FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: CMW02
Start Date: 082905
Start Time: 1035

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 13

Well TD = 37.82
Well DTW = 17.58
Water Column = 20.24

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	~~0.1632~~ 0.73
Column of water or length of AS (whichever is less)	X	~~20.2~~ 13
Volume of water in AS (gal)	=	9.49
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	20.24
Volume of water in casing (gal)	=	3.30
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.79
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	64.0
ACTUAL VOLUME PURGED (gal)	=	64.0

Method of Purging: QED microPurge Pump

Field Parameters	082905				Reading 083005					Final
Time	1035	1145	1340	1415*	0930	1020	1315			Sample
Volume (gal)	0	15	30	34	34	45	64			
Flow Rate (gpm)	0.25	0.25	0.25	off	0.25	0.25	0.15			N/A
DTW (ft toc)	17.58	30.85	34.44	35.00	18.10	30.70	36.92 ← Top of pump			
pH	8.14	6.32	6.17	—	8.42	7.09	5.19			
Conductivity (µS/cm)	1594	1538	1539	—	1580	1377	784			
Temperature (C)	14.09	11.50	12.49	—	11.89	11.82	15.57			
Turbidity (NTU)	85	32	8.5	—	75	26	18			
Eh/Redox (mV)	100.4	232.9	301.7	—	96.5	218.1	224.1			
DO (mg/L)	2.74	4.71	7.10	—	7.98	7.35	6.83			

111/164 111/18

Purging Field Notes:
2.3 refill, 2.0 Discharge, 32 PSI

* Compressor Ran out of fuel.

Sample collected from pump after 64 gallons purged.

Sample Date/Time: 8/30/05 / 1315 Sample ID/TR #: CMW02 / 00920

Sampler's signature/date: [signature] / 8/30/05

Reviewer's signature/date: [signature] 7Sep05

Collected Explosives, TOC, Extra Volume, Nitrate/Nitrite, Nitrate, Perchlorate, and

WELL SAMPLING DATA FORM KSE

Well Number: CMW04 Date: 1/20/99 Time: 1200 TD = 137.86

Boring Number: CMW04 Well casing diameter: 2" DTW = 25.98

Annular space length: 22 Stickup: 2' Column: 111.91

COLUMN OF WATER IN WELL

Gallons per foot of annular space (A.S.)	= 0.73
Column of water or length of A.S. (whichever is less)	x 22
Volume of annular space	= 16.06
Gallons per foot of casing	= 0.1632
Column of water	x 111.91
Volume of casing	= 18.26
TOTAL VOLUME (A.S. + Casing)	= 34.32
Number of volumes to be evacuated	= 5
Total volume to be evacuated	= 171.5
TOTAL VOLUME PURGED	= 175

Method of purging: 2" Submersible Grundfos

Sample date/time: 1/21/99 1300 SAMP Sample Number: CMW04 TR#08051

1305 DUP 1315 MSD

1310 MS 1320 SPLIT 1300 1430 0910 1045

TR#'s
MS 08092
MSD 08093
Dup 08094
Split 08095

FIELD PARAMETERS	UNITS	1215 READING #1	1235 READING #2	#3	#4	#5	#6	
VOL REMOVED	Gal	0,5	30	46	68	108	173	
pH		8.30	8.36	8.38	8.35	8.40	8.41	
Conductivity	MS/CM	3.87	4.06	3.99	3.99	3.76	3.68	
Temperature	°C	10.6	11.3	11.2	10.5	10.9	11.6	
TURBIDITY	NTU	3	10	11.	1	0	0	
Eh	MV	-131.0	-155.0	-161.2	-111.5	-99.5	-45.6	
DO	mg/L	3.79	1.71	1.53	1.63	2.23	1.86	

Sampler's signature/date: 22JAN99 Ken S. Eden 1/21/99

Reviewer's signature/date:

1215 1/20/99 Started Purging @ ~1gpm

1220 1/20/99 Increased Rate to ~2gpm

1300 DTW 91' Rate @ ~1.5gpm

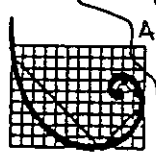
1400 Generator cut out on us. Working on fixing it.

1410 Resumed pumping.

1445 2nd Generater Broke a connecting rod. We are returning to T-16

AM 0815 Setting up to continue purging Purged a total of 72 gallons

1045 PURGING COMPLETE @ 173 gallons, EK ALLOW WELL TO RECOVER BEFORE SAMPLING.



ERM

WELL SAMPLING DATA FORM

Well Number: CMW06 Date: 1/22/99 KSE Time: 1130 KSE TD = 20.96

Boring Number: CMW06 Well casing diameter: 2" DTW = 19.31

Annular space length: 13' Stickup: 2.5 Column: 1.65

COLUMN OF WATER IN WELL

PID	0.0
Gallons per foot of annular space (A.S.)	= 0.15
Column of water or length of A.S. (whichever is less)	x 1.65
Volume of annular space	= 0.2475
Gallons per foot of casing	= 0.1632
Column of water	x 1.65
Volume of casing	= 0.27
TOTAL VOLUME (A.S. + Casing)	= 0.52
Number of volumes to be evacuated	= 5
Total volume to be evacuated	= 2.59
TOTAL VOLUME PURGED	= 0.52

Last Sampling event 10/20/98 0.5 gal. Total Vol. was purged then sampled. Very Poor Recovery

Method of purging: Disposable Bailer

Sample date/time: 1/25/99 1225 KSE KSE Sample Number: CMW06/08070

1015

FIELD PARAMETERS	UNITS	1145 1-23-99 READING #1	#2	#3	#4	#5		
VOL REMOVED		1pt.						
pH		7.01	7.06					
Conductivity		2.48	2.57					
Temperature		10.6	10.0					
TURBIDITY		9	41					
DO		2.77	2.41					
Eh		175.9	98.6					

Sampler's signature/date:

Reviewer's signature/date:

1/29-11/0- Completed TAL Tot metals!

2/1 - Sampling - 1/2 ltr. obtained to complete filtered metals

.38
.14
2/2 - ≈ 1/2 ltr. obtained.
.52

1-22-99 Start-1145
Stop - 1150 @ 3 pints or .38 gals.

1-23-99 - DTW 20.13 PID 0.9 - 18 ozs. & dry.
* Ready for Sampling when recharged!

1/25 - 1/25/99 - Started sampling - 1/2 liter & dry!
1/26/99 - 0825 - Completed Total explosives sample being shipped! ≈ 1/4 liter retrieved (Preserved)
1/27/99 - 1640 - ≤ 1/4 ltr. retrieved - Filling Total Metals containers -

ERM

WELL SAMPLING DATA FORM (MP)

Well Number: CMW07 Date: 1-21-99 Time: 0910

Boring Number: _____ Well casing diameter: 2"

Annular space length: 23' Stickup: 2.3

TD = 66.55
DTW = 39.09
Column: 27.46

COLUMN OF WATER IN WELL

Gallons per foot of annular space (A.S.)	= .73
Column of water or length of A.S. (whichever is less)	x 23
Volume of annular space	= 16.79
Gallons per foot of casing	= .1632
Column of water	x 27.46
Volume of casing	= 4.48
TOTAL VOLUME (A.S. + Casing)	= 21.27
Number of volumes to be evacuated	= 5
Total volume to be evacuated	= 106.35
TOTAL VOLUME PURGED	= 110 gals

Method of purging: 2" Submersible Grundfos

Sample date/time: 1-21-99 / 1410 Sample Number: CMW07 / 08052

FIELD PARAMETERS	UNITS	READING 0944 #1	1000 #2	1035 #3	1105 #4	1145 #5		
VOL REMOVED		22	44	66	88	110		
pH		7.41	7.69	7.62	7.67	7.66		
Conductivity		1.71	1.73	1.73	1.73	1.73		
Temperature		10.5	11.6	12.5	12.5	12.1		
TURBIDITY		75	19	70	2	2		
DO		2.87	2.89	1.47	1.74	1.78		
Eh	MV	158.0	90.0	103.6	108.0	113.8		

Sampler's signature/date: _____

Reviewer's signature/date: _____

0925 - Started purging

- Purging ≈ 1 gpm.

1145 - Purging Complete @ 110 gallons

41' - DTW TOC @ Time of Sampling.

ERM

EJ 1-22-99

WELL SAMPLING DATA FORM

Well Number: CMW10 Date: 11/22/99 Time: 1215 TD = 73.07

Boring Number: CMW10 Well casing diameter: 2 DTW = 65.05

Annular space length: 23 Stickup: 2.5 Column: 8.02

COLUMN OF WATER IN WELL

PID 0.4

Gallons per foot of annular space (A.S.)	= 0.73
Column of water or length of A.S. (whichever is less)	x 8.02
Volume of annular space	= 5.85
Gallons per foot of casing	= 0.1632
Column of water	x 8.02
Volume of casing	= 1.31
TOTAL VOLUME (A.S. + Casing)	= 7.16
Number of volumes to be evacuated	= 5
Total volume to be evacuated	= 35.8
TOTAL VOLUME PURGED	= 8 gals.

* Very Poor Recovery has not fully recharged since 10/20/98

Total Volume Purged on 10/20/98 27 gal.

Purged Dry 2x on 10/19/98

Method of purging: Disposable Bailer

1/23/99 - 0930 - Sampled for Tal Metals (both) & Total Explosives - ALL bottles triple ~~rinsed~~.

Sample date/time: 1/23-1/28 @ 0855 Sample Number: CMW10 / 08053 1-23-99

FIELD PARAMETERS	UNITS	1-22 #1	1-22 #2	READING #3	#4	#5		
VOL REMOVED		½ gal.	6 gals	8 gals				
pH		11.31	12.23	12.42				
Conductivity		5.03	7.38	9.5				
Temperature		11.0	11.2	10.5				
TURBIDITY		2.15	57	3				
DO		5.69	7.20	5.85				
		75.7	89.0	60.6				

Sampler's signature/date: _____

Reviewer's signature/date: EK

11/22/99 Start - 1220 Stop - 1250 dry @ 7.5 gals! Water Quality - Cloudy for filtered material! Well dry!

- ady to Sample when well recovers!

1/23/99 - 0850 - DTW = 70.95 - Start Sampling

1/25/99 - 0845 - DTW - 72.02 - PID - .2 - Sampling - Obtained 1 Ltr

1/26/99 - 0850 - ½ liter obtained. Filled T. Alk, T. Chloride, Sulfate, Nitrate

1/27/99 - 1050 - ½ " " Sampling Completed!!

ERM

WELL SAMPLING DATA FORM

Well Number: CMW14 Date: 1-22-99 Time: 1300 TD = 96.80

Boring Number: _____ Well casing diameter: 2" DTW = 29.88

Annular space length: 13' Stickup: 2.5' Column: 66.92

Borehole Diameter - 9"

COLUMN OF WATER IN WELL

Gallons per foot of annular space (A.S.)	= 1.17
Column of water or length of A.S. (whichever is less)	x 13
Volume of annular space	= 15.21
Gallons per foot of casing	= .1632
Column of water	x 66.92
Volume of casing	= 10.92
TOTAL VOLUME (A.S. + Casing)	= 26.13
Number of volumes to be evacuated	= 5
Total volume to be evacuated	= 130.65
TOTAL VOLUME PURGED	= 29.0

Method of purging: 2" Submersible Grandfos Pump / Disposible Bailer

Sample date/time: 1-25-99/0930 Sample Number: CMW14/08054

1-23 @ 1055 1-23

FIELD PARAMETERS	UNITS	READING 1-25 #1	#2	#3	#4	#5		
VOL REMOVED		5 gal	2 gal	22.5 gal	28 gals	29.0 gals		
pH		12.48	12.11	12.24	12.67	12.38		
Conductivity		9.9	12.3	7.74	12.9	10.7		
Temperature		11.2	12.6	11.5	10.9	11.3		
TURBIDITY		10	10	40	16	7		
DO →		8.03	6.73	5.23	4.72	6.97		
Eh →		54.7	35.9	+70.0	ND	6.19		

Sampler's signature/date: _____

Reviewer's signature/date: _____

WHAT'S DT w/ ORP?

1/22/99 - Start - 1315 Stop - 1335 - Dry with 22 gals. purged.

1/23 - Start Bailing 1055 Stop 1125 - 2 gals. dried bailer. This time!

DTW - 88.75' HNa - 0.6

Ready to Sample when recharged!

1/00 - 1-25-99 - DTW - 99.52 PID 0.0 - Sampling

0930 - Samples Obtained on 1-25-99!

ERM

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW16
Start Date: 090105
Start Time: 0800

Well Casing Diameter (in): 2.0"
Bore Hole Diameter (in): 8.0"
Annular Space (AS) Length (ft): 13.0
Screened Interval (ft bgs): 22.74 - 32.74

Well TD: 32.59
Well DTW: 21.12
Water Column: 11.47
Pump Intake (ft bgs/TOC): 30.0 AFTOC

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	11.47
Volume of water in AS (gal)	=	8.37
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	11.47
Volume of water in casing (gal)	=	1.87
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	10.24
ACTUAL VOLUME PURGED (gal)	=	1.57

Method of Purging : Low Flow Pump

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
825	0	70	0	21.35	—	—	—	—	—	—
830	5	70	0.35	21.38	7.86	1077	14.59	36	101.3	6.46
835	10	90	0.80	21.38	7.76	1073	13.92	31	82.3	5.81
0840	15	90	1.25	21.38	7.72	1070	13.79	28	81.4	5.16
0845	20	90	1.60	21.38	7.75	1073	13.31	25	85.8	4.86
0850	25	90	2.05	21.38	7.74	1072	13.30	16	85.9	4.78
0855	30	90	2.50	21.38	7.65	1070	13.24	15	84.4	4.37
0900	35	90	2.95	21.38	7.60	1070	13.43	14	88.7	4.46
0905	40	90	3.40	21.38	7.50	1073	13.82	11	84.0	4.36
0910	45	90	3.85	21.38	7.41	1075	13.88	11	95.3	4.23
0915	50	90	4.30	21.38	7.29	1074	13.68	12	109.3	4.32
0920	55	90	4.75	21.39	7.11	1071	13.73	12	152.8	4.30
0925	60	90	5.20	21.39	6.97	1071	13.90	8.8	173.0	4.04
0930	65	90	5.65	21.39	6.98	1072	13.78	9.5	169.9	4.14
0935	70	90	6.10	21.39	7.01	1072	13.78	9.3	183.0	4.09
0940	75									

Purging Field Notes: Pump Settings: Fill 26.0 secs, Discharge 4.0 secs, Pressure 20 psi

Redox may not be working properly

Collected Explosives, Total+Dissolved metals, nitrate/sulfate, nitrate, TOC, perchlorate, and Extra Volume.

Sample Date/Time: 09/01/05 / 0940 Sample ID/TR #: CMW16 / 00921

Sampler's signature/date: 09/01/05

Reviewer's signature/date: 7SEP05

WELL SAMPLING DATA FORM

Well Number: CMW17 Date: 1-27-99 Time: 1352

Boring Number: _____ Well casing diameter: 2"

Annular space length: 23' Stickup: 1.6'

Borehole diameter: 8"

TD = 54.24

DTW = 17.32

Column: 36.92

COLUMN OF WATER IN WELL

Gallons per foot of annular space (A.S.)	=	.73
Column of water or length of A.S. (whichever is less)	x	23
Volume of annular space	=	16.79
Gallons per foot of casing	=	.1632
Column of water	x	36.92
Volume of casing	=	6.03
TOTAL VOLUME (A.S. + Casing)	=	22.82
Number of volumes to be evacuated	=	5
Total volume to be evacuated	=	114.10
TOTAL VOLUME PURGED	=	35 gals.

Method of purging: 2" Submersible Grundfos Pump

Sample date/time: 1-28-98 / ~~1600~~ MP 1130 Sample Number: CMW17 / 08056

FIELD PARAMETERS	UNITS	READING #1	#2	#3	#4	#5		
VOL REMOVED		2 gals	7 gals	15 gals	22 gals			
pH		9.37	9.18	9.15	7.85			
Conductivity		1.09	1.06	1.08	1.12			
Temperature		11.6	11.4	11.5	10.8			
TURBIDITY		56	91	162	29			
DO		5.21	5.04	5.05	4.25			

Sampler's signature/date: _____

Reviewer's signature/date: _____

1-27-99 - 1352 Start purging. 1423 - Stop - Dry @ 19 gals.

28-99 - 0900 Start purging. 0915 Stop. " @ 16 gals. 35

- Ready to Sample

1100 - Back for Sampling - DTW 17.67

1130 CMW17 Sampled.

ERM

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW18
Start Date: 083105
Start Time: 0855

Well Casing Diameter (in): 2.0"
Bore Hole Diameter (in): 8.0"
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 34-54

Well TD: 53.96
Well DTW: 40.33
Water Column: Ta 13.63
Pump Intake (ft bgs): 50. feet

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	13.63
Volume of water in AS (gal)	=	9.95
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	13.63
Volume of water in casing (gal)	=	2.22
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.17
ACTUAL VOLUME PURGED (gal)	=	1.81

Method of Purging : Low Flow Pump

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0940	0	100	0	40.30	—	—	—	—	—	—
0945	5	100	0.5	40.44	6.40	1690	19.91	—	230.8	7.34
0950	10	100	1.0	40.44	6.16	1615	18.10	450	261.3	6.34
0955	15	100	1.5	40.45	5.54	1565	17.15	150	314.3	5.16
1000	20	100	2.0	40.46	5.35	1557	16.77	80	363.4	4.74
1005	25	100	2.5	40.48	5.18	1548	16.59	60	412.0	5.87
1010	30	100	3.0	40.49	4.92	1545	16.50	40	447.3	6.36
1015	35	100	3.5	40.49	4.87	1543	16.54	35	458.1	6.72
1020	40	100	4.0	40.49	5.08	1543	16.68	28	455.9	6.60
1025	45	100	4.5	40.49	5.49	1532	16.28	28	445.3	6.45
1030	50	100	5.0	40.50	5.69	1531	16.34	24	421.3	6.82
1035	55	100	5.5	40.50	5.88	1531	16.53	24	398.1	6.75
1040	60	100	6.0	40.50	5.99	1529	16.55	22	383.1	6.62
1045	65	100	6.5	40.50	6.01	1529	16.56	20	384.1	6.66
1050	70	100	7.0	40.50	6.03	1530	16.57	20	383.3	6.61
1055	75	100								

Purging Field Notes: Pump Settings: Fill 12.2 secs, Discharge 2.8 secs, Pressure 30 psi

Collect Parent, Dup, MS, MSD for Explosives, Total and dissolved Metals, Nitrate/Nitrite, Nitrate, TOC, Perchlorate, and Extra Volume

Sample Date/Time: 083105 / 1055 Sample ID/TR #: CMW18 / 00922

Sampler's signature/date: [signature] 8/31/05

Reviewer's signature/date: [signature] 7SEP05

WELL SAMPLING DATA FORM

Well Number: CMW19 Date: 1-21-99/1-22-99 Time: 1215/1000 TD = 51.21 51.21

Boring Number: ______ Well casing diameter: 2" DTW = 20.11/31.41

Annular space length: 18 Stickup: 2.5' Column: 31.10/19.80

COLUMN OF WATER IN WELL

Gallons per foot of annular space (A.S.)	= .73
Column of water or length of A.S. (whichever is less)	x 18
Volume of annular space	= 13.14
Gallons per foot of casing	= .1632
Column of water	x 31.10
Volume of casing	= 5.08
TOTAL VOLUME (A.S. + Casing)	= 18.22
Number of volumes to be evacuated	= 5
Total volume to be evacuated	= 91.10
TOTAL VOLUME PURGED	= 19 gals.

Method of purging: 2" Submersible Grandfos Pump

Sample date/time: 1-25-99/1030 Sample Number: CMW19/08058

FIELD PARAMETERS	UNITS	#1 (1-21, 1230)	#2 (1-22)	#3 (1-23)	#4 (1-25)	#5		
VOL REMOVED		2 gal.	10 gal.	2 gal.	2 gal			
pH		9.14	8.55	8.45	8.40			
Conductivity		1.62	2.20	2.67	2.74			
Temperature		10.5	9.1	12.1	11.0			
TURBIDITY		339	999	999	999			
DO		1.42	8.62	3.98	4.19			
Eh		-1.8	179.5	5.53	5.07			

(READING)

Sampler's signature/date: ______

Reviewer's signature/date: ______

HNu - 0.0 ppm

1/21/99 Start - 1225 - Stop 1240 - Dry after 8 gals

1/22/99 - ≈1 gpm 1055 - 1102 - " " 2 gals Very Cloudy

1/23/99 Start - 1400 - Stop 1415 - " " 5 gals

1-25-99 - Sampling. We will obtain a 19 gals

Duplicate & split from this locations. Went dry a couple times but sample finally taken.

Sampling Complete

ERM

WELL SAMPLING DATA FORM

Well Number: CMW-24 Date: 10/19/98 Time: 1330 TD = 8.16 ft

Boring Number: ______ Well casing diameter: 2.0 in DTW = 7.79 ft

Annular space length: ______ Stickup: ______ Column: .37 ft

COLUMN OF WATER IN WELL

Gallons per foot of annular space (A.S.)	= .73
Column of water or length of A.S. (whichever is less)	X .37 ft
Volume of annular space	= .27 gal
Gallons per foot of casing	= .1632
Column of water	X .06 gal
Volume of casing	= ~~.33 gal~~ or .01 gal
TOTAL VOLUME (A.S. + Casing)	= .28 gal
Number of volumes to be evacuated	= 5
Total volume to be evacuated	= 1.4 gal
TOTAL VOLUME PURGED	= 0 gal

Method of purging: ______

Sample date/time: ______ Sample Number: ______

FIELD PARAMETERS	UNITS	READING #1	#2	#3	#4	#5		
VOL REMOVED	gal	.15						
pH	—	6.89						
Conductivity	mS/cm	1.09						
Temperature	°C	15.0						
TURBIDITY	ntu	999						
Eh	mV	-48.8						

Sampler's signature/date: [signature] 10/29/98

Reviewer's signature/date: Mindy Norstad 10-29-98

DO mg/L —

Note: Never sampled b/c dry.

ERM

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: CMW21
Start Date: 08/28/05
Start Time: 0950

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 6"
Annular Space (AS) Length (ft): 18

Well TD = 69.27
Well DTW = 25.03
Water Column = 44.24

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	~~0.73~~ SED 0.39
Column of water or length of AS (whichever is less)	X	18.0
Volume of water in AS (gal)	=	~~13.~~ 7.02
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	44.24
Volume of water in casing (gal)	=	7.22
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	~~7.22~~ SED 14.24
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	71.2
ACTUAL VOLUME PURGED (gal)	=	20.0

Method of Purging : Poly Bailer

Field Parameters	082805				0829 Reading				083005		
Time	0950	1010	1350	1354	0810	0817	1507	1510	0815	Final	0825
Volume (gal)	0	12	12	14	14	16.5	16.5	18.0	18.0	Sample	20.0
Flow Rate (gpm)	—	—	—	—	—	—	—	—	—	N/A	—
DTW (ft toc)	44.24	dry	N/A	dry	N/A	dry	N/A	dry	N/A	dry	
pH	8.76	6.50	7.11	6.31	8.97	8.88	7.23	6.45	9.45	9.27	
Conductivity (µS/cm)	1095	1016	1079	969	1900	1678	1776	922	1736	886	
Temperature (C)	13.16	13.78	13.26	12.70	11.41	11.65	13.75	12.29	12.15	11.95	
Turbidity (NTU)	650	>1000	>1000	>1000	>1000	>1000	>1000	>1000	>1000	>1000	
Eh/Redox (mV)	99.7	297.7	301.1	348.8	59.2	61.1	290.8	350.8	51.2	60.8	
DO (mg/L)	4.17	5.55	4.00	5.90	5.11	6.33	6.41	7.15	7.33	7.14	

Purging Field Notes:
Collect CMW21 for Explosives, Total and dissolved metals, TOC, nitrate/nitrite, nitrate, perchlorate, and Extra Volume after bailing dry 5 times

Sample Date/Time: 083105/0830 Sample ID/TR #: CMW21/00926

Sampler's signature/date: 083105
Reviewer's signature/date: 7SEP05

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: CMW22
Start Date: 08/27/05
Start Time: 1650

Well Casing Diameter (in): 2.0
Bore Hole Diameter (in): 5.5
Annular Space (AS) Length (ft): 23

Well TD = 120.42
Well DTW = 115.46
Water Column = 4.96

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.39
Column of water or length of AS (whichever is less)	X	4.96
Volume of water in AS (gal)	=	1.93
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	4.96
Volume of water in casing (gal)	=	0.81
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	2.75
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	13.7
ACTUAL VOLUME PURGED (gal)	=	0.4

Method of Purging: Poly Bailer

Field Parameters	08/27/05	082805		~~082705~~ Reading						
Time	1650	1020	1400							Final
Volume (gal)	1.25	~~1.33~~ 0.5	1.65 ~~0.4~~							Sample
Flow Rate (gpm)	—	—	—							N/A
DTW (ft toc)	Bailed Dry	Bailed dry	Bailed Dry							
pH	7.79	6.60	—							
Conductivity (µS/cm)	549	762	—							
Temperature (C)	14.03	13.62	—							
Turbidity (NTU)	21	380	—							
Eh/Redox (mV)	292.4	266.6	—							
DO (mg/L)	3.58	4.83	—							

Purging Field Notes:
Purged 1.25 gallons 08/27/05
Collected 0.4 gallons 8/28/05
082905 collect Explosives and Perchlorate @ 0825
082905 collect Total Metals
083005 collect Dissolved Metals @ 0810

Sample Date/Time: 083105 / 0830 Sample ID/TR #: CMW21 / 00926

Sampler's signature/date: Steve Deeter / 8/31/05 collected Nitrate, Nitrate/Nitrite, TOC, and Extra Volume 083105 0810

Reviewer's signature/date: 7/8/05

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: CMW23
Start Date: 08/28/05
Start Time: 1025

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 5.5
Annular Space (AS) Length (ft): 23

Well TD = 106.36
Well DTW = 96.92
Water Column = 9.44

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.39
Column of water or length of AS (whichever is less)	X	9.44
Volume of water in AS (gal)	=	3.68
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	9.44
Volume of water in casing (gal)	=	1.54
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	5.2
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	26.1
ACTUAL VOLUME PURGED (gal)	=	5.75

Method of Purging: Poly Bailer

Field Parameters	08/28/05				08/31 Reading				09/01/05	
Time	1025	1030	1410	1415	0857	0842	1525	1528	0756	Final 0801
Volume (gal)	0	3.0	3.0	4.0	4.0	5.0	5.0	5.5	5.5	Sample 5.75
Flow Rate (gpm)	—	—	—	—	—	—	—	—	—	N/A dry
DTW (ft toc)	96.92	Bailed Dry	—	dry	—	dry	—	dry	—	dry
pH	6.53	6.76	5.34	6.96	5.48	8.91	7.20	—	9.30	—
Conductivity (µS/cm)	7300	7431	7099	6532 3448	9728	4775	8274	—	6349	—
Temperature (C)	13.47	13.82	13.51	13.40	12.23	12.22	14.05	—	12.30	—
Turbidity (NTU)	200	71000	70	800	27	71000	71000	—	90	—
Eh/Redox (mV)	183.3	252.8	255.3	315.8	85.1	81.0	328.0	—	69.9	—
DO (mg/L)	3.58	7.29	5.55	6.13	5.52	8.09	6.83	—	8.19	—

Purging Field Notes:
Collected explosives, perchlorate, total metals, dissolved metals, and nitrate/nitrite @ 0750 08/31/05
Collected nitrate/nitrite (finished filling bottle), nitrate, TOC, and extra volume 09/01/05 @ 1100
Bailed well dry 5 times prior to sampling

Sample Date/Time: 08/31/05 / 0750 Sample ID/TR #: CMW23 / 60928

Sampler's signature/date: Steph E Deite 08/31/05

Reviewer's signature/date: [signature] 9/6/05

WELL SAMPLING DATA FORM

Well Number: CMW24 Date: 1-28-99 Time: 0945 TD = 262.28

Boring Number: _____ Well casing diameter: 2" DTW = 61.90

Annular space length: 33' Stickup: 1.73' Column: 200.38

Borehole diameter 6.25"

COLUMN OF WATER IN WELL

Gallons per foot of annular space (A.S.)	= .73
Column of water or length of A.S. (whichever is less)	x 33
Volume of annular space	= 24.09
Gallons per foot of casing	= .16.32
Column of water	x 200.38
Volume of casing	= 32.70
TOTAL VOLUME (A.S. + Casing)	= 56.79
Number of volumes to be evacuated	= 5
Total volume to be evacuated	= 283.95
TOTAL VOLUME PURGED	= 85gals.

Method of purging: 2" Submersible Grandfos

Sample date/time: 2-1-99/0925 Sample Number: CMW24 / 08062

1-30

FIELD PARAMETERS	UNITS	READING #1	#2	#3	#4	#5	2-1 ↓
VOL REMOVED		8gals.	11.0gals	20gals	57gals	75gals	85gals
pH		8.42	8.39	8.20	8.31	8.32	8.35
Conductivity		2.87	2.88	2.88	2.87	2.90	2.90
Temperature		12.0	12.0	11.5	14.3	16.1	11.4
TURBIDITY		157	95	48	93	167	52
DO		1.60	2.34	1.19	1.32	1.06	2.89
Sampler's signature/date:		~~1826~~	195.7	187.3	199.0	178.0	216.0
Reviewer's signature/date:							

28-99-1035 Start purging. Having to thaw pump. - 1050 - Stop with control box error.

1430 Start purging again! 1440 - Stopped - Control box @ AC1!

1505 " " " 1512 " " " " " " 8gals. purged!

1530 " " " 1536 " " " " " " 10gals.

29-1138 " " " 1147 " " " " " " 7gals

30-99 0913 " " " 1210 Stopped - Pumped dry! 68gals. Total

today. Total of 85gals for 1/28-1/30!

Ready for Sampling!! 2-1-99 Sampled - Complete

ERM

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: CMW25
Start Date: 082805
Start Time: 1126

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 5
Annular Space (AS) Length (ft): 28

Well TD = 98.62
Well DTW = 36.55
Water Column = 62.07

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.39
Column of water or length of AS (whichever is less)	X	28
Volume of water in AS (gal)	=	10.92
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	62.07
Volume of water in casing (gal)	=	10.13
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	21.05
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	105.25
ACTUAL VOLUME PURGED (gal)	=	67.0

Method of Purging : Poly Bailer

Field Parameters	082805				0829 Reading				083005		
Time	1126	1242	1425	1438	0648	0930	1530	1550	0715	Final	0750
Volume (gal)	0	33	33	37	37	5.1	51	56.5	56.5	Sample	670
Flow Rate (gpm)	—	—	—	—	—	—	—	—	—	N/A	
DTW (ft toc)	36.55	bail dry	N/A	bail dry	N/A	bail dry	N/A	dry	N/A	dry	
pH	7.10	4.70	7.18	3.94	8.49	7.46	5.69	—	8.67	8.94	
Conductivity (µS/cm)	1222	663	1281	1157	2153	2049	2153	—	2052	1837	
Temperature (C)	14.46	16.67	14.22	14.46	13.00	13.79	14.40	—	17.81	12.87	
Turbidity (NTU)	71000	71000	71000	71000	71000	71000	71000	—	71000	71000	
Eh/Redox (mV)	201.6	340.8	290.2	451.9	79.9	137.8	415.0	—	129.0	98.0	
DO (mg/L)	3.82	7.05	7.73	7.38	6.50	7.84	7.41	—	7.45	8.34	

Purging Field Notes:
collected explosives, Total and dissolved metals, nitrate, nitrate/nitrite, TOC, perchlorate, and Extra Volume @ 0725 | 083105 after not bailing well dry 5 times.

Sample Date/Time: 083105 / 0725 Sample ID/TR #: CMW25 / 0929

Sampler's signature/date: 08/31/05
Reviewer's signature/date: 7 SEP 05

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: KMW09
Start Date: 082805
Start Time: 0830

Well Casing Diameter (in): 2.0
Bore Hole Diameter (in): 9.0
Annular Space (AS) Length (ft): 13.0

Well TD = 72.74
Well DTW = 42.13
Water Column = 30.61

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	1.17
Column of water or length of AS (whichever is less)	X	13
Volume of water in AS (gal)	=	15.21
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	30.61
Volume of water in casing (gal)	=	4.99
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	20.20
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	101.0
ACTUAL VOLUME PURGED (gal)	=	39.0

Method of Purging :

Field Parameters	082805		082805		082805 Reading				083005	
Time	0830	0910	1320	1328	0745	0755	1447	1500	0953	~~Final~~ 0908
Volume (gal)	0	16	16	20	20	~~30~~ 30	30	33.5	33.5	Sample 39.0
Flow Rate (gpm)	—	—	—	—	—	—	—	—	—	~~N/A~~
DTW (ft toc)	42.13	dry	N/A	dry	N/A	dry	N/A	dry	N/A	dry
pH	8.08	7.93	3.53	2.70	7.92	7.45	6.70	5.98	8.62	8.40
Conductivity (µS/cm)	3843	3867	3959	3929	7102	7019	7125	7213	6344	6545
Temperature (C)	11.39	11.87	13.07	11.89	16.96	10.78	13.66	12.77	11.90	11.96
Turbidity (NTU)	340	>1000	700	>1000	>1000	>1000	380	>1000	>1000	>1000
Eh/Redox (mV)	108.3	121.4	470.9	444.4	102.7	82.7	329.7	429.9	76.3	114.7
DO (mg/L)	5.11	3.58	5.58	6.31	7.93	7.90	8.00	8.03	9.38	11.79

Purging Field Notes:
Collected Explosives, Total and Dissolved metals, Nitrate, Nitrate/Nitrite, TOC, Perchlorate, and Extra Volume after bailing well dry 5 times

Sample Date/Time: 083005 / 1135 Sample ID/TR #: KMW09 / 00930

Sampler's signature/date: ~~Matt~~ E Deits / 08/30/05

Reviewer's signature/date: [signature] 7/8/05

WELL SAMPLING DATA FORM KSE

Well Number: KMW10 Date: 1/22/99 Time: 1445 TD = 170.90

Boring Number: KMW10 Well casing diameter: 2" DTW = 166.82

Annular space length: 13 Stickup: 2.5' Column: 4.08

COLUMN OF WATER IN WELL

Gallons per foot of annular space (A.S.)	=	.73	
Column of water or length of A.S. (whichever is less)	x	~~13~~ 4.08	
Volume of annular space	=	~~9.49~~	2.98
Gallons per foot of casing	=	~~.1632~~	0.1632
Column of water	x	~~4.08~~	4.08
Volume of casing	=	~~.67~~	0.67
TOTAL VOLUME (A.S. + Casing)	=	~~10.16~~	3.65
Number of volumes to be evacuated	=	~~5~~	5
Total volume to be evacuated	=	50.80	18.25
TOTAL VOLUME PURGED	=	4	

Purged only 5.75 gal. on 10/24/98

Method of purging: Disposable Bailer

Sample date/time: 1/25/99 0900 Sample Number: KMW10/08065

1453 1520 0930 0945

FIELD PARAMETERS	UNITS	READING #1	#2	#3	#4	#5		
VOL REMOVED	Gal	0.25	1.50	1.75	3.50			
pH		7.40	7.56	7.60	7.39			
Conductivity	mS/cm	0.89	0.95	1.01	0.92			
Temperature	°C	10.8	11.8	11.3	10.8			
TURBIDITY	NTU	4	73	16	568			

Sampler's signature/date: Ken S. Eden 1/25/99

Reviewer's signature/date:

Eh mV -141.1 -116.2 -64.9 -65.7

Do mg/l 7.03 6.85 6.54 7.10

1530 1/22/99 Purged Dry @ 2 gallons.

1/23/99 0930 Continue w/ Purging.

