubing

1. L = Well Depth: feet
2. D = Riser Diameter (I.D.): 0.083333 feet
3. W = Depth to Water: feet
4. C = Column of Water in Well: feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ gal
6. 3(V) = Target Purge Volume gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50
1.5-inch	0.125

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch	1.5-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5	0.088

Water Quality Readings Collected Using YSI 556 and Lamotte 2020 turbidity meter

Parameter	Units	Readings					
Time	24 hr						
Water Level (0.33)	feet						
Volume Purged	gal						
Flow Rate	mL/min						
Turbidity (+/- 10%)	NTU						
Dissolved Oxygen (+/- 10%)	%						
Dissolved Oxygen (+/- 10%)	mg/L						
Eh / ORP (+/- 10)	MeV						
Specific Conductance (+/- 3%)	mS/cm ^c						
Conductivity (+/- 3%)	mS/cm						
pH (+/- 0.1)	pH unit						
Temp (+/- 0.5)	C°						
Color	Visual						
Odor	Olfactory						

Comments:

Purge start time: **Not Sampled, DRY**

Sample collection time:

Monitoring Well Purging / Sampling Form

Project Name and Number: Former Kenco Chemical Company 60272656.2.1

Monitoring Well Number: MW-5 Date: September 25, 2013

Samplers: Ross McCredy

Sample Number: MW-5 092513 QA/QC Collected?

Purging / Sampling Method: Peristaltic pump and 1/4" OD polyethylene tubing

1. L = Well Depth: 14.1 feet

2. D = Riser Diameter (I.D.): 0.083333 feet

3. W = Depth to Water: 7.25 feet

4. C = Column of Water in Well: 6.85 feet

5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ 0.28 gal

6. 3(V) = Target Purge Volume 0.84 gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50
1.5-inch	0.125

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch	1.5-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5	0.088

Water Quality Readings Collected Using YSI 556 and Lamotte 2020 turbidity meter

Parameter	Units	Readings					
Time	24 hr	10:57	11:01	11:03	11:11		
Water Level (0.33)	feet	7.25	-	-	-		
Volume Purged	gal	0.00	0.40	1.00	2.50		
Flow Rate	mL/min	-	-	-	-		
Turbidity (+/- 10%)	NTU	Limit	Limit	Limit	Limit		
Dissolved Oxygen (+/- 10%)	%	10.20	10.20	15.30	13.10		
Dissolved Oxygen (+/- 10%)	mg/L	0.99	1.01	1.53	1.32		
Eh / ORP (+/- 10)	MeV	-50.6	-63	-60.9	-59.6		
Specific Conductance (+/- 3%)	mS/cm ^c	0.897	0.904	1.002	1.00		
Conductivity (+/- 3%)	mS/cm	0.751	0.722	0.785	0.778		
pH (+/- 0.1)	pH unit	7.07	7.05	7.11	7.05		
Temp (+/- 0.5)	C°	16.35	14.19	13.60	13.51		
Color	Visual	Brown	Brownish	Clearer	Clear		
Odor	Olfactory	No	No	No	No		

Comments:

Purge start time: 10:57

Sample collection time: 11:11

Monitoring Well Purging / Sampling Form

Project Name and Number: Former Kenco Chemical Company 60272656.2.1

Monitoring Well Number: MW-3 Date: November 18, 2013

Samplers: Ross McCredy

Sample Number: MW-3 111813 QA/QC Collected? DUP

Purging / Sampling Method: Waterra Pump, Three Well Volumes

1. L = Well Depth: 10.45 feet
2. D = Riser Diameter (I.D.): 0.083333 feet
3. W = Depth to Water: 6.28 feet
4. C = Column of Water in Well: 4.17 feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ 0.33 gal
6. 3(V) = Target Purge Volume 1.00 gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50
1.5-inch	0.125

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch	1.5-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5	0.088

Water Quality Readings Collected Using YSI 556 and Lamotte 2020 turbidity meter

Parameter	Units	Readings					
Time	24 hr	12:26	12:30	12:35	12:38		
Water Level (0.33)	feet	6.28	-	-	-		
Volume Purged	gal	0.00	0.33	0.66	0.99		
Flow Rate	mL/min	-	-	-	-		
Turbidity (+/- 10%)	NTU	Limit	2300.0	66.0	61.8		
Dissolved Oxygen (+/- 10%)	%	25.10	229.00	31.50	28.90		
Dissolved Oxygen (+/- 10%)	mg/L	2.44	2.91	3.19	2.91		
Eh / ORP (+/- 10)	MeV	-73.2	-79.1	-74	-71.6		
Specific Conductance (+/- 3%)	mS/cm ^c	0.809	0.8	0.794	0.79		
Conductivity (+/- 3%)	mS/cm	0.681	0.852	0.644	0.639		
pH (+/- 0.1)	pH unit	7.59	7.36	7.22	7.25		
Temp (+/- 0.5)	C°	16.56	15.28	15.09	15.12		
Color	Visual	L. Brown	L. Brown	Clear	Clear		
Odor	Olfactory	No	No	No	No		