0950 Purged Dry @ 2.50 gallons for a total of 4 gallons

ERM

WELL SAMPLING DATA FORM

Well Number: KMW11 Date: 1/25/99 Time: 1120 TD = 57.34

Boring Number: KMW11 Well casing diameter: 2" DTW = 31.71

Annular space length: 23' Stickup: 1.8' Column: 25.63

Borehole diameter 9"

COLUMN OF WATER IN WELL

Gallons per foot of annular space (A.S.)	=	~~.73~~ 1.17
Column of water or length of A.S. (whichever is less)	x	23
Volume of annular space	=	~~16.79~~ 26.91
Gallons per foot of casing	=	.1632
Column of water	x	25.63
Volume of casing	=	4.18
TOTAL VOLUME (A.S. + Casing)	=	~~20.97~~ 31.09
Number of volumes to be evacuated	=	5
Total volume to be evacuated	=	~~104.85~~ 155.45
TOTAL VOLUME PURGED	=	82

Method of purging: 2" Submersible Grandfos Pump

Sample date/time: 1/27/99 0845 Sample Number: KMW11 / 08066

1135 1150 1208 0856 0920 0944

FIELD PARAMETERS	UNITS	READING #1	#2	#3	#4	#5	#6	
VOL REMOVED		1.0	22.0	30.0	45.0	62.0	76.0	
pH		8.60	8.84	8.88	8.50	8.60	8.70	
Conductivity		0.96	0.98	1.10	1.05	1.06	0.98	
Temperature		10.9	11.2	12.1	9.5	10.3	11.6	
TURBIDITY		231	363	437	136	141	208	
Eh	mv	-147.1	-117.1	-1026	-78.8	-102.9	-108.3	
DO	mg/L	0.47	1.60	1.85	3.58	4.83	4.05	

Sampler's signature/date: Ken J. Eden 1/27/99

Reviewer's signature/date:

1/26/99 1135 Started Purging

1220 Purged dry @ 40.0 gallons

1/27/99 0855 Continue w/ Purge

0953 Purged dry @ 42 gallons

Total Purged 82

ERM

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: KMW12
Start Date: 082805
Start Time: 0740

Well Casing Diameter (in): 2.0
Bore Hole Diameter (in): 8.75
Annular Space (AS) Length (ft): 23.0

Well TD = 75.36
Well DTW = 48.78
Water Column = 26.52

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	1.17
Column of water or length of AS (whichever is less)	X	23
Volume of water in AS (gal)	=	26.91
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	26.52
Volume of water in casing (gal)	=	4.33
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	31.24
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	156.2
ACTUAL VOLUME PURGED (gal)	=	34.25

Method of Purging: Poly Bailer

Field Parameters	082805		082805		0829 Reading				083005		
Time	0740	0815	1300	1313	0715	0730	1430	1440	0838	~~Final~~	0850
Volume (gal)	0	15	15	21	21	27	27	30	31	Sample	34.25
Flow Rate (gpm)	—	—	—	—	—	—	—	—	—	~~N/A~~	—
DTW (ft toc)	48.78	dry	N/A	dry	N/A	dry	N/A	dry	N/A	dry	
pH	7.55	7.44	4.21	2.98	7.66	7.58	6.07	5.28	8.01	~~6.95~~ SEP	8.02
Conductivity (µS/cm)	4393	4455	4591	4374	7620	6237	7761	7550	6974	6950	
Temperature (C)	11.38	11.25	17.55	12.27	11.29	11.08	14.96	12.09	12.17	11.81	
Turbidity (NTU)	75	>1000	800	>1000	600	>1000	700	>1000	240	>1000	
Eh/Redox (mV)	103.0	98.3	391.2	515.2	155.3	120.9	315.2	416.1	89.2	87.7	
DO (mg/L)	4.00	6.62	5.24	5.52	5.59	6.03	5.67	6.98	8.12	8.25	

Purging Field Notes:

Collected Explosives, Total + dissolved metals, nitrate/nitrite, TOC, Nitrate, perchlorate, and Extra Volume @ 1105 | 083005 after bailing well dry 5 times

Sample Date/Time: 083005 / 1105 Sample ID/TR #: KMW12 / 00931

Sampler's signature/date: [signature] / 8/30/05

Reviewer's signature/date: [signature] 7SEP05

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: KMW13
Start Date: 08/27/05
Start Time: 1630

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8.75
Annular Space (AS) Length (ft): 23.0

Well TD = 53.74
Well DTW = 52.58
Water Column = 1.16

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	1.17
Column of water or length of AS (whichever is less)	X	1.16
Volume of water in AS (gal)	=	1.36
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	1.16
Volume of water in casing (gal)	=	0.19
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	0.26
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	1.29
ACTUAL VOLUME PURGED (gal)	=	0.35

Method of Purging: Poly Bailer

Field Parameters	8/27	8/28		Reading						Final Sample
Time	1630	0920	1335	~~1450~~						
Volume (gal)	0.25	0.35	0.35							
Flow Rate (gpm)	—	—	—							N/A
DTW (ft toc)	Bailed dry	N/A	Dry							
pH	6.16	6.89	—							
Conductivity (µS/cm)	3235	1818	—							
Temperature (C)	15.87	12.28	—							
Turbidity (NTU)	16	17	—							
Eh/Redox (mV)	333.4	122.9	—							
DO (mg/L)	9.00	5.64	—							

Purging Field Notes:
Collected 0.25 gallons 8/27/05
Collected 0.10 gallons 8/28/05
082905 @ 0805 collect explosives after bailing well dry 3 times

* Was only able to get 1/4 bottle of explosives filled over 4 days

Sample Date/Time: ~~082405 / 0730~~ SED 08/29/05 / 0805
Sample ID/TR #: ~~CAMW23 / 00928~~ SED KMW13 / 00932

Sampler's signature/date: ~~Steph~~ E Doster 08/29/05

Reviewer's signature/date: [signature] 7 SEP 05

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW01
Start Date: 4/1/03
Start Time: 1306

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 18'
Screened Interval (ft bgs): 44.0-59.0

Well TD: 61.23
Well DTW: 32.12
Water Column: 29.11
Pump Intake (ft ~~bgs~~ toc): 55'

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	18
Volume of water in AS (gal)	=	13.14
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	29.11
Volume of water in casing (gal)	=	4.75
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	17.89
ACTUAL VOLUME PURGED (gal)		8.325 ~~5.785~~ 2.199

Method of Purging : Low Flow Bladder Pump

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1305	0	0	0	32.25	NM	NM	NM	NM	NM	NM
1310	5	165	.825	32.41	7.33	2850	13.57	45	92.7	.79
1315	10	165	1.65	32.41	7.33	2846	13.51	39	89.4	.92
1320	15	165	2.475	32.41	7.33	2837	13.52	28	87.9	.85
1325	20	170	3.325	32.41	7.33	2813	13.45	30	85.1	.76
1330	25	165	4.15	32.41	7.33	2804	13.47	25	84.0	.68
1335	30	170	5	32.41	7.34	2800	13.45	19	82.7	.67
1340	35	170	5.85	32.41	7.34	2792	13.46	17	80.6	.65
1345	40	170	6.7	32.41	7.34	2791	13.48	18	79.1	.65
1350	45	160	7.5	32.41	7.34	2798	13.43	18	78.1	.63
1355	50	165	8.325	32.41	7.34	2789	13.45	19	78.0	.61
				DW=0.29	OK	OK	OK	OK	OK	OK
				OK						

Purging Field Notes: Pump Settings: Fill 10 secs, Discharge 5 secs, Pressure 30 psi

Sampled: Explosives, Nitrate/Nitrite, Total Nitrate, Perchlorate

Sample Date/Time: 4/1/03 1400 Sample ID/TR #: MW01 00855

Sampler's signature/date: Leonard M. Adams 4/1/03

Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW02
Start Date: 4/3/03 4/4/03
Start Time: 1350 745

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 18'
Screened Interval (ft bgs): 67.9 - 81.9

Well TD: 84.09
Well DTW: 53.40
Water Column: 30.69
Pump Intake (ft bgs): 79' toc

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	18
Volume of water in AS (gal)	=	13.14
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	30.69
Volume of water in casing (gal)	=	5.00
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	18.14
ACTUAL VOLUME PURGED (gal)	=	.8719

Method of Purging : Low Flow Bladder Pump

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1350	0	0	0	53.02	NM	NM	NM	NM	NM	NM
1355	5	20	.1	53.48	NM	NM	NM	NM	NM	NM
1400	10	20	.2	53.48	NM	NM	NM	NM	NM	NM
1405	15	20	.3	53.48	NM	NM	NM	NM	NM	NM
1410	20	20	.4	53.48	NM	NM	NM	NM	NM	NM
1415	25	20	.5	53.48	NM	NM	NM	NM	NM	NM
1420	30	20	.6	53.52	NM	NM	NM	NM	NM	NM
1425	35	25	.725	53.52	NM	NM	NM	NM	NM	NM
1430	40	25	.85	53.52	7.92	4606	13.32	NM	45.8	3.43
1435	46	25	.975	53.52	7.90	4542	13.48	NM	50.3	3.32
1440	50	25	1.1	53.52	7.91	4561	14.03	NM	51.4	3.28
	Purge Rate is slow will complete 4/4/03									
4/4/03 745	0	0	1.1	53.46	NM	NM	NM	NM	NM	NM
750	5	40	1.3	53.51	NM	NM	NM	NM	NM	NM
755	10	40	1.5	53.68	8.00	4360	5.20	NM	182.3	6.05
800	15	35	1.675	53.68	7.92	4321	6.65	4.8	182.1	5.58

Purging Field Notes: Pump Settings: Fill 20 secs, Discharge 10 secs, Pressure 40 psi

Sampled: Explosives, Nitrate/Nitrite, Total Nitrate, Perchlorate

Sample Date/Time: 4/4/03 900 Sample ID/TR #: TMW02 00867

Sampler's signature/date: Leonard Madden 4/3/03

Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW02
Start Date: 4|3|03 - 4|4|03
Start Time: 1350 745

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 18'
Screened Interval (ft bgs): 67.9-81.9'

Well TD: 84.09'
Well DTW: 53.40'
Water Column: 30.69'
Pump Intake (ft ~~bgs~~ toc): 79'

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	18
Volume of water in AS (gal)	=	13.14
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	30.69
Volume of water in casing (gal)	=	5.0086
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	18.14
ACTUAL VOLUME PURGED (gal)	=	.8719

Method of Purging : Low Flow Bladder Pump 3.3/3.785

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
805	20	30	1.825	53.69	7.89	4421	7.45	5.9	180.5	5.45
810	25	40	2.025	53.69	7.88	4447	7.86	8.9	179.1	5.14
815	30	30	2.175	53.70	7.87	4492	8.27	12	176.5	4.27
820	35	30	2.325	53.70	7.86	4498	8.18	12	175.3	4.16
825	40	30	2.475	53.70	7.85	4501	8.18	11	173.6	3.46
830	45	35	2.65	53.70	7.85	4495	8.24	10	171.7	2.96
835	50	35	2.825	53.70	7.85	4493	8.49	11	170.3	2.58
840	55	35	3	53.70	7.87	4502	8.46	8.0	168.4	2.66
845	60	30	3.15	53.70	7.85	4508	8.32	7.2	167.0	2.40
850	65	30	3.3	53.70	7.85	4508	8.22	6.4	166.3	2.26
				OK	OK	OK	OK	High	OK	High
				Δft = 0.30						

Purging Field Notes: Pump Settings: Fill 20 secs, Discharge 10 secs, Pressure 40 psi
Sampled: Explosives, Nitrate/Nitrite, Total Nitrate, Perchlorate

Sample Date/Time: 4/4/03 900 Sample ID/TR #: TMW02 00867
Sampler's signature/date: Leonard M. Salazar 4/4/03
Reviewer's signature/date:

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW03
Start Date: 4/4/03
Start Time: 0910

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 23.7
Screened Interval (ft bgs): 49.8-69.8

Well TD: 72.06
Well DTW: 56.48
Water Column: 15.58
Pump Intake (ft bgs): 65' TOC

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	15.58
Volume of water in AS (gal)	=	11.37
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	15.58
Volume of water in casing (gal)	=	2.54
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	17.91
ACTUAL VOLUME PURGED (gal)	=	3 0.8067 gals

Method of Purging: Low Flow Bladder Pump (QED Micropurge)

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
920	0	35	0	56.48	NM	NM	NM	NM	NM	NM
925	5	35	0.175	56.52	NM	NM	NM	NM	NM	NM
930	10	35	0.350	56.52	5.17 NM	2576	10.57	NM	394.8	5.07
935	15	35	0.525	56.52	7.53	4705	10.91	NM	394.5	4.36
940	20	45	0.750	56.54	7.49	4728	11.11	15.5 NM	393.3	2.91
945	25	55	1025 0.82	56.54	7.46	4747	11.24	9.41	390.3	1.93
950	30	55	1.200	56.54	7.46	4751	11.39	8.98	389.0	1.71
955	35	50	1.550	56.54	7.45	4761	11.51	7.79	386.0	1.50
1000	40	55	1.825	56.54	7.45	4765	11.61	7.69	385.4	1.45
1005	45	60	2.125	56.54	7.44	4768	11.70	5.82	382.1	1.40
1010	50	60	2.425	56.54	7.45	4773	11.90	5.05	380.2	1.37
1015	55	60	2.725	56.54	7.44	4779	12.10	5.00	378.2	1.76
1020	60	60	3.025	56.54	7.42	4789	12.10	4.72	377.1	1.33
				OK	OK	OK	OK	OK	OK	OK
				Δft = 0.06ft						

Purging Field Notes: Pump Settings: Fill 26.6 secs, Discharge 3.4 secs, Pressure 85 psi
Sampled: Explosives, Nitrate/Nitrite, Total Nitrate, Perchlorate

Sample Date/Time: 4/4/03 / 1025 Sample ID/TR #: TMW03 0086 Field Duplicate 0086

Sampler's signature/date: 4/4/03

Reviewer's signature/date: 4/24/03

FORT WINGATE DEPOT ACTIVITY
LOW-FLOW WELL SAMPLING DATA FORM

Well Number: TMW04
Start Date: 4/4/03
Start Time: 1150

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 23'
Screened Interval (ft bgs): 50-70

Well TD: 72.25'
Well DTW: 55.95'
Water Column: 16.30
Pump Intake (ft ~~bgs~~ toc): 65'

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	16.30
Volume of water in AS (gal)	=	11.89
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	16.30
Volume of water in casing (gal)	=	2.66
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	14.55
ACTUAL VOLUME PURGED (gal) 3.775 / 3.785	=	.997

Method of Purging : Low Flow Bladder Pump

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1150	0	0	0	56.03	NM	NM	NM	NM	NM	NM
1155	5	20	.1	56.05	NM	NM	NM	NM	NM	NM
1200	10	20	.2	56.03	NM	NM	NM	NM	NM	NM
1205	15	20	.3	56.03	NM	NM	NM	NM	NM	NM
1210	20	20	.4	56.03	7.88	4183	13.21	NM	6.8	4.19
1215	25	20	.5	56.03	7.80	4097	12.79	NM	18.4	3.94
1220	30	50	.75	56.06	7.76	4064	11.84	8.3	26.4	3.26
1225	35	70	1.1	56.06	7.74	4025	12.09	8.4	29.7	2.74
1230	40	70	1.45	56.06	7.75	4013	12.26	4.7	30.7	2.46
1235	45	70	1.8	56.06	7.74	4012	12.33	5.5	31.8	2.26
1240	50	70	2.15	56.06	7.74	4015	12.33	5.6	32.7	2.15
1245	55	65	2.475	56.06	7.73	4003	12.52	4.7	33.5	2.11
1250	60	65	2.8	56.06	7.74	4008	12.64	4.9	34.3	2.06
1255	65	65	3.125	56.06	7.74	4017	12.54	5.3	35.0	2.08
1300	70	65	3.45	56.06	7.74	4013	12.43	4.3	35.9	2.09
1305	75	65	3.775	56.06	7.74	4007	12.57	4.0	36.8	2.05
				OK	OK	OK	OK	High	OK	OK

Purging Field Notes: Pump Settings: Fill 10 secs, Discharge 5 secs, Pressure 35 psi

Sampled: Explosives, Nitrate/Nitrite, Total Nitrate, Perchlorate

Sample Date/Time: 4/4/03 1310 Sample ID/TR #: TMW04 00871

Sampler's signature/date: [signature] 4/4/03

Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: TMW05
Start Date: 03/31/03
Start Time: 1115

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 5.5
Annular Space (AS) Length (ft): 13

Well TD = 37.61
Well DTW = 34.67
Water Column = 2.94

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.39
Column of water or length of AS (whichever is less)	X	2.94
Volume of water in AS (gal)	=	1.15
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	2.94
Volume of water in casing (gal)	=	0.48
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	1.63
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	8.15
ACTUAL VOLUME PURGED (gal)	=	8.50

Method of Purging : Bailer

Field Parameters	Reading									
Time	1124	1128	1134	1141	1148	1157				Final Sample
Volume (gal)	0.25	1.50	3.0	4.5	6.0	7.5				
Flow Rate (gpm)	0.25	0.25	0.25	0.25	0.25	0.25				N/A
DTW (ft toc)	NM	NM	NM	NM	NM	NM				NM
pH	7.81	7.71	7.61	7.67	7.60	7.60				7.57
Conductivity (µS/cm)	2,369	2,250	2,253	2,229	2,238	2,233				2,233
Temperature (C)	13.95	12.47	12.02	12.36	12.50	12.35				12.21
Turbidity (NTU)	5.01	27.3	25.1	25.1	25.1	25.1				25.3
Eh/Redox (mV)	330.2	331.8	348.8	342.1	343.7	340.3				342.7
DO (mg/L)	7.60	7.90	7.76	7.85	7.89	8.02				7.94

Purging Field Notes: TMW05 sampled for TCL VOCs, Expanded List Explosives, Nitrate/Nitrite-nonspecific, Total Nitrate, Perthlorate, and Extra Volume

Sample Date/Time: 03/31/03/1210 Sample ID/TR #: TMW05/00872

Sampler's signature/date: 03/31/03
Reviewer's signature/date: 4/24/03

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW06
Start Date: 4/3/03
Start Time: 810

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8.75"
Annular Space (AS) Length (ft): 13
Screened Interval (ft bgs): 45-55

Well TD: 57.24'
Well DTW: 46.53'
Water Column: 10.71
Pump Intake (ft ~~bgs~~ toc): 52'

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	10.71
Volume of water in AS (gal)	=	7.82
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	10.71
Volume of water in casing (gal)	=	1.747
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	9.57
ACTUAL VOLUME PURGED (gal) 2.55 / 3.785	=	67.37

Method of Purging: Low Flow Bladder Pump

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH,	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
810	0	0	0	46.42	NM	NM	NM	NM	NM	NM
815	5	0	0	46.53	NM	NM	NM	NM	NM	NM
820	10	0	0	46.55	NM	NM	NM	NM	NM	NM
825	15	0	0	46.54	NM	NM	NM	NM	NM	NM
830	20	0	0	46.54	NM	NM	NM	NM	NM	NM
835	25	0	0	46.53	NM	NM	NM	NM	NM	NM
840	30	0	0	46.53	NM	NM	NM	NM	NM	NM
845	35	0	0	46.54	NM	NM	NM	NM	NM	NM
850	40	0	0	46.54	NM	NM	NM	NM	NM	NM
855	45	0	0	46.55	NM	NM	NM	NM	NM	NM
900	50	0	0	46.58	NM	NM	NM	NM	NM	NM
* 905	55	30	.15	46.58	NM	NM	NM	NM	NM	NM
910	60	35	.325	46.60	NM	NM	NM	NM	NM	NM
915	65	35	.5	46.61	NM	NM	NM	NM	NM	NM
920	70	35	.675	46.59	NM	NM	NM	NM	NM	NM
925	75	35	.85	46.61	NM	NM	NM	NM	NM	NM

Purging Field Notes: Pump Settings: Fill 21 secs, Discharge 9 secs, Pressure 25 psi
Sampled: Explosives, Nitrate/Nitrite, Total Nitrate, Perchlorate
*905 Water began to be pumped.

Sample Date/Time: 4/3/03 1026 Sample ID/TR #: TMW06 00865
Sampler's signature/date: Leonard M. Saldaña 4/24/03
Reviewer's signature/date: [signature] 4/24/03

RNSW03 Tr# 00862, collecte After decontaminat Pump. Sampled: Ex Nitrate/Nitrite, Total Nitrate, Perchlorate

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW06
Start Date: 4/3/03
Start Time: 810

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8.75"
Annular Space (AS) Length (ft): 13'
Screened Interval (ft bgs): 45-55

Well TD: 57.24
Well DTW: 46.53
Water Column: 10.71
Pump Intake (ft ~~bgs~~ toc): 52'

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	10.71
Volume of water in AS (gal)	=	7.82
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	10.71
Volume of water in casing (gal)	=	1.747
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	9.57
ACTUAL VOLUME PURGED (gal) 2.55 / 3.785	=	.6737

Method of Purging : Low Flow Bladder Pump

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
930	80	35	1.05 ~~1.575~~	46.62	NM	NM	NM	NM	NM	NM
935	85	35	1.225 ~~1.75~~	46.68	7.42	4479	9.69	1.9	170.5	3.65
940	90	35	1.575 ~~2.275~~	46.71	7.39	4465	10.33	2.0	169.1	3.13
945	95	30	~~1.575~~ 1.525	46.69	7.39	4533	10.36	0.0	166.2	2.79
950	100	30	1.675	46.69	7.38	4550	10.33	0.0	164.6	2.47
955	105	30	1.825	46.69	7.38	4564	10.29	0.0	162.5	2.35
1000	110	25	1.95	46.68	7.38	4570	10.38	0.0	158.9	2.23
1005	115	30	2.1	46.68	7.38	4581	10.30	0.0	157.6	2.11
1010	120	30	2.25	46.68	7.38	4570	10.45	0.0	155.9	2.09
1015	125	30	2.4	46.68	7.38	4569	10.85	0.0	152.7	2.00
1020	130	30	2.55	46.68	7.38	4586	10.90	0.0	149.3	2.03
				ΔH=0.15 OK	OK	OK	light	OK	OK	OK

Purging Field Notes: Pump Settings: Fill 21 secs, Discharge 9 secs, Pressure 25 psi

Sampled: Explosives, Nitrate/Nitrite, Total Nitrate, Perchlorate

Sample Date/Time: 4/3/03 1025 Sample ID/TR #: TMW06 00865

Sampler's signature/date: Leonard M. Salato 4/24/03

Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: TMW07
Start Date: 03/31/03
Start Time: 0825

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 5.5
Annular Space (AS) Length (ft): 13

Well TD = 67.37
Well DTW = 48.59
Water Column = 18.78

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.39
Column of water or length of AS (whichever is less)	X	13
Volume of water in AS (gal)	=	5.07
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	18.78
Volume of water in casing (gal)	=	3.06
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	8.13
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	40.65
ACTUAL VOLUME PURGED (gal)	=	10.25

Method of Purging : Bailer

Field Parameters	03/31/03	03/31	03/31	04/01/03	04/01	Reading 4/2/03				
Time	0845	0857	1424	0850	1344	0806				Final
Volume (gal)	0.25	4.0	5.25	7.25	8.25	10.25				Sample
Flow Rate (gpm)	0.25	0.25	0.25	0.25	0.25	0.15				N/A
DTW (ft toc)	NM	NM	NM	NM	NM	NM				
pH	9.40	8.21	7.94	7.62	7.64	7.75				
Conductivity (µS/cm)	4,763	5,006	5,171	5,091	5,180	27.55				
Temperature (C)	12.35	11.39	14.72	13.25	14.38	12.24				
Turbidity (NTU)	10	9.7	27.9	54.1	51.7	10				
Eh/Redox (mV)	248.5	283.5	351.8	333.3	256.2	333.4				
DO (mg/L)	3.92	4.35	3.80	3.75	4.15	6.78				

Purging Field Notes: Purged dry @ 0857 (03/31/03) after 4.0 gallons. Start purging @ 1410 (03/31/03). Bailed dry @ 1424 (03/31/03) after 5.25 total gallons. Start purging @ 0844 (04/01/03). Bailed dry @ 0850 (04/01/03) after 7.25 total gallons. Start purging @ 1340 (04/01/03). Bailed dry @ 1344 (04/01/03) after 8.25 gallons total.

Collected Explosives, Ettre Volume, Nitrate/Nitrite, Nitrate, and perchlorate.

Sample Date/Time: 4/3/03 / 0800 Sample ID/TR #: TMW07 / 00866

Sampler's signature/date: S Deeter / 4/3/03

Reviewer's signature/date: S Deeter 4/24/03

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW08
Start Date: 3/27/03
Start Time: 1001

Well Casing Diameter (in): 2.0
Bore Hole Diameter (in): 8.75
Annular Space (AS) Length (ft): 83
Screened Interval (ft bgs): 32.41 - 62.41

Well TD: 62.41
Well DTW: 35.61
Water Column: 26.80
Pump Intake (ft bgs): 49 (~5' ft TOC)

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	0.942
Column of water or length of AS (whichever is less)	X	26.80
Volume of water in AS (gal)	=	25.246
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	26.80
Volume of water in casing (gal)	=	4.374
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	29.6
ACTUAL VOLUME PURGED (gal)	=	1.5

Method of Purging : QED Micro Purge

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1045	0	120	0	35.57	NM	NM	NM	NM	NM	NM
1050	5	120	.60	35.65	7.42	12166	10.10	NM	372.9	2.89
1055	10	120	1.20	35.65 35.68	7.08	14488	11.20	5.8	375.2	1.07
1100	15	120	1.80	35.65	7.00	14834	11.52	6.2	369.2	0.51
1105	20	120	2.40	35.65	7.01	14869	11.76	5.0	366.8	0.44
1110	25	140	3.10	35.65	NM	NM	NM	NM	NM	NM
1115	30	140	3.80	35.65	7.02	14,946	11.81	3.5	360.5	0.40
1120	35	140	4.50	35.65	7.02	14,924	11.89	3.1	360.2	0.38
1125	40	140	5.20	35.65	7.02	14908	11.73	2.9	359.2	0.36
1130	45	140	5.90	35.65	7.01	14879	11.70	2.9	358.1	0.35
				OK	OK	OK	OK	OK	OK	OK
				ΔH= 0.04ft						

Purging Field Notes: Pump Settings: Fill 25 secs, Discharge 5.0 secs, Pressure 30 psi

Collected Explosives, EV, VOC, pesticides, perchlorate, nitrate/nitrite, and nitrate.

Sample Date/Time: 3/27/03 | 1130 Sample ID/TR #: TMW08 | 00835

Sampler's signature/date: [signature] 3/27/03

Reviewer's signature/date: [signature] 4/4/03

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW10
Start Date: 3/27/03
Start Time: 0830

Well Casing Diameter (in): 2.0
Bore Hole Diameter (in): 8.75
Annular Space (AS) Length (ft): 33.0
Screened Interval (ft bgs): 31.23 - 61.23

Well TD: 61.80
Well DTW: 36.05
Water Column: 25.75
Pump Intake (ft bgs): 45' toc

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	.942
Column of water or length of AS (whichever is less)	X	25.75
Volume of water in AS (gal)	=	24.25
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	25.75
Volume of water in casing (gal)	=	4.2024
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	28.4589
ACTUAL VOLUME PURGED (gal) 4.60 / 3.785	=	1.215

Method of Purging : QED microPurge

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0830	0	60	0	36.02	NM	NM	NM	NM	NM	NM
0835	5	60	0.30	36.17	7.04	9,315	7.14	NM	386.0	3.97
0840	10	60	0.60	36.18	7.04	9,312	7.26	8.2	382.7	3.52
0845	15	60	0.90	36.21	7.06	9,322	7.50	8.9	376.0	2.98
0850	20	90	1.35	36.23	7.08	9245	8.74	NM	362.0	2.65
0855	25	90	1.80	36.25	7.08	9,283	8.70	9.8	368.1	2.54
0900	30	140	2.50	36.30	7.09	9,288	10.11	10.0	355.1	2.51
0905	35	140	3.20	36.31	7.10	9,255	10.63	9.0	351.0	2.47
0910	40	140	3.90	36.33	7.12	9,286	10.75	9.1	350.9	2.42
0915	45	140	4.60	36.33	7.12	9,289	10.74	9.0	350.7	2.39
				ΔH=0.25ft	OK	OK	OK	OK	OK	OK
				OK						

Purging Field Notes: Pump Settings: Fill 26 secs, Discharge 4.0 secs, Pressure 46 psi

Collected Explosives, EV, VOC, Pesticides, Perchlorate, Nitrate/Nitrite, and Nitrate

Sample Date/Time: ~~Date~~ 3/27/03 / 0915 Sample ID/TR #: TMW10 / 00828

Sampler's signature/date: [signature] / 3/27/03

Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW11
Start Date: 4/2/03
Start Time: 835

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 6"
Annular Space (AS) Length (ft): 28'
Screened Interval (ft bgs): 55-80

Well TD: 82.68
Well DTW: 65.22
Water Column: 17.46
Pump Intake (ft ~~bgs~~ TOL): 75'

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	.39
Column of water or length of AS (whichever is less)	X	17.46
Volume of water in AS (gal)	=	6.8094
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	17.46
Volume of water in casing (gal)	=	2.849
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	9.6584
ACTUAL VOLUME PURGED (gal) 6.875/3.785	=	1.816

Method of Purging : Low Flow Bladder Pump

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
835	0	0	0	65.23	NM	NM	NM	NM	NM	NM
840	5	155	.775	66.32	NM	NM	NM	NM	NM	NM
845	10	155	1.55	65.44	7.60	2174	13.31	120	116.6	3.96
850	15	140	2.25	65.47	7.56	2210	13.02	110	115.9	3.18
855	20	140	2.95	65.49	7.57	2212	13.05	90	115.6	3.10
900	25	130	3.6	65.49	7.58	2220	13.11	70	114.1	3.28
905	30	135	4.275	65.49	7.58	2222	13.19	50	113.5	3.43
910	35	130	4.925	65.49	7.58	2222	13.22	25	112.3	3.44
915	40	130	5.575	65.49	7.58	2224	13.24	18	111.1	3.23
920	45	130	6.225	65.49	7.59	2226	13.21	18	110.3	3.36
925	50	130	6.875	65.49	7.60	2224	13.24	17	109.4	3.48
				ΔH=0.27ft	OK	OK	OK	OK	OK	OK
				OK						

Purging Field Notes: Pump Settings: Fill 21 secs, Discharge 9 secs, Pressure 39 psi

Sampled: Explosives, Nitrate/Nitrite, Total Nitrate, Perchlorate

Sample Date/Time: 4/2/03 930 Sample ID/TR #: TMW11 00856

Sampler's signature/date: Leonard M. Salinas 4/2/03

Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY LOW FLOW WELL SAMPLING DATA FORM	Well Number: TMW13 Start Date: 3/27/03 Start Time: 845

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8.8"
Annular Space (AS) Length (ft): 16.1'
Screened Interval (ft bgs): 60.7-70.7

Well TD: 73.78'
Well DTW: 59.05'
Water Column: 14.73
Pump Intake (ft bgs): 71.0'

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	.9426
Column of water or length of AS (whichever is less)	X	14.73
Volume of water in AS (gal)	=	13.88
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	14.73
Volume of water in casing (gal)	=	2.4039
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	16.2839
ACTUAL VOLUME PURGED (gal) 6.125/3.785	=	1.618

Method of Purging : Low Flow Bladder Pump

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
845	0	0	0	59.11	NM	NM	NM	NM	NM	NM
850	5	100	.5	59.09	NM	NM	NM	NM	NM	NM
855	10	100	1	59.06	7.85	NM	6.99	NM	157.4	5.82
900	15	100	1.5	59.15	7.63	2369	8.11	11	151.2	4.10
905	20	100	2	59.15	7.54	2376	10.14	9.1	146.9	4.17
910	25	100	2.5	59.15	7.50	2379	10.63	7.7	142.9	3.11
915	30	110	3.05	59.15	7.48	2379	10.94	5.1	137.1	2.41
920	35	105	3.575	59.15	7.48	2379	11.12	3.2	134.0	2.47
925	40	100	4.075	59.15	7.49	2381	11.13	1.8	127.6	1.82
930	45	110	4.625	59.15	7.48	2380	11.08	.85	124.6	2.02
935	50	100	5.125	59.15	7.48	2381	11.31	.25	121.0	1.51
940	55	100	5.625	59.15	7.49	2381	11.28	.00	117.6	1.65
945	60	100	6.125	59.15	7.49	2381	11.31	.00	115.8	1.55
				OH=0.10ft						
				OK	OK	OK	OK	OK	OK	OK

Purging Field Notes: Pump Settings: Fill 10 secs, Discharge 5 secs, Pressure 80 psi

Sampled: Explosives, Nitrate/Nitrite NonSpecific, Total Nitrate Perchlorate, Extra Volume

NM = Not measured

Sample Date/Time: 3/27/03 950 Sample ID/TR #: TMW13 00837

Sampler's signature/date: 3/27/03

Reviewer's signature/date: 4/4/03

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: TMW14A
Start Date: 03/~~26~~27/2003 JAH 5/27/2003
Start Time: 1445

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 6
Annular Space (AS) Length (ft): 24.45

Well TD = 112.20
Well DTW = 62.52
Water Column = 49.68

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.39
Column of water or length of AS (whichever is less)	X	24.45
Volume of water in AS (gal)	=	9.54
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	49.68
Volume of water in casing (gal)	=	8.11
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	17.65
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	88.3
ACTUAL VOLUME PURGED (gal)	=	72.5

Method of Purging: Bailer

Field Parameters	03/27/03	03/27/03	3/31/03	4/01/03	Reading *					
Time	1508	1600	1612	0847	1600					Final
Volume (gal)	0.25	13.0	37.5	57.5	72.5					Sample
Flow Rate (gpm)	0.25	0.25	0.25	0.67	0.33					N/A
DTW (ft toc)	NM	NM	NM	NM	NM					
pH	8.43	8.69	8.62	8.71	8.72					
Conductivity (µS/cm)	1,836	1,821	1,854	1,815	1,875					
Temperature (C)	10.60	11.11	14.07	13.19	13.57					
Turbidity (NTU)	>999	>999	>999	out of range	out of range					
Eh/Redox (mV)	+120.2	-101.1	-55.8	17.0	12.1					
DO (mg/L)	2.16	4.47	2.65	2.44	3.72					

Purging Field Notes: Stopped purging @ 1600 (03/27/02) - end of day. Start purging @ 1532 (03/28/03). Bailed dry @ 1605 after 25.0 total gallons. Start purging @ 1535 (03/31/03). Bailed dry @ 1619 (03/31/03) after 40 total gallons.

collected Explosives, Total and Dissolved metals, Perchlorate, Nitrate/Nitrite, Nitrate, VO and Extra Volume

Sample Date/Time: 4/2/03 / 0915 Sample ID/TR #: TMW14A / 00829 Parent
00830 Duplicate
00831 MS
00832 MSD
FBLK01 00834 Field blank

Sampler's signature/date: 4/2/03
Reviewer's signature/date: 4/24/03

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW15
Start Date: 3/27/03
Start Time: 1205

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 6
Annular Space (AS) Length (ft): 19.3
Screened Interval (ft bgs): 56-71

Well TD: 76.65'
Well DTW: 63.07'
Water Column: 13.58
Pump Intake (ft bgs): 70' toc

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	.39
Column of water or length of AS (whichever is less)	X	13.58
Volume of water in AS (gal)	=	5.29
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	13.58
Volume of water in casing (gal)	=	2.22
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	7.51
ACTUAL VOLUME PURGED (gal) 7.325 / 5.775	=	1.935

Method of Purging : Low Flow Bladder Pump

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1205	0	0	0	63.05	NM	NM	NM	NM	NM	NM
1210	5	175	.875	63.15	NM	NM	NM	NM	NM	NM
1215	10	100	1.375	63.16	NM	NM	NM	NM	NM	NM
1220	15	200	2.375	63.19	7.83	2443	10.83	4.8	104.5	6.14
1225	20	125	3.0	63.38	7.56	2455	12.16	4.8	100.8	3.31
1230	25	95	3.475	63.40	7.53	2458	11.73	3.8	99.8	3.13
1235	30	85	3.9	63.39	7.52	2454	11.38	2.7	98.9	2.94
1240	35	110	4.45	63.39	7.52	2458	11.04	2.4	98.6	2.79
1245	40	90	4.9	63.41	7.50	2455	10.69	2.1	97.9	2.84
1250	45	90	5.35	63.40	7.50	2462	10.21	1.4	97.1	2.80
1255	50	110	5.9	63.39	7.50	2450	10.88	.85	95.5	2.62
1300	55	105	6.425	63.42	7.50	2444	11.59	.35	94.2	2.63
1305	60	90	6.875	63.41	7.49	2453	11.63	.25	93.9	2.60
1310	65	90	7.325	63.41	7.49	2456	11.33	.30	93.1	2.62
				DH = 0.34						
				High	OK	OK	OK	high	OK	OK

Purging Field Notes: Pump Settings: Fill 10 secs, Discharge 10 secs, Pressure 80 Ft. H_2O

Sampled: Explosives, Nitrate/Nitrite NonSpecific, Total Nitrate, Perchlorate, Extra Volume

NM=Not Measured

Sample Date/Time: 3/27/03 1315 Sample ID/TR #: TMW15 00838

Sampler's signature/date: Leonard M. Labrado 3/27/03

Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: TMW16
Start Date: 3/28/03
Start Time: 1330

Well Casing Diameter (in): 2.0"
Bore Hole Diameter (in): 6.0
Annular Space (AS) Length (ft): 21.3

Well TD = 142.20
Well DTW = 54.08
Water Column = 88.12

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.39
Column of water or length of AS (whichever is less)	X	21.3
Volume of water in AS (gal)	=	8.31
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	88.12
Volume of water in casing (gal)	=	14.4
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	22.71
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	113.6
ACTUAL VOLUME PURGED (gal)	=	80

Method of Purging: 2" Submersible Pump (Grundfos)

Field Parameters	Reading 3/31/03									
Time	1425	1435	1455	1510	1518	1350	1410	1430	1500	Final Sample
Volume (gal)	0	3	8	17	21	21	26	30	38	
Flow Rate (gpm)	0.22	0.15	0.25	0.53	—	0.25	0.20	0.27		N/A
DTW (ft toc)	51.09	71.35	96.77	129.74	dry	59.25	89.38	107.32	121.20	
pH	8.44	8.06	8.03	8.10	8.28	7.08	8.31	8.35	8.42	
Conductivity (µS/cm)	1832	1817	1822	1822	9	2025	1819	1827	1831	
Temperature (C)	11.94	14.35	16.26	17.44	16.68	13.31	16.08	17.66	18.46	
Turbidity (NTU)	25.0	15.7	15.0	OUT OF RANGE	OUT OF RANGE	236	19.1	19.5	316.0	
Eh/Redox (mV)	182.8	-98.4	-118.4	-106.5	-175.6	132.0	-26.7	-57.8	2.9	
DO (mg/L)	2.86	0.38	0.25	0.33	2.42	1.76	0.12	0.12	0.69	

Purging Field Notes:
Collected: RNSW09 (Tr#00870) for VOC and Perchlorate (4/3/03)

Collected VOC and perchlorate only (4/1/03)

Sample Date/Time: 4/1/03 0805 Sample ID/TR #: TMW16 00839

Sampler's signature/date: [signature] 4/4/03

Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: TMW16
Start Date: 3/28/03
Start Time: 1330

Well Casing Diameter (in): 2.0
Bore Hole Diameter (in): 6.0
Annular Space (AS) Length (ft): 21.3

Well TD = 142.20
Well DTW = 54.08
Water Column = 88.12

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.39
Column of water or length of AS (whichever is less)	X	21.3
Volume of water in AS (gal)	=	8.31
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	88.12
Volume of water in casing (gal)	=	14.4
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	22.71
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	113.6
ACTUAL VOLUME PURGED (gal)	=	80.0

Method of Purging :

Field Parameters	3/31/03	4/1/03		4/2/03		Readings 4/3/03				Final
Time	15:05	12:15	1240	1405	1435	945	1010	1017		
Volume (gal)	42	42	54	54	67	67	77	80		Sample
Flow Rate (gpm)	off	0.48	off		dry NM			off		N/A
DTW (ft toc)	dry	96.46	dry	89.79	dry	99.71	132.21	dry		
pH	8.37	7.82	8.42	8.61	NM	7.67	8.38	NM		
Conductivity (μS/cm)	1897	1850	NM	2022	NM	1947	1819	NM		
Temperature (C)	18.00	13.47	17.51	13.22	NM	13.07	17.85	NM		
Turbidity (NTU)	NM	52.6	NM	NM	NM	27.5	294	NM		
Eh/Redox (mV)	-49.8	88.9	70.9	68.5	NM	275.6	221.2	NM		
DO (mg/L)	0.62	6.40	2.66	5.22	NM	6.14	3.58	NM		

Purging Field Notes:
Collected FBI (DSWB4 (TR#00870) for VOC and perchlorate (4/3/03)

Collected VOC and perchlorate only (4/4/03)

Sample Date/Time: 4/4/03 / 0805 Sample ID/TR #: TMW16 / 00839

Sampler's signature/date: [signature] 4/4/03

Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: TMW17
Start Date: 3/28/03
Start Time: 1017

Well Casing Diameter (in): 2.0
Bore Hole Diameter (in): 6.0
Annular Space (AS) Length (ft): 23

Well TD = 130.45
Well DTW = 61.10
Water Column = 69.35

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.37
Column of water or length of AS (whichever is less)	X	23.0
Volume of water in AS (gal)	=	8.97
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	69.35
Volume of water in casing (gal)	=	11.32
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	20.29
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	100 gals
ACTUAL VOLUME PURGED (gal)	=	86.5

Method of Purging: Bailer (2" Poly)

Field Parameters	3/28/03 Reading						3/31/03 Reading			
Time	1100	1120	1140	1200	1220	1240	1045	1115	1145	Final Sample
Volume (gal)	0	5	9	13	17	20	20	26.5	32.0	
Flow Rate (gpm)	0.25 ~~0.08~~	0.20	0.20	0.20	0.15	0.22	0.18	0.16	N/A	
DTW (ft toc)	61.10	Bailing	Bailing	Bailing	Bailing	Bailing	61.32	Bailing	Bailing	
pH	10.87	10.44	10.36	10.35	10.85	11.01	9.88	9.92	10.06	
Conductivity (µS/cm)	18.49	17.52	17.44	1,662	1,867	2047	2208	2151	2104	
Temperature (C)	13.39	12.67	12.55	13.56	12.94	12.82	13.47	14.34	15.16	
Turbidity (NTU)	60.0	19.0	25.6	OUT OF RANGE	OUT OF RANGE	OUT OF RANGE	45.0	125.0	316	
Eh/Redox (mV)	33.7	120.8	127.4	164.2	166.8	146.0	74.1	72.9	77.5	
DO (mg/L)	1.48	2.48	3.57	2.46	2.18	1.75	3.72	4.67	5.34	

0.17

Purging Field Notes:
Sampled: Perchlorate, TCL VOCs

Sample Date/Time: 4/4/03 826 Sample ID/TR #: TMW17 00840

Sampler's signature/date: [signature] 4/4/03

Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: TMW17
Start Date: 3/28/03
Start Time: 1017

Well Casing Diameter (in): 2.0
Bore Hole Diameter (in): 6.0
Annular Space (AS) Length (ft): 23

Well TD = 130.45
Well DTW = 61.10
Water Column = 69.35

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.39
Column of water or length of AS (whichever is less)	X	23.0
Volume of water in AS (gal)	=	8.97
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	
Volume of water in casing (gal)	=	11.32
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	20.29
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	100 gals
ACTUAL VOLUME PURGED (gal)	=	86.5

Method of Purging : Bailer

Field Parameters	3/31/03		4/01/03							Reading
Time	1215	1230	1102							Final
Volume (gal)	37.0	40.5	53.5							Sample
Flow Rate (gpm)	0.23	0	0.12							N/A
DTW (ft toc)	Bailing	Dry	Dry							
pH	9.97	11.5	9.65							
Conductivity (µS/cm)	2006	1394	1930							
Temperature (C)	15.45	14.45	14.88							
Turbidity (NTU)	664	out of range	770							
Eh/Redox (mV)	86.9	31.8	42.1							
DO (mg/L)	4.29	5.38	5.93							

Purging Field Notes:
Purged 15 gals @ 1600 4/2/03.
Purged 18 gals @ 1615 4/3/03
Collected TMW17 for VOC and perchlorate (4/4/03)

Sample Date/Time: 4/4/03 / ~~0805~~ 0825 Sample ID/TR #: TMW17 / 00840

Sampler's signature/date: 4/4/03
Reviewer's signature/date: 4/24/07

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: TMW18
Start Date: 3/28/03
Start Time: 0759

Well Casing Diameter (in): 2.0
Bore Hole Diameter (in): 6.0
Annular Space (AS) Length (ft): 16.8

Well TD = 160.70
Well DTW = 52.75
Water Column = 107.95

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.39
Column of water or length of AS (whichever is less)	X	16.8
Volume of water in AS (gal)	=	6.55
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	107.95
Volume of water in casing (gal)	=	17.62
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	24.17
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	120.9
ACTUAL VOLUME PURGED (gal)	=	29.0

Method of Purging: 2" Submersible Pump (Grundfos)

Field Parameters	Reading							5/31/03		Final Sample
Time	0850	905	920	935	950	1005	1008	1320	13:33	
Volume (gal)	0	3.0	7.0	11.0	14.5	17.0	17.5	17.5	29.5	
Flow Rate (gpm)	0.28	0.20	0.27	0.27	0.23	0.17	off	0.54	off	N/A
DTW (ft toc)	49.02	70.30	89.30	110.00	136.05	153.5	dry	131.63	dry	
pH	12.08	12.16	12.13	12.12	12.06	12.02	12.01	12.24	12.02	
Conductivity (µS/cm)	7826	6700	6708	6680	6517	6161	6093	6174	5160	
Temperature (C)	12.50	14.39	15.50	16.14	17.84	19.47	18.64	13.33	18.26	
Turbidity (NTU)	10	2.7	2.8	2.7	4.3	2.8	nm	3.17	nm	
Eh/Redox (mV)	109.1	-16.9	-81.0	-121.8	-138.6	-140.1	-138.9	-27.9	-121.9	
DO (mg/L)	0.97	0.19	0.13	0.15	0.83	0.35	0.31	3.91	1.78	

Purging Field Notes:
Sampled: Perchlorate

Sample Date/Time: 4/4/03 758 Sample ID/TR #: TMW 18 00841

Sampler's signature/date: [signature] 4/4/03
Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: TMW18
Start Date: 3/28/03
Start Time: 0759

Well Casing Diameter (in): 2.0
Bore Hole Diameter (in): 6.0
Annular Space (AS) Length (ft): 16.8

Well TD = 160.70
Well DTW = 52.75
Water Column = 107.95

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.39
Column of water or length of AS (whichever is less)	X	16.8
Volume of water in AS (gal)	=	6.55
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	107.95
Volume of water in casing (gal)	=	17.62
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	24.17
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	120.9
ACTUAL VOLUME PURGED (gal)	=	29.0

Method of Purging: 2" Grundfos Submersible Pump

Field Parameters	4/1/03		4/2/03		Reading					Final
Time	1150	1157	1340	1350						Sample
Volume (gal)	23.5	25.5	25.5	27.5						N/A
Flow Rate (gpm)	0.29 on	off	0.20	off						
DTW (ft toc)	149.23	dry	148.60	dry						
pH	11.81	NM	12.10	NM						
Conductivity (µS/cm)	5398	NM	3879	NM						
Temperature (C)	14.77	NM	16.04	NM						
Turbidity (NTU)	NM	NM	16.0	NM						
Eh/Redox (mV)	-65.1	NM	-167.6	NM						
DO (mg/L)	1.15	NM	4.37	NM						

Purging Field Notes:
4/3/03 - purged ~1.5 gals @ 1405, purged dry
Collected TMW18 for perchlorate only

Sample Date/Time: 4/4/03 / 0758 Sample ID/TR #: TMW18 / 00241

Sampler's signature/date: [signature] / 4/4/03
Reviewer's signature/date: [signature] / 4/24/03

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: TMW19
Start Date: 3/27/03
Start Time: 1300

Well Casing Diameter (in): 2.0
Bore Hole Diameter (in): 6.0
Annular Space (AS) Length (ft): 22.8

Well TD = 187.97
Well DTW = 40.35
Water Column = 147.62

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.39
Column of water or length of AS (whichever is less)	X	22.8
Volume of water in AS (gal)	=	8.89
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	147.62
Volume of water in casing (gal)	=	24.09
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	32.98
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	164.9
ACTUAL VOLUME PURGED (gal)	=	145.0

Method of Purging: 2" Submersible Grundfos

Field Parameters	Reading 3/27/03						3/28/03			
Time	1330	1340	1400	1420	1440	1500	1510	0920	0945	Final Sample
Volume (gal)	0	0.5	7.0	14.0	19.0	26.0	31.0	31.5	41.0	
Flow Rate (gpm)	0.04	0.4	0.5	0.35	0.25	0.35	0.6	0.42	0.4	N/A
DTW (ft toc)	35.87	44.88	77.05	103.62	130.63	150.90	172.33	35.80	90.55	
pH	5.99	7.49	7.80	7.83	7.87	7.90	7.93	7.12	8.31	
Conductivity (µS/cm)	3026	2850	2870	2836	2825	2826	2812	3027	2823	
Temperature (C)	10.82	12.21	14.38	15.01	16.84	18.49	20.05	12.97	14.52	
Turbidity (NTU)	6.4	12	11.	9.1	10	15	80	129	14.6	
Eh/Redox (mV)	188.5	88.2	-41.6	-66.0	-84.5	-97.6	-113.0	-131.7	-123.2	
DO (mg/L)	1.06	0.46	0.11	0.11	0.10	0.10	0.10	0.89	0.16	

Purging Field Notes:
1st Pump Set at 172 ft bgs; water has definite odor
2nd Pump Set at 184 ft TOC.
Collected Perchlorate only.

Sample Date/Time: 4/4/03 0741 Sample ID/TR #: TMW19 00842

Sampler's signature/date: [signature] 4/4/03
Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: TMW19
Start Date: 3/27/03
Start Time: 1300

Well Casing Diameter (in): 2.0
Bore Hole Diameter (in): 6.0
Annular Space (AS) Length (ft): 22.8

Well TD = 187.97
Well DTW = 40.35
Water Column = 147.62

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.39
Column of water or length of AS (whichever is less)	X	22.8
Volume of water in AS (gal)	=	8.89
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	147.62
Volume of water in casing (gal)	=	24.09
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	32.98
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	164.9
ACTUAL VOLUME PURGED (gal)	=	145.0

Method of Purging: 2" Submersible (Grundfos)

Field Parameters	3/31/03	4/1/03			4/2 Reading			4/3/03		
Time	1010	1323	1400	1505	1229	1300	1327	1220	1338	Final Sample
Volume (gal)	50.0	50.0	60.0	84.0	84.0	102.0	114.0	114.0	145.0	
Flow Rate (gpm)	dbb	0.27	0.37	dbb	0.55	0.44	dry	0.40	dbb	N/A
DTW (ft toc)	N/A	43.21	97.91	dry	46.35	144.30	178.0	45.08	dry	
pH	—	5.54	8.35	8.28	5.72	8.41	8.32	6.21	8.32	
Conductivity (µS/cm)	—	3037	2848	3066	3062	2862	3083	3049	2928	
Temperature (C)	—	13.03	15.34	18.01	13.24	17.24	18.05	12.63	19.20	
Turbidity (NTU)	—	OUT OF RANGE	21.9	OUT OF RANGE	OUT OF RANGE	36.7	NM	77.3	out of range	
Eh/Redox (mV)	—	-29.4	-178.0	-204.0	230.8	59.0	-11.3	362.8	189.3	
DO (mg/L)	—	0.74	0.11	0.14	1.75	2.05	1.16	2.25	1.53	

Purging Field Notes:

1010 - purge UC1 code
3RD Pump Set at 185 BTOC

Collected TMW19 for perchlorate only

Sample Date/Time: 4/4/03 / 0741 Sample ID/TR #: TMW19 / 00842

Sampler's signature/date: [signature] 4/4/03

Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW21
Start Date: 4/2/03
Start Time: 1150

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 12.0'
Screened Interval (ft bgs): 48-58

Well TD: 61.31'
Well DTW: 49.87'
Water Column: 11.44
Pump Intake (ft bgs): ~~48~~ to 58'

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	11.44
Volume of water in AS (gal)	=	8.35
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	11.44
Volume of water in casing (gal)	=	1.87
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	10.22
ACTUAL VOLUME PURGED (gal)	=	6.7

Method of Purging : Low Flow Bladder Pump

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1150	0	0	0	50.29	NM	NM	NM	NM	NM	NM
1155	5	20	.10	50.46	7.76	2468	15.49	120	64.3	1.65
1200	10	20	.20	50.48	7.71	2481	16.16	150	63.8	1.38
1205	15	100	.70	50.65	7.69	2483	14.36	140	65.3	1.21
1210	20	60	1	51.05	7.70	2464	14.14	130	65.6	.96
1215	25	65	1.325	51.05	7.71	2468	14.53	140	65.0	.91
1220	30	50	1.575	51.05	7.68	2471	15.21	130	64.2	.85
1225	35	50	1.825	51.05	7.71	2466	15.45	130	64.1	.81
1230	40	50	2.075	51.05	7.70	2469	15.79	110	62.8	.78
1235	45	45	2.3	51.05	7.69	2459	15.07	100	63.8	.73
1240	50	50	2.65	51.05	7.68	2456	15.28	90	64.5	.70
				ΔH = 1.18ft						
				v. High	OK	OK	high	high	OK	high

Purging Field Notes: Pump Settings: Fill 25 secs, Discharge 5 secs, Pressure 30 psi

Sampled: Explosives, TCL VOC's, TAL Total Metals, TAL Dissolved Metals, Nitrate/Nitrite, Total Nitrate, Perchlorate

Sample Date/Time: 4/2/03 1245 Sample ID/TR #: TMW21 00857

Sampler's signature/date: [signature] 4/2/03

Reviewer's signature/date: [signature] 4/24/03

RNSW01 collected After Pump decon. Sampled: Explosive TCL VOC's TAL Total Metals, Nitrate/Nitri

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: TAMW22
Start Date: 03/28/2003
Start Time: 1123

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12

Well TD = 65.23
Well DTW = 49.80
Water Column = 15.43

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	15.43
Volume of water in casing (gal)	=	2.52
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.28
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	56.4
ACTUAL VOLUME PURGED (gal)	=	13.5

Method of Purging : Bailer

Field Parameters	03/28/03	03/28	03/28	03/31/03	03/31	Reading 04/01				
Time	1132	1142	1514	0945	1505	0830				Final
Volume (gal)	0.25	3.75	5.5	9.25	11.0	13.5				Sample
Flow Rate (gpm)	0.25	0.25	0.15	0.25	0.25	0.25				N/A
DTW (ft toc)	NM	NM	NM	NM	NM	NM				NM
pH	7.91	7.90	7.98	7.95	7.93	7.87				7.87
Conductivity (µS/cm)	3,077	3,227	3,103	3,113	3,113	3,001				3,028
Temperature (C)	11.87	11.20	10.89	12.65	13.06	12.52				14.72
Turbidity (NTU)	>999	>999	>999	>999	>999	>999				>999
Eh/Redox (mV)	60.7	28.3	173.3	332.7	333.3	313.6				288.2
DO (mg/L)	4.63	6.80	6.87	6.30	7.68	6.13				5.58

Purging Field Notes: Purged dry @ 1146 after 4.0 gallons. Start purging @ 1505 (03/28/03). Bailed dry after 5.5 total gallons @ 1514 (03/28/03). Start purging @ 0935 (03/31/03). Bailed dry @ 0949 (03/31/03) after @ 9.5 total gallons. Start purging @ 1457 (03/31/03). Bailed dry @ 1505 (03/31/03) after 11.0 gallons total. Start purging @ 0823 (04/01/03). Bailed dry @ 0830 (04/01/03) after 13.5 total gallons. Sampled for Expanded List Explosives, TCL VOCs, ~~TCL~~ Total and Dissolved TAL Metals, Total Nitrate, Nitrate/Nitrite-nonspecific, perchlorate, and Extra Volume.

Sample Date/Time: 04/01/03/1130 Sample ID/TR #: TAMW22/00864

Sampler's signature/date: [signature] /04/01/03

Reviewer's signature/date: [signature] /4/24/03

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: TMW23
Start Date: 03/28/03
Start Time: 0920

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12

Well TD = 59.57
Well DTW = 46.62
Water Column = 12.95

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	12.95
Volume of water in casing (gal)	=	2.11
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	10.87
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	54.35
ACTUAL VOLUME PURGED (gal)	=	12.5

Method of Purging : Bailer

Field Parameters	03/28/03	03/28	03/28	03/31/03	03/31 Reading 04/01					
Time	0922	0933	1455	0920	1445	0807				Final
Volume (gal)	0.25	3.0	5.0	8.0	10.0	12.5				Sample
Flow Rate (gpm)	0.25	0.25	0.25	0.25	0.25	0.25				N/A
DTW (ft toc)	NM	NM	NM	NM	NM	NM				
pH	7.88	7.83	7.94	7.89	7.93	7.77				
Conductivity (µS/cm)	3,034	3,147	3,073	3,123	3,143	3,144				
Temperature (C)	11.23	11.11	11.63	12.31	14.12	12.60				
Turbidity (NTU)	>999	>999	>999	>999	>999	>999				
Eh/Redox (mV)	266.8	262.5	165.1	285.8	340.7	306.8				
DO (mg/L)	~~266.8~~ 4.05	4.50	5.76	5.80	6.76	5.63				

Purging Field Notes: Bailed dry @ 0936 (03/28/03) after 3.75 gallons. Start purging @ 1450 (03/28/03). Bailed dry at 1455 (03/28/03) after 5.0 gallons total. Start purging @ 0910 (03/31/03). Purged dry @ 0920 (03/31/03) after total of 8.0 gallons. Start purging @ 1435 (03/31/03). Bailed dry @ 1445 (03/31/03) after 10.0 total gallons. Start purging @ 0800 (04/01/03). Bailed dry @ 0807 (04/01/03) after a total of 12.5 gallons. Sampled for Expanded List Explosives, TCL VOCs, TCL Pesticides, Total and Dissolved TAL Metals, Nitrate/Nitrite-nonspecific, Total Nitrate, Perchlorate, Extra Volume

Sample Date/Time: 04/01/03 1245

Sample ID/TR #: TMW23/00858 - Parent
TMW23/00859 - Duplicate
TMW23/00860 - Matrix Spike
TMW23/00861 - Matrix Spike Duplicate
FBLK02/00863 - Field Blank.

Sampler's signature/date: [signature] 4/4/03

Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: TMW24
Start Date: 03/26/2003
Start Time: 1240

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12.0

Well TD = 57.41
Well DTW = 41.88
Water Column = 15.53

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12.0
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	15.53
Volume of water in casing (gal)	=	2.53
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.29
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	56.5
ACTUAL VOLUME PURGED (gal)	=	14.0

Method of Purging: Disposable bailer

Field Parameters	03/26/03 Reading	03/26/03 Reading	03/27/03 Reading	03/27/03 Reading	03/28 Reading					Final Sample
Time	1253	1310	0933	1410	0856					
Volume (gal)	0.50	6.0	10.0	11.75	13.5					
Flow Rate (gpm)	0.25	0.30	0.2	0.2	0.2					N/A
DTW (ft toc)	NM	NM	NM	NM	NM					NM
pH	7.76	7.70	7.81	7.83	7.89					7.86
Conductivity (µS/cm)	3,724	3,692	3,875	3,927	3,989					3,918
Temperature (C)	12.43	12.05	10.00	11.32	10.64					11.07
Turbidity (NTU)	NM	NM	NM	510	473					671
Eh/Redox (mV)	103.3	-4.3	194.9	142.1	245.7					166.5
DO (mg/L)	2.55	3.65	5.36	4.12	6.21					5.52

Purging Field Notes:

Start purging @ 0932 (03/27/03).
Purged dry @ 1310 (03/26/03) after removing 6.0 gallons. ~~Start purging @ 1442 (03/26).~~
Purged dry @ 0933 (03/27/03) after total of 10.0 gallons. Start purging @ 1405 (03/27/03). Purged dry @ 1415 (03/27/03) after total of 12.0 gallons. Start purging @ 0850 (03/28/03). Purged dry @ 0856 after 13.5 gal (total)
Sampled for Expanded list explosives, TCL VOCs, TCL Pesticides, Total and Dissolved TAL Metals, Total Nitrate, Nitrate/Nitrite-nonspecific, perchlorate, and Extra Volume

Sample Date/Time: 03/28/03/1420 Sample ID/TR #: TMW24/#00826

Sampler's signature/date: 03/28/2003
Reviewer's signature/date: 04/24/03

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW25
Start Date: 3/26/05
Start Time: 943

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12.5
Screened Interval (ft bgs): 42.5-52.5

Well TD: 55.25
Well DTW: 40.06 ft
Water Column: 15.19
Pump Intake (ft bgs): 50.0

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12.5
Volume of water in AS (gal)	=	9.13
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	15.19
Volume of water in casing (gal)	=	2.484
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.61
ACTUAL VOLUME PURGED (gal)	=	.44

Method of Purging : QED MicroPurge

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
10:35	0	30	0	39.80	NM	NM	NM	NM	NM	NM
10:40	5	30	0.15	40.10	NM	NM	NM	NM	NM	NM
1045	10	30	0.30	40.14	NM	NM	NM	NM	NM	NM
1050	15	30	0.45	40.43	7.58	4,960	14.61	NM	267.8	4.12
1055	20	30	0.60	40.46	NM	NM	NM	NM	NM	NM
1105	30	30	0.9	40.70	7.46	4,260	14.61	5.3	269.7	1.49
1110	35	30	1.050	40.70	7.46	4,221	15.32	4.9	263.5	1.04
1120	45	30	1.350	40.70	7.48	4,221	15.83	4.1	261.3	0.83
1125	50	30	1.50	40.70	7.46	4,231	15.61	3.4	261.0	0.72
1130	55	30	1.65	40.78	7.45	4,212	15.40	3.1	260.9	0.66
1135	60	30	1.80	40.76	7.44	4,217	14.90	3.0	260.6	0.62
1140	65	30	1.95	40.75	7.44	4,976	15.33	9.2	260.8	0.59
				OH=0.69						
				V. High	OK	OK	OK	High	OK	High

Purging Field Notes: Pump Settings: Fill 27.6 secs, Discharge 2.4 secs, Pressure 30 psi

Collected Explosives, TAL Metals (Dissolved + Total), Nitrate/Nitrite, Nitrate, VOC, Pesticides, Perchlorate, and EV. (Note: Should not LF this well)

Sample Date/Time: 3/26/05 / 11:45 Sample ID/TR #: MW25 / 00827

Sampler's signature/date: 3/27/05

Reviewer's signature/date: 4/24/05

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: TMW26
Start Date: 03/26/2003
Start Time: 0928

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12

Well TD = 58.24
Well DTW = 26.92
Water Column = 31.32

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	31.32
Volume of water in casing (gal)	=	5.11
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	13.87
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	69.4
ACTUAL VOLUME PURGED (gal)	=	~~28.~~ 29.0 JAH 03/28/2003

Method of Purging : Bailer

Field Parameters	03/26/03	03/26	03/26	03/27	03/27 Reading 03/27					
Time	0930	0955	1498	0827	1140	0911				Final
Volume (gal)	0.25	8.0	13.0	18.5	21.5	28.0				Sample
Flow Rate (gpm)	0.20	0.20	0.4	0.8	0.8	1.0				N/A
DTW (ft toc)	29.95	54.10	54.32	54.21	54.30	58.01				NM
pH	6.86	7.72	7.06	7.44	7.77	7.79				7.97
Conductivity (µS/cm)	4,523	4,850	4,424	4,439	4,413	4,547				4,268
Temperature (C)	11.99	13.55	13.42	12.29	12.46	10.88				11.54
Turbidity (NTU)	NM	NM	NM	NM	NM	NM				837
Eh/Redox (mV)	146.5	27.5	46.0	154.4	276.9	219.6				148.2
DO (mg/L)	0.80	0.24	1.69	2.81	7.00	3.31				6.36

Purging Field Notes:
Purged dry @ 0957 after 8.0 gallons. Start purging @ 1442 (03/26/03). Purged dry @ 1451 after 13.0 gallons total. Start purging @ 0820 (03/27/03). Purged dry @ 0827 (03/27/03) after 18.5 gallons total. Start purging @ 1136 (03/27/03). Purged dry @ 1140 (03/27/03) after 21.5 gallons total. Start purging @ 0911 (03/28/03). Purged dry @ 0915 after 28 gallons total. Sampled for Explosives, Pesticides, VOCs, Total & Dissolved TAL Metals, total nitrate, nitrate/nitrite nonspecific, perchlorate, extra volume

Sample Date/Time: 03/28/03 1225 Sample ID/TR #: TMW26/ 00824

Sampler's signature/date: [signature] 03/28/2003
Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW27
Start Date: 3/26/03
Start Time: 850

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 14.0'
Screened Interval (ft bgs): 60-70

Well TD: 73.26'
Well DTW: 28.74'
Water Column: 44.52'
Pump Intake (ft ~~bgs~~ toc): 73'

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	14
Volume of water in AS (gal)	=	10.22
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	44.52
Volume of water in casing (gal)	=	7.26
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	17.48
ACTUAL VOLUME PURGED (gal)	=	1.17

Method of Purging : Low Flow Bladder Pump

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
850	0	0	0	28.70	NM	NM	NM	NM	NM	NM
900	10	0	0	28.70	NM	NM	NM	NM	NM	NM
905	15	0	0	28.78	NM	NM	NM	NM	NM	NM
910	20	0	0	28.76	NM	NM	NM	NM	NM	NM
915	25	0	0	28.75	NM	NM	NM	NM	NM	NM
920	30	0	0	28.80	NM	NM	NM	NM	NM	NM
925	35	0	0	28.80	NM	NM	NM	NM	NM	NM
930	40	0	0	28.81	NM	NM	NM	NM	NM	NM
935	45	0	0	28.83	7.78	1609	12.31	NM	44.5	4.54
940	50	0	0	28.82	7.76	1585	14.58	NM	33.1	4.65
* 945	55	~~0~~ 5 ml/min	~~0~~ .15	28.82	7.75	1599	12.89	NM	34.6	3.45
950	60	108	.275	28.84	7.74	1599	12.72	7.4	32.3	2.78
955	65	95	1.089 .815	29.20	7.70	1589	12.87	18	22.7	1.83
1000	70	95	1.765	29.22	7.69	1582	13.52	22	16.8	1.10
1005	75	95	2.24	29.22	7.69	1590	13.46	22	15.9	.83
1010	80	80	2.64	29.22	7.70	1587	13.42	21	18.0	.67

* Pressure Increase to Increase Flow Rate

Purging Field Notes: Pump Settings: Fill 25 secs, Discharge 5 secs, Pressure 40 psi

Sampled: Explosives, TCL VOL's, TAL Total Metals, TAL Dissolved Metals VM-Not measured Nitrate/Nitrite Nonspecific, Total Nitrate, Perchlorate, Extra Volume

Sample Date/Time: 3/26/03 1040 Sample ID/TR #: TMW27 00823

Sampler's signature/date: Leonard M. Sabato 3/26/03

Reviewer's signature/date: [signature] 4/24/03

PMC Environmental

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW27
Start Date: 3/26/03
Start Time: 850

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 14
Screened Interval (ft bgs): 60-70

Well TD: 73.26
Well DTW: 28.74
Water Column: 44.52
Pump Intake (ft ~~bgs~~ toc): 68'

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	14
Volume of water in AS (gal)	=	10.22
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	44.52
Volume of water in casing (gal)	=	7.26
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	17.48
ACTUAL VOLUME PURGED (gal)	=	1.1731

Method of Purging: Low Flow Bladder Pump AAA/3.785

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1015	85	80	3.09	29.22	7.69	1574	13.40	20	17.0	.58
1020	90	60	3.34	29.22	7.70	1567	13.62	20	24.7	.5
1025	95	70	3.69	29.08	7.72	1575	13.71	19	52.3	.41
1030	100	75	4.065	29.11	7.70	1577	13.11	18	34.8	.41
1035	105	75	4.44	29.09	7.70	1567	12.99	20	21.9	.42
				Δ=0.35						
				high	OK	OK	high	OK	v. high	ok
									—	

Purging Field Notes: Pump Settings: Fill 25 secs, Discharge 5 secs, Pressure 40 psi

Sampled: Explosives, TCL VOC's, TAL Total Metals, TAL Dissolved Metals, Nitrate/Nitrite NONspecific, Total Nitrate, Perchlorate,

Sample Date/Time: 3/26/03 1040 Sample ID/TR #: TMW27 00823

Sampler's signature/date: Leonard M. Schultz 3/26/03

Reviewer's signature/date: [signature] 4/24/03

PMC Environmental

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: TMW28
Start Date: 03/25/2003
Start Time: 1100

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12

Well TD = 50.30
Well DTW = 17.56
Water Column = 32.74

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	~~0.1632~~ 0.73
Column of water or length of AS (whichever is less)	X	~~32.74~~ 12.0
Volume of water in AS (gal)	=	~~5.~~ 8.76
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	32.74
Volume of water in casing (gal)	=	5.34
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	14.1
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	70.5
ACTUAL VOLUME PURGED (gal)	=	75.7

Method of Purging: QED Bladder Pump

slowed pump ↓ to sample

Field Parameters	03/25/03	03/25/03	03/25/03	03/25/03	03/25 Reading	03/25	3/26	3/26	3/26	3/26
Time	1307	1338	1410	1456	1530	1615	0800	0815	0844	Final Sample
Volume (gal)	0	5	14	30	45	60	60	65.6	75.7	
Flow Rate (gpm)	—	0.17	0.35	0.40	0.45	0.35	0.37	0.34	0.35	N/A
DTW (ft toc)	17.29	21.50	25.25	28.78	29.08	29.15	17.08	24.57	21.20	20.03
pH	—	7.31	7.32	7.38	7.47	8.20	6.85	7.00	7.16	7.12
Conductivity (µS/cm)	—	1332	1,265	1,283	1,225	1,200	1,337	1,323	1,329	1,323
Temperature (C)	—	11.52	11.45	11.47	11.42	11.38	11.04	11.13	10.95	11.01
Turbidity (NTU)	—	50	20	10	9.1	8.7	180	27	100	13
Eh/Redox (mV)	—	66.2	54.6	47.5	53.5	20.1	131.2	146.5	71.7	79.3
DO (mg/L)	—	0.20	0.28	0.16	0.16	0.16	0.32	0.33	0.21	0.26

Purging Field Notes:
Start purging w/ QED Bladder pump. ~~Not able to sustain high enough flow~~ (SA# 03/25/03)
Pump settings: Discharge = 2.0 sec, Refill = 2.5 sec, Pressure = 65 psi
Stop purging @ 1615 on 03/25/2003.
Problem w/ Pump @ 0820 3/26/03 - would quit pumping

Sample Date/Time: 3/26/03 / 0845 Sample ID/TR #: TMW28/00822

Sampler's signature/date: Angela E Neeley 3/26/03
Reviewer's signature/date: Neeley 4/24/03

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: TMW29
Start Date: 03/27/2003
Start Time: 1040

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12

Well TD = 61.65
Well DTW = 56.78
Water Column = 4.87

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	4.87
Volume of water in AS (gal)	=	3.6
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	4.87
Volume of water in casing (gal)	=	0.8
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	4.4
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	22
ACTUAL VOLUME PURGED (gal)	=	7.0

Method of Purging : Bailer

Field Parameters	03/27/03	03/27	03/27	03/28/03	03/28 Reading					
Time	1038	1308	1435	0835	0956					Final
Volume (gal)	0.25	2.75	4.25	5.25	6.25					Sample
Flow Rate (gpm)	0.25	0.25	0.25	0.25	0.33					N/A
DTW (ft toc)	NM	NM	NM	NM	NM					NM
pH	8.83	8.45	8.42	8.31	8.34					8.26
Conductivity (µS/cm)	2,020	2,070	2,093	2,147	2,110					2,219
Temperature (C)	11.19	11.47	11.63	11.32	10.20					12.43
Turbidity (NTU)	>999	100	89	97	88					137
Eh/Redox (mV)	182.0	190.5	173.9	205.0	266.5					162.1
DO (mg/L)	4.58	3.96	4.97	4.80	5.89					6.70

Purging Field Notes: Purged dry at 1046 (03/27/03) after 1.75 gallons. Start purging @ 1300 (03/27). Purged dry @ 1340 (03/27) after 3.0 total gallons. Start purging @ 1430 (03/27/03). Purged dry @ 1435 (03/27) after 4.25 gallons total. Start purging @ 0830 (03/28/03). Purged dry @ 0838 (03/28/03) after 6.0 gallons total. Start purging @ 0953 (03/28/03). Purged dry @ 1000 (03/28/03) after 6.75 total gallons. Sampled for expanded list explosives, TCL VOCs, Total and dissolved TAL Metals, Total nitrate, nitrate/nitrite nonspecific, perchlorate, and Extra Volume

Sample Date/Time: 03/28/03/1315 Sample ID/TR #: TMW29/TR# 00836

Sampler's signature/date: [signature] 03/28/2003

Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: FW10
Start Date: 03/31/03
Start Time: 1000

Well Casing Diameter (in): 4
Bore Hole Diameter (in): 10
Annular Space (AS) Length (ft): 42 (Approx)

Well TD = 50.91
Well DTW = 48.88
Water Column = 2.03

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	1.03
Column of water or length of AS (whichever is less)	X	2.03
Volume of water in AS (gal)	=	2.10
Gallons per foot of casing (from chart on back)	=	0.6528
Column of water	X	2.03
Volume of water in casing (gal)	=	1.27
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	3.37
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	16.85
ACTUAL VOLUME PURGED (gal)	=	1.75

Method of Purging: Bailer

Field Parameters	03/31 Reading									
Time	1010	1019								Final
Volume (gal)	0.2	1.5								Sample
Flow Rate (gpm)	0.2	0.2								N/A
DTW (ft toc)	NM	NM								
pH	7.42	7.43								
Conductivity (µS/cm)	7,039	7,290								
Temperature (C)	13.69	13.19								
Turbidity (NTU)	7.83	11.1								
Eh/Redox (mV)	319.2	337.1								
DO (mg/L)	5.64	6.43								

Purging Field Notes: Bailed dry @ 1020 (03/31/03) after 1.75 gallons.
1515 (03/31/03) - Not enough water to bail.

Collected 1/2 liter for explosives 4/3/03, only ~6" H2O in well.
Collected remaining volume for explosives 4/3/03
Collected 1/2 -250ml perchlorate 4/4/03.

Sample Date/Time: 4/3/03/0830 Sample ID/TR #: FW10/00854

Sampler's signature/date: A Deets 4/3/03
Reviewer's signature/date: A Deets 4/24/03

WELL SAMPLING DATA FORM

Well Number: FW38 Date: 2/7/97 Time: 1440 TD = 15?