Comments:

Purge start time: 12:26
Sample collection time: 12:38

Monitoring Well Purging / Sampling Form

Project Name and Number: Former Kenco Chemical Company 60272656.2.1

Monitoring Well Number: MW-4 Date: November 18, 2013

Samplers: Ross McCredy

Sample Number: MW-4 111813 QA/QC Collected? no

Purging / Sampling Method: Waterra Pump, Three Well Volumes

1. L = Well Depth: 7.65 feet
2. D = Riser Diameter (I.D.): 0.083333 feet
3. W = Depth to Water: 4 feet
4. C = Column of Water in Well: 3.65 feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ 0.292 gal
6. 3(V) = Target Purge Volume 0.88 gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50
1.5-inch	0.125

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch	1.5-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5	0.088

Water Quality Readings Collected Using YSI 556 and Lamotte 2020 turbidity meter

Parameter	Units	Readings						
Time	24 hr	12:30	14:41					
Water Level (0.33)	feet	-	4.72					
Volume Purged	gal	0.00	-					
Flow Rate	mL/min	-	-					
Turbidity (+/- 10%)	NTU	-48.0	Limit					
Dissolved Oxygen (+/- 10%)	%	6.00	25.90					
Dissolved Oxygen (+/- 10%)	mg/L	0.64	2.70					
Eh / ORP (+/- 10)	MeV	-27	-55.9					
Specific Conductance (+/- 3%)	mS/cm ^c	0.887	0.871					
Conductivity (+/- 3%)	mS/cm	0.693	0.68					
pH (+/- 0.1)	pH unit	7.52	7.15					
Temp (+/- 0.5)	C°	13.53	13.44					
Color	Visual	Muddy	Muddy					
Odor	Olfactory	No	No					

Comments:

Purge start time: 12:30
Sample collection time: 14:41

Well purged dry at 12:34, allowed time to recharge and then sampled

Monitoring Well Purging / Sampling Form

Project Name and Number: Former Kenco Chemical Company 60272656.2.1

Monitoring Well Number: DP-4S Date: November 18, 2013

Samplers: Ross McCredy

Sample Number: DP-4S111813 QA/QC Collected? no

Purging / Sampling Method: Waterra Pump, Three Well Volumes

1. L = Well Depth: 6.95 feet
2. D = Riser Diameter (I.D.): 0.09 feet
3. W = Depth to Water: 5.86 feet
4. C = Column of Water in Well: 1.09 feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ 0.09 gal
6. 3(V) = Target Purge Volume 0.29 gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50
1.5-inch	0.125

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch	1.5-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5	0.088

Water Quality Readings Collected Using YSI 556 and Lamotte 2020 turbidity meter

Parameter	Units	Readings						
Time	24 hr							
Water Level (0.33)	feet							
Volume Purged	gal							
Flow Rate	mL/min							
Turbidity (+/- 10%)	NTU							
Dissolved Oxygen (+/- 10%)	%							
Dissolved Oxygen (+/- 10%)	mg/L							
Eh / ORP (+/- 10)	MeV							
Specific Conductance (+/- 3%)	mS/cm ^c							
Conductivity (+/- 3%)	mS/cm							
pH (+/- 0.1)	pH unit							
Temp (+/- 0.5)	C°							
Color	Visual							
Odor	Olfactory							

Comments:

Purge start time: **Not Sampled, DRY**

Sample collection time:

Monitoring Well Purging / Sampling Form

Project Name and Number: Former Kenco Chemical Company 60272656.2.1

Monitoring Well Number: DP-4D Date: November 18, 2013

Samplers: Ross McCredy

Sample Number: DP-4D111813 QA/QC Collected? no

Purging / Sampling Method: Waterra Pump, Three Well Volumes

1. L = Well Depth: 36.8 feet
2. D = Riser Diameter (I.D.): 0.083333 feet
3. W = Depth to Water: 14.64 feet
4. C = Column of Water in Well: 22.16 feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ 1.99 gal
6. 3(V) = Target Purge Volume 5.98 gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50
1.5-inch	0.125

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch	1.5-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5	0.088