Boring Number: FW38 Well casing diameter: _____ DTW = 7.23

Annular space length: _____ Stickup: _____ Column: _____

COLUMN OF WATER IN WELL

Gallons per foot of annular space (A.S.)	= 0.73
Column of water or length of A.S. (whichever is less)	x 7.7
Volume of annular space	= 5.6
Gallons per foot of casing	= 0.1632
Column of water	x 7.7
Volume of casing	= 1.2
TOTAL VOLUME (A.S. + Casing)	= 6.8
Number of volumes to be evacuated	= 5
Total volume to be evacuated	= 34
TOTAL VOLUME PURGED	= 2gallons

Method of purging: Disposible bailer

Sample date/time: 2/10/97 1730 Explosives Sample Number: FW3802 5011

FIELD PARAMETERS	UNITS	READING #1	#2	#3	#4	#5		
VOL REMOVED	GAL	.25	1					
pH		7.12	7.10					
Conductivity	µMHOS	1500	1500					
Temperature	°C	6.6	7.8					
TURBIDITY	NTU	>200	115					

Sampler's signature/date: EL MV Kathleen E Hoffman 2/18/97 52 73.7 00

Reviewer's signature/date: _____

2/7 1440 Dry (Bail) .75gal

2/8 1150 Dry 1.25gal

2/10 1730 Collect 2 l explosives

2/10 1045 Collect TDS

ERM

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW1
Start Date: 4/1/03
Start Time: 810

Well Casing Diameter (in): 4.0"
Bore Hole Diameter (in): 10.5"
Annular Space (AS) Length (ft): ~22'
Screened Interval (ft bgs): 33.6-53.6

Well TD: 54.66
Well DTW: 39.70
Water Column: 14.96
Pump Intake (ft ~~bgs~~ toc): 48'

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	1.03
Column of water or length of AS (whichever is less)	X	14.96
Volume of water in AS (gal)	=	15.41
Gallons per foot of casing (from chart on back)	=	.6528
Column of water	X	14.96
Volume of water in casing (gal)	=	9.765
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	25.175
ACTUAL VOLUME PURGED (gal) 2.6 / 3.785	=	.6869

Method of Purging : Low Flow Bladder Pump

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
810	0	0	0	39.19	NM	NM	NM	NM	NM	NM
815	5	100	.5	40.35	7.48	3773	15.87	75	73.2	3.08
820	10	45	.725	41.49	7.33	3842	15.17	75	77.0	1.69
825	15	55	1	41.41	7.33	3839	15.04	70	76.9	1.70
830	20	40	1.2	41.49	7.33	3832	14.92	70	77.7	1.63
835	25	45	1.425	41.49	7.33	3829	14.98	80	77.5	1.61
840	30	40	1.625	41.51	7.34	3823	15.06	140	78.6	1.47
845	35	40	1.825	41.45	7.34	3823	15.16	190	79.3	1.42
850	40	45	2.05	41.41	7.34	3821	15.21	210	78.8	1.42
855	45	35	2.225	41.41	7.35	3821	15.22	210	79.6	1.36
900	50	35	2.4	41.41	7.36	3820	15.27	210	79.5	1.38
905	55	40	2.6	41.41	7.36	3820	15.33	170	80.0	1.36
				Δ H = 1.71 ft						
				V. High	OK	OK	OK	High	OK	OK

Purging Field Notes: Pump Settings: Fill 55 secs, Discharge 5 secs, Pressure 27 psi

Sampled: TCL VOC's, TCL Pesticides, Nitrate/Nitrite, Total Nitrate Perchlorate

NM = Not Measured

Sample Date/Time: 4/1/03 910 Sample ID/TR #: MW1 00851

Sampler's signature/date: Leonard M. Salvato 4/1/03

Reviewer's signature/date: [illegible] 4/26/03

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW2
Start Date: 4/1/03
Start Time: 1035

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 10.5"
Annular Space (AS) Length (ft): ~12'
Screened Interval (ft bgs): 37-47

Well TD: 49.33
Well DTW: 35.47
Water Column: 13.86
Pump Intake (ft bgs): 45' toc

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	1.17
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	14.04
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	13.86
Volume of water in casing (gal)	=	2.26
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	16.3
ACTUAL VOLUME PURGED (gal)	=	.819 3.1/3.786 =

Method of Purging : Low Flow Bladder Pump

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1035	0	0	0	35.04	NM	NM	NM	NM	NM	NM
1040	5	90	.45	37.39	6.83	2001	15.17	130	19.7	1.23
1045	10	55	.725	37.45	6.77	2007	15.23	90	36.0	1.04
1050	15	55	1	37.45	6.77	2014	15.05	95	49.8	1.06
1055	20	60	1.3	37.45	6.77	2010	15.06	85	56.9	.99
1100	25	60	1.6	37.45	6.76	2008	15.08	75	61.1	.97
1105	30	65	1.925	37.45	6.76	2007	15.15	70	64.1	.94
1110	35	55	2.2	37.45	6.77	2007	15.27	55	62.8	.92
1115	40	60	2.5	37.45	6.77	2009	15.29	33	59.3	.92
1120	45	60	2.8	37.45	6.77	1999	15.36	29	42.2	.89
1125	50	60	3.1	37.45	6.78	1998	15.43	25	24.7	.89
				Δ tf 1.98 ft						
				V High	OK	OK	OK	high	V. High	OK

Purging Field Notes: Pump Settings: Fill 53 secs, Discharge 7 secs, Pressure 27 psi
Sampled: TCL VOC's, TCL Pesticides, Nitrate/Nitrite, Total Nitrate Perchlorate

Sample Date/Time: 4/1/03 1130 Sample ID/TR #: MW2 60852
Sampler's signature/date: Leonard M. Dalton 4/1/03
Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW3
Start Date: 3/31/03
Start Time: 1320
Well TD: 56.11
Well DTW: 45.02
Water Column: 11.09
Pump Intake (ft ~~bgs~~ toc): 54'

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 10.5
Annular Space (AS) Length (ft): ~ 12
Screened Interval (ft bgs): 43-53

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	1.17
Column of water or length of AS (whichever is less)	X	11.09
Volume of water in AS (gal)	=	12.98
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	11.09
Volume of water in casing (gal)	=	1.81
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	14.79
ACTUAL VOLUME PURGED (gal) 3.775	=	.997

Method of Purging : Low Flow Bladder Pump

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1320	0	0	0	45.20	NM	NM	NM	NM	NM	NM
1325	5	85	.425	45.16	7.21	4907	17.26	150	54.7	3.69
1330	10	75	.8	45.21	7.10	5141	15.73	800	64.1	2.21
1335	15	85	1.225	45.19	7.09	5122	15.90	550	64.1	1.44
1340	20	70	1.575	45.19	7.09	5124	15.82	320	63.7	1.21
1345	25	75	1.95	45.15	7.09	5041	15.99	160	61.9	1.15
1350	30	75	2.325	45.15	7.11	5033	15.96	110	61.4	1.11
1355	35	75	2.7	45.14	7.11	5029	15.68	60	61.4	1.06
1400	40	70	3.05	45.14	7.11	5002	15.58	50	61.1	1.05
1405	45	70	3.4	45.14	7.11	4944	15.67	39	60.7	1.04
1410	50	75	3.775	45.14	7.12	4927	15.53	36	60.7	1.0
				ΔH=0.12						
				ok	ok	OK	OK	high	ok	OK

Purging Field Notes: Pump Settings: Fill 11 secs, Discharge 9 secs, Pressure 25 psi

Sampled: TCL VOC's, TCL Pesticides, Nitrate/Nitrite, Total Nitrate
Perchlorate

Sample Date/Time: 3/31/03 1415 Sample ID/TR #: MW3 00853

Sampler's signature/date: Leonard M. [signature] 3/31/03

Reviewer's signature/date: [signature] 4/24/03

PMC Environmental

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW18D
Start Date: 3/28/03
Start Time: 800

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 13'
Screened Interval (ft bgs): _____

Well TD: 59.90
Well DTW: 41.09
Water Column: 18.81
Pump Intake (ft ~~bgs~~ TOC): 55'

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	13
Volume of water in AS (gal)	=	9.49
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	18.81
Volume of water in casing (gal)	=	3.0697
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.56
ACTUAL VOLUME PURGED (gal)		2.975 / 3.75 / .78599

Method of Purging: Low Flow Bladder Pump

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
800	0	0	0	41.69	NM	NM	NM	NM	NM	NM
805	5	190	.95	41.91	NM	NM	NM	NM	NM	NM
810	10	190	1.9	42.49	7.28	8382	10.43	9.9	204.8	4.02
815	15	0	1.9	43.29	7.23	8709	11.60	NM	201.4	2.47
820	20	30	2.05	43.31	7.25	8851	9.40	7.3	196.4	2.25
825	25	20	2.15	43.39	7.23	8752	8.13	7.4	194.4	2.13
830	30	20	2.25	43.38	7.24	8845	6.95	6.5	192.3	1.88
835	35	15	2.325	43.38	7.24	8687	6.45	6.1	190.5	1.79
840	40	20	2.425	43.38	7.24	8670	6.12	5.7	188.5	1.75
845	45	10	2.475	43.42	7.25	8611	6.32	5.2	185.7	1.75
850	50	20	2.575	43.42	7.27	8657	6.06	5.5	184.2	1.71
855	55	20	2.675	43.43	7.26	8572	6.19	5.0	182.2	1.66
900	60	20	2.775	43.43	7.27	8517	6.41	5.7	180.1	1.69
905	65	20	2.875	43.43	7.27	8500	6.51	NM	178.6	1.64
910	70	20	2.975	43.44	7.27	8435	6.97	5.2	176.3	1.61
				OH = 2.35'	OK	OK	High	OK	OK	OK

Purging Field Notes: Pump Settings: Fill V. High 20 secs, Discharge 10 secs, Pressure 30 psi

Sampled: TCL VOC's TCL Pesticides, Nitrate/Nitrite, Total Nitrate, Perchl
Flow Rate may have been higher some leak through top of 4" SI NM = Not Measured

Sample Date/Time: 3/28/03 915 Sample ID/TR #: MW18D
Sampler's signature/date: Leonard W. Galloway 3/28/03
Reviewer's signature/date: A Dotts 4/24/03

Parent 00844
Field Duplicate 00845
Matrix Spike 00846
Matrix Spike Duplicate 0089
KNSW02 00848

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW-20
Start Date: 3/28/03 3/31/03 PU
Start Time: 0713 755

Well Casing Diameter (in): 2.0
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 13
Screened Interval (ft bgs): 49.38 - 57.38

Well TD: 59.40
Well DTW: 44.19
Water Column: 15.21
Pump Intake (ft bgs): 52.5ft (55 ft TOC)

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	13
Volume of water in AS (gal)	=	9.49
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	15.21
Volume of water in casing (gal)	=	2.48
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.97
ACTUAL VOLUME PURGED (gal) 3.325 / 3.785	=	.878946

Method of Purging: QED MicroPurge Low Stress

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
755	0	0	0	44.28	NM	NM	NM	NM	NM	NM
800	5	20	.10	44.22	NM	NM	NM	NM	NM	NM
805	10	20	.20	44.21	NM	NM	NM	NM	NM	NM
810	15	20	.30	44.22	NM	NM	NM	NM	NM	NM
815	20	20	.40	44.21	NM	NM	NM	NM	NM	NM
820	25	50	.65	44.31	6.93	19318	9.86	NM	171.1	4.18
825	30	55	.925	44.32	6.83	19632	11.19	7.0	171.1	4.02
830	35	55	1.2	44.32	6.79	19929	11.90	3.2	169.5	3.70
835	40	40	1.4	44.32	6.79	20111	12.34	1.7	167.9	3.56
840	45	65	1.725	44.32	6.78	20241	12.48	.90	166.6	3.43
845	50	60	2.025	44.32	6.79	20171	12.73	.75	165.3	3.36
850	55	65	2.35	44.32	6.79	20184	12.90	.45	163.6	3.16
855	60	65	2.675	44.32	6.79	20229	12.93	.05	162.3	3.13
900	65	65	3	44.32	6.79	20246	12.98	.20	161.1	3.05
905	70	65	3.325	44.32	6.79	20251	13.08	.25	160.0	3.05
LS 910	~~75~~			DW=D.TOC OK	OK	OK	OK	High	OK	OK

Purging Field Notes: Pump Settings: Fill 25 secs, Discharge 5 secs, Pressure 70 Ft H2O psi

Sampled: TCL VOC's, TCL Pesticides, Nitrate/Nitrite, Total Nitrate Perchlorate

Sample Date/Time: 3/31/03 910 Sample ID/TR #: MW20 00843

Sampler's signature/date: Leland M. Sollers 3/28/03

Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW22D
Start Date: 3/31/03
Start Time: 1040

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 13
Screened Interval (ft bgs): 47-57

Well TD: 58.62'
Well DTW: 40.52'
Water Column: 18.1
Pump Intake (ft bgs): 54' toc

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	13
Volume of water in AS (gal)	=	9.49
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	18.1
Volume of water in casing (gal)	=	2.95
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.44
ACTUAL VOLUME PURGED (gal) 9.675/3.785	=	2.556

Method of Purging: Low Flow Bladder Pump

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1040	0	0	0	40.61	NM	NM	NM	NM	NM	NM
1045	5	100	.5	40.50	NM	NM	NM	NM	NM	NM
1050	10	160	1.3	40.66	7.21	5691	15.36	29	99.9	3.51
1055	15	140	2	40.65	7.03	6991	15.36	55	103.0	1.84
1100	20	145	2.725	40.65	7.03	6969	15.38	50	102.5	1.64
1105	25	140	3.425	40.65	7.03	6704	15.37	37	100.7	1.54
1110	30	135	4.1	40.65	7.04	6350	15.38	36	98.4	1.42
1115	35	140	4.8	40.65	7.04	6224	15.37	35	98.6	1.37
1120	40	145	5.525	40.65	7.05	6087	15.33	30	97.2	1.35
1125	45	140	6.225	40.66	7.06	5872	15.33	28	95.3	1.26
1130	50	140	6.925	40.66	7.06	5778	15.32	25	95.1	1.23
1135	55	135	7.6	40.66	7.06	5669	15.32	18	94.3	1.25
1140	60	140	8.3	40.66	7.06	5612	15.38	16	94.2	1.23
1145	65	135	8.975	40.66	7.07	5551	15.41	13	93.2	1.22
1150	70	140	9.675	40.66	7.07	5508	15.40	12	93.0	1.21
				Δ=0.14 OK	OK	OK	OK	high	OK	OK

Purging Field Notes: Pump Settings: Fill 11 secs, Discharge 4 secs, Pressure 30 psi

Sampled: TCL VOC's, TCL Pesticides, Nitrate/Nitrite, Total Nitrate Perchlorate

Sample Date/Time: 3/31/03 1200 Sample ID/TR #: MW22D 00850

Sampler's signature/date: [signature] 3/31/03

Reviewer's signature/date: [signature] 4/24/03

PMC Environmental

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: MW22S
Start Date: 03/31/03
Start Time: 1050

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 13

Well TD = 43.54
Well DTW = 40.48
Water Column = 3.06

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	3.06
Volume of water in AS (gal)	=	2.23
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	3.06
Volume of water in casing (gal)	=	0.50
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	2.73
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	13.65
ACTUAL VOLUME PURGED (gal)	=	6.25

Method of Purging: Bailer

Field Parameters	03/31/03	03/31	03/31	04/01/03	Reading					
Time	1332	1349	1554	0920						Final
Volume (gal)	0.25	1.5	2.5	3.75						Sample
Flow Rate (gpm)	0.25	0.25	0.25	0.25						N/A
DTW (ft toc)	NM	NM	NM	NM						
pH	7.12	7.32	7.32	7.06						
Conductivity (µS/cm)	3,830	3,892	3,993	4,082						
Temperature (C)	16.26	14.85	15.38	14.51						
Turbidity (NTU)	11.1	125	107	115						
Eh/Redox (mV)	377.9	343.5	336.5	349.4						
DO (mg/L)	3.93	5.83	5.93	5.67						

Purging Field Notes: Purged dry @ ~~1332~~ 1349 (03/31) after 1.5 gallons, start purging @ 1549 (03/31/03). Purged dry @ 1554 (03/31/03) after 2.5 total gallons. Start purging @ 0915 (04/01/03). Bailed dry @ 0920 (04/01/03) after 3.75 total gallons. Start purging @ 1605 (04/01/03). Bailed dry @ 1610 (04/01/03) after a total of 4.75 gallons.
Bailed Dry after ~~1~~ 1.50 gals on 4/2/03 @ 1615
Collected VOCs, Pesticides, Nitrate/Nitrite, Nitrate, and perchlorate.

Sample Date/Time: 4/3/03 / 855 Sample ID/TR #: MW22S / 00849

Sampler's signature/date: [signature] 4/3/03

Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: SMW01
Start Date: 3/26/03
Start Time: 1250

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 23.31
Screened Interval (ft bgs): 29.9-49.9

Well TD: 52.15
Well DTW: 30.20
Water Column: 21.95
Pump Intake (ft ~~bgs~~ toc): 40'

WELL VOLUME CALCULATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	8
Volume of water in AS (gal)	=	5.84
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	21.95
Volume of water in casing (gal)	=	3.58
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	9.42
ACTUAL VOLUME PURGED (gal) 8.2/3.785	=	2.16

Method of Purging : Low Flow Bladder Pump

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1250	0	0	0	30.11	NM	NM	NM	NM	NM	NM
1255	5	145	.725	30.11	7.66	2319	14.22	1.5	99.6	4.94
1300	10	125	1.35	30.11	7.62	2378	13.41	1.3	75.8	1.10
1305	15	170	2.2	30.11	7.62	2399	13.24	.90	83.8	1.74
1310	20	145	2.925	30.11	7.63	2407	13.33	.90	92.0	1.88
1315	25	165	3.75	30.11	7.65	2427	12.97	.40	92.9	2.12
1320	30	160	4.55	30.11	7.65	2426	12.95	.35	94.2	2.04
1325	35	165	5.375	30.11	7.65	2436	12.90	.35	97.2	1.96
1330	40	165	6.2	30.11	7.65	2425	13.05	.40	98.2	1.80
1335	45	160	7	30.11	7.66	2408	13.00	.65	98.4	1.75
1340	50	40 NM LS	7.2	NM	NM	NM	NM	NM	NM	NM
1350	60	40	7.4	32.12	7.67	2401	14.03	.80	95.1	1.58
1355	65	40	7.6	32.03	7.68	2400	14.71	.25	102.2	1.51
1400	70	40	7.8	32.03	7.69	2397	15.07	.05	102.1	1.53
1405	75	40	8	31.90	7.68	2398	15.30	.00	101.8	1.52
1410	80	40	8.2	31.85	7.67	2394	15.48	.00	104.4	1.21

[Margin note beside rows 1250–1335:] WAT[…] LEVE[…] Mete[…] Work[…] inapp[…]rately •Pum[…] Set i[…] Screen[…] Water drips [...] Meter

Purging Field Notes: Pump Settings: Fill ~~10~~ 24 (ΔH=1.65 SS, v. High; OK) secs, Discharge ~~24~~ 6 (OK; OK) secs, Pressure ~~25~~ (LS; OK) psi 25 PSI (high)

Sampled: Pesticides, Nitrate/Nitrite, Total Nitrate, Perchlorate

Sample Date/Time: 3/26/03 1415   Sample ID/TR #: SMW01 00825

Sampler's signature/date: [signature] 3/26/03

Reviewer's signature/date: [signature] 4/24/03

PMC Environmental

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: Wingate 89
Start Date: 3/25/03
Start Time: 1030

Well Casing Diameter (in): 12.8''
Bore Hole Diameter (in): 12.8"
Annular Space (AS) Length (ft): NA

Well TD = 102.43
Well DTW = 15.37
Water Column = 87.06

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	NA
Column of water or length of AS (whichever is less)	X	87.06
Volume of water in AS (gal)	=	NA
Gallons per foot of casing (from chart on back)	=	5.8748
Column of water	X	87.06
Volume of water in casing (gal)	=	511.4600
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	511.46
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	1534.38
ACTUAL VOLUME PURGED (gal)	=	1580

Method of Purging : 2" Grunfos

Field Parameters	Reading			*					Final Sample
Time	1030	1050	1120	1150	1220	1250	1320		
Volume (gal)	0	200	500	800	1100	1340	1580		
Flow Rate (gpm)	10	10	10	10	8	8	off		N/A
DTW (ft toc)	15.26	32.80	48.0	56.50	61.75	62.0	62.40		/
pH	8.16	8.08	7.98	7.99	8.14	7.94	7.91		7.93
Conductivity (μS/cm)	1339	1324	1316	1320	1199	1307	1333		1190
Temperature (C)	14.25	14.27	15.77	16.52	17.90	15.44	15.15		14.67
Turbidity (NTU)	4.5	56	4.5	28	32	26	4.5		65
Eh/Redox (mV)	-110.7	-122.4	-91.4	-62.7	-160.6	-52.5	-33.4		-22.7
DO (mg/L)	2.90	1.63	4.30	1.39	.99	1.18	1.46		2.44

Purging Field Notes: Pump Intake 97.0'
Sampled: Explosives, TCL VOC's, TAL total Metals, TAL Dissolved Me
Nitrate/Nitrite Non Specific, Total Nitrate, Perchlorate, Extra Volum
* Pump was pulled up to 64' at 1220

Sample Date/Time: 3/25/03 Sample ID/TR #: Wingate 89 00821

Sampler's signature/date: Leonard M. [signature] 3/25/03

Reviewer's signature/date: S. Dette 4/24/03

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: Wingate 90
Start Date: 10/31/02
Start Time: 825

Well Casing Diameter (in): 8.6
Bore Hole Diameter (in): ND
Annular Space (AS) Length (ft): N/A

Well TD = 99.14 ft toc.
Well DTW = 14.04 ft toc.
Water Column = 85.10 ft
Pump Intake: 92

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	NA
Column of water or length of AS (whichever is less)	X	85.10
Volume of water in AS (gal)	=	NA
Gallons per foot of casing (from chart on back)	=	2.6110
Column of water	X	85.10
Volume of water in casing (gal)	=	222.19
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	[illegible]
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	1110.98
ACTUAL VOLUME PURGED (gal)	=	1215

Method of Purging: 4" Grundfos Pump

Field Parameters	Reading 915									
Time	825	835	845	855	905	915	925	935	945	Final
Volume (gal)	15	165	315	465	615	765	915	1065	1215	Sample
Flow Rate (gpm)	15	15	15	15	15	15	15	15	15	N/A
DTW (ft toc)	22.10	23.84	24.19	24.95	24.81	25.01	25.08	25.36	25.49	25.53
pH	8.43	8.12	8.29	8.14	8.30	8.29	7.99	8.04	8.25	8.25
Conductivity (µS/cm)	1245	1234	1236	1238	1225	1237	1236	1236	1243	1234
Temperature (C)	11.38	12.13	12.17	11.93	12.12	12.02	11.72	12.27	12.11	12.52
Turbidity (NTU)	10	650	95	85	65	55	45	30	28	40
Eh/Redox (mV)	108.7	14.3	-16.9	2.4	-43.6	-17.9	20.2	19.6	19.6	19.0
DO (mg/L)	6.73	7.86	6.90	5.99	7.37	7.82	7.76	7.66	8.50	8.46

Purging Field Notes: Pump Intake: 92'

Sample Date/Time: 10/31/02 1000
Sample ID/TR #: @Wingate 90, 00734
Sampler's signature/date: Leonard M. [illegible] 10/31/02
Reviewer's signature/date: [illegible] 11/21/02

Parameters:
TEL Explosive
TCL VOC's
TAL Total Met
00727 FD N. trate/N. trite
00728 MS Total N. trate
00729 MSD Perchlorat
Extra Volum

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: Wingate 91
Start Date: 3/24/03
Start Time: 1150

Well Casing Diameter (in): 12"
Bore Hole Diameter (in): —
Annular Space (AS) Length (ft): N/A

Well TD = 113.12 ft.
Well DTW = 14.39 ft.
Water Column = 98.73 ft

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	NA
Column of water or length of AS (whichever is less)	X	98.73
Volume of water in AS (gal)	=	NA
Gallons per foot of casing (from chart on back)	=	5.8748
Column of water	X	98.73 ft
Volume of water in casing (gal)	=	580.019
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	580.019
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	1740
ACTUAL VOLUME PURGED (gal)	=	1870

Method of Purging : 2" Grundfos Pump

Field Parameters	Reading									
Time	1153	1203	1223	1243	1253	1313	1323	1343	1353	Final
Volume (gal)	0	40	120	200	280	420	490	610	670	Sample
Flow Rate (gpm)	4	4	4	8	7	7	6	6	4	N/A
DTW (ft toc)	15.50	20.61	29.45	39.80	47.15	63.30	69.10	79.70	84.40	
pH	8.90	8.87	8.85	8.82	8.80	8.72	8.69	8.61	8.57	
Conductivity (µS/cm)	1251	1250	1273	1256	1257	1255	1259	1262	1259	
Temperature (C)	13.51	13.32	13.36	13.26	12.91	13.10	12.40	12.92	12.80	
Turbidity (NTU)	28	22	18	17	18	14	14	12	12	
Eh/Redox (mV)	35.2	26.9	-22.1	-9.4	11.7	29.7	35.7	40.4	36.4	
DO (mg/L)	1.18	5.99	4.31	1.74	1.73	1.85	2.58	1.73	1.79	

Purging Field Notes:
Pump Intake 98'

Sampled: Explosives, TCL VOC's, TAL Total Metals, TAL Dissolved Metals, Nitrate/Nitrite Total Nitrate, Perchlorate

Sample Date/Time: 3/25/03 900 Sample ID/TR #: Wingate 91 00820

Sampler's signature/date: Leonard M. Delfin 3/25/03

Reviewer's signature/date: [signature] 4/23/03

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: Wingate 91
Start Date: 3/24/03
Start Time: 1150

Well Casing Diameter (in): 12
Bore Hole Diameter (in): [illegible]
Annular Space (AS) Length (ft): N/A

Well TD = 113.12
Well DTW = 14.39
Water Column = 98.73

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	NA
Column of water or length of AS (whichever is less)	X	98.73
Volume of water in AS (gal)	=	NA
Gallons per foot of casing (from chart on back)	=	5.8748
Column of water	X	98.73
Volume of water in casing (gal)	=	580.019
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	580.019
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	1740
ACTUAL VOLUME PURGED (gal)	=	1870

Method of Purging : 2" Grunfos Pump

Field Parameters	Reading 3/25									
Time	1413	1433	1453	1523	1543	731	741	801	811	Final
Volume (gal)	750	830	910	1030	1090	1090	1210	1450	1570	Sample
Flow Rate (gpm)	4	4	4	3	off	12	12	12	10	N/A
DTW (ft toc)	87.40	89.90	91.30	92.70	93.50	14.51	29.80	53.20	68.05	
pH	8.49	8.37	8.26	8.24	8.16	8.18	8.04	8.05	8.08	
Conductivity (µS/cm)	1259	1259	1259	1246	1259	1240	1255	1252	1248	
Temperature (C)	13.08	12.90	13.12	13.56	13.18	12.62	12.66	13.16	13.25	
Turbidity (NTU)	7.5	6.3	4.5	3.5	3.8	.75	.60	2.5	4.6	
Eh/Redox (mV)	36.1	31.8	32.8	40.7	39.0	25.0	25.9	27.7	40.2	
DO (mg/L)	1.51	2.16	1.86	2.02	1.20	1.86	1.59	4.26	2.26	

Purging Field Notes:
Pump Intake: 98' Continued pumping at 731 on 3/25/03

Sampled: Explosives, TCL VOC's, TAL Total Metals, TAL Dissolved Metals, Nitrate/Nitrite, Total Nitrate, Perchlorate

Sample Date/Time: 3/25/03 900 Sample ID/TR #: Wingate 91 00820

Sampler's signature/date: Leonard M. Sabatini 3/25/03

Reviewer's signature/date: [illegible] 4/24/03

FORT WINGATE DEPOT ACTIVITY
WELL SAMPLING DATA FORM

Well Number: Wingate91
Start Date: 3/24/03
Start Time: 1150

Well Casing Diameter (in): 12
Bore Hole Diameter (in): —
Annular Space (AS) Length (ft): N/A

Well TD = 113.12
Well DTW = 14.39
Water Column = 98.73

PURGE VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	NA
Column of water or length of AS (whichever is less)	X	98.73
Volume of water in AS (gal)	=	NA
Gallons per foot of casing (from chart on back)	=	5.8748
Column of water	X	98.73
Volume of water in casing (gal)	=	580.019
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	580.019
Number of EV to be purged	X	5
TOTAL VOLUME TO BE PURGED (gal)	=	1740
ACTUAL VOLUME PURGED (gal)	=	1870

Method of Purging : 2" Grunfos

Field Parameters	Reading									Final
Time	821	831	841	921						
Volume (gal)	1670	1770	1870	1870						Sample
Flow Rate (gpm)	10	10	10	—						N/A
DTW (ft toc)	77.65	90.30	98.0	—						—
pH	8.11	8.13	8.13	8.21						8.21
Conductivity (µS/cm)	1247	1246	1240	1249						1249
Temperature (C)	13.25	14.36	13.78	12.96						12.96
Turbidity (NTU)	7.7	7.3	23	24						24
Eh/Redox (mV)	44.4	49.5	46.7	59.0						59.0
DO (mg/L)	2.89	1.37	3.15	4.23						4.23

Purging Field Notes: Tubing Came Out. Oil smell on tubing Pump Intake: 98'
Sampled: Explosives, TCL VOC's, TAL Total Metals, TAL Dissolved Metals, Nitrate/Nitrite, Total Nitrate, Perchlorate

Sample Date/Time: 3/25/03 900 Sample ID/TR #: Wingate91 00820

Sampler's signature/date: Leonard M. Salazar 3/25/03

Reviewer's signature/date: [signature] 4/24/03

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW-02
Start Date: 10-8-10
Start Time: 1210

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 25-35

Well TD: 37.90
Well DTW: 13.63
Water Column: 24.27
Pump Intake (ft bgs): 35.9

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	24.27
Volume of water in casing (gal)	=	3.96
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.72
ACTUAL VOLUME PURGED (gal)	=	2.6

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1230	0	300	0	13.67	8.35	690	11.31	83.49		2.10
1235	5	300	1.5	13.66	8.34	715	11.27	7.99		1.63
1240	10	250	2.75	13.66	8.35	716	11.33	1.22		1.47
1245	15	200	3.75	13.66	8.32	715	12.00	1.68		1.35
1250	20	200	4.75	13.66	8.30	721	12.03	0.96		1.30
1255	25	200	5.75	13.66	8.28	724	11.93	1.47		1.26
1300	30	200	6.75	13.66	8.26	718	11.93	0.97		1.26
1305	35	200	7.75	13.66	8.24	719	11.88	1.06		1.30
1307	37	200	8.15	13.66	8.22	719	11.81	1.77		1.30
1309	39	200	8.55	13.66	8.21	719	11.87	0.75		1.35
1311	41	200	8.95	13.66	8.21	720	11.98	0.77		1.37
1313	43	200	9.35	13.66	8.20	719	11.97	—		1.36
1315	45	200	9.75	13.66	8.20	719	11.98	0.83		1.37
1330	water level =			13.66						
1515	final water level =			13.66						

Purging Field Notes: very clear water. Docked 21ST.
Press = 30psi, rech = 25 sec, purge = 5 sec, Q = 200 ml/min
Battery powering control box died while filling last bottle.

Sample Date/Time: 10-8-10 1330 Sample ID/TR #: CMW02102814

Sampler's signature/date: Matt Kolb 10-8-10

Reviewer's signature/date: [signature] 10/8/10

Thus, long sampling time.

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW24
Start Date: 10-11-10
Start Time: 0905

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 116-135'

Well TD: 137.91
Well DTW: 45.11
Water Column: 92.80
Pump Intake (ft bgs): 116.85

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	92.80
Volume of water in casing (gal)	=	15.13
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	31.19
ACTUAL VOLUME PURGED (gal)	=	4.8

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0915	0	150	1.5	46.91	8.02	4570	12.10	11.95		2.07
0925	10	200	1.5	46.91	7.81	4740	11.71	3.38		1.67
0930	15	200	2.5	47.30	7.74	4860	11.71	1.27		1.56
0935	20	200	3.5	47.66	7.84	4920	11.66	0.76		1.48
0940	25	200	4.5	47.84	8.07	4960	11.67	0.24		1.47
0945	30	200	5.5	48.14	8.18	4910	11.68	0.24		1.40
0950	35	200	6.5	48.31	8.23	4970	11.67	0.11		1.35
0955	40	200	7.5	48.44	8.26	4930	11.68	0.35		1.32
1000	45	200	8.5	48.60	8.28	4750	11.72	0.35		1.28
1005	50	200	9.5	48.78	8.28	4840	11.71	0.19		1.24
1010	55	200	10.5	48.91	8.28	4760	11.71	0.05		1.23
1015	60	200	11.5	48.96	8.29	4880	11.71	0.17		1.20
1020	65	200	12.5	49.03	8.29	4850	11.74	—		1.19
1025	70	200	13.5	49.11	8.28	4780	11.81	0.17		1.16
1030	75	200	14.5	49.21	8.28	4790	11.15	—		1.16
1035	80	200	15.5	49.28	8.28	4790	11.75	—		1.15

Purging Field Notes:
Clear water w strong sulfur odor.
Press = 60psi, soch = 30 sec, purge = 10 sec, Q ≈ 200 ml/min

Sample Date/Time: 10-11-10 1100 Sample ID/TR #: CMW24102010

Sampler's signature/date: Grant Kolb 10-11-10

Reviewer's signature/date: [signature] 10.11.10

Blind Dup = FW21102010, sample time = 1200

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW84
Start Date: 10-11-10
Start Time: 0905

Well Casing Diameter (in): _____
Bore Hole Diameter (in): _____
Annular Space (AS) Length (ft): _____
Screened Interval (ft bgs): _____

Well TD: _____
Well DTW: _____
Water Column: _____
Pump Intake (ft bgs): _____

See page 1 of 2

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	
Column of water or length of AS (whichever is less)	X	
Volume of water in AS (gal)	=	
Gallons per foot of casing (from chart on back)	=	
Column of water	X	
Volume of water in casing (gal)	=	
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	
ACTUAL VOLUME PURGED (gal)	=	

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1040	85	200	16.5	49.28	8.27	4760	11.75	0.01		1.16
1045	90	200	17.5	49.28	8.27	4760	11.75	0.04		1.18
1047	92	200	17.9	49.28	8.27	4760	11.76	—		1.18
1240	Final water level = 47.83									
	water level rose during									
	downtime waiting for sample									
	bottles w well shut off									

Purging Field Notes:
See page 1

Sample Date/Time: _____ Sample ID/TB #: _____
Sampler's signature/date: Grant Cobb
Reviewer's signature/date: _____

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW-07
Start Date: 10-7-10
Start Time: 1315

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): ____

Well TD: 66.60
Well DTW: 39.08
Water Column: 27.52
Pump Intake (ft bgs): 64.6

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	27.52
Volume of water in casing (gal)	=	4.49
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	20.55
ACTUAL VOLUME PURGED (gal)	=	1.35

Method of Purging : Low Flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1325	0	120	0	39.49	7.84	1470	14.74	54.77		3.39
1330	5	120	0.6	39.52	7.84	1470	14.73	9.90		2.70
1335	10	120	1.2	39.55	7.84	1470	14.57	5.07		2.46
1340	15	120	1.8	39.54	7.84	1480	14.03	4.48		2.25
1345	20	120	2.4	39.55	7.84	1480	14.61	2.34		2.08
1350	25	120	3.0	39.56	7.84	1470	14.59	1.42		1.95
1355	30	120	3.6	39.56	7.83	1490	14.57	1.44		1.84
1400	35	120	4.2	39.56	7.83	1480	14.52	1.16		1.77
1405	40	120	4.8	39.56	7.83	1480	14.49	1.50		1.70
1407	42	120	5.04	39.56	7.83	1480	14.475	—		1.71

Purging Field Notes: Began purging at 1320.
Press = 40psi, Rech = 40 sec, Purge = 5 sec, Q = 120 ml/min
Final water level = 39.56

Sample Date/Time: 10/7/10 Q Sample ID/TR #: CMW07102814
Sampler's signature/date: Grant Kolb 10-7-10
Reviewer's signature/date: [signature] 10/7/10

WELL SAMPLING DATA FORM

Well Number: CMW-18
Start Date: 10-5-10
Start Time: 1030

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22'
Screened Interval (ft bgs): 53.1 - 73.1

Well TD: 73.1
Well DTW: 63.70
Water Column: 9.40
Pump Intake (ft bgs) 40' pump

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	~~73.1~~ 9.40
Volume of water in AS (gal)	=	6.86
Gallons per foot of casing (from chart on back)	=	.1632
Column of water	X	9.40
Volume of water in casing (gal)	=	1.53
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	8.39
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	25.17
ACTUAL VOLUME PURGED (gal)	=	7.5

Method of Purging : ~~Pumping w Hach pump~~ bailing

Field Parameters	Reading								Final Sample
Time	1110	1120	1135	1150	1205	2 hrs			
Volume (gal)	1/3	2	4.5	6.5	7.5	2			
Flow Rate (gpm)						1			N/A
DTW (ft toc)	64.36	65.42	68.03	69.98	72.21	1 gal/10 min			
pH	9.69	10.32	10.74	11.17	~~6=7.27~~ How 11.04				
Conductivity (µS/cm)	5210	5220	5360	5490	6160				
Temperature (ºC)	12.02	11.94	12.06	11.89	12.09	10			
Turbidity (NTU)	137.2	126.2	122.3	89.71	64.97	10-11			
Eh/Redox (mV)						collected			
DO (mg/L)	9.55	7.49	8.09	7.43	7.47	10-11			

Purging Field Notes:

Sample Date/Time: ~~10~~ 10 Oct 2010 1315 Sample ID/TR #: CMW10102010
Sampler's signature/date: Grant Kolb 10-11-10
Reviewer's signature/date:

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FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW-14
Start Date: 10-12-10
Start Time: 0830

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 12'
Screened Interval (ft bgs): 84.2-94.2

Well TD: 96.75
Well DTW: 27.48
Water Column: 69.27
Pump Intake (ft bgs): 95.75

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	69.27
Volume of water in casing (gal)	=	11.29
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	20.05
ACTUAL VOLUME PURGED (gal) SR	=	1.94

Method of Purging : Bessst ~~low Flow~~ w/ZIST, NON low Flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0930	Ø	100	3.75	34.80	13.48	566	11.33	16.64		2.42
0933	3	100	4.05	34.80	13.42	563	11.31	4.02		1.80
0936	6	100	4.35	34.80	13.40	562	11.47	0.55		1.60
0939	9	100	4.65	34.80	13.40	562	11.51	0.49		1.62
0942	12	100	4.95	34.80	13.38	562	11.78	0.86		1.52
0945	15	100	5.25	34.80	13.40	562	11.89	1.18		1.55
0948	18	100	5.55	34.80	13.37	563	12.01	0.79		1.54
0951	21	100	5.85	34.80	13.35	564	12.21	0.49		1.58
0954	23	100	6.15	34.80	13.36	563	12.30	0.32		1.55
0957	26	100	6.45	34.80	13.33	563	12.91	0.20		1.53
1000	29	100	6.75	34.80	13.32	563	12.95	0.09		1.50
1003	32	100	~~6.~~ SR 7.05	34.80	13.32	565	13.08	0.10		1.49
1006	35	100	7.35	34.80	13.30	565	13.21	0.20		1.50

Purging Field Notes:
purged ~1 gal before docking well. well was docked @ 0930 & stabilized @ 1006. samples collected @ 1025. Full suite collected

Sample Date/Time: 10/12/2010 1025 Sample ID/TR #: CMW141012010

settings: 40psi
purge = 8sec
recharge = 20sec
Q = 100ml/min

Sampler's signature/date: [signature] 10/12/2010
Reviewer's signature/date: [signature] 10/12/2010

WELL SAMPLING DATA FORM

Well Number: CMW-17
Start Date: 10-8-10
Start Time: 1015

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 34.24-34.24

Well TD: 54.24
Well DTW: 17.35
Water Column: 36.89
Pump Intake (ft bgs) No Pump

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	36.89
Volume of water in casing (gal)	=	6.01
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	22.07
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	66.21
ACTUAL VOLUME PURGED (gal)	=	19

Method of Purging : bailer

Field Parameters	Reading								
Time	1030	1040	1055	1110	1130				Final Sample
Volume (gal)	2	4	7	10	14				
Flow Rate (gpm)									N/A
DTW (ft toc)	28.70	34.25	38.43	41.58	46.14				
pH	9.14	8.82	8.81	8.84	8.84				
Conductivity (µS/cm)	911	906	905	913	940				
Temperature (ºC)	11.72	11.87	11.62	11.54	11.69				
Turbidity (NTU)	13.77	163.7	790.5	777.8	440.8				
Eh/Redox (mV)									
DO (mg/L)	8.10	3.58	2.96	3.12	3.06				

1345 Collected sample 10-11-10

Purging Field Notes:
Collected 19 gal to bail dry. Water initially clear, but became muddier as water level dropped. Final water level = 51.44

Sample Date/Time: 10-11-10 1345
Sample ID/TR #: CMW17102410
Sampler's signature/date: Grant Kolb 10-11-10
Reviewer's signature/date:

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW18 / FW05
Start Date: 12OCT2010
Start Time: 9:00

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 20
Screened Interval (ft bgs): 34.10 – 54.10

Well TD: 54.10
Well DTW: 39.53
Water Column: 14.57
Pump Intake (ft bgs): 52.10

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	14.57
Volume of water in AS (gal)	=	10.64
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	14.57
Volume of water in casing (gal)	=	2.37
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	13.01
ACTUAL VOLUME PURGED (gal)	=	4 gal

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
9:15	0	250	3.0L	39.64	7.53	855	13.09	2.16		7.76
9:18	3	250	3.75	39.64	7.54	863	13.11	1.62		7.68
9:21	6	250	4.50	39.64	7.53	854	13.10	2.03		7.48
9:24	9	250	5.25	39.64	7.52	855	13.03	0.40		7.25
9:27	12	250	6.00	39.64	7.52	855	13.11	0.90		7.14
9:30	15	240	6.72	39.68	7.51	853	12.99	0.27		7.06
9:33	18	240	7.44	39.68	7.52	854	13.13	0.15		6.96
9:36	21	240	8.16	39.68	7.51	857	13.20	0.00		6.82
9:39	24	220	8.82	39.70	7.52	853	13.35	0.25		6.71
9:42	27	220	9.48	39.70	7.52	854	13.31	.32		6.67
9:45	30	220	10.14	39.70	7.51	854	13.48	0.08		6.58
9:48	33	220	10.80	39.70	7.51	854	13.52	9.77		6.64
9:51	36	220	11.46	39.75	7.51	855	13.51	0.00		6.56
9:54	39	220	12.12	39.75	7.52	855	13.57	0.00		6.54
9:57	42	220	12.78	39.75	7.52	855	13.59	0.00		6.46
10:00	45	220	13.44	39.75	7.51	855	13.66	0.00		6.46

Purging Field Notes:

Final DTW=39.75. 30psi. Started with 12s purge (Q=250), then 11s purge (Q=240), then 10s (Q=220), then 9s (Q=220). Recharge was always 20s.

Sample Date/Time: 12OCT2010 / 1005 1030 Sample ID/TR #: CMW1810281O FW0510281O

Sampler's signature/date: Hannah Wolfeman 10/12/10

Reviewer's signature/date: [signature] 10/12/10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW-19
Start Date: 10-12-10
Start Time: 1155

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 36.3-51.3

Well TD: 51.30
Well DTW: 23.37
Water Column: 27.93
Pump Intake (ft bgs):

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	27.93
Volume of water in casing (gal)	=	4.55
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	16.96
ACTUAL VOLUME PURGED (gal)	=	3.1 L

Method of Purging : LOW FLOW

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1155	0	50	0	23.37	10.09	1268	13.01	40.80		2.63
1200	5	~~0.25~~ 50	0.25	23.37	10.06	1273	13.11	60.72		1.77
1205	10	50	0.50	23.37	10.05	1281	13.17	72.14		1.32
1210	15	50	0.75	23.37	10.06	1288	13.21	75.23		1.28
1215	20	50	1.00	23.37	10.06	1294	13.48	70.46		1.26
1220	25	50	1.25	23.37	10.05	1296	13.50	63.92		1.28
1225	30	50	1.50	23.37	10.05	1297	13.56	57.87		1.25
1230	35	40	1.70	23.37	10.04	1296	13.78	55.51		1.20
1235	40	40	1.90	23.37	10.04	1298	13.77	54.13		1.15
1240	45	40	2.1	23.37	10.02	13.01	13.80	49.89		1.08
1245	50	40	2.3	23.37	10.02	13.04	13.89	48.13		1.06
1250	55	40	2.5	23.37	10.01	13.06	13.97	47.12		1.02
1255	60	40	2.7	23.37	10.02	1306	13.96	41.29		0.99
1300	65	40	2.9	23.37	10.01	1308	13.96	36.33		0.98
1305	70	40	3.1	23.37	10.00	1311	13.98	38.44		0.99
10/13/10 0830				23.39						

Purging Field Notes:

DURING PURGING PUMP IS SPITTING H_2O & N_2, @ THE END OF EACH CYCLE. TRY TO ADJUST, NO CHANGE. COLLECTED PARTIAL SAMPLE @1345. WATER BECAME TURBID

Sample Date/Time: 10/12/10 @ 1345 Sample ID/TR #: CMW-19102010 DURING SAMPLING, COLLECTED METALS (T+D), VOC.

Sampler's signature/date: Fredrick E. Hebbrecht 10/12/10

Reviewer's signature/date:

PARTIAL 10/13/10 @ 1050 FINISHED

FINISHED COLLECTING SAMPLE CMW-19102010, 10-13 @ 1050. FINAL WL 23.39, FINAL BOTTLES; SVOC, DIOINS, N+N, EXPLOSIVES, PEST

WELL SAMPLING DATA FORM

Well Number: CMW22
Start Date: 6OCT2010
Start Time: 10:15

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22'
Screened Interval (ft bgs): 96.5-116.5'

Well TD: 120.23
Well DTW: 114.63
Water Column: 5.60
Pump Intake (ft bgs) no pump

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	5.60
Volume of water in AS (gal)	=	4.09
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	5.60
Volume of water in casing (gal)	=	0.91
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	5.0
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	15.0
ACTUAL VOLUME PURGED (gal)	=	1.1

Method of Purging : bailer

Field Parameters	Reading								Final Sample
Time	10:20	10:25	10:35	10-7-10 1245 collected Aerated Sample	10-8-10 1515 collected remaining Sample				
Volume (gal)	1/3	.5	2/3						
Flow Rate (gpm)									N/A
DTW (ft toc)	118.31	119.42	119.88						
pH	8.58	8.52	8.51						
Conductivity (µS/cm)	481	672	.669						
Temperature (ºC)	12.78	13.07	12.36						
Turbidity (NTU)	182.3	>1100	636.1						
Eh/Redox (mV)									
DO (mg/L)	2.26	5.44	3.50						

Purging Field Notes:

due to lightening, we left this well mid-purging yesterday after having removed about 1 gallon
returned to well 10-7 & completed purging

Sample Date/Time: 10-7-10 1245
Sample ID/TR #: CMW221002010
Sampler's signature/date: [signature] 10-7-10
Reviewer's signature/date: [signature] 10/7/10

WELL SAMPLING DATA FORM

Well Number: CMW-23
Start Date: 10-5-10
Start Time: 1235

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 84-104'

Well TD: 106.6
Well DTW: 97.32
Water Column: 9.28
Pump Intake (ft bgs) No Pump

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	9.28
Volume of water in AS (gal)	=	6.77
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	9.28
Volume of water in casing (gal)	=	1.51
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	8.28
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	24.84
ACTUAL VOLUME PURGED (gal)	=	1.5

Method of Purging : bailer

Field Parameters	Reading								
Time	1255	1305	1310	10-6-10 sample collected at 1315	10-7-10 sample collected at 1230				Final Sample
Volume (gal)	0.5	1.0	1.5						
Flow Rate (gpm)									N/A
DTW (ft toc)	99.67	101.98	104.35						
pH	8.75	8.53	8.38						
Conductivity (µS/cm)	2440	4550	5300						
Temperature (°C)	12.94	12.31	12.27						
Turbidity (NTU)	150.7	215.6	760.1						
Eh/Redox (mV)									
DO (mg/L)	7.45	6.19	6.64						

Purging Field Notes:
Final water level 105.63. Bailed 2gal. Sulfur odor to water. Very cloudy.

Sample Date/Time: 10-6-10 1045
Sample ID/TR #: CMW23102010
Sampler's signature/date: Grant Kolb 10-6-10
Reviewer's signature/date: [signature] 10-8-10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW24
Start Date: 12 OCT 2010
Start Time: 0905

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 6
Annular Space (AS) Length (ft): 32
Screened Interval (ft bgs): 228-260

Well TD: 260.00
Well DTW: 46.57
Water Column: 213.43
Pump Intake (ft bgs): ~~258.34~~

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	32
Volume of water in AS (gal)	=	23.36
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	~~213.43~~
Volume of water in casing (gal)	=	34.79
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	58.15
ACTUAL VOLUME PURGED (gal)	=	1.56

Method of Purging : Low-flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0905	0	75	1.00	46.57	9.04	2720	12.90	5.99		1.17
0908	3	75	1.225	46.57	8.83	2710	12.99	4.11		0.61
0911	6	75	1450	46.57	8.73	2720	13.05	3.31		0.60
0914	9	75	1.675	46.57	8.63	2710	13.14	2.97		0.47
0917	12	75	1.900 (225)	46.57	8.61	2670	13.31	2.01		0.35
0920	15	75	2.125	46.57	8.60	2670	13.38	2.04		0.35
0923	18	75	2.450 (225)	46.57	8.60	2670	13.39	1.70		0.34
0926	21	75	2.675	46.57	8.60	2640	13.41	1.77		0.33
0929	24	75	2.900 (225)	46.57	8.59	2660	13.44	1.64		0.33
0932	27	75	3.125	46.57	8.59	2670	13.41	1.68		0.32

Purging Field Notes:
80 psi 40 off 60 on, ~75 ml/min smells of sulfur, 2 in 1 left in 0.

Sample Date/Time: 0945 12 OCT 2010 Sample ID/TR #: CMW24 10 2010

Sampler's signature/date: [signature] 12 OCT 2010

Reviewer's signature/date: [signature] 12 Oct 2010

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW 25
Start Date: 10-13-10
Start Time: 0830

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 27
Screened Interval (ft bgs): 71-96

Well TD: 98.78
Well DTW: 36.31
Water Column: 62.47
Pump Intake (ft bgs): 96.78

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	27
Volume of water in AS (gal)	=	19.71
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	62.47
Volume of water in casing (gal)	=	10.18
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	29.89
ACTUAL VOLUME PURGED (gal)	=	0.34

Method of Purging : low-flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0900	0	40	0	36.31	8.49	1036	13.57	1.08		0.49
0905	5	40	0.2	36.31	8.47	1034	13.79	1.29		0.40
0910	10	40	0.4	36.31	8.52	1035	14.29	1.03		0.35
0915	15	40	0.6	36.31	8.54	1036	14.29	1.42		0.32
0920	20	40	0.8	36.31	8.54	1036	14.40	1.53		0.28
0925	25	40	1.0	36.31	8.55	1036	14.52	0.99		0.27
0930	30	40	1.2	36.31	8.55	1036	14.67	1.13		0.26
0932	32	40	1.28	36.31	8.55	1036	14.71	—		0.27
1125	Final Water Level =			36.31						

Purging Field Notes: Began purging at 0850.
Clear H_2O w strong Sulfur odor. Pressure = 50psi, Tech = 75 sec, Purge = 3 sec, Q = 40 ml/min

Sample Date/Time: 10-13-10 1900 Sample ID/TR #: CMW25/1022016

Sampler's signature/date: Grant Kolb 10-13-10

Reviewer's signature/date: [signature] 10-13-10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: EMW01
Start Date: 12 OCT 2010
Start Time: 1405

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft):
Screened Interval (ft bgs): 15

Well TD: 120.70
Well DTW: 103.03
Water Column: 16.67
Pump Intake (ft bgs): 118.70

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	16.67
Volume of water in AS (gal)	=	12.16
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	16.67
Volume of water in casing (gal)	=	2.71
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	14.87
ACTUAL VOLUME PURGED (gal)	=	15 2.36

Method of Purging : Purged Dry on Oct 7

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1415	0	60.0	1.00	104.6	8.76	8150	17.51	3.03		0.96
1418	3	60.0	1.180	104.95	8.73	8080	17.34	3.33		0.60
1421	6	60.0	1.360	105.15	8.70	7960	17.29	2.38		0.52
1424	9	60.0	1.540	105.30	8.66	7900	17.31	1.99		0.45
1427	12	50.0	1.690	105.44	8.64	7870	17.48	1.85		0.42
1430	15	50.0	1.840	105.72	8.62	7830	17.91	1.17		0.39
1433	18	50.0	1.990	105.00	8.60	7750	17.97	0.63		0.37
1436	21	50.0	2.140	105.15	8.60	7750	17.98	0.50		0.37
1439	24	50.0	2.290	105.25	8.59	7720	17.94	0.48		0.37
1442	27	50.0	2.440	105.40	8.60	7740	17.96	0.53		0.38
1445	30	50.0	2.590	105.55	8.60	7730	18.05	0.40		0.38

Purging Field Notes:

50 psi 50 psi 28 off 60 on ~ 50 ml/minute
Purged dry on 7 oct - 8 gal removed & Sampled on 12 oct

Sample Date/Time: 12 OCT 2010 1500 Sample ID/TR #: EMW01102010

Sampler's signature/date: [signature] 12 OCT 2010

Reviewer's signature/date:

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: EMW02
Start Date: 10/5/2010
Start Time: 0855

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 93 -108

Well TD: 108.4
Well DTW: 44.41 on 9-Oct-2010
Water Column: 63.99 37.71 ft on 10/5/2010 see notes
Pump Intake (ft bgs): 106.4

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	63.99
Volume of water in casing (gal)	=	10.43
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	22.84
ACTUAL VOLUME PURGED (gal)	=	2.38 gal

Method of Purging : Bessf (NON-low flow)

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0920	Ø	200	1.0	47.37	8.22	667.0	11.70	1.47		2.79
0925	5	200	2.0	48.85	8.22	666.0	11.72	3.88		2.54
0930	10	200	3.0	50.18	8.21	667.0	11.75	2.80		2.45
0935	15	200	4.0	51.81	8.20	667.0	11.80	1.38		2.33
0940	20	200	5.0	53.05	8.21	666.0	11.79	1.91		2.36
0945	25	200	6.0	54.61	8.19	668.0	11.81	2.26		2.22
0950	30	200	7.0	55.57	8.18	668.0	11.86	1.00		2.16
0955	35	200	8.0	56.87	8.18	668.0	11.91	2.40		2.15
1000	40	20	9.0	57.94	8.18	669.0	11.96	1.73		2.12

Purging Field Notes:

DTW=37.71ft on 10/5/2010; 18.5 gal purged. rising temp due to rising air temp. Purge settings: 10 sec recharge, 12 sec purge, 40 psi, ending DTW = 66.68 ft bgs

Sample Date/Time: 10/9/2010 1000 Sample ID/TR #: EMW02 10 2010

Sampler's signature/date:

Reviewer's signature/date: 10/9/10

WELL SAMPLING DATA FORM

Well Number:	EMW03
Start Date:	10/9/10
Start Time:	0860
Well TD:	92.90
Well DTW:	39.57
Water Column:	53.33
Pump Intake (ft bgs)	80.8

Well Casing Diameter (in):	2
Bore Hole Diameter (in):	8
Annular Space (AS) Length (ft):	17
Screened Interval (ft bgs):	76-93

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	~~8~~ mw 53.33
Volume of water in casing (gal)	=	8.69
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	21.10
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	63.3
ACTUAL VOLUME PURGED (gal)	=	~3 gal on 10/9 + 17.5 gal on 10/5

Method of Purging : purged dry previously with pump on 5 Oct 2010

Field Parameters	Reading								
Time	0917	0920	0923	0926	0929	0932	0939	0938	Final Sample
Volume (gal)	0.75	1.05	1.35	1.65	1.95	2.25	2.55	2.85	
Flow Rate (gpm)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	N/A
DTW (ft toc)	45.20	46.73	47.65	48.50	49.42	50.35	50.89	51.60	
pH	9.87	9.85	9.85	9.84	9.84	9.81	9.82	9.82	
Conductivity (µS/cm)	5370	5330	5290	5260	5250	5390	5380	5380	
Temperature (ºC)	12.21	12.26	12.36	12.35	12.34	12.53	12.40	12.42	
Turbidity (NTU)	0.53	0.14	0.13	0.01	0.05	0.73	0.30	0.10	
Eh/Redox (mV)									
DO (mg/L)	5.23	5.07	5.03	4.87	4.81	4.86	4.73	4.60	

Purging Field Notes:

10s purge 10s rchg, taking parameters, then samples. Purged dry on 5 Oct 2010. DO reading may be high due to small air leak in discharge hose.

Sample Date/Time: 10/9/10 1000 hrs

Sample ID/TR #: EMW03102010

Sampler's signature/date: 10/9/10

Reviewer's signature/date: 10/9/10

WELL SAMPLING DATA FORM

Well Number: EMW04
Start Date: 10/9/10
Start Time: 1143

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 100 - 115

Well TD: 115.0'
Well DTW: 102.40 111.10' (on 10/9/10)
Water Column: 12.60'
Pump Intake (ft bgs) 114.25'

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12.60'
Volume of water in AS (gal)	=	9.198
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	12.60'
Volume of water in casing (gal)	=	2.05
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.25
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	33.75
ACTUAL VOLUME PURGED (gal)	=	~ 6 gal

Method of Purging : Bennett pump, purged dry to 114.25' on 5 Oct 10

Field Parameters	10/9/10	10/15/10			Reading				
Time	1117	0930							Final Sample
Volume (gal)	0	0.5							
Flow Rate (gpm)	0.5		Note:	There	was not enough				N/A
DTW (ft toc)	111.10		water in	this	well to take and				
pH	6.44	7.60	measure	water	quality parameters				
Conductivity (µS/cm)	1247	1251	and collect	samples.					
Temperature (ºC)	13.69	14.08							
Turbidity (NTU)	—	34.33							
Eh/Redox (mV)	—	—							
DO (mg/L)	9.70	5.88							

Purging Field Notes:

5 gal purged on 5 Oct 2010, parameters taken 9 Oct 2010 and purged dry again. ~ 1 gal

Sample Date/Time: 10/15/10 0945
Sampler's signature/date: [signature] 10/15/10
Reviewer's signature/date:

Sample ID/TR #: EMW04 102010

WELL SAMPLING DATA FORM

Well Number: FW31
Start Date: 10-6-10
Start Time: 0856

Well Casing Diameter (in): 4
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 12-52

Well TD: ≈52 FT.
Well DTW: 41.75
Water Column: 10.25
Pump Intake (ft bgs) TD

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.59
Column of water or length of AS (whichever is less)	X	10.25
Volume of water in AS (gal)	=	6.05
Gallons per foot of casing (from chart on back)	=	0.6528
Column of water	X	10.25
Volume of water in casing (gal)	=	6.69
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.74
Number of EV to be purged	X	x 3
TOTAL VOLUME TO BE PURGED (gal)	=	38.22
ACTUAL VOLUME PURGED (gal)	=	12 GALS

Method of Purging : 12 V PUMP

Field Parameters	6 Oct 10 Reading								
Time	0856	0859	0902	0905	0909	0911			Final Sample
Volume (gal)	0	2	5	7	10	12			
Flow Rate (gpm)									N/A
DTW (ft toc)									
pH	7.92	7.95	7.97	8.10	8.17	8.22			
Conductivity (µS/cm)	2295	2283	2291	2308	2312	2303			
Temperature (°C)	12.9	12.8	12.7	12.8	12.8	12.8			
Turbidity (NTU)	37.6	12.38	5.85	7.85	9.01	44.7			
Eh/Redox (mV)									
DO (mg/L)	4.52	4.43	4.36	3.79	3.78	3.80			

50 DTW

Purging Field Notes:

WATER STOPPED PUMPING @ 12 GALS (0911, 10/6)
COLLECTED ENVIRONMENTAL SAMPLE FW3110 2010 @ 1200

Sample Date/Time: 7 OCT 2010 @ 1200 Sample ID/TR #: FW3110 2010
Sampler's signature/date: [signature] 7 OCT 2010
Reviewer's signature/date: [signature] 10/8/10

WELL SAMPLING DATA FORM

Well Number: FW35
Start Date: 10-5-10
Start Time: 1555

Well Casing Diameter (in):	4	Well TD:	32.15
Bore Hole Diameter (in):	8	Well DTW:	21.29
Annular Space (AS) Length (ft):	22	Water Column:	10.86
Screened Interval (ft bgs):	32-12	Pump Intake (ft bgs)	32.15

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	~~13.5~~ 0.59
Column of water or length of AS (whichever is less)	X	10.86
Volume of water in AS (gal)	=	6.41
Gallons per foot of casing (from chart on back)	=	0.6528
Column of water	X	10.86
Volume of water in casing (gal)	=	7.09
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	13.5
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	40.5
ACTUAL VOLUME PURGED (gal)	=	12.00 WATER STOPPED PUMPING

Method of Purging : 12 V PUMP

Field Parameters	5/Oct/10 Reading								
Time	1555	1558	1601	1604	1606				Final Sample
Volume (gal)	0	2	5	8	10				
Flow Rate (gpm)									N/A
DTW (ft toc)									
pH	7.27	7.03	6.96	7.06	7.19				
Conductivity (µS/cm)	4100	4000	3970	4000	4170				
Temperature (ºC)	12.2	12.1	12.0	12.0	11.9				
Turbidity (NTU)	230	43.9	12.87	11.19	36.4				
Eh/Redox (mV)									
DO (mg/L)	2.16	1.07	1.04	0.92	0.87				

Purging Field Notes:

WATER STOPPED PUMPING @ 12 GALS (1610 10/5). WILL COLLECT SAMPPLE ON 10/6.

Sample Date/Time: 6 OCT 2010 @ 1100 Sample ID/TR #: FW35102010

Sampler's signature/date: Joshua E. Tillman 6 OCT 2010

Reviewer's signature/date: 6/Oct/2010

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: KMW29
Start Date: 10-12-10
Start Time: 0830

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 12'
Screened Interval (ft bgs): 60-70'

Well TD: 72.9
Well DTW: 39.53
Water Column: 33.37
Pump Intake (ft bgs): 70.9

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	33.37
Volume of water in casing (gal)	=	5.44
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	14.2
ACTUAL VOLUME PURGED (gal)	=	1.75

Method of Purging : low-flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0845	0	150	0	39.54	7.87	3320	10.65	2.71		0.71
0850	5	150	0.75	39.54	7.82	3350	10.79	1.32		0.60
0855	10	150	1.5	39.54	7.76	3330	10.82	0.21		0.53
0900	15	150	2.25	39.54	7.69	3370	10.97	0.01		0.49
0905	20	150	3.0	39.54	7.63	3380	11.04	0.00		0.36
0910	25	150	3.75	39.54	7.58	3380	11.16	0.01		0.29
0915	30	150	4.5	39.54	7.55	3380	11.14	0.00		0.20
0920	35	150	5.25	39.54	7.52	3400	11.30	—		0.13
0925	40	150	6.0	39.54	7.50	3410	11.38	0.00		0.09
0927	42	150	6.3	39.54	7.49	3420	11.41	—		0.10
0929	44	150	6.6	39.54	7.50	3410	11.41	—		0.10
1105	Final H_2O level =			39.54						

Purging Field Notes: Docked 21ST. Measured water level. Began purging at 0840. Very clear water w sulfur odor. Pressure = 38 psi, Rech = 30 sec, Purge = 5 sec, Q = 150 ml/min

Sample Date/Time: 10-12-10 9 Sample ID/TR #: KMW29102014

Sampler's signature/date: Grant Kolb 10-12-10

Reviewer's signature/date: [signature] 10-12-10

Halfway through filling sample bottles, the well began to blow H. To complete filling bottles, it was necessary to increase Rech to 90 sec, & reduce purge to 4 sec. Q became 40 ml/min.

WELL SAMPLING DATA FORM

Well Number: KMW-10
Start Date: 10-6-10
Start Time: 0855

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 152-168

Well TD: 171.02
Well DTW: 166.71
Water Column: 4.31
Pump Intake (ft bgs) No Pump

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	4.31
Volume of water in AS (gal)	=	3.15
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	4.31
Volume of water in casing (gal)	=	0.70
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	3.85
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	11.55
ACTUAL VOLUME PURGED (gal)	=	2.5

Method of Purging : bailer

Field Parameters	Reading								Final Sample
Time	9:25	0940	9:54	collected					
Volume (gal)	1/3	0.5	1.5	sample					
Flow Rate (gpm)				@ 1500					N/A
DTW (ft toc)	167.41	167.82	168.34						
pH	7.47	7.43	7.49	DO					
Conductivity (µS/cm)	880	887	878	-					
Temperature (ºC)	12.74	12.76	12.77	complete					
Turbidity (NTU)	6.23	6.70	17.0	10.7					
Eh/Redox (mV)									
DO (mg/L)	6.98	7.62	~~8.47~~ 7.29						

Purging Field Notes:
bailed total of 2.5 gallons, well went dry. final level of 169.31

Sample Date/Time: 10-7-10 1500 Sample ID/TR #: KMW10X0228
Sampler's signature/date: Grant Kolb 10-7-10
Reviewer's signature/date: [signature] 10/7/10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: KMW-11
Start Date: 10-12-10
Start Time: 1130
Well TD: 57.44
Well DTW: 31.36
Water Column: 26.08
Pump Intake (ft bgs):

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 22'
Screened Interval (ft bgs): 35-55

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	26.08
Volume of water in casing (gal)	=	4.25
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	20.31
ACTUAL VOLUME PURGED (gal)	=	0.8

Method of Purging : low-flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1140	0	90	0	31.82	8.71	993	13.44	0.10		2.64
1145	5	60	0.45	31.95	8.71	995	13.07	—		0.68
1150	10	60	0.75	31.96	8.76	983	13.22	0.91		0.66
1155	15	60	1.05	32.00	8.75	993	13.19	0.41		0.50
1200	20	60	1.35	32.01	8.75	994	13.11	0.08		0.39
1205	25	60	1.65	32.05	8.75	994	13.39	0.00		0.35
1210	30	60	1.95	32.06	8.75	996	13.41	0.00		0.30
1215	35	60	2.25	32.08	8.74	997	13.50	—		0.29
1220	40	60	2.55	32.08	8.74	990	13.75	0.00		0.26
1225	45	60	2.85	32.08	8.74	990	13.81	—		0.23
1227	47	60	2.97	32.08	8.74	993	13.79	0.00		0.24
1330	Final	water	level =	32.15						

Purging Field Notes:
Very clear water. Press = 40psi, purge = 40 sec, rest = 3 sec, Q = 60 ml/min

Sample Date/Time: 10-12-10 1330 Sample ID/TR #: KMW11102018
Sampler's signature/date: Grant Kolb 10-12-10
Reviewer's signature/date: [signature] 10-12-10

WELL SAMPLING DATA FORM

Well Number:	KMW-12
Start Date:	10-6-10
Start Time:	1350

Well Casing Diameter (in):	2	Well TD:	Meas 73.00 / 75.49
Bore Hole Diameter (in):	8	Well DTW:	47.59
Annular Space (AS) Length (ft):	22	Water Column:	27.9
Screened Interval (ft bgs):	55.49-75.49	Pump Intake (ft bgs)	~ 73.00

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	27.9
Volume of water in casing (gal)	=	4.55
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	20.61
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	61.83
ACTUAL VOLUME PURGED (gal)	=	21

Method of Purging : Bennett pump

Field Parameters	Reading							
Time	1355	1400	1402	1404	1406	1408	1411	10-8-10 / 1500 Collected full set of samples	Final Sample
Volume (gal)	2.5	5	7	8.5	9.5	11	12		
Flow Rate (gpm)									N/A
DTW (ft toc)	58.91	63.61	66.90	67.51	68.55	71.03	73.00		
pH	7.20	7.21	7.11	7.07	7.18	7.10	7.15		
Conductivity (uS/cm)	4020	4020	4030	4030	4050	4030	3990		
Temperature (ºC)	11.85	11.61	11.55	11.74	11.63	11.57	11.54		
Turbidity (NTU)	1.08		9.33	7.92	4.58	6.63	3.58		
Eh/Redox (mV)									
DO (mg/L)	3.83	1.63	2.33	1.47	2.94	3.09	1.38		

Purging Field Notes:

Pumped at 3000 ml/min at 40psi & removed 12 gal. Well dry. Returned to well on 10-7 & pumped well dry a second time by removing add'l 9 gal. Purged 21 gal total.

Sample Date/Time: 10-8-10 1500

Sample ID/TR #: KMW12/02281[illegible]

Sampler's signature/date: Grant Kolb 10-8-10

Reviewer's signature/date: [signature] 10/8/10

WELL SAMPLING DATA FORM

Well Number: MW01
Start Date: 5-6 OCT 2010
Start Time: 1600

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 33.6-53.6

Well TD: 54.80
Well DTW: 42.05
Water Column: 12.75
Pump Intake (ft bgs) no pump

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12.75
Volume of water in AS (gal)	=	9.31
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	12.77
Volume of water in casing (gal)	=	2.08
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.39
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	34.2
ACTUAL VOLUME PURGED (gal)	=	2.56

Method of Purging : BAIL

Field Parameters	5/Oct/10			Reading					
Time	~~1600~~	1605	1610						Final Sample
Volume (gal)	~~0.25~~ ~~1605~~	1.25	2.0						
Flow Rate (gpm)									N/A
DTW (ft toc)	43.8	48.7	53.3						
pH	7.47	7.53	7.57						
Conductivity (µS/cm)	3500	3510	3500						
Temperature (ºC)	14.67	14.66	14.71						
Turbidity (NTU)	1.15	753.0	904.0						
Eh/Redox (mV)									
DO (mg/L)	2.80	2.87	3.23						

Purging Field Notes: Samples Collected on 6 oct 10
Started bailing @ 1600 took about 15 min to bail dry, water started out clear then finally sandy brown.

Sample Date/Time: 06 OCT 2010, 0810 Sample ID/TR #: MW011020100
Sampler's signature/date: 06 OCT 2010
Reviewer's signature/date: 10/6/10

WELL SAMPLING DATA FORM

Well Number: MW02
Start Date: 5-6 OCT 2010
Start Time: 1525

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 37-47

Well TD: 49.45
Well DTW: 38.50
Water Column: 10.95
Pump Intake (ft bgs) NO PUMP

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	10.95
Volume of water in AS (gal)	=	7.99
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	10.95
Volume of water in casing (gal)	=	1.79
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	9.78
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	29.34
ACTUAL VOLUME PURGED (gal)	=	2.5

Method of Purging : BAIL

Field Parameters	5 Oct 10			Reading					
Time	1525	1530	1535						Final Sample
Volume (gal)	0.25	1.1	2.0						
Flow Rate (gpm)									N/A
DTW (ft toc)	~~40~~.1	45.6	49.0						
pH	6.90	6.95	6.98						
Conductivity (µS/cm)	2110	2190	2260						
Temperature (ºC)	14.90	14.77	14.82						
Turbidity (NTU)	73.3	662.5	1098						
Eh/Redox (mV)									
DO (mg/L)	2.02	3.70	2.92						

Purging Field Notes:

Started bailing @ 1525 started out cloudy and finally brown - Dry - Collected Samples on 6 Oct. 2010

Sample Date/Time: 6 OCT 2010 / 0840
Sample ID/TR #: MW02102010
Sampler's signature/date: [signature] / 6 OCT 2010
Reviewer's signature/date: [signature] 10/6/10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW-03
Start Date: 10-14-10
Start Time: 1425

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 43-53'

Well TD: 56.70
Well DTW: 46.11
Water Column: 10.59
Pump Intake (ft bgs): 54.20

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	10.59
Volume of water in AS (gal)	=	7.73
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	10.59
Volume of water in casing (gal)	=	1.73
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	9.46
ACTUAL VOLUME PURGED (gal)	=	1.04

Method of Purging : low-flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1440	0	100	0	46.52	7.89	5380	15.68	1.31		2.34
1445	5	100	0.5	46.67	7.82	5500	14.92	0.54		1.93
1450	10	100	1.0	46.69	7.81	5560	14.87	0.36		1.13
1455	15	100	1.5	46.73	7.81	5570	14.96	0.16		0.99
1500	20	100	2.0	46.77	7.80	5490	14.79	0.33		0.65
1505	25	100	2.5	46.81	7.80	5450	14.72	0.21		0.57
1510	30	100	3.0	46.81	7.79	5410	14.76	0.24		0.48
1515	35	100	3.5	46.81	7.79	5360	14.77	0.16		0.41
1517	37	100	3.7	46.81	7.79	5320	14.82	—		0.39
1519	39	100	3.9	46.81	7.79	5340	14.84	0.27		0.40
1610	Final water level =			46.81						

Purging Field Notes: Begin purging at 1430. Clear water. Pressure = 35 psi, Rech = 50 sec, Purge = 8 sec, Q = 100 ml/min

Sample Date/Time: 10-14-10 1530 Sample ID/TR #: MW03102201

Sampler's signature/date: Grant Kolb 10-14-10

Reviewer's signature/date:

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW18D
Start Date: 8-Oct-2010
Start Time: 0855

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 49-59

Well TD: 59.9
Well DTW: 42.99
Water Column: 15.91
Pump Intake (ft bgs): 57.9

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	15.91
Volume of water in casing (gal)	=	2.59
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.35
ACTUAL VOLUME PURGED (gal)	=	.55 gal

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0900	0	80	0	42.99	7.58	7520	13.71	21.67		6.10
0903	3	~~80 .240~~	.240	42.99	7.30	7500	13.99	19.58		3.55
0906	6	80	.480	42.99	7.26	7500	14.16	10.09		3.07
0909	9	80	.720	42.99	7.26	7500	14.21	40.10		2.92
0912	12	80	.960	42.99	8.18	7580	13.65	11.22		2.31
0915	15	80	1.200	42.99	8.31	7580	13.28	9.73		2.17
0918	18	80	1.640	42.99	8.17	7610	13.88	9.14		2.14
0921	21	80	1.880	42.99	8.29	7580	13.71	16.01		2.10
0923	23	80	2.120	42.99	8.34	7580	13.67	11.43		2.11
0926	26	80	2.360	42.99	8.35	7590	13.69	10.13		2.02
0929	29	80	2.600	42.99	8.40	7570	13.73	15.31		2.00
0932	32	80	2.840	42.99	8.21	7600	14.14	12.14		1.96
0935	35	80	2.080	42.99	8.20	7590	14.04	13.47		1.97

Purging Field Notes:
pH unable to stabilize completely (Hydrolab #2), pH b/t 8.18 & 8.40, yellow tint to water
1310 h

Sample Date/Time: 8-Oct-2010 1445 Sample ID/TR #: MW18D102010
Sampler's signature/date: [signature] 10/8/10
Reviewer's signature/date: [signature] 10/8/10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW 20
Start Date: 8 Oct 2010
Start Time: 1022

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 6
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 10

Well TD: 59.40
Well DTW: 45.90'
Water Column: 13.50
Pump Intake (ft bgs): 57.37

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	13.50
Volume of water in casing (gal)	=	2.20
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	10.96
ACTUAL VOLUME PURGED (gal)	=	3 gal

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1024	0	280	3.7	45.90	6.87	1670	14.91	1.99		0.26
1027	3	280	4.54	45.90	6.86	1680	14.95	2.13		0.23
1030	6	280	5.38	45.90	6.86	1690	14.92	1.18		0.19
1033	9	280	6.22	45.90	6.86	1710	14.96	0.97		0.17
1036	12	280	7.06	45.90	6.86	1720	14.92	1.18		0.16
1039	15	280	7.90	45.95	6.86	1730	14.96	1.12		0.16
1042	18	280	8.74	45.95	6.85	1740	14.91	0.97		0.15
1045	21	280	9.58	45.95	6.85	1740	14.92	0.86		0.15
1048	24	280	10.42	45.95	6.85	1740	14.93	0.67		0.15
1051	27	280	11.26	45.95	6.85	1730	14.92	0.70		0.15

Purging Field Notes:
sample time: 1100 45 psi 15s rchg 6s purge ~280 mL/min

Sample Date/Time: 10/8/10 1100 Sample ID/TR #: MW20102010

Sampler's signature/date: 10/8/10

Reviewer's signature/date: 10/8/10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW22D
Start Date: 11 Oct 10
Start Time: 0905

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 47-57

Well TD: 58.77'
Well DTW: 41.74'
Water Column: 17.03
Pump Intake (ft bgs): 56.10

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	17.03
Volume of water in casing (gal)	=	2.78
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.54
ACTUAL VOLUME PURGED (gal)	=	~4 gal

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
9:22	0	300	3.7	42.12	7.18	5270	15.08	1.17		3.52
9:25	3	300	4.6	42.12	7.20	4830	15.01	0.00		3.10
9:28	6	300	5.5	42.12	7.19	5080	14.83	0.06		2.87
9:31	9	300	6.4	42.12	7.17	5020	14.81	0.00		2.65
9:34	12	300	7.3	42.12	7.18	4970	14.75	0.26		2.57
9:37	15	300	8.2	42.12	7.18	4940	14.74	0.28		2.48
9:40	18	300	9.1	42.12	7.17	4900	14.81	0.28		2.31
9:43	21	300	10.0	42.12	7.17	4870	14.79	0.26		2.18
9:46	24	300	10.9	42.12	7.17	4860	14.77	0.29		2.12
9:49	27	300	11.8	42.12	7.18	4850	14.83	0.23		2.03
9:52	30	300	12.7	42.12	7.18	4850	14.98	0.21		1.95
9:55	33	300	13.6	42.12	7.18	4830	15.04	0.20		1.88

Purging Field Notes:
40 psi 15s recharge 10s purge

Sample Date/Time: 11 Oct 2010 1000hrs Sample ID/TR #: MW22D 10 2010
Sampler's signature/date: 11 Oct 2010
Reviewer's signature/date: 11 oct 2010

WELL SAMPLING DATA FORM

Well Number:	MW-22S
Start Date:	10-5-10
Start Time:	1540
Well TD:	43.54
Well DTW:	41.66
Water Column:	1.88
Pump Intake (ft bgs)	NO PUMP

Well Casing Diameter (in):	2
Bore Hole Diameter (in):	8
Annular Space (AS) Length (ft):	2
Screened Interval (ft bgs):	31-41

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	1.88
Volume of water in AS (gal)	=	1.372
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	1.88
Volume of water in casing (gal)	=	0.31
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	1.68
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	5.04
ACTUAL VOLUME PURGED (gal)	=	0.6

Method of Purging : bailer

Field Parameters	Reading								Final Sample
Time	1545	1555	1605	1145 Sampled	0945	0830	0815 remaining		
Volume (gal)	0.25	0.5	0.6						N/A
Flow Rate (gpm)									
DTW (ft toc)	42.02	42.40	42.95						
pH	7.36	7.12	7.19	10-6-10 Collected Sample	10-7-10 Collected Sample	10-8-10 Collected Sample	10-9-10 Collected Sample		
Conductivity (µS/cm)	4900	4620	4310						
Temperature (ºC)	15.17	14.84	14.94						
Turbidity (NTU)	580.5	>1100	>1100						
Eh/Redox (mV)									
DO (mg/L)	5.29	3.91	6.15						

Purging Field Notes:

Very silty water. Well bailed dry upon removal of 5x 0.6 gal.