Water Quality Readings Collected Using YSI 556 and Lamotte 2020 turbidity meter

Parameter	Units	Readings						
Time	24 hr	9:36	10:15	10:26				
Water Level (0.33)	feet	16.64	-	-				
Volume Purged	gal	0.00	4.00	8.00				
Flow Rate	mL/min	-	-	-				
Turbidity (+/- 10%)	NTU	31.8	-58.0	-58.0				
Dissolved Oxygen (+/- 10%)	%	15.10	24.40	31.40				
Dissolved Oxygen (+/- 10%)	mg/L	1.49	2.54	3.36				
Eh / ORP (+/- 10)	MeV	-110.4	-64.4	-84.6				
Specific Conductance (+/- 3%)	mS/cm ^c	0.414	0.386	0.369				
Conductivity (+/- 3%)	mS/cm	0.339	0.302	0.27				
pH (+/- 0.1)	pH unit	7.62	7.40	7.62				
Temp (+/- 0.5)	C°	15.48	13.52	12.40				
Color	Visual	Muddy	Muddy	Muddy				
Odor	Olfactory	No	No	No				

Comments:

Purge start time: 9:36

Sample collection time: 10:26

Monitoring Well Purging / Sampling Form

Project Name and Number: Former Kenco Chemical Company 60272656.2.1

Monitoring Well Number: MW-102S Date: November 18, 2013

Samplers: Ross McCredy

Sample Number: MW-102S 111813 QA/QC Collected? no

Purging / Sampling Method: Waterra Pump, Three Well Volumes

1. L = Well Depth: 21.45 feet
2. D = Riser Diameter (I.D.): 0.17 feet
3. W = Depth to Water: 4 feet
4. C = Column of Water in Well: 17.45 feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ 2.96 gal
6. 3(V) = Target Purge Volume 8.90 gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50
1.5-inch	0.125

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch	1.5-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5	0.088

Water Quality Readings Collected Using YSI 556 and Lamotte 2020 turbidity meter

Parameter	Units	Readings					
Time	24 hr	11:15	11:25	11:33	11:39		
Water Level (0.33)	feet	-	-	-	-		
Volume Purged	gal	0.00	3.00	6.00	9.00		
Flow Rate	mL/min	-	-	-	-		
Turbidity (+/- 10%)	NTU	609.0	85.3	34.9	22.2		
Dissolved Oxygen (+/- 10%)	%	21.70	7.50	14.70	11.90		
Dissolved Oxygen (+/- 10%)	mg/L	2.20	0.77	1.51	1.22		
Eh / ORP (+/- 10)	MeV	21.9	-10.9	-1.3	-20.9		
Specific Conductance (+/- 3%)	mS/cm ^c	0.92	0.821	0.877	0.88		
Conductivity (+/- 3%)	mS/cm	0.743	0.702	0.658	0.694		
pH (+/- 0.1)	pH unit	7.53	7.21	7.19	7.38		
Temp (+/- 0.5)	C°	14.99	14.34	13.64	13.89		
Color	Visual	Clear	Clear	Clear	Clear		
Odor	Olfactory	No	No	No	No		

Comments:

Purge start time: 11:15
Sample collection time: 11:39

Monitoring Well Purging / Sampling Form

Project Name and Number: Former Kenco Chemical Company 60272656.2.1

Monitoring Well Number: MW-102D Date: November 18, 2013

Samplers: Ross McCredy

Sample Number: MW-102D 111813 QA/QC Collected? no

Purging / Sampling Method: Waterra Pump, Three Well Volumes

1. L = Well Depth: 35.61 feet
2. D = Riser Diameter (I.D.): 0.17 feet
3. W = Depth to Water: 13.98 feet
4. C = Column of Water in Well: 21.63 feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ 3.67 gal
6. 3(V) = Target Purge Volume 11.03 gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50
1.5-inch	0.125

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch	1.5-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5	0.088

Water Quality Readings Collected Using YSI 556 and Lamotte 2020 turbidity meter

Parameter	Units	Readings						
Time	24 hr	11:20	11:28	11:36	11:46			
Water Level (0.33)	feet	13.98	-	-	-			
Volume Purged	gal	0.00	4.00	8.00	12.00			
Flow Rate	mL/min	-	-	-	-			
Turbidity (+/- 10%)	NTU	72.4	-57.0	-56.0	0.59			
Dissolved Oxygen (+/- 10%)	%	18.40	5.40	16.00	9.70			
Dissolved Oxygen (+/- 10%)	mg/L	1.89	0.57	1.69	1.06			
Eh / ORP (+/- 10)	MeV	-65.5	-63.9	-77.2	-83.7			
Specific Conductance (+/- 3%)	mS/cm ^c	0.617	0.643	0.642	0.63			
Conductivity (+/- 3%)	mS/cm	0.493	0.491	0.492	0.477			
pH (+/- 0.1)	pH unit	7.58	7.42	7.41	7.51			
Temp (+/- 0.5)	C°	14.41	12.63	12.69	12.32			
Color	Visual	Clear	Muddy	Muddy	Muddy			
Odor	Olfactory	No	No	No	No			