Sample Date/Time: 10-6-10 1145

Sample ID/TR #: MW22S102010

Sampler's signature/date: Frank Kolb 10-6-10

Reviewer's signature/date: [signature] 10-9-10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW01
Start Date: 1
Start Time: 1100

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 44-59

Well TD: 61.23
Well DTW: 36.16
Water Column: 25.07
Pump Intake (ft bgs): 59.23

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	25.07
Volume of water in casing (gal)	=	4.09
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	16.50
ACTUAL VOLUME PURGED (gal)	=	3.14 gal

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1115	0	260	2.0	36.60	7.45	2810	12.85	3.52		2.81
1118	3	260	2.780	36.61	7.45	2800	12.84	2.80		2.50
1121	6	260	3.56	36.60	7.45	2790	12.85	2.48		2.40
1125	10	260	4.60	36.60	7.45	2780	12.90	3.31		2.25
1129	14	260	5.64	36.61	7.45	2790	12.90	2.35		2.13
1133	18	260	6.68	36.61	7.45	2790	12.90	2.13		2.04
1137	22	260	7.72	36.60	7.45	2790	12.86	1.73		1.88
1141	26	260	8.76	36.61	7.46	2790	12.91	1.60		1.85
1145	30	260	9.80	36.61	7.49	2770	12.86	1.13		1.74
1149	34	260	10.84	36.61	7.48	2770	12.92	1.33		1.75
1153	38	260	11.88	36.61	7.47	2770	12.84	1.61		1.72

1.09

Purging Field Notes:
40 psi, 10sec=purge, 10sec = recharge

Sample Date/Time: 10/14/2010 1200 (1300) Sample ID/TR #: TMW01102010, FWD4102010
Sampler's signature/date: 10/14/2010
Reviewer's signature/date:

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW02
Start Date: 10/13/2010
Start Time: 1245

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 16
Screened Interval (ft bgs): 14 67.9-81.9

Well TD: 84.9
Well DTW: 55.35
Water Column: 29.55
Pump Intake (ft bgs): 82.09

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	14
Volume of water in AS (gal)	=	10.22
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	29.55
Volume of water in casing (gal)	=	4.816
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	15.04
ACTUAL VOLUME PURGED (gal)	=	2.50

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1254	0	240	3.0	57.00	7.93	4360	13.66	.52		.11
1257	3	240	3.72	57.01	7.91	4360	13.52	.35		.09
1300	6	240	4.44	57.00	7.90	4360	13.61	.18		.09
1303	9	240	5.16	57.00	7.90	4360	13.71	.15		.09
1306	12	240	5.880	57.01	7.90	4350	13.76	.11		.08
1309	15	240	6.60	57.01	7.90	4360	13.71	.14		.08
1312	18	240	7.32	57.00	7.90	4360	13.81	.17		.08
1315	21	240	8.040	57.00	7.90	4350	13.86	.16		.07
1318	24	240	8.760	57.03	7.90	4350	13.91	.15		.08
1321	27	240	9.48	57.01	7.90	4360	13.94	.16		.08

Purging Field Notes:
dropped well depth to ~57 ft & then stabilized. 55-60psi
15 sec recharge, ~10 sec purge. full suite, QA & QC collected.

Sample Date/Time: 10/13/2010 1430 Sample ID/TR #: TMW02102010

Sampler's signature/date: [signature] ~~10/14~~/10/13/10

Reviewer's signature/date: [signature] 10/14/10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW-03
Start Date: 10-9-10
Start Time: 1115

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 49.8 - 69.8

Well TD: 73.06
Well DTW: 56.94
Water Column: 16.12
Pump Intake (ft bgs): 70.06

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	16.12
Volume of water in AS (gal)	=	11.77
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	16.12
Volume of water in casing (gal)	=	2.63
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	14.40
ACTUAL VOLUME PURGED (gal)	=	21

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1125	0	225	0	57.12	7.86	4210	14.10	0.84		1.17
1130	5	200	1.125	57.16	7.83	4210	14.14	1.06		0.37
1135	10	200	2.125	57.19	7.83	4240	14.21	0.98		0.22
1140	15	200	3.125	57.19	7.82	4230	14.08	—		0.14
1145	20	200	4.125	57.19	7.81	4220	14.05	0.11		0.13
1150	25	200	5.125	57.19	7.81	4240	14.08	—		0.11
1155	~~1200~~ 30	200	6.125	57.19	7.81	4230	14.05			0.10
1200	35	200	7.125	57.19	7.80	4220	14.03			0.08
1202	37	200	7.525	57.19	7.80	4220	14.05			0.08
1204	39	200	7.925	57.19	7.80	4220	14.10			0.08
1235	Final water level			57.19						

Purging Field Notes:
Press = 40 psi, Rech = 30 sec, Purge = 12 sec, Q = 200 ml/min
Very clear water

Sample Date/Time: 10-9-10 1215 Sample ID/TR #: TMW03102210

Sampler's signature/date: Grant Kolb 10-9-10

Reviewer's signature/date: [signature] 10/9/10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW04
Start Date: 11 OCT 2010
Start Time: 13:20
Well TD: 72.25'
Well DTW: 56.32'
Water Column: 15.93'
Pump Intake (ft bgs): 70.25'

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 22'
Screened Interval (ft bgs): 50-70'

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	15.93
Volume of water in AS (gal)	=	11.63
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	15.93
Volume of water in casing (gal)	=	2.60
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	13.23
ACTUAL VOLUME PURGED (gal)	=	2.5

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1332	0	150	2L	56.73	7.86	3880	13.76	3.52		2.96
1335	3	150	2.45	56.92	7.87	2960	14.86	2.91		2.74
1338	6	150	2.90	56.92	7.88	3790	13.67	.56		2.23
1341	9	150	3.35	56.92	7.89	3810	13.63	.04		2.10
1344	12	150	3.80	56.92	7.89	3800	13.56	.83		2.01
1347	15	150	4.25	56.92	7.89	3750	13.68	0.00		1.97
1350	18	150	4.70	56.92	7.89	3800	13.76	171.6		1.96
1353	21	150	5.15	56.92	7.89	3800	13.69	0.00		1.92
1356	24	150	5.60	56.92	7.89	3810	13.61	0.01		1.87
1359	27	150	6.05	56.92	7.88	3810	13.68	0.52		1.83
1402	30	150	6.50	56.92	7.88	3800	13.82	0.12		1.84
1405	33	150	6.95	56.92	7.88	3810	13.68	0.15		1.81

Purging Field Notes:

Water has yellow tinge. 51 psi, 7s purge, 15s recharge. Flow rate ≈ 150 mL/min.

Sample Date/Time: 11 OCT 2010 / 1420 Sample ID/TR #: TMW04102810

Sampler's signature/date: Hannah Wojaman / 11 OCT 2010

Reviewer's signature/date: 11 oct 10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW06
Start Date: 7OCT2010
Start Time: 1145

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 45-55

Well TD: 57.24
Well DTW: 47.07
Water Column: 10.17
Pump Intake (ft bgs): 55.24

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	10.17
Volume of water in AS (gal)	=	7.424
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	10.17
Volume of water in casing (gal)	=	1.66
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	9.08
ACTUAL VOLUME PURGED (gal)	=	.53

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1155	0	75	.500	47.65	7.58	4710	14.47	17.27		.34
1200	5	75	.875	47.72	7.64	4710	14.56	.36		.12
1205	10	75	1.250	47.72	7.61	4720	14.47	.55		.08
1210	15	75	1.625	47.72	7.64	4740	14.50	.43		.07
1215	20	75	2.000	47.80	7.63	4760	14.38	5.65		.07

Purging Field Notes:

Well is stable at 1215. Collected full suite of samples at 1230. Settings: 35psi, 80 mL/min, 11sec purge, 49 sec recharge. Draw down was stable. Ending DTW was 47.82 ft.

Sample Date/Time: 7OCT2010/1230 Sample ID/TR #: TMW06102010

Sampler's signature/date: Hayden Wolfman / 7OCT2010

Reviewer's signature/date: 7/oct/10

WELL SAMPLING DATA FORM

Well Number:	TMW07
Start Date:	5 Oct 2010
Start Time:	1530
Well Casing Diameter (in):	2
Bore Hole Diameter (in):	8
Annular Space (AS) Length (ft):	12
Screened Interval (ft bgs):	57.37-67.37
Well TD:	67.37
Well DTW:	47.39
Water Column:	19.98
Pump Intake (ft bgs)	-

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	19.98
Volume of water in casing (gal)	=	3.26
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.02
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	36.06
ACTUAL VOLUME PURGED (gal)	=	~7 gal

Method of Purging : bailer

Field Parameters	6/Oct/10				Reading				
Time	~~1620~~	1634	1641	1650					Final Sample
Volume (gal)	2	3	3.5	4	Bailed Dry	Turbid			
Flow Rate (gpm)									N/A
DTW (ft toc)	53.52	~~56.04~~	58.85	58.85					
pH	7.95	7.94	7.91	7.88					
Conductivity (µS/cm)	4790	4780	3450	4820					
Temperature (ºC)	13.37	13.32	13.52	13.40					
Turbidity (NTU)	1100	674.8	181.6	181.2					
Eh/Redox (mV)									
DO (mg/L)	6.46	5.63	5.23	5.06					

Purging Field Notes:

The turbidimeter was giving unreliable results. ~4 gals bailed dry on 5 Oct 2010. Another 3 gal bailed on 6 Oct. Total purged 7 gals

Sample Date/Time: 10/7/2010 0830

Sample ID/TR #: ~~IMD~~ JR TMW07102010

Sampler's signature/date:

Reviewer's signature/date: 10/8/10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW08
Start Date: 8-Oct-2010
Start Time: 1125

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 32
Screened Interval (ft bgs): 32-62

Well TD: 62.41
Well DTW: 36.68
Water Column: 25.73
Pump Intake (ft bgs): 60.41

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	25.73
Volume of water in AS (gal)	=	18.78
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	25.73
Volume of water in casing (gal)	=	4.19
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	22.97
ACTUAL VOLUME PURGED (gal)	=	0.71 gal

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1132	0	100	0	36.71	7.52	1471	17.04	52.64		3.41
1135	3	100	0.300	36.71	7.35	1470	16.16	10.75		2.70
1138	6	100	0.600	36.70	7.28	1480	16.12	67.58		2.48
1141	9	100	0.90	36.71	7.23	1490	16.06	51.87		2.40
1144	12	100	1.20	36.72	7.21	1501	15.93	43.44		2.33
1147	15	100	1.50	36.72	7.20	1520	15.84	43.95		2.32
1150	18	100	1.800	36.71	7.20	1510	16.03	33.34		2.33
1153	21	100	2.10	36.71	7.20	1520	16.14	29.71		2.34
1156	24	100	2.40	36.72	7.19	1510	16.18	27.85		2.36
1159	27	100	2.70	36.71	7.20	1510	16.31	26.05		2.35

samples collected @ 1220
well is stable @ 1200

Purging Field Notes:

settings: 20 recharge, 4.5 sec purge. high DO in well. final DTW = 36.73 ft
full suite of samples collected

Sample Date/Time: 10/8/2010 1220 Sample ID/TR #: TMW08102010

Sampler's signature/date:

Reviewer's signature/date: 10/8/10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW10
Start Date: 13 Oct 10
Start Time: 1500

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 6
Annular Space (AS) Length (ft): 33
Screened Interval (ft bgs): 31.23-61.23

Well TD: 61.80
Well DTW: 36.37'
Water Column: 23.43
Pump Intake (ft bgs): 59.47

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	23.43
Volume of water in AS (gal)	=	17.10
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	23.43
Volume of water in casing (gal)	=	3.82
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	20.92
ACTUAL VOLUME PURGED (gal)	=	~1.5

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1515	0	120	1.5	59.65	7.57	8160	15.43	—		3.82
1518	3	120	1.86	59.65	7.51	8180	15.43	0.55		3.42
1521	6	120	2.22	59.65	7.51	8200	15.26	0.44		3.16
1524	9	120	2.58	59.65	7.51	8200	15.34	0.01		2.76
1527	12	120	2.94	59.65	7.51	8210	15.64	0.02		2.50
1530	15	120	3.30	59.66	7.51	8220	15.71	0.01		2.40
1533	18	120	3.66	59.66	7.51	8220	15.72	0.05		2.35
1536	21	120	4.02	59.66	7.51	8220	15.70	0.04		2.34
1539	24	120	4.38	59.66	7.51	8230	15.79	0.09		2.29

Purging Field Notes:
~ 30 psi, 5s purge, 20s recharge, ~120mL/min

Sample Date/Time: 10/13/10 1544 Sample ID/TR #: TMW10102410
Sampler's signature/date: Matt Mart 10/13/10
Reviewer's signature/date:

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW-11
Start Date: 10-13-10
Start Time: 1420

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 27
Screened Interval (ft bgs): 55-80'

Well TD: 82.52
Well DTW: 66.62
Water Column: 16.90
Pump Intake (ft bgs): 80.52

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73	
Column of water or length of AS (whichever is less)	X	~~27~~ 16.9	
Volume of water in AS (gal)	=	~~19.71~~ 12.34	
Gallons per foot of casing (from chart on back)	=	0.163	
Column of water	X	16.90	
Volume of water in casing (gal)	=	2.75	
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	15.09	
ACTUAL VOLUME PURGED (gal)	=	3.3	

Method of Purging : Low-Flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1450	0	200	0	66.14	7.65	2200	15.00	269.4		3.80
1455	5	200	1.0	66.20	7.68	2200	14.75	141.4		3.15
1500	10	200	2.0	66.28	7.70	2210	14.77	56.79		3.31
1505	15	200	3.0	66.37	7.71	2230	14.96	34.05		3.38
1510	20	200	4.0	66.40	7.72	2240	14.81	27.39		3.43
1515	25	200	5.0	66.45	7.73	2240	14.19	18.48		3.56
1520	30	200	6.0	66.48	7.73	2230	14.32	14.76		3.83
1525	35	200	7.0	66.50	7.74	2220	14.54	14.13		4.29
1530	40	200	8.0	66.50	7.74	2210	14.66	12.46		4.59
1535	45	200	9.0	66.50	7.74	2190	14.55	10.73		4.96
1540	50	200	10.0	66.50	7.74	2190	14.14	8.63		5.15
1545	55	200	11.0	66.50	7.74	2170	14.06	8.20		5.30
1550	60	200	12.0	66.50	7.74	2160	14.35	7.46		5.44
1552	62	200	12.4	66.50	7.74	2170	14.38	7.99		5.42
1630	Final Water level =			66.50						

Purging Field Notes: Began purging at 1445.
Pressure = 45psi, Rech = 20sec, Purge = 10sec, Q = 200 ml/min

Sample Date/Time: 10-13-10 1630 Sample ID/TR #: TMW11 10 2010
Sampler's signature/date: Grant Kolb 10-13-10
Reviewer's signature/date:

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW13
Start Date: 12 Oct 10
Start Time: 1355

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 60.7 - 70.7

Well TD: 73.78'
Well DTW: 59.69'
Water Column: 14.09
Pump Intake (ft bgs): 71.45

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	14.09
Volume of water in casing (gal)	=	2.30
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.06
ACTUAL VOLUME PURGED (gal)	=	~2.5 gal

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1407	0	230	2.0	60.03	7.64	2250	14.27	1.05		3.07
1410	3	230	2.69	60.03	7.61	2260	14.21	0.26		2.84
1413	6	230	3.38	60.03	7.61	2260	14.12	0.08		2.70
1416	9	230	4.07	60.03	7.59	2260	14.20	0.00		2.51
1419	12	230	4.76	60.03	7.58	2260	14.09	0.00		2.35
1422	15	230	5.45	60.03	7.61	2260	14.20	0.00		2.17
1425	18	230	6.14	60.03	7.56	2260	14.16	0.00		2.07
1428	21	230	6.83	60.03	7.55	2260	14.22	0.00		1.99
1431	24	230	7.52	60.03	7.55	2260	14.22	0.12		1.97
1434	27	230	8.21	60.03	7.54	2260	14.18	—		2.06

Purging Field Notes:
sample time 1435 40psi, 10s purge, 15s recharge

Sample Date/Time: 10/12/10 / 1435 Sample ID/TR #: TMW131020100
Sampler's signature/date: Matt Mast 10/12/10
Reviewer's signature/date: [signature] 10/12/10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW14A
Start Date: 10/13/10
Start Time: 0850

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 94.25 - 109.25

Well TD: 112.10
Well DTW: 62.45'
Water Column: 49.65
Pump Intake (ft bgs): 95.7

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	49.65
Volume of water in casing (gal)	=	8.09
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	20.50
ACTUAL VOLUME PURGED (gal)	=	~ 0.75

Method of Purging : ZIST low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0930	0	60	0.10	62.45	8.31	1680	14.39	2.89		3.18
0935	5	60	0.40	62.45	8.40	1680	14.42	3.02		2.63
0938	~~8~~	60	0.58	62.45	8.51	1690	14.42	3.32		2.48
0941	~~11~~	60	0.76	62.45	8.57	1680	14.46	1.87		2.32
0944	~~14~~	60	0.94	62.45	8.60	1680	14.49	1.68		2.27
0947	~~17~~	60	1.12	62.45	8.63	1630	14.52	1.73		2.28
0950	~~20~~	60	1.30	62.45	8.67	1610	14.54	1.83		2.29
0953	23	60	1.48	62.45	8.65	1630	14.62	1.81		2.09
0956	27	60	1.66	62.45	8.71	1610	14.54	1.76		2.02
0959	30	60	1.84	62.45	8.73	1620	14.54	1.60		1.98
1002	33	60	2.02	62.45	8.72	1610	14.56	—		1.98
1005	36	60	2.20	62.45	8.75	1620	14.54	1.54		1.96
1008	39	60	2.38	62.45	8.73	1620	14.56	1.34		1.96
1011	42	60	2.56	62.45	8.75	1620	14.56	1.36		1.97

Purging Field Notes:
clear water, sulfur smell 60s purge 50s rchg 50 psi
increase flow rate ~ 80 mL/min for sampling DTW steady at 62.45'

Sample Date/Time: 10/13/10 1030 Sample ID/TR #: TMW14-10201

Sampler's signature/date: 10/13/10

Reviewer's signature/date:

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW-15
Start Date: 10-14-10
Start Time: 1305
Well TD: 76.65
Well DTW: 63.61
Water Column: 13.04
Pump Intake (ft bgs):

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 56-71

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	13.04
Volume of water in AS (gal)	=	9.52
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	~~2.13~~ 13.04
Volume of water in casing (gal)	=	2.13
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.65
ACTUAL VOLUME PURGED (gal)	=	~5 GALS

Method of Purging : LOW FLOW

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1305	0	125	0	63.61	7.64	2180	14.01	0.63		1.07
1310	5	125	1.9	64.05	7.83	2150	14.01	2.10		0.85
1315	10	125	3.8	64.06	7.65	2150	13.63	1.35		1.19
1320	15	125	5.7	64.10	7.66	2140	13.74	1.04		1.40
1325	20	125	7.6	64.10	7.66	2140	13.71	0.96		1.49
1330	25	125	9.5	64.12	7.66	2140	13.74	1.70		1.64
1335	30	125	11.4	64.12	7.68	2130	13.67	0.91		1.90
1340	35	125	13.3	64.12	7.68	2140	13.65	1.08		1.95
1345	40	125	15.2	64.12	7.67	2140	13.66	1.24		1.96
1350	45	125	17.1	64.12	7.66	2130	13.66	1.19		1.95
1355	50	125	19	64.12	7.68	2140	13.67	1.07		1.98

Purging Field Notes:
PURGED ≈ 5 GALS, WELL STABLE. COLLECTED SAMPLE TMW1510 2010.

Sample Date/Time: 14 OCT 2010 @ 1415 Sample ID/TR #: TMW-1510 2010
Sampler's signature/date: [signature]
Reviewer's signature/date: [signature] 10-17-10

WELL SAMPLING DATA FORM

Well Number: TMW 16
Start Date: ~~5~~ 5 OCT 2010
Start Time:

Well Casing Diameter (in):	2	Well TD:	142.20
Bore Hole Diameter (in):	8	Well DTW:	54.94
Annular Space (AS) Length (ft):	17	Water Column:	87.26
Screened Interval (ft bgs):	127.2 - 142.2	Pump Intake (ft bgs)	

WELL VOLUME CALCUATION

(DTW 92.63 10/6 @ 1215)

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	87.26
Volume of water in casing (gal)	=	14.22
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	26.63
Number of EV to be purged	X	
TOTAL VOLUME TO BE PURGED (gal)	=	
ACTUAL VOLUME PURGED (gal)	=	30.0

Method of Purging : BENNETT

Field Parameters	10/5/10				Reading 10-6-10				
Time	1225	1231	1237	1245	1250	1255	1258		Final Sample
Volume (gal)	0	5	10	15	~~20~~ 24	~~25~~ 29	30		
Flow Rate (gpm)									N/A
DTW (ft toc)	87.26				92.63				
pH	8.01	8.06	8.11	8.43	8.62	8.68			
Conductivity (µS/cm)	1843	1837	1830	1823	2351	2337			
Temperature (ºC)	13.8	13.3	13.2	13.4	13.3	13.9			
Turbidity (NTU)	39.5	16.4	47.2	174	223	458			
Eh/Redox (mV)									
DO (mg/L)	0.25	0.15	0.20	0.22	3.41	3.22			

Purging Field Notes:

H_2S SMELL, WATER STOPPED PUMPING @ 19 GALS (1252, 10/5)
WATER STOPPED PUMPING @ 11 GALS (1258, 10/6) TOTAL 30 GALS
COLLECTED ENVIRONMENTAL SAMPLE TMW16102010 @ 1300

Sample Date/Time: 7OCT2010 @ 1300 Sample ID/TR #: TMW16102010
Sampler's signature/date: Joshua J. Hebert
Reviewer's signature/date: 10/8/10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW 17
Start Date: 10-14-10
Start Time: 0805

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 112-127'

Well TD: 130.45
Well DTW: 61.39
Water Column: 69.06
Pump Intake (ft bgs): 128.45

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	69.06
Volume of water in casing (gal)	=	11.26
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	23.67
ACTUAL VOLUME PURGED (gal)	=	8.470

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0820	0	125	0	62.99	9.37	1720	12.76	6.17		3.59
0825	5	80	0.625	63.40	9.38	1700	12.92	—		2.28
0830	10	60	1.025	63.85	9.59	1700	13.00	4.15		2.11
0835	15	50	1.325	64.05	9.64	1700	13.13	—		1.99
0840	20	50	1.575	64.18	9.67	1700	13.22	4.39		1.93
0845	25	50	1.825	64.19	9.72	1700	13.65	3.69		1.76
0850	30	50	2.075	64.19	9.72	1700	13.67	4.11		1.67
0855	35	50	2.325	64.18	9.59	1700	13.87	5.38		1.61
0900	40	50	2.575	64.19	9.50	1720	13.84	3.76		1.55
0902	42	50	2.675	64.19	9.48	1720	13.86	2.90		1.57
0904	44	50	2.775	64.19	9.47	1730	13.88	2.89		1.65
0906	46	50	2.875	64.19	9.47	1720	13.83	2.97		1.63
0930	water level =			64.19						

Purging Field Notes: Began purging at 0815. Initial reach = 40sec, purge = 5 sec, Q = 125ml/min lowered water level too rapidly. P = 60psi, purge = 3.5sec, reach = 57sec, Q = 50ml/min

Sample Date/Time: 10-14-10 0930 Sample ID/TR #: TMW17102818

Sampler's signature/date: Grant Falb 10-14-10

Reviewer's signature/date: [signature] 10-17-10

Clear water w strong sulfur odor.

WELL SAMPLING DATA FORM

Well Number: TMW 18
Start Date: 5 OCT 2010
Start Time: 0758

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 148.7 - 158.7

Well TD: 160.70
Well DTW: 54.15
Water Column: 106.55
Pump Intake (ft bgs)

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	106.55
Volume of water in casing (gal)	=	17.37
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	26.13
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	78.39
ACTUAL VOLUME PURGED (gal)	=	25 GALS

Method of Purging : BENNETT PUMP

Field Parameters	10/5				Reading 10/6		10/14		
Time	0758	0801	0808	0819	1225	1234			Final Sample
Volume (gal)	0	5	10	15	20	25			
Flow Rate (gpm)									N/A
DTW (ft toc)	54.15				113.73		92.57		
pH	10.40	10.26	10.09	10.17	10.00	10.09			
Conductivity (µS/cm)	3650	3030	3020	3030	2790	2824	COLLECTED		
Temperature (ºC)	13.1	13.0	12.9	12.9	13.7	13.6	SAMPLE		
Turbidity (NTU)	5.06	8.10	10.29	55.2	39.3	31.2			
Eh/Redox (mV)									
DO (mg/L)	0.29	0.24	0.24	0.30	1.78	2.17			

Purging Field Notes:

WATER STOPPED PUMPING @ 17 GALS (0825, 10/5)
REMOVED ANOTHER 8 GALS BEFORE WATER STOPPED PUMPING (10/6 1225)
TOTAL 25 GALS. REMOVED 4 GALS THEN COLLECTED SAMPLE TMW18102010

Sample Date/Time: 14OCT2010@0845
Sample ID/TR #: TMW18102010
Sampler's signature/date: Julie E. Hebbert
Reviewer's signature/date:

WELL SAMPLING DATA FORM

Well Number:	TMW 19
Start Date:	5 OCT 2010
Start Time:	0920

Well Casing Diameter (in):	2	Well TD:	187.97
Bore Hole Diameter (in):	8	Well DTW:	41.99
Annular Space (AS) Length (ft):	17	Water Column:	145.98
Screened Interval (ft bgs):	172.97-187.97	Pump Intake (ft bgs)	

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	145.98
Volume of water in casing (gal)	=	23.79
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	36.2
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	108.6
ACTUAL VOLUME PURGED (gal)	=	56

Method of Purging : BENNETT PUMP

Field Parameters	10/5 Reading						10/8		
Time	0920	0930	0940	0948	1008	1013	0842	0849	Final Sample
Volume (gal)	0	5	10	15	20	25	30	35	
Flow Rate (gpm)									N/A
DTW (ft toc)									
pH	8.10	7.90	7.91	7.96	8.00	8.12	8.39	8.39	
Conductivity (µS/cm)	3070	2960	2938	2879	2805	2805	2870	2834	
Temperature (°C)	13.0	12.9	12.9	12.9	12.9	13.00	13.1	13.1	
Turbidity (NTU)	30.3	17.1	33.3	55.5	76.5	80.8	~~8.39~~ 94.0	70.7	
Eh/Redox (mV)									
DO (mg/L)	0.20	0.08	0.07	0.10	0.12	0.15	~~9.40~~ 1.80	1.91	

Purging Field Notes:

H_2S SMELL, WATER STOPPED PUMPING @ 28 GALS (1025, 10/5) COLLECTED SAMPLE 10/8/2010 @ 1450. TOTAL PURGED 56 GALS.

Sample Date/Time: 8 OCT 2010 @ 14.50 Sample ID/TR #: TMW1910 2010

Sampler's signature/date: Frederick E. Isbell

Reviewer's signature/date: 10/8/10

WELL SAMPLING DATA FORM

Well Number: TMW 19
Start Date: 10-8-10
Start Time: 0835

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 172.97-187.97

Well TD: 187.97
Well DTW:
Water Column:
Pump Intake (ft bgs)

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	
Column of water or length of AS (whichever is less)	X	
Volume of water in AS (gal)	=	
Gallons per foot of casing (from chart on back)	=	
Column of water	X	
Volume of water in casing (gal)	=	
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	
Number of EV to be purged	X	
TOTAL VOLUME TO BE PURGED (gal)	=	
ACTUAL VOLUME PURGED (gal)	=	

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Method of Purging : BENNETT PUMP

Field Parameters	Reading								
Time	0858	0913	0930	0940	0946				Final Sample
Volume (gal)	40	45	50	53	56				
Flow Rate (gpm)									N/A
DTW (ft toc)									
pH	8.40	8.39	8.42	8.28					
Conductivity (µS/cm)	2790	2710	2785	2905					
Temperature (ºC)	13.2	13.3	13.5	13.9					
Turbidity (NTU)	77.5	105	137	429					
Eh/Redox (mV)									
DO (mg/L)	2.02	2.10	2.06	1.27					

Purging Field Notes:

USE DISCRETION WHILE REVIEWING DO READINS. REFITTED WATER DISCHARGE LINE, IT HAS A LEAK. AIR IS IN THE DISHARGE LINE. WATER STOPPED PUMPING @ 28 GALS (10/8 @ 0946). TOTAL PURGED 56 GALS.

Sample Date/Time: 8 OCT 2010 @ 1450
Sampler's signature/date: Joshua J. Hubbard
Reviewer's signature/date:

Sample ID/TR #: TMW19102010

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW 21
Start Date: 10-9-10
Start Time: 0820

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): ~~12~~ 10
Screened Interval (ft bgs): ~~48-58~~ 48-58

Well TD: 61.31
Well DTW: 50.65
Water Column: 10.66
Pump Intake (ft bgs): 58.98

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	10.66
Volume of water in AS (gal)	=	7.78
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	10.66
Volume of water in casing (gal)	=	1.74
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	9.52
ACTUAL VOLUME PURGED (gal)	=	2

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0840	0	90	0	51.37	7.87	2550	12.82	10.11		1.74
0850	10	90	0.90	51.61	7.84	2550	12.99	0.90		0.96
0855	15	90	1.35	51.72	7.83	2550	12.99	0.23		0.87
0900	20	90	1.8	51.84	7.83	2550	13.21	~~0.00~~		0.74
0905	25	90	2.25	51.97	7.83	2540	13.37	~~0.00~~		0.71
0910	30	90	2.7	52.06	7.83	2540	13.59	—		0.68
0915	35	90	3.15	52.06	7.83	2540	13.64	4.43		0.57
0920	45	90	4.05	52.15	7.83	2540	13.82	0.54		0.51
0930	50	90	4.5	52.24	7.83	2540	13.82	2.21		0.47
0935	55	90	4.95	52.24	7.83	2530	13.97	1.19		0.51
0940	60	90	5.4	52.24	7.83	2540	—	0.61		0.47
0945	65	90	5.85	52.24	7.83	2540	14.20	0.51		0.47
0950	70	90	6.3	52.24	7.83	2540	13.77	0.62		0.40
0955	75	90	6.75	52.24	7.83	2530	14.12	—		0.36
1000	80	90	7.2	52.24	7.84	2540	14.34	0.29		0.39

Purging Field Notes:
Press = 10 psi, refh = 30 sec, purge = 5sec, Q = 90 ml/min
Final water level = 52.27'

Sample Date/Time: 10-9-10 1000 hrs Sample ID/TR #: TMW21102010

Sampler's signature/date: Grant Cobb 10-9-10

Reviewer's signature/date: [signature] 10/9/10

WELL SAMPLING DATA FORM

Well Number: TMW22
Start Date: 6Oct2010
Start Time: 1105

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 55.23-65.20

Well TD: 65.20 ft BTOC
Well DTW: 48.98 ft BTOC
Water Column: 16.22
Pump Intake (ft bgs) —

3~gal iN Apr 2010

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	~~16.22~~ JR 12
Volume of water in AS (gal)	=	~~11.84~~ JR 8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	16.22
Volume of water in casing (gal)	=	2.64
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	~~14.48~~ JR 11.4
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	~~43.45~~ JR 34.2
ACTUAL VOLUME PURGED (gal)	=	~7 gal

Method of Purging : bailer

Field Parameters	6-oct-10				Reading				Final Sample
Time	1122	1127	1132	1140	Bailed Dry				
Volume (gal)	.75	1.0	1.5	1.75					
Flow Rate (gpm)	—	—	—	—					N/A
DTW (ft toc)	51.48	53.27	55.41	56.57					
pH	7.96	7.87	7.91	7.85					
Conductivity (μS/cm)	3220	3390	3297	3430					
Temperature (ºC)	13.87	13.18	13.23	13.55					
Turbidity (NTU)	170.7	17.24	145.8	172.2					
Eh/Redox (mV)									
DO (mg/L)	3.23	2.95	3.03	3.12					

Purging Field Notes:
purged dry on 6Oct. ~ ~~6~~ 7 JR gal removed. full suite of samples collected, collected samples on 7-oct-10

Sample Date/Time: 10/7/2010 1000
Sample ID/TR #: TMW22102010
Sampler's signature/date: [signature] 10/7/2010
Reviewer's signature/date: [signature] 10/8/10

WELL SAMPLING DATA FORM

Well Number: TMW23
Start Date: 6 Oct 2010
Start Time: 1140

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 10

Well TD: 59.57
Well DTW: 45.82'
Water Column: 13.75
Pump Intake (ft bgs) N/A

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	13.75
Volume of water in casing (gal)	=	2.244
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.004
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	33.012
ACTUAL VOLUME PURGED (gal)	=	6.5

Method of Purging : bail dry

Field Parameters	Reading								
Time	1145	1223	1259						Final Sample
Volume (gal)	2	4	6.5						
Flow Rate (gpm)									N/A
DTW (ft toc)	52.45	56.06	58.85						
pH	7.85	6.06	7.81						
Conductivity (µS/cm)	2050	3140	2760						
Temperature (ºC)	14.20	14.47	14.25						
Turbidity (NTU)	1063	968	925						
Eh/Redox (mV)									
DO (mg/L)	7.91	7.55	7.43						

Purging Field Notes:

bailed dry on 6 Oct 2010 - 6.5 gal purged
sampled on 7 Oct 2010, 0810 hrs

Sample Date/Time: 7 Oct 10 / 0810
Sample ID/TR #: TMW231026 10
Sampler's signature/date: 7 Oct 10
Reviewer's signature/date: 10/8/10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW-24
Start Date: 10-15-10
Start Time: 0905

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 44-54

Well TD: 55.41
Well DTW: 39.31
Water Column: 16.10
Pump Intake (ft bgs): 55.41

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	16.10
Volume of water in casing (gal)	=	2.62
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.38
ACTUAL VOLUME PURGED (gal)	=	2.78

Method of Purging : low-flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0920	0	200	0	40.88	7.75	3640	12.30	1.13		0.56
0925	5	200	1.0	41.41	7.72	3650	12.38	0.89		0.44
0930	10	200	2.0	42.15	7.73	3640	12.36	0.38		0.28
0935	15	200	3.0	42.77	7.75	3630	12.46	0.51		0.16
0940	20	200	4.0	43.38	7.75	3610	12.43	0.99		0.12
0945	25	200	5.0	43.90	7.76	3630	12.59	1.19		0.12
0950	30	200	6.0	44.43	7.77	3630	12.54	1.35		0.21
0955	35	200	7.0	44.81	7.80	3630	12.61	1.37		0.28
1000	40	200	8.0	45.23	7.79	3630	12.62	1.53		0.37
1005	45	150	8.75	45.41	7.78	3630	12.91	1.78		0.45
1010	50	120	9.35	45.41	7.78	3660	13.34	2.04		0.49
1015	55	120	9.95	45.41	7.78	3650	13.47	2.32		0.49
1017	57	120	10.19	45.41	7.78	3650	13.48	—		0.48
1019	59	120	10.43	45.41	7.78	3650	13.37	2.19		0.49
1120	Final	Water	Level =	45.41						

Purging Field Notes: Begin purging at 0915 at 200ml/min
Pmass = 30psi, Pcch = 30 sec, Purge = 6 sec, Q = 120ml/min

Sample Date/Time: 10-15-10 1030 Sample ID/TR #: TMW24102210

Sampler's signature/date: Grant Kolb 10-15-10

Reviewer's signature/date: [signature] 10-17-10

TMW 25

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: ~~EMW 25~~
Start Date: 11 OCT 2010
Start Time: 0940

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 42.5-52.5

Well TD: 55.25
Well DTW: 42.40
Water Column: 12.85
Pump Intake (ft bgs):

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.13
Column of water	X	12.85
Volume of water in casing (gal)	=	1.67
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	10.43
ACTUAL VOLUME PURGED (gal)	=	1.5G

Method of Purging :

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0940	0	100	3.50	42.40	7.54	3800	14.30	13.31		0.86
0943	3	100	3.80	42.40	7.55	3800	14.32	16.93		0.71
0946	6	100	4.10	42.40	7.54	3810	14.36	12.36		0.52
0949	9	100	4.40	42.40	7.53	3820	14.45	10.09		0.41
0952	12	100	4.70	42.40	7.54	3810	14.57	10.60		0.38
0955	15	100	5.00	42.40	7.54	3810	14.53	10.94		0.39
0958	18	100	5.30	42.40	7.53	3800	14.55	7.29		0.36
1001	21	100	5.60	42.40	7.53	3780	14.60	8.01		0.36
1004	24	100	5.60	42.40	7.53	3820	14.71	12.89		0.36
1007	27	100	5.90	42.40	7.53	3820	14.91	7.76		0.31
1010	30	100	6.20	42.40	7.53	3830	14.98	11.02		0.31

Purging Field Notes:
35 psi 200 ft 9 on ~ 100 mL/min
Ready for Samples

Sample Date/Time: 11 OCT 2010 1030 Sample ID/TR #: TMW25102010

Sampler's signature/date: Steven D. Wagner 11 OCT 2010

Reviewer's signature/date:

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW-26
Start Date: 10-7-10
Start Time: 0910

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 45-55

Well TD: 58.24
Well DTW: 26.71
Water Column: 31.53
Pump Intake (ft bgs): 48.4

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	31.53
Volume of water in casing (gal)	=	5.14
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	13.90
ACTUAL VOLUME PURGED (gal)	=	1.2

Method of Purging : low-flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0915	0	200	0	26.71	7.96	3550	13.20	158.9		4.02
0920	5	200	1.0	26.71	7.93	3520	13.13	101.4		3.60
0925	10	200	2.0	26.71	7.92	3500	13.16	112.5		3.30
0930	15	200	3.0	26.71	7.91	3510	13.15	110.5		3.16
0935	20	200	4.0	26.71	7.90	3500	13.26	113.3		3.13
0937	22	200	4.4	26.71	7.91	3510	13.27	—		3.15

Purging Field Notes:
Dock 215T. Water level stable throughout purging. Pressure = 32 psi, Rech = 30 sec, Purge = 7 sec, Q = 200 mL/min

Sample Date/Time: 10/7/10 1000hrs Sample ID/QR #: TMW2610102010

Sampler's signature/date: Grant Kolb 10-7-10

Reviewer's signature/date: [signature] 10/7/10

Final water level after sampling = 26.71'. Undocked 215T before leaving site.

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW27
Start Date: 6-Oct-2010
Start Time: 1400

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 8
Screened Interval (ft bgs): 63-73.26

Well TD: 73.26
Well DTW: 28.12
Water Column: 45.14
Pump Intake (ft bgs): 72.4

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	45.14
Volume of water in casing (gal)	=	7.36
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	16.12
ACTUAL VOLUME PURGED (gal)	=	0.84

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1420	Ø	100	1.2	28.28 28.95	7.92	1250	16.03	12.4		.40
1423	3	100	1.5	28.95	7.91	1207	16.47	2.3		.52
1426	6	100	1.8	29.94	7.89	1321	15.86	3.29		.51
1430	10	100	2.2	28.96	7.91	1435	15.94	1.61		.52
1435	15	100	2.7	28.95	7.91	1424	16.10	1.47		.42
1438	18	100	3.0	29.03	7.92	1432	16.15	1.56		.45
1440	20	100	3.2	29.02	7.96	1439	16.11	1.50		.43

Purging Field Notes:
began sampling @ 1500. full suite collected

Sample Date/Time: 10/6/2010 1500 Sample ID/TR #: TMW27102010
Sampler's signature/date: 10/6/10
Reviewer's signature/date: 10/6/10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW-28
Start Date: 6OCT2010
Start Time: 1515

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 10

Well TD: 50.3'
Well DTW: 17.50'
Water Column: 32.80'
Pump Intake (ft bgs): 49.3

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	32.80
Volume of water in casing (gal)	=	5.35
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	14.11
ACTUAL VOLUME PURGED (gal)	=	.53

Method of Purging : Low-Flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1530	0	50	.05	17.99	7.68	1436	15.69	9.03		1.21
1535	5	50	.25	18.02	7.66	1478	14.61	215.9		1.03
1540	10	50	.50	18.09	7.68	1438	14.45	8.51		1.05
1545	15	50	.75	18.12	7.68	1445	15.09	5.34		1.03
1550	20	50	1.00	18.12	7.50	1397	15.81	2.79		1.03
1555	25	50	1.25	18.12	7.36	1351	15.46	1.46		1.02
1600	30	50	1.50	18.12	7.31	1333	15.07	.99		1.02
1605	35	50	1.75	18.12	7.30	1341	15.66	.99		.99
1610	40	50	2.00	18.12	7.30	1366	15.49	.99		1.00

Purging Field Notes:
Used low flow pump at 30 psi and flow rate of 50 mL/min. Turbidimeter #2 was unreliable.

Sample Date/Time: 6OCT2010/1615 Sample ID/TR #: TMW28102010 Final water
Sampler's signature/date: Hannah Wolfman 6OCT2010 level was 18.12'
Reviewer's signature/date: 10/8/10

WELL SAMPLING DATA FORM

Well Number: TMW29
Start Date: 6 Oct 2010
Start Time: 0815

Well Casing Diameter (in):	2	Well TD:	61.65
Bore Hole Diameter (in):	8	Well DTW:	57.16
Annular Space (AS) Length (ft):	12	Water Column:	4.49
Screened Interval (ft bgs):	51.65-61.65	Pump Intake (ft bgs)	—

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	4.49
Volume of water in AS (gal)	=	3.28
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	4.49
Volume of water in casing (gal)	=	0.731
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	4.01
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	12.03
ACTUAL VOLUME PURGED (gal)	=	3.5 gal

Method of Purging : bailer

Field Parameters	6-oct-2010 Reading								
Time	0835	0842	0858	0917					Final Sample
Volume (gal)	1.0	2.5	2.5	3.5					
Flow Rate (gpm)									N/A
DTW (ft toc)	59.54	59.15	60.91	60.56					
pH	7.77	7.74	7.77	7.74					
Conductivity (µS/cm)	2400	2420	2240	2430	56				
Temperature (ºC)	12.68	12.61	12.61	12.74	C				
Turbidity (NTU)	216.9	113.8	135.5	108.1					
Eh/Redox (mV)									
DO (mg/L)	1.92	1.92	1.94	2.02					

Purging Field Notes:

sampled 7Oct 10, 1155 hrs with bailer

Well was bailed dry on 6-oct-2010

Sample Date/Time: 10/7/10 / 1155
Sample ID/TR #: TMW29 10201Ø
Sampler's signature/date: 10/7/10
Reviewer's signature/date: 10/7/10

WELL SAMPLING DATA FORM

Well Number:	TMW30
Start Date:	13 Oct 2010
Start Time:	0926

Well Casing Diameter (in):	2	Well TD:	46.65
Bore Hole Diameter (in):	8	Well DTW:	38.11
Annular Space (AS) Length (ft):	12	Water Column:	8.54
Screened Interval (ft bgs):	36.65 - 46.65	Pump Intake (ft bgs)	41.65 - 46.65

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	8.54
Volume of water in AS (gal)	=	6.23
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	8.54
Volume of water in casing (gal)	=	1.39
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	7.62
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	22.86
ACTUAL VOLUME PURGED (gal)	=	~23.0 gal

Method of Purging : geosquirt (trash pump)

Field Parameters	Reading								
Time	0930	0936	0950	0955 1005 SA	1005				Final Sample
Volume (gal)	3.0	8.0	13.0	18.0	23				
Flow Rate (gpm)	1.0	1.0	1.0	1.0	1.0				N/A
DTW (ft toc)	38.21	38.50	38.60	38.70	38.72				
pH	7.39	7.39	7.42	7.38	7.38				
Conductivity (µS/cm)	8490	7910	6640	5320	2050				
Temperature (ºC)	FB 12.42	12.47	12.47	12.51	12.52				
Turbidity (NTU)	12.61	12.52	12.64	10.75	12.60				
Eh/Redox (mV)									
DO (mg/L)	5.55	6.49	5.79	5.42	4.57				

Purging Field Notes:

purged ~23 gals or 3+ EV before sampling. full suite +1 QC Amber bottles were collected @ 1015.

Sample Date/Time: 10/13/2010 1015 Sample ID/TR #: TMW30 10 2010

Sampler's signature/date: ~~JO~~ Rle 10/13/2010

Reviewer's signature/date: 10/13/2010

WELL SAMPLING DATA FORM

Well Number: TMW30
Start Date: 19 Oct 2010
Start Time: 1306

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): ~~JRE~~ 36.65-46.65

Well TD: 46.65
Well DTW: 36.97
Water Column: 9.68
Pump Intake (ft bgs) ~ two feet off bottom

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	~~.083~~ JR 0.73
Column of water or length of AS (whichever is less)	X	9.68
Volume of water in AS (gal)	=	7.066
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	9.68
Volume of water in casing (gal)	=	1.58
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	8.64
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	25.93
ACTUAL VOLUME PURGED (gal)	=	26.00

Method of Purging : geosquirt/~~bailed~~ JR

Field Parameters	Reading								
Time	1310	1315	1320	1325	1330	1335			Final Sample
Volume (gal)	0	5.0	10.0	15.0	20.00	25.00			
Flow Rate (gpm)	1.0	1.0	1.0	1.0	1.0	1.0			N/A
DTW (ft toc)	36.97	37.09	37.32	38.57	40.97	41.34			
pH									
Conductivity (µS/cm)									
Temperature (ºC)									
Turbidity (NTU)									
Eh/Redox (mV)									
DO (mg/L)									

Purging Field Notes:
purged 3X EV. collected White Phosphorus sample. This sample was collected a second time due to the lab busting the holding time on first sample.

Sample Date/Time: 19-Oct-2010 1340 Sample ID/TR #: TMW30102010
Sampler's signature/date: 19-Oct 2010
Reviewer's signature/date: + 20 Oct 10

NOTE: * Previously Purged - This is a re-sample for WP

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW-31D
Start Date: 11OCT2010
Start Time:

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 32
Screened Interval (ft bgs): 77-107

Well TD: 107.03
Well DTW: 35.09
Water Column:
Pump Intake (ft bgs):

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	6.73
Column of water or length of AS (whichever is less)	X	~~30~~ 32
Volume of water in AS (gal)	=	~~202~~ 23.36
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	71.94
Volume of water in casing (gal)	=	11.73
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	35.09
ACTUAL VOLUME PURGED (gal)	=	~4 GALS

Method of Purging : LOW FLOW

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1245	0	250	0	35.09	7.77	2053	14.56	3.84		0.64
1249	4	250	1.0	35.33	8.00	2600	13.45	3.95		0.28
1253	8	250	2.0	35.60	7.94	2550	13.42	4.09		0.27
1257	12	250	3.0	35.72	7.81	2520	13.41	1.51		0.26
1301	16	250	4.0	35.72	7.71	2490	13.14	1.12		0.19
1305	20	250	5.0	35.73	7.60	2480	13.13	0.74		0.37
1309	24	250	6.0	35.75	7.57	2390	13.13	0.93		0.54
1313	28	250	7.0	35.80	7.54	2360	13.13	0.91		0.70
1317	32	250	8.0	35.81	7.53	2360	13.11	0.89		0.99
1321	36	250	9.0	35.83	7.52	2380	13.12	0.98		1.04
1325	40	250	10.0	35.85	7.53	2390	13.11	1.01		1.06
1329	44	250	11.0	35.88	7.52	2390	1311	1.06		1.09
1333	48	250	12.0	35.88	7.52	2400	1312	1.04		1.09

Purging Field Notes:

WELL STABLED @ 12 L. COLLECTED SAMPLE TMW31D102010 @ 1400.

Sample Date/Time: 10/11/10@1400 Sample ID/TR #: TMW31D102010

Sampler's signature/date: [signature] 10/11/10

Reviewer's signature/date: [signature] 10/11/10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW31D
Start Date: 20-Oct-2010
Start Time: 0915

Well Casing Diameter (in): _____
Bore Hole Diameter (in): _____
Annular Space (AS) Length (ft): _____
Screened Interval (ft bgs): _____

Well TD: _____
Well DTW: 35.40
Water Column: _____
Pump Intake (ft bgs): _____

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=
Column of water or length of AS (whichever is less)	X
Volume of water in AS (gal)	=
Gallons per foot of casing (from chart on back)	=
Column of water	X
Volume of water in casing (gal)	=
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=
ACTUAL VOLUME PURGED (gal)	=

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0920	Ø	150	1.0	36.75	7.80	2550	13.30	2.08		0.78
0923	3	150	1.450	36.75	7.70	2510	13.50	0.70		0.87
0926	6	150	1.90	36.74	7.64	2500	13.38	1.09		0.95
0929	9	150	2.350	36.75	7.63	2500	13.40	0.60		0.99
0932	12	150	2.800	36.75	7.58	2490	13.38	0.11		1.06
0935	15	150	3.25	36.75	7.56	2480	13.41	0.32		1.09
0938	18	150	3.70	36.75	7.57	2480	13.49	0.17		1.11
0941	21	150	4.15	36.75	7.56	2480	13.60	0.24		1.13
0944	23	150	4.60	36.75	7.56	2480	13.72	0.19		1.14
0947	25	150	5.05	36.74	7.56	2480	13.65	0.21		1.11
0950	28	150	5.50	36.74	7.54	2470	13.65	0.17		1.17
0953	31	150	5.950	36.75	7.54	2470	13.76	0.20		1.15

Copper sulfate

Purging Field Notes:
final settings: 50psi, 8 sec = purge, 22 sec = recharge

Sample Date/Time: 20-Oct-2010 1005 Sample ID/TR #: TMW31D102010 ID TR
Sampler's signature/date: 10/20/2010
Reviewer's signature/date: 10/20/10

NOTE! Previously Purged - Re-Sample for WP

WELL SAMPLING DATA FORM

Well Number: TMW 31S
Start Date: 10-6-10
Start Time: 1530

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 52.85 - 62.85

Well TD: 62.85
Well DTW: 35.25
Water Column: 27.6
Pump Intake (ft bgs) 60.00

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	27.6
Volume of water in casing (gal)	=	4.50
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	13.26
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	39.78
ACTUAL VOLUME PURGED (gal)	=	25

Method of Purging : 12 V PUMP

Field Parameters	Reading 10/6					10/7			
Time	1530	1533	1539	1542	1545	1023	1030	1040	Final Sample
Volume (gal)	0	3	8	10	13	15	20	25	
Flow Rate (gpm)									N/A
DTW (ft toc)	35.25	—	—	—	—	—	—	DRY	
pH	7.53	7.62	7.61	7.49	7.45	7.48	7.44	7.41	
Conductivity (µS/cm)	3720	3670	3690	3680	3610	2708	2726	2657	
Temperature (ºC)	14.2	13.2	13.2	13.3	13.4	13.4	13.3	13.5	
Turbidity (NTU)	OR	759	504	793	668	OR	133	980	
Eh/Redox (mV)									
DO (mg/L)	4.03	4.72	4.68	3.70	3.83	6.43	6.90	6.17	

Purging Field Notes:

WATER STOPPED PUMPING @ 13 GALLS (10/6 @ 1545).
WATER STOPPED PUMPING @ 12 GALS. (10/7 @ 1040) TOTAL 25 GALS
COLLECTED SAMPLE TMW 31S ~~10/8~~ 102010 (10/8 @ 1100)

Sample Date/Time: 8 OCT 2010 @ 1100 Sample ID/TR #: TMW31S102010
Sampler's signature/date: Jughie E. Gilbert 8 OCT 2010
Reviewer's signature/date: 10/8/10

WELL SAMPLING DATA FORM

Well Number:	TMW31S
Start Date:	19 Oct 2010
Start Time:	1420

Well Casing Diameter (in):	2	Well TD:	62.79
Bore Hole Diameter (in):	8	Well DTW:	39.21
Annular Space (AS) Length (ft):	12	Water Column:	23.58
Screened Interval (ft bgs):	52.79 - 62.79	Pump Intake (ft bgs)	

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	23.58
Volume of water in casing (gal)	=	3.84
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.60
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	37.81
ACTUAL VOLUME PURGED (gal)	=	

Method of Purging : geo squirt (50 ft) / hand bailer

Field Parameters	Reading								
Time	1500	1505	0840	0844					Final Sample
Volume (gal)	~~8~~	5.0	5.0	9.0					
Flow Rate (gpm)	1.0	1.0	1.0	1.0					N/A
DTW (ft toc)	39.21	49.65	35.64	48.71					
pH									
Conductivity (µS/cm)									
Temperature (°C)									
Turbidity (NTU)									
Eh/Redox (mV)									
DO (mg/L)									

Purging Field Notes:

unable to purge ANY additional water b/c the geosquirt is 50ft long. will allow to recharge & purge tomorrow. 5 gal purged on 19-Oct. 0844 19-Oct 4 gals removed until bot dtw exceeded ~50 ft. Colleted WP sample after ~9 gal purged

Sample Date/Time: 10/20/2010 1415 Sample ID/TR #: TMW31S102018

Sampler's signature/date: Justin Reals

Reviewer's signature/date:

NOTE = Re-sample for WP

- trash pump failed when trying to collect sample. SAMPLE was collected using bailer.

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW-32
Start Date: 10-14-10
Start Time: 1025
Well TD: 139.1
Well DTW: 38.86
Water Column: 100.24
Pump Intake (ft bgs):

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 119-139

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	100.24
Volume of water in casing (gal)	=	16.34
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	32.4
ACTUAL VOLUME PURGED (gal)	=	3 GAL.

Method of Purging: LOW FLOW

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1025	0	100	0	38.86	8.21	3030	13.81	2.35		2.15
1030	5	100	1.5	39.06	8.27	3350	13.30	5.39		0.22
1035	10	100	3.0	39.15	8.32	3160	13.27	16.69		0.29
1040	15	100	4.5	39.20	8.35	3050	13.32	8.78		0.26
1045	20	100	5.0	39.26	8.36	3020	13.33	7.55		0.25
1050	25	100	6.5	39.34	8.34	2990	13.35	5.93		0.22
1055	30	100	8.0	39.36	8.34	2990	13.43	3.56		0.21
1100	35	100	9.5	39.36	8.34	2980	13.45	3.25		0.19
1105	40	100	10.0	39.38	8.33	2980	13.42	3.88		0.16
1110	45	100	11.5	39.40	8.34	2980	13.48	1.63		0.15
1115	50	100	12.0	39.40	8.34	2970	13.52	2.26		0.12

Purging Field Notes:
H_2S SMELL DURING PURGING. PURGED 3 GAL TO STABILIZATION COLLECTED SAMPLE TMW32102010

Sample Date/Time: 14OCT2010@1145 Sample ID/TR #: TMW32102010
Sampler's signature/date: Frederick E. Hebert
Reviewer's signature/date: 10-17-10

WELL SAMPLING DATA FORM

Well Number: TMW 33
Start Date: 10/6/10
Start Time:

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 25
Screened Interval (ft bgs): 57.5 - 37.5

Well TD: 60.65
Well DTW: 43.46
Water Column: 17.19
Pump Intake (ft bgs)

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17.19
Volume of water in AS (gal)	=	12.6
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	17.19
Volume of water in casing (gal)	=	2.8
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	15.4
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	46.2
ACTUAL VOLUME PURGED (gal)	=	25 GALS

Method of Purging : 12V PUMP

Field Parameters	10/6				Reading 10/7				
Time	1358	1403	1408	1411	0832	0838	0849		Final Sample
Volume (gal)	0	5	10	13	14	20	25		
Flow Rate (gpm)									N/A
DTW (ft toc)	43.46								
pH	7.38	7.32	7.35	7.35	7.58	7.36	7.31		
Conductivity (µS/cm)	1303	1030	1193	1403	903	1031	1087		
Temperature (ºC)	16.8	16.7	16.5	16.6	15.4	15.4	15.7		
Turbidity (NTU)	OR	69.6	51.7	118	950	39.4	124		
Eh/Redox (mV)									
DO (mg/L)	0.72	0.52	0.33	0.68	1.88	2.62	3.34		

Purging Field Notes:

WATER STOPPED PUMPING @ 13 GALS (10/6 @ 1411)
REMOVE AN ADDITIONAL 12 GALS (~~GALS~~ 10/7 @ 0849) TOTAL 25 GALS
COLLECTED ENVIRONMENTAL SAMPLE TMW33102010 @ 1500 10/7

Sample Date/Time: 7 OCT 2010 @ 1500
Sample ID/TR #: TMW33102010
Sampler's signature/date:
Reviewer's signature/date: 10/8/10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW 34
Start Date: 7 OCT 2010
Start Time: 1610

Well Casing Diameter (in): 8
Bore Hole Diameter (in): 2
Annular Space (AS) Length (ft): 26
Screened Interval (ft bgs): 6627-6642 mcl

Well TD: 60.01
Well DTW: 45.59
Water Column: 14.42
Pump Intake (ft bgs):

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	14.42
Volume of water in AS (gal)	=	10.52
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	14.42
Volume of water in casing (gal)	=	2.35
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.87
ACTUAL VOLUME PURGED (gal)	=	1.256

Method of Purging : LOW FLOW

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1610	0	130	4.0	45.76	6.90	6550	17.11	225.1		0.49
1613	3	130	4.39	45.76	6.88	6550	17.11	228.5		0.42
1616	6	130	4.78	45.76	6.90	6520	16.99	1100		0.24
1619	9	130	5.17	45.76	6.89	6520	16.89	206.7		0.22
1622	12	130	5.56	45.76	6.88	6500	16.87	760.3		0.21
1625	15	130	5.95	45.76	6.89	6490	16.38	852.8		0.20
1628	18	130	6.34	45.76	6.88	6500	16.39	606.7		0.19
1631	21	130	6.73	45.76	6.02	6550	16.74	581.5		0.19
1634	24	130	7.12	45.76	6.89	6490	16.89	115.1		0.18

Purging Field Notes:
Purge ~ 4L to get pump settings optimized. PSC 38
20 off 10 on ~ 130 ml/min

Sample Date/Time: 7OCT2010 1635 Sample ID/TR #: TMW 34102010
Sampler's signature/date: 9 OCT 2010
Reviewer's signature/date: 9oct2010

Check Volume

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW35
Start Date: 8 OCT 2010
Start Time: 1415
Well TD: 57.31
Well DTW: 44.65
Water Column: 12.66
Pump Intake (ft bgs): 55.31

Well Casing Diameter (in): 8
Bore Hole Diameter (in): 2
Annular Space (AS) Length (ft): 27
Screened Interval (ft bgs): 55.31-25.31

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back) = 0.73
Column of water or length of AS (whichever is less) X 12.66
Volume of water in AS (gal) = 9.24
Gallons per foot of casing (from chart on back) = 0.163
Column of water X 12.66
Volume of water in casing (gal) = 2.06
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal) = 11.30
ACTUAL VOLUME PURGED (gal) = 2.1

Method of Purging : low-Flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1415	0	150	3.0	44.81	9.23	5270	17.31	9.14		0.47
1418	3	150	3.45	44.81	7.22	5240	17.27	5.74		0.41
1421	6	150	3.90	44.81	7.21	5200	17.30	3.95		0.35
1424	9	150	4.35	44.81	7.21	5160	17.26	2.90		0.29
1427	12	150	4.80	44.81	7.23	5140	17.28	2.97		0.28
1430	15	150	5.25	44.81	7.22	5120	17.26	2.90		0.25
1433	18	150	5.70	44.81	7.24	5080	17.17	2.66		0.21
1436	21	150	6.15	44.81	7.23	5060	17.14	3.46		0.21
1439	24	150	6.60	44.81	7.23	5060	17.18	4.21		0.20

Purging Field Notes:
Started purging at 1400, calibration at 1415.
maintained water level at 44.81 20off 8on 35psi ~150 ml/min

Sample Date/Time: 8OCT2010 1445 Sample ID/TR #: TMW351002010

Sampler's signature/date: [signature] 8 OCT 2010

Reviewer's signature/date: [signature] 10/8/10

WELL SAMPLING DATA FORM

Well Number: TMW 36
Start Date: 10-9-10
Start Time:

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 134-154

Well TD: 154.35
Well DTW: 25.36
Water Column: 128.99
Pump Intake (ft bgs)

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	128.99
Volume of water in casing (gal)	=	21.03
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	37.09
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	111.27
ACTUAL VOLUME PURGED (gal)	=	54 GALS

Method of Purging : BENNETT PUMP

Field Parameters	Reading								Final Sample
Time	0830	0837	0842	0849	0856	0905	0912		
Volume (gal)	0	5	10	15	20	25	29		
Flow Rate (gpm)									N/A
DTW (ft toc)	25.36								
pH	8.29	8.24	8.24	8.18	8.17	8.22			
Conductivity (µS/cm)	3060	2860	2842	2832	2817	2855			
Temperature (ºC)	13.1	13.1	13.0	13.0	12.9	12.9			
Turbidity (NTU)	95	7.29	7.69	9.88	39.1	412			
Eh/Redox (mV)									
DO (mg/L)	1.60	0.31	0.27	0.28	0.35	0.35			

Purging Field Notes:

WATER STOPPED PUMPING @ 29 GALS (10/9 @ 0912).
PURGED 25 GALS 10/11 @ 1110. TOTAL PURGED 54 GALS
COLLECTED SAMPLE TMW-36102010 @ 1300

Sample Date/Time: 10/13/2010 @ 1300
Sample ID/TR #: TMW-36102010
Sampler's signature/date: Frederick E Hebard
Reviewer's signature/date: 10/13/10

WELL SAMPLING DATA FORM

Well Number: TMW-36
Start Date: 10-11-10
Start Time: 1028

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 134 - 154

Well TD: 154.35
Well DTW: 41.28
Water Column:
Pump Intake (ft bgs)

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	
Column of water or length of AS (whichever is less)	X	
Volume of water in AS (gal)	=	
Gallons per foot of casing (from chart on back)	=	
Column of water	X	
Volume of water in casing (gal)	=	
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	
Number of EV to be purged	X	
TOTAL VOLUME TO BE PURGED (gal)	=	
ACTUAL VOLUME PURGED (gal)	=	

Method of Purging : BENNETT PUMP

Field Parameters	10/11 Reading						10/13		
Time	1028	1040	1050	1056	1102	1110		1300	Final Sample
Volume (gal)	0	5	10	15	20	25	SAMPLE		
Flow Rate (gpm)									N/A
DTW (ft toc)	41.28						41.12		
pH	8.23	8.43	8.47	8.50	8.49	8.62			
Conductivity (µS/cm)	3050	2875	2886	2861	2873	2850			
Temperature (ºC)	13.2	13.1	13.0	12.9	12.9	13.0			
Turbidity (NTU)	418	425	6.44	18.5	49.3	237			
Eh/Redox (mV)									
DO (mg/L)	3.42	1.27	1.15	1.22	1.33	3.15			

Purging Field Notes:

WATER STOPPED PUMPING @ 25 GALS (10-11 @ 1110)
TOTAL PURGED 54 GALS

Sample Date/Time:
Sampler's signature/date:
Reviewer's signature/date:

Sample ID/TR #:

WELL SAMPLING DATA FORM

Well Number: TMW-37
Start Date: 10-8-10
Start Time: 1330

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 110.7 - 90.7

Well TD: 110.7
Well DTW: 44.44
Water Column: 66.26
Pump Intake (ft bgs)

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	66.26
Volume of water in casing (gal)	=	10.8
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	19.56
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	58.7
ACTUAL VOLUME PURGED (gal)	=	28

Method of Purging : BENNETT PUMP

Field Parameters	10/8				Reading	10/9			Final Sample
Time	1330	1336	1340	1348	1354	0955	1002	1009	
Volume (gal)	0	5	10	15	18	0	5	10	
Flow Rate (gpm)									N/A
DTW (ft toc)	44.44	—	—	Dry		71.57	—	Dry	
pH	8.59	8.52	8.50	8.62		8.63	8.74	8.69	
Conductivity (µS/cm)	2252	2113	2108	2138		2056	2195	2016	
Temperature (ºC)	13.9	13.2	13.2	13.3		13.4	13.0	13.0	
Turbidity (NTU)	16.6	15.3	28.1	72.4		99	10.37	33.5	
Eh/Redox (mV)									
DO (mg/L)	1.09	1.19	1.23	0.38		3.01	2.51	2.80	

Purging Field Notes:

WATER STOPPED PUMPING @ 18 GALS (10/8 @ 1354). PURGED ADDITIONAL 10 GALS (10/9 @ 1009). TOTAL 28 GALS COLLECTED SAMPLE TMW-37102010 10/11 @ 0915

Sample Date/Time: 11 OCT 2010
Sample ID/TR #: TMW-37102010
Sampler's signature/date: Jodi E. Hebert
Reviewer's signature/date:

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: SMW01
Start Date: 8 Oct 10
Start Time: 1400

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 29.9 - 49.9

Well TD: 52.15
Well DTW: 28.13
Water Column: 24.02
Pump Intake (ft bgs): 50.15

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	24.02
Volume of water in casing (gal)	=	3.92
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	19.98
ACTUAL VOLUME PURGED (gal)	=	2.454

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1430	40	160	7.4	30.36	7.75	1840	13.33	2.39		0.39
1433	3	160	7.88	30.38	7.75	1850	13.37	2.43		0.34
1436	6	160	8.36	30.38	7.74	1840	13.34	2.10		0.26
1439	9	160	8.84	30.38	7.74	1830	13.29	2.77		0.17
1442	12	160	9.32	30.41	7.75	1810	13.35	2.54		0.15
1445	15	160	9.80	30.42	7.74	1820	13.33	2.45		0.15
1448	18	160	10.28	30.42	7.74	1820	13.32	2.76		0.14
1451	21	160	10.76	30.45	7.74	1820	13.35	2.10		0.14

Purging Field Notes:
35 psi 5s purge 20s rchg

Sample Date/Time: 10/8/10 1456 Sample ID/TR #: SMW01102010
Sampler's signature/date: 10/8/10
Reviewer's signature/date: 10/8/10

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW02
Start Date: 4-11-11
Start Time: 0910

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 25-35

Well TD: 37.9
Well DTW: 13.05
Water Column: 24.85
Pump Intake (ft bgs): 35.9

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	24.85
Volume of water in casing (gal)	=	4.05
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.81
ACTUAL VOLUME PURGED (gal)	=	2

Method of Purging : low flow

VOCs
perchlorate
NO_3/NO_2
metals-total
metals-diss
pesticides
dioxins (2)

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0930	0	200	0	13.06	8.25	725	8.91	2.05		0.38
0935	5	200	1.0	13.06	8.22	730	8.87	1.14		0.23
0940	10	200	2.0	13.07	8.23	746	8.88	0.51		0.14
0945	15	200	3.0	13.07	8.22	738	8.98	0.30		0.10
0950	20	200	4.0	13.07	8.22	742	9.07	0.18		0.09
0955	25	200	5.0	13.07	8.22	743	9.21	0.13		0.07
1000	30	200	6.0	13.07	8.21	743	9.28	0.00		0.12
1005	35	200	7.0	13.07	8.19	743	9.38	0.00		0.14
1007	37	200	7.4	13.07	8.20	743	9.37	—		0.13
1045	final water level =			13.07						

Purging Field Notes:
P = 30 psi, reach = 25 sec, purge = 4.5 sec, Q = 200 ml/min
very clear water

Sample Date/Time: 4-11-11 1038 Sample ID/TR #: CMW02042011
Sampler's signature/date: Grant Kolb 4-11-11
Reviewer's signature/date: [signature] 12 APR 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW04
Start Date: 4-6-11
Start Time: 1005

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 115-135

Well TD: 137.91
Well DTW: 45.54
Water Column: 92.37
Pump Intake (ft bgs): 116.85

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	92.37
Volume of water in casing (gal)	=	15.05
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	31.11
ACTUAL VOLUME PURGED (gal)	=	4

Method of Purging : low-flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1015	~~0~~	~~0~~	200	0	46.41	8.89	4860	11.59	37.42		1.74
1020	5	200	1.0	46.59	8.06	4840	11.21	37.92		0.95
1025	10	200	2.0	46.83	8.04	4940	11.17	9.19		1.29
1030	15	200	3.0	47.05	8.05	4990	11.35	7.06		1.64
1035	20	200	4.0	47.18	8.07	5030	11.31	3.83		1.61
1040	25	200	5.0	47.28	8.09	5020	11.55	1.30		1.27
1045	30	200	6.0	47.38	8.10	5060	11.46	1.35		1.27
1050	35	200	7.0	47.52	8.14	5060	11.30	1.12		1.50
1055	40	200	8.0	47.80	8.06	5030	11:45	1.02		1.41
1100	45	200	9.0	47.97	8.09	5080	11.29	1.14		1.29
1105	50	200	10.0	48.21	8.09	5050	11.38	0.69		1.25
1110	55	200	11.0	48.41	8.15	4920	11.60	0.60		1.29
1115	60	200	12.0	48.56	8.18	4860	11.57	0.53		1.25
1120	65	200	13.0	48.68	8.18	4880	11.46	0.09		1.18
1125	70	200	14.0	48.78	8.20	5020	11.41	0.18		1.12
1130	75	200	15.0	48.85	8.21	5010		0.00		1.0

Purging Field Notes:

P=50psi, Tech = 30sec, Purge = 10 sec, Q = 200 mL/min

Sample Date/Time: 4-6-11 1200 Sample ID/TR #: CMW04042011

Sampler's signature/date: Grant Kolb 4-6-11

Reviewer's signature/date: 7 APR 2011

VOCs, explosives, dissolved metals, total metals

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW04
Start Date: 7-6-11
Start Time: 1005

Well Casing Diameter (in): _____
Bore Hole Diameter (in): _____
Annular Space (AS) Length (ft): _____
Screened Interval (ft bgs): _____

Well TD: _____
Well DTW: _____
Water Column: _____
Pump Intake (ft bgs): _____

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	
Column of water or length of AS (whichever is less)	X	
Volume of water in AS (gal)	=	
Gallons per foot of casing (from chart on back)	=	
Column of water	X	
Volume of water in casing (gal)	=	
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	
ACTUAL VOLUME PURGED (gal)	=	

see page 1

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1135	80	200	16.0	48.94	8.21	4980	10.99	0.00		1.04
1140	85	200	17.0	48.94	8.21	4980	11.43	—		1.05
1210	final water level =			48.94						

Purging Field Notes:

Sample Date/Time: _____ Sample ID/TR #: _____

Sampler's signature/date: _____

Reviewer's signature/date: _____

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW07
Start Date: 4-6-11
Start Time: 1225

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): _____

Well TD: 66.60
Well DTW: 39.79
Water Column: 26.81
Pump Intake (ft bgs): 64.6

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	26.81
Volume of water in casing (gal)	=	4.37
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	20.43
ACTUAL VOLUME PURGED (gal)	=	1.3

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1240	0	120	0	40.05	7.90	1490	12.75	0.13		1.94
1255	15	120	1.8	40.11	7.73	1490	12.83	0.00		1.19
1300	20	120	2.4	40.11	7.81	1490	12.96	0.00		1.12
1305	25	120	3.0	40.13	7.81	1490	13.79	0.00		1.07
1310	30	120	3.6	40.13	7.80	1484	13.43	0.00		0.96
1315	35	120	4.2	40.13	7.77	1492	13.44	0.00		0.91
1320	40	120	4.8	40.13	7.80	1472	13.74	0.00		0.88
1322	42	120	5.04	40.13	7.80	1479	13.68	0.00		0.89
1410	final water level =			40.13						

Purging Field Notes:
P = 40psi, Rech = 40sec, purge = 5sec
very steady water level, very clear H2O

Sample Date/Time: 4-6-11 1330 Sample ID/TR #: CMW07042011

Sampler's signature/date: Grant Kolb 4-6-11

Reviewer's signature/date: 7APR2011

Collected VOCs, dissolved metals, total metals, explosives, dioxins, perchlorate

WELL SAMPLING DATA FORM

Well Number: CMW-10
Start Date: 4-5-11
Start Time: 1430

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22'
Screened Interval (ft bgs): 53.1-73.1'

Well TD: 73.1'
Well DTW: 64.04
Water Column: 9.06
Pump Intake (ft bgs): No pump

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	9.06
Volume of water in AS (gal)	=	6.61
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	9.06
Volume of water in casing (gal)	=	1.48
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	8.09
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	24.27
ACTUAL VOLUME PURGED (gal)	=	4

Method of Purging : bailer

Field Parameters	Reading							
Time	1445	1450	1453	1503	1515	4-11-11 1100 hrs VOCs, perchlorate, NO3, metals (diss + total)	4-15-11 1200 hrs SVOC, explosives		Final Sample
Volume (gal)	0.0	0.5	1.5	2.25	4				
Flow Rate (gpm)								N/A
DTW (ft toc)	64.04	64.50	65.56	66.60	68.54				
pH	9.24	9.10	9.28	9.71	10.63				
Conductivity (µS/cm)	5160	5170	5260	5400	5600				
Temperature (ºC)	13.15	13.40	12.03	12.10	12.01				
Turbidity (NTU)	—	79.73	85.65	97.34	208.4				
Eh/Redox (mV)									
DO (mg/L)	6.74	5.49	6.69	6.69	6.87				

Purging Field Notes:
Bailed dry at 72.11'.