Comments:

Purge start time: 11:20
Sample collection time: 11:46

Monitoring Well Purging / Sampling Form

Project Name and Number: Former Kenco Chemical Company 60272656.2.1

Monitoring Well Number: MW-116S Date: November 18, 2013

Samplers: Ross McCredy

Sample Number: MW-116S111813 QA/QC Collected? no

Purging / Sampling Method: Waterra Pump, Three Well Volumes

1. L = Well Depth: 14.55 feet
2. D = Riser Diameter (I.D.): 0.17 feet
3. W = Depth to Water: 5.87 feet
4. C = Column of Water in Well: 8.68 feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ 1.48 gal
6. 3(V) = Target Purge Volume 4.42 gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50
1.5-inch	0.125

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch	1.5-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5	0.088

Water Quality Readings Collected Using YSI 556 and Lamotte 2020 turbidity meter

Parameter	Units	Readings					
Time	24 hr	13:37	13:44	13:56	14:01		
Water Level (0.33)	feet	-	-	-	-		
Volume Purged	gal	0.00	1.50	3.00	4.50		
Flow Rate	mL/min	-	-	-	-		
Turbidity (+/- 10%)	NTU	85.0	38.8	79.0	82.3		
Dissolved Oxygen (+/- 10%)	%	25.10	5.80	8.00	6.80		
Dissolved Oxygen (+/- 10%)	mg/L	2.53	0.61	0.84	0.70		
Eh / ORP (+/- 10)	MeV	101.5	94	92	99.3		
Specific Conductance (+/- 3%)	mS/cm ^c	0.941	0.876	0.874	0.84		
Conductivity (+/- 3%)	mS/cm	0.742	0.68	0.681	0.656		
pH (+/- 0.1)	pH unit	7.61	7.32	7.30	7.32		
Temp (+/- 0.5)	C°	13.96	13.26	13.41	13.61		
Color	Visual	Clear	Clear	Clear	Clear		
Odor	Olfactory	No	No	No	No		

Comments:

Purge start time: 13:37

Sample collection time: 14:01

Monitoring Well Purging / Sampling Form

Project Name and Number: Former Kenco Chemical Company 60272656.2.1

Monitoring Well Number: MW-116D Date: November 18, 2013

Samplers: Ross McCredy

Sample Number: MW-116D111813 QA/QC Collected? MS/MSD

Purging / Sampling Method: Waterra Pump, Three Well Volumes

1. L = Well Depth: 27.55 feet
2. D = Riser Diameter (I.D.): 0.17 feet
3. W = Depth to Water: 14.56 feet
4. C = Column of Water in Well: 12.99 feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ 2.21 gal
6. 3(V) = Target Purge Volume 6.62 gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50
1.5-inch	0.125

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch	1.5-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5	0.088

Water Quality Readings Collected Using YSI 556 and Lamotte 2020 turbidity meter

Parameter	Units	Readings					
Time	24 hr	13:43	13:51	13:56	14:01		
Water Level (0.33)	feet	14.56	-	-	-		
Volume Purged	gal	0.00	2.50	5.00	7.50		
Flow Rate	mL/min	-	-	-	-		
Turbidity (+/- 10%)	NTU	0.0	49.0	45.5	25		
Dissolved Oxygen (+/- 10%)	%	27.00	14.50	9.90	9.80		
Dissolved Oxygen (+/- 10%)	mg/L	2.81	1.57	1.07	1.08		
Eh / ORP (+/- 10)	MeV	-70.5	-75.8	-80.9	-84.4		
Specific Conductance (+/- 3%)	mS/cm ^c	0.331	0.259	0.324	0.32		
Conductivity (+/- 3%)	mS/cm	0.265	0.198	0.247	0.24		
pH (+/- 0.1)	pH unit	8.23	7.94	7.81	7.80		
Temp (+/- 0.5)	C°	14.69	12.70	12.48	12.16		
Color	Visual	Or Flocc	Muddy	Clear	Clear		
Odor	Olfactory	No	No	No	No		

Comments:

Purge start time: 13:43

Sample collection time: 14:01