Sample Date/Time: 4-11-11 1100
Sample ID/TR #: CMW10042011
Sampler's signature/date: [signature] 4-11-11
Reviewer's signature/date: [signature] 4/19/2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW14
Start Date: 4-8-11
Start Time: 1350

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 84.2 - 94.2

Well TD: 96.75
Well DTW: 29.91
Water Column: 66.84
Pump Intake (ft bgs): 93.75

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	66.84
Volume of water in casing (gal)	=	10.89
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	19.65
ACTUAL VOLUME PURGED (gal)	=	1.2

Method of Purging : low flow

VOCs perchlorate NO3/NO2 metals-total metals-diss SVOCs explosives

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1400	0	100	0	29.91	12.13	5440	14.35	1.03		6.03
1405	5	100	0.5	29.91	12.17	5740	14.11	2.27		1.76
1410	10	100	1.0	29.91	12.17	5800	14.34	1.33		0.95
1415	15	100	1.5	29.91	12.17	5850	14.45	0.01		0.62
1420	20	100	2.0	29.91	12.17	5850	14.47	0.01		0.53
1430	30	100	3.0	29.91	12.16	5880	14.75	0.08		0.42
1435	35	100	3.5	29.91	12.17	5900	14.38	0.09		0.37
1440	40	100	4.0	29.91	12.18	5870	13.90	0.18		0.34
1442	42	100	4.2	29.91	12.19	5850	13.86	—		0.30
1444	44	100	4.4	29.91	12.18	5860	13.84	0.08		0.31
1600	final water level =			29.91						

Purging Field Notes:
P = 40 psi rech = 30 sec purge = 6 sec, Q = 100 ml/min

Sample Date/Time: 4-8-11 1500 Sample ID/TR #: CMW14042011
Sampler's signature/date: Grant Kolb 4-8-11
Reviewer's signature/date: [illegible] 09 APR 2011

WELL SAMPLING DATA FORM

Well Number:	CMW-17
Start Date:	4-5-11
Start Time:	1100
Well Casing Diameter (in):	2
Bore Hole Diameter (in):	8
Annular Space (AS) Length (ft):	22
Screened Interval (ft bgs):	34.24-54.24
Well TD:	54.24
Well DTW:	20.77
Water Column:	33.47
Pump Intake (ft bgs)	No Pump

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	33.47
Volume of water in casing (gal)	=	5.46
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	21.52
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	64.56
ACTUAL VOLUME PURGED (gal)	=	~~64~~ 15 Purge Dry

Method of Purging : trash pump

Field Parameters	Reading								
Time	1102	1104	1106	1110	1113	Collected Sample 4-6-11 0930			Final Sample
Volume (gal)	1gal	3gal	6gal	10gal	15gal				
Flow Rate (gpm)									N/A
DTW (ft toc)	26.77	28.31	35.85	46.70	50.93				
pH	8.94	8.93	8.90	8.85	8.90				
Conductivity (µS/cm)	1127	1028	988	1032	1108				
Temperature (ºC)	12.29	11.85	11.91	12.00	12.00				
Turbidity (NTU)	123.1	38.61	28.63	69.60	363.8				
Eh/Redox (mV)									
DO (mg/L)	1.82	6.15	6.54	6.11	6.53				

Purging Field Notes:

pumped dry after removal of 15 gallons total

Sample Date/Time: 4-6-11 0930 Sample ID/TR #: CMW17042011

Sampler's signature/date: Grant Kolb 4-6-11

Reviewer's signature/date: [signature] 7 APR 2011

Collected VOCs, NO_3/NO_2, perchlorate, explosives, total metals, dissolved metals

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW18/FW03
Start Date: 4-7-11
Start Time: 1020

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 34.10 - 54.10

Well TD: 54.10
Well DTW: 40.34
Water Column: 13.66
Pump Intake (ft bgs): 52.10

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	13.66
Volume of water in AS (gal)	=	9.97
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	13.66
Volume of water in casing (gal)	=	2.23
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.2
ACTUAL VOLUME PURGED (gal)	=	2

Method of Purging : Low Flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1025	0	200	0	40.39	7.36	862	11.63	5.77		4.67
1035	10	200	2.0	40.40	7.33	870	11.57	1.08		5.20
1040	15	200	3.0	40.51	7.32	859	11.64	1.62		5.31
1045	20	200	4.0	40.55	7.33	860	11.74	2.35		5.32
1050	25	200	5.0	40.61	7.32	860	11.62	1.77		5.29
1055	30	200	6.0	40.64	7.32	860	11.59	1.15		5.27
1100	35	200	7.0	40.64	7.32	860	11.61	1.18		5.32
1102	37	200	7.4	40.64	7.32	860	11.60	—		5.31
1400	final water level =			40.67						

Purging Field Notes:
Strong sulfur odor to water, which is very clear
P = 30psi, Tech = 20sec, purge = 7sec, Q = 200 mL/min

Sample Date/Time: 4-7-11 Sample ID/TR #: CMW18042011 FW03042011

Sampler's signature/date: Grant Kolb 4-7-11

Reviewer's signature/date: GAWagner 7APR2011

Collected QC + QA samples

VOCs, NO3/NO2, perchlorate, dioxins, explosives, SVOCs, metals (total & dissolved)

page 1 of 2

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW 19
Start Date: 4-8-11
Start Time: 0830

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 36.3 - 51.3

Well TD: 51.30
Well DTW: 23.19
Water Column: 28.11
Pump Intake (ft bgs): 36.3

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	28.11
Volume of water in casing (gal)	=	4.58
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	16.99
ACTUAL VOLUME PURGED (gal)	=	0.75

Method of Purging : low flow

CVOCs
perchlorate
NO_3/NO_2
metals-total
metals-diss
SVOCs
dioxins
pesticides

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0850	0			23.19	9.83	1320	10.12	40.00		0.63
equipment failure - startover at 0930 hours										
0930	0	40	0	23.20	9.76	1284	12.02	22.79		0.55
0935	5	40	0.2	23.20	9.81	1290	11.98	20.10		0.30
0940	10	40	0.4	23.20	9.76	1284	12.16	29.18		0.20
0945	15	40	0.6	23.20	9.72	1283	12.35	33.59		0.16
0950	20	40	0.8	23.20	9.69	1278	12.43	44.21		0.12
0955	25	40	1.0	23.20	9.66	1276	12.59	50.57		0.12
1000	30	40	1.2	23.20	9.65	1273	12.67	55.44		0.11
1005	35	40	1.4	23.20	9.63	1273	12.92	54.82		0.11
1010	40	40	1.6	23.20	9.60	1276	12.96	53.44		0.10
1012	42	40	1.68	—	9.61	1278	12.02	54.05		0.10
1014	44	40	1.76	—	9.59	1274	13.01	—		0.09
1016	46	40	1.84	—	9.59	1279	13.06	—		0.10
1018	48	40	1.92	—	9.58	1270	12.87	52.34		0.09
1020	50	40	2.0	23.20	9.57	1273	13.07	—		0.09

Purging Field Notes:

P = 30 psi, purge = 4 sec, rech = 35 sec, Q = 40 mL/min
steady water level during purging

Sample Date/Time: 4-8-11 1110 hrs Sample ID/TR #: CMW19042011

Sampler's signature/date: Grant Kolb 4-8-11

Reviewer's signature/date: [signature] 09 APR 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW-19
Start Date: 4-8-11
Start Time: 0830

Well Casing Diameter (in): _____
Bore Hole Diameter (in): _____
Annular Space (AS) Length (ft): _____
Screened Interval (ft bgs): _____

Well TD: _____
Well DTW: _____
Water Column: _____
Pump Intake (ft bgs): _____

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	
Column of water or length of AS (whichever is less)	X	
Volume of water in AS (gal)	=	
Gallons per foot of casing (from chart on back)	=	
Column of water	X	
Volume of water in casing (gal)	=	
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	
ACTUAL VOLUME PURGED (gal)	=	

See page 1

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1025	55	40	2.2	23.20	9.55	1295	13.43	48.13		0.09
1030	60	40	2.4	23.20	9.54	1300	—	43.67		0.09
1035	65	40	2.6	23.20	9.52	1296	13.60	40.98		0.06
1040	70	40	2.8	23.20	9.53	1296	13.64	41.43		0.07

Purging Field Notes:

Sample Date/Time: _____ Sample ID/TR #: _____

Sampler's signature/date: _____

Reviewer's signature/date: _____

WELL SAMPLING DATA FORM

Well Number: CMW22
Start Date: 5APR2011
Start Time: ~~11:59~~ 12:07

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 96.5 -

Well TD: 120.23
Well DTW: 114.57
Water Column: 5.66
Pump Intake (ft bgs) no pump

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	5.66
Volume of water in AS (gal)	=	4.13
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	5.66
Volume of water in casing (gal)	=	.92
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	5.05
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	15.15
ACTUAL VOLUME PURGED (gal)	=	2 DRY WELL

Method of Purging : bailer

Field Parameters	Reading								
Time	12:07	12:15	12:24						Final Sample
Volume (gal)	.25	1.0	2						
Flow Rate (gpm)									N/A
DTW (ft toc)	114.57	119.20	120.02						
pH	8.21	8.40	8.44						
Conductivity (µS/cm)	~~788~~ 788	709	179						
Temperature (ºC)	13.91	12.36	13.27						
Turbidity (NTU)	11.76	40.40	197.6						
Eh/Redox (mV)									
DO (mg/L)	3.71	5.15	3.51						

Purging Field Notes:
*bailed dry on 4/5/2011 * Collected Nitrate/Nitrite (1), total & dissolved metals (2), VOC (3), DIOXINS/FURANS (1)
Full suite

Sample Collection

Sample Date/Time: 6APR 2011, 9:45 Sample ID/TR #: CMW22042017
Sampler's signature/date: [signature]
Reviewer's signature/date: [signature] 7 APR 2011

WELL SAMPLING DATA FORM

Well Number:	CMW 23
Start Date:	5-APR-2011
Start Time:	1038

Well Casing Diameter (in):	2	Well TD:	106.6
Bore Hole Diameter (in):	8	Well DTW:	97.36
Annular Space (AS) Length (ft):	22	Water Column:	9.24
Screened Interval (ft bgs):	84-104	Pump Intake (ft bgs)	N/A

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	9.24
Volume of water in AS (gal)	=	6.75
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	~~1.51~~ 9.24
Volume of water in casing (gal)	=	1.51
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	8.26
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	24.79
ACTUAL VOLUME PURGED (gal)	=	~ 3.0 ~~PURGED~~ DRY

Bailed Dry on 4/5/2011 **

Method of Purging : Bailer

Field Parameters	Reading								Final Sample
Time	1045	1050	1055	1100	1105				
Volume (gal)	.5	1.0	1.5	2.0	2.5				
Flow Rate (gpm)									N/A
DTW (ft toc)	97.36	99.24	101.96	103.75	105.17	DRY	On 4/5/2011 Collected Sample		
pH	7.27	8.29	8.25	8.40	8.35	DRY			
Conductivity (µS/cm)	1660	1450	3.0	5670	5665	DRY			
Temperature (ºC)	12.75	12.51	14.18	12.22	12.34	DRY			
Turbidity (NTU)	97.6	101.4	432.6	138.5	145.1	.3	On 4/7/2011 Collected Sample		
Eh/Redox (mV)						DRY			
DO (mg/L)	2.90	6.16	5.27	5.53	5.73	DRY			

Purging Field Notes:

Baled dry on 4/5/2011, 3 gal removed. Sampled well for total & dissolved metals (2), VOC(3), HE(2). Collected second explosives sample 4/7/2011 at 9:10 and the rest werecollected 4/6/2011 at 9:20.

Sample Date/Time: 4/6/2011 0920 Sample ID/TR #: CMW23042011

Sampler's signature/date: [signature]

Reviewer's signature/date: [signature] 7 APR 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW24
Start Date: 6 APR 2011
Start Time: 12:30

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 32
Screened Interval (ft bgs): 230-260

Well TD: 260.00
Well DTW: 46.97
Water Column: 213.03
Pump Intake (ft bgs): 258.34

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	32
Volume of water in AS (gal)	=	23.36
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	213.03
Volume of water in casing (gal)	=	34.72
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	58.08
ACTUAL VOLUME PURGED (gal)	=	~~0~~ 1.06

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
2:00	0	~~4850~~	2.5	49.70	9.14	2810	14.16	9.23		.32
2:03	3	50	2.65	49.65	9.17	2800	14.06	9.16		.24
2:06	6	50	2.80	49.65	9.18	2800	14.00	8.11		.12
2:09	9	50	2.95	49.65	9.18	2810	13.74	7.24		.11
2:12	12	50	3.10	49.63	9.17	2800	13.71	5.81		.09
2:15	15	50	3.25	49.70	9.0	2810	13.94	3.06		.09
2:18	18	50	3.40	49.70	8.97	2810	14.22	1.66		.07
2:21	21	50	3.55	49.75	8.88	2800	14.41	1.19		.08
2:24	24	50	3.70	49.75	8.80	2800	14.62	.96		.08
2:27	27	50	3.85	49.75	8.77	2800	14.62	.96		.07
2:30	30	50	4.00	49.75	8.74	2800	14.58	.24		.08
~~2:33~~	~~33~~	~~50~~	~~4.15~~							
~~2:36~~	~~36~~	~~50~~	~~4.30~~							

Purging Field Notes:
80 psi, 40s ~~off~~ 10 s on. Collected VOCs, dissolved metals, nitrates, dioxins, explosives, pesticides, & total metals, & SVOCs

Sample Date/Time: 4/6/2011 2:30 Sample ID/TR #: CMW24042011
Sampler's signature/date: Amanda Wolgamott 4/6/2011
Reviewer's signature/date: 7 APR 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW25
Start Date: 11APR2011
Start Time: 9:15

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 27
Screened Interval (ft bgs): 71-96

Well TD: 98.78 ft
Well DTW: ~~36.51~~ 37.19
Water Column: 61.59
Pump Intake (ft bgs): 96.78

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	27
Volume of water in AS (gal)	=	19.71
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	61.59
Volume of water in casing (gal)	=	10.04
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	29.75
ACTUAL VOLUME PURGED (gal)	=	~~3~~ 2.69

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
10:00	0	150	0	37.21	8.80	1044	12.34	48.73		.83
10:04	~~10:04~~ 4	150	6.6	37.21	8.82	1042	12.46	53.12		.81
10:08	8	150	7.2	37.21	8.83	1045	12.33	49.54		.80
10:12	12	150	7.8	37.21	8.83	1044	12.57	43.50		.88
10:16	16	150	8.4	37.21	8.81	1041	12.52	46.44		.83
10:20	20	150	9.0	37.21	8.83	1045	12.51	39.11		.82
10:24	24	150	9.6	37.21	8.83	1045	12.56	36.91		.81
10:28	28	150	10.2	37.21	8.83	1043	1282	36.11		.81

Purging Field Notes:

30 psi, 40s recharge, 8s purge. Collected VOCs(3), total & dissolved metals, nitrate, dioxins/furans (2), pesticides

Sample Date/Time: 11APR2011 10:45 Sample ID/TR #: CMW25 04 2011

Sampler's signature/date: Hannah Wolfman 11APR2011

Reviewer's signature/date: [signature] 11 APR 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: EMW01
Start Date: 4/12/2011
Start Time: 0900

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 103-118

Well TD: 118.7
Well DTW: 98.21 on 4/12/2011
Water Column: ~~38.69~~ 80.11 on 4/7/2011
Pump Intake (ft bgs): 116.7

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	~~38.69~~ 38.69
Volume of water in casing (gal)	=	6.31
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	22.37
ACTUAL VOLUME PURGED (gal)	=	7.5 gallons

Method of Purging : ~~Bailer~~ Bessf pump, previously purged dry w/ Bessf pump on 4/7/2011

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0915	0	100	.5	99.56	8.79	8140	13.03	57.02		1.47
0918	3	100	.80	99.92	8.73	8150	13.37	34.78		1.42
0921	6	100	1.10	100.17	8.71	8140	13.51	28.58		1.38
0924	9	70	1.310	100.36	8.68	8100	13.71	16.40		1.34
0927	12	70	1.420	100.64	8.64	8050	13.76	34.62		1.33
0930	15	70	1.630	100.94	8.67	8070	13.69	19.64		1.32

Purging Field Notes: M. Masten purged on 4/7/2011.
well was ~~bar~~ purged on 4/7/2011, ~7.5 gallons purged. WA collected on 4/12. collected VOC(3), pesticides(1), total & dissolved(1) metals, perchlorate, 1,4E(1), SVOC(1).

Sample Date/Time: 4/12/2011 0940 Sample ID/TR #: EMW01042011

Sampler's signature/date: [signature] 4/12/2011

Reviewer's signature/date: [signature] 13 APR 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: EMW02
Start Date: 4/12/2011
Start Time: 1315

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 93-108

Well TD: 108.4
Well DTW: 31.26 on 4/12/2011 57.04 on 4/14/11
Water Column: 77.14
Pump Intake (ft bgs): 107.70

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	77.14
Volume of water in casing (gal)	=	12.57
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	24.98
ACTUAL VOLUME PURGED (gal)	=	19 gallons on 4/12/2011 *

Method of Purging: Bessf PUMP. well was previously purged dry on 4/12/2011

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0820	0	100	0	57.08	8.25	6810	10.80	1.16		1.18
0823	3	100	.3	58.55	8.26	6840	10.83	1.02		1.00
0826	6	100	.6	59.30	8.26	6830	10.50	1.10		1.04
0829	9	100	.9	60.01	8.25	6810	10.30	1.14		1.03
0832	12	100	1.2	60.94	8.25	6830	9.94	1.09		1.03
0842	22	100	2.2	62.23	8.25	6830	9.78	1.12		1.05

Purging Field Notes:
well was purged dry on 4/12/2011, ~ 19.0 gallons purged. ending DTW = 70.29 ft BTS
Samples collected: VOC, SVOC, Nitrate, HE, Pesticides, total & dissolved metals

Sample Date/Time: 4/14/2011 Sample ID/TR #: EMW02042011

Sampler's signature/date: [signature] 4/14/2011

Reviewer's signature/date: [signature] 15 APR 2011

WELL SAMPLING DATA FORM

Well Number: EMW03
Start Date: 4/9/2011
Start Time: 0850

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 78-93

Well TD: 92.90 9
Well DTW: ~~45.~~ ~~44.5T~~ 28.82 on 4/9/2011
Water Column: 64.108 41.51 on 4/12
Pump Intake (ft bgs) 80.8

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	64.108
Volume of water in casing (gal)	=	10.46
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	22.86
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	68.87
ACTUAL VOLUME PURGED (gal)	=	18.5 gal

Method of Purging : bessT pump, purged previously w/ pump

Field Parameters	Reading								Final Sample
Time	1025	1028	1031	1034	1037				
Volume (~~gal~~) Liters	.5	.80	~~1.2~~ 1.10	~~1.3~~ 1.4	1.7				
Flow Rate (~~gpm~~) ml/min	200	100	100	100	100				N/A
DTW (ft toc)	43.17	44.00	44.39	44.92	45.49				
pH	11.55	11.20	10.87	10.77	10.41				
Conductivity (ųS/cm)	6390	6110	6040	5950	5810				
Temperature (ºC)	12.12	12.09	12.06	11.56	12.03				
Turbidity (NTU)	4.87	2.01	.78	1.29	1.74				
Eh/Redox (mV)									
DO (mg/L)	2.64	2.24	1.95	1.69	1.65				

Purging Field Notes:

DO may be high due to small cracks in flow cell. samples collected: VOC (3), ~~total~~ (1) total (1) & dissolved (1) metals, DIOXINS (1), HE (2), pesticides (1), nitrate/Nitrite (1),
ending DTW = 57.54 ft BGS

Sample Date/Time: 4/12/2011 1045
Sample ID/TR #: EMW03042011
Sampler's signature/date: [signature] 4/12/2011
Reviewer's signature/date: [signature] 13 APR 2011

Flow Settings
sampling: 50 psi, 10 sec purge, 10 sec recharge
stabilization: 50 psi 50 sec recharge, 10 sec purge

WELL SAMPLING DATA FORM

Well Number: EMW-04
Start Date: 4-5-11
Start Time: 1315

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 100-115

Well TD: 115.0
Well DTW: 102.73
Water Column: 12.27
Pump Intake (ft bgs) 114.26

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12.27
Volume of water in AS (gal)	=	8.96
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	12.27
Volume of water in casing (gal)	=	2.00
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	10.96
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	32.9
ACTUAL VOLUME PURGED (gal)	=	3 GALS DRY

Method of Purging : BENNETT PUMP

Field Parameters	4-5-11						Reading	4-15-11		
Time	1325	1331					1020			Final Sample
Volume (gal)	1	3								
Flow Rate (gpm)	—	.5								N/A
DTW (ft toc)	102.73	114.0					108.20			
pH	7.11	7.36								
Conductivity (µS/cm)	1299.0	12,980								
Temperature (ºC)	13.35	13.14								
Turbidity (NTU)	114.7	25.9								
Eh/Redox (mV)										
DO (mg/L)	2.16	2.95								

SAMPLE COLLECTED

Purging Field Notes:

WELL DRY W/ JUST A LITTLE MORE THAN 3 GALS PURGED. E-TAPE AT TOP OF PUMP NO WATER. PURGE 1 GAL BEFORE SAMPLING. WELL BEGAN TO DRY DURING THE END OF SAMPLING.

Sample Date/Time: 4-15-11 @ 1020 Sample ID/TR #: EMW-04042011
Sampler's signature/date: [signature] 4-15-11
Reviewer's signature/date:

T&D METALS, N+N, VOC, SVOC

WELL SAMPLING DATA FORM

		Well Number:	FW-31
		Start Date:	4-5-11
		Start Time:	1450
Well Casing Diameter (in):	4	Well TD:	≈52.0 FT
Bore Hole Diameter (in):	8	Well DTW:	41.61
Annular Space (AS) Length (ft):	22	Water Column:	10.40
Screened Interval (ft bgs):	12 - 32	Pump Intake (ft bgs)	TD

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.59
Column of water or length of AS (whichever is less)	X	10.40
Volume of water in AS (gal)	=	6.14
Gallons per foot of casing (from chart on back)	=	0.6528
Column of water	X	10.40
Volume of water in casing (gal)	=	6.79
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.93
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	38.8
ACTUAL VOLUME PURGED (gal)	=	12 WELL WENT DRY

Method of Purging : 12 VOLT PUMP

Field Parameters	4-5-2011			**Reading**			4-6-2011		
Time	1503	1506	1509	1512	1515		1330	1345	**Final Sample**
Volume (gal)	~~1503~~	3	6	9	12				
Flow Rate (gpm)									N/A
DTW (ft toc)	41.61				51.75		45.31		
pH	8.11	8.04	8.10	8.22	8.34				
Conductivity (ųS/cm)	2248 ~~3.40~~	2260	2280	2300	2290	DRY	COLLECTED		
Temperature (ºC)	12.91	12.66	12.71	12.72	12.74			SAMPLE	
Turbidity (NTU)	1.41	8.98	6.91	10.36	8.74				
Eh/Redox (mV)									
DO (mg/L)	5.54	5.30	5.02	5.29	5.45				

Purging Field Notes:

WELL DRY AFTER PURGING 12 GALS. PURGED 2 GALS BEFORE COLLECTING SAMPLE.

Sample Date/Time: 4-6-2011 @ 1345 Sample ID/TR #: FW3104 2011

Sampler's signature/date: Juliat 9. Gelhart 4-6-2011

Reviewer's signature/date: [signature] 7 APR 2011

N+N
T+D METALS
SVOC
EXPLOSIVES
DIOXINS/FURANS

WELL SAMPLING DATA FORM

Well Number: FW-35
Start Date: 4-5-11
Start Time: 1357

Well Casing Diameter (in):	4	Well TD:	32.15
Bore Hole Diameter (in):	8	Well DTW:	20.75
Annular Space (AS) Length (ft):	22	Water Column:	11.4
Screened Interval (ft bgs):	32-12'	Pump Intake (ft bgs)	TD

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.59
Column of water or length of AS (whichever is less)	X	11.40
Volume of water in AS (gal)	=	6.73
Gallons per foot of casing (from chart on back)	=	0.6528
Column of water	X	11.40
Volume of water in casing (gal)	=	7.44
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	14.17
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	42.51
ACTUAL VOLUME PURGED (gal)	=	12 GAL, WELL DRY

Method of Purging : 12 VOLT PUMP

Field Parameters	4-5-2011 Reading						4-6-2011		
Time	1411	1414	1417	1420	1423		1415	1445	Final Sample
Volume (gal)	INITIAL	3	6	9	12				
Flow Rate (gpm)									N/A
DTW (ft toc)	20.75	–	–	–	31.80		23.11		
pH	655	7.02	7.01	701	7.16			COLLECTED	
Conductivity (µS/cm)	4210	4090	4060	4070	4110			SAMPLE	
Temperature (ºC)	12.90	12.25	12.18	12.19	12.28				
Turbidity (NTU)	7.28	5.62	11.77	9.40	12.62				
Eh/Redox (mV)									
DO (mg/L)	3.45	3.44	~~11.77~~ 2.85	2.51	2.89				

Purging Field Notes:

WELL DRY AFTER PURGING 12 GALS. PURGED 2 GALS BEFORE COLLECTING SAMPLE

Sample Date/Time: 4-6-2011 @ 1445 Sample ID/TR #: FW35042011

Sampler's signature/date: Fredrick E. Hubbard 4-6-2011

Reviewer's signature/date: [signature] 7APR2011

T+DISSOLVED METALS
N+N EXPLOSIVES
VOC
SVOC

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: KMW-09
Start Date: 4-5-11
Start Time: 1135

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 12'
Screened Interval (ft bgs): 60-70'

Well TD: 72.9
Well DTW: 39.93
Water Column: 32.97
Pump Intake (ft bgs): 70.9

1 500ml Nitrate 300.0
1 " T. Metals
1 " D. Metals
1 " Perchlorate
3 Soil VOC
1 L Dioxins
1 L Explosives

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	32.97
Volume of water in casing (gal)	=	5.37
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	14.13
ACTUAL VOLUME PURGED (gal)	=	1.71

Method of Purging: low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1200	0	120	0	39.94	7.80	3520	13.61	38.86		1.62
1205	5	120	600	39.94	8.00	3530	13.55	6.57		0.53
1210	10	120	1.2	39.94	7.94	3530	13.61	3.10		0.44
1215	15	120	1.8	39.94	7.87	3550	13.37	1.89		0.41
1220	20	120	2.4	39.94	7.81	3560	13.74	1.28		0.39
1230 ~~1225~~	30	120	3.6	39.94	7.75	3570	13.79	1.32		0.35
1235	35	120	4.2	39.94	7.72	3580	13.92	1.15		0.29
1240	40	120	4.8	39.94	7.70	3580	14.20	0.90		0.28
1245	45	110	5.35	39.94	7.67	3560	13.85	1.72		0.25
1250	50	110	5.9	39.94	7.66	3580	14.06	1.18		0.20
1252	52	110	6.12	39.94	7.64	3580	14.05	0.93		0.21
1254	54	110	6.34	39.94	7.65	3580	13.91	1.52		0.21
1420	Final water level =			39.94						

Purging Field Notes: water has strong sulfur odor Docked 2157.
Pressure = 38 psi, soak = 30sec, purge = 5sec, Q = 120ml/min
Well split N gas during filling of last bottle.

Sample Date/Time: 4-5-11 1300 Sample ID/TR #: KMW0904202011
Sampler's signature/date: Grant Kolb 4-5-11
Reviewer's signature/date: 7 APR 2011 SAMagner

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: KMW-09
Start Date: 4-7-11
Start Time: 1420

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 12'
Screened Interval (ft bgs): 60-70'

Well TD: 72.9
Well DTW: 39.96
Water Column: 32.94
Pump Intake (ft bgs): 70.9

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	32.94
Volume of water in casing (gal)	=	5.37
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	14.13
ACTUAL VOLUME PURGED (gal)	=	1.2

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1430	0	100	0	39.96	7.71	3510	11.39	1.63		1.09
1435	5	100	0.5	39.96	7.70	3530	10.94	1.09		0.29
1440	10	100	1.0	39.96	7.68	3540	10.99	~~1.80~~ 0.69		0.22
1445	15	100	1.5	39.96	7.65	3540	11.30	0.76		0.20
1450	20	100	2.0	39.96	7.62	3550	11.36	0.01		0.18
1455	25	100	2.5	39.96	7.60	3580	11.82	0.29		0.17
1500	30	100	3.0	39.96	7.58	3560	12.18	0.37		0.15
1505	35	100	3.5	39.96	7.57	3550	12.12	0.59		0.14
1510	40	100	4.0	39.96	7.56	3580	11.90	0.01		0.14
1512	42	100	4.2	39.96	7.55	3580	12.01	—		0.14
1514	44	100	4.4	39.96	7.56	3580	12.04	—		0.14

Purging Field Notes:
re-stabilize parameters to collect NO_3 only

Sample Date/Time: 4-7-11 1515 Sample ID/TR #: KMW09042011
Sampler's signature/date: Grant Kolb 4-7-11
Reviewer's signature/date: GAWagner 7APR2011

collected NO_3/NO_2 only

WELL SAMPLING DATA FORM

Well Number: KMW10
Start Date: 4/5/2011
Start Time: 1310

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 158-168

Well TD: ~~166.80~~ 171.02
Well DTW: 166.80
Water Column: 4.22
Pump Intake (ft bgs): N/A

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	4.22
Volume of water in AS (gal)	=	~~3.15~~ 3.08
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	4.22
Volume of water in casing (gal)	=	.69
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	3.77
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	11.30
ACTUAL VOLUME PURGED (gal)	=	4.0 Bailed Dry

Method of Purging : bailer

Field Parameters	Reading							Final Sample
Time	1315	1320	1325	1330				
Volume (gal)	.25	1.0	1.5	2.0				
Flow Rate (gpm)	—							N/A
DTW (ft toc)	166.80	167.85	168.	168.80				
pH	6.76	7.23	7.28	7.42				
Conductivity (μS/cm)	900	940	1500	943				
Temperature (ºC)	13.50	12.14	13.45	12.85				
Turbidity (NTU)	15.23	485.2	31.12	89.78				
Eh/Redox (mV)								
DO (mg/L)	6.34	6.58	6.52	6.41				

Handwritten diagonally across empty reading columns: Bailed 2 gals & collected parameters ~4 gal bailed until well went Dry

Purging Field Notes:
@ 1320 conductivity measurements fluctuating 2-3 orders of magnitude, reset & # are more consistent. Collected 3 VOCs, 2 SVOCs, total metals, and half of perchlorate on 4/6/2011 at 10:30. Stopped sampling because some sample bottles were missing.

Sample Date/Time: 4/6/2011 10:30 and 12:00 Sample ID/TR #: KMW10042011
Sampler's signature/date: [signature] 4/6/2011
Reviewer's signature/date: [signature] 7 APR 2011

Returned at 12:00 and collected dissolved metals and nitrates and finished perchlorates.

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: KMW11
Start Date: 4/7/2011
Start Time: 0925

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 35-55

Well TD: 57.44
Well DTW: 31.46
Water Column: 25.98
Pump Intake (ft bgs): 55.44

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	25.98
Volume of water in casing (gal)	=	4.23
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	20.29
ACTUAL VOLUME PURGED (gal)	=	1.16

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0957	0	100	2.0	32.27	8.85	996	10.49	2.09	.	.62
1000	3	100	2.3	32.27	8.84	1008	10.39	1.46		.29
1003	6	100	2.6	32.27	8.84	1004	10.35	2.14		.25
1006	9	100	2.9	32.27	8.83	1002	10.46	.23		.25
1009	12	100	3.2	32.29	8.83	1000	10.61	1.46		.22
1012	15	100	3.5	32.27	8.83	1003	10.64	.3		.21
1015	18	100	3.8	32.27	8.83	999	10.63	.91		.19
1018	21	100	4.1	32.28	8.83	1005	10.63	.93		.17
1021	24	100	4.4	32.27	8.83	1001	10.63	.90		.17

NFE
HGW

Purging Field Notes:
settings: 30 sec off, 4 sec purge, collected Full suite total & dissolved metals, VOC, Perchlorate, Nitrate/Nitrite, HE(2), DIOXINS/FURANS

Sample Date/Time: 4/7/2011 1025 Sample ID/TR #: KMW11042011

Sampler's signature/date: Hannah Wolgamott 4/7/2011

Reviewer's signature/date: SDWolgamott 7 APR 2011

WELL SAMPLING DATA FORM

Well Number: KMW-12
Start Date: 4-5-11
Start Time: 1135

Well Casing Diameter (in):	2	Well TD:	48.72
Bore Hole Diameter (in):	8	Well DTW:	75.49
Annular Space (AS) Length (ft):	22	Water Column:	26.77
Screened Interval (ft bgs):	55.49 - 75.49	Pump Intake (ft bgs)	~73.00

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	26.77
Volume of water in casing (gal)	=	4.36
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	20.42
Number of EV to be purged	X	~~6.26~~ 3
TOTAL VOLUME TO BE PURGED (gal)	=	61.26
ACTUAL VOLUME PURGED (gal)	=	19 GALS, WELL WENT DRY TWICE

Method of Purging : BENNETT PUMP

Field Parameters	4-5-11			Reading 4-6-11				4-7-11	
Time	1150	1153	1158	1210	0938	0943	0946	1325	1335 Final Sample
Volume (gal)	INITIAL	3	8	13		5	6		
Flow Rate (gpm)									N/A
DTW (ft toc)	48.72			72.20	56.33		≈72.0	58.27	
pH	7.02	6.93	7.08	7.11	6.89	6.91			
Conductivity (µS/cm)	4170	4150	~~324~~ 411	4190	3.990	4120			COLLECTED SAMPLE
Temperature (ºC)	11.43	11.42	11.44	11.31	11.32	11.30			
Turbidity (NTU)	5.85	33.48	25.52	4.78	3.59	45.33			
Eh/Redox (mV)									
DO (mg/L)	2.41	2.44	3.17	5.55	4.04	3.28			

Purging Field Notes:

INITIAL 8 GALS PURGED, WATER FLOW DECREASED, N2 INCREASED THROUGH DISCHARGE LINE. @ 13 GALS WL IS AT TOP OF PUMP, QUESTION DO READING. WILL STOP PUMPING, ALLOW TO RECHARGE. 6 GALS PURGED ON 4-6. TOTAL 19 GALS

Sample Date/Time: 4-7-11 @ 1335 Sample ID/TR #: KMW-12042011

Sampler's signature/date: Fredrick E. Bellmond 4-7-11

Reviewer's signature/date: [signature] 7APR2011

EXPLOSIVES N+N
T+D METALS
VOC

WELL SAMPLING DATA FORM

Well Number:	MW01
Start Date:	4/8/2011
Start Time:	1605
Well TD:	54.80
Well DTW:	41.79
Water Column:	13.01
Pump Intake (ft bgs)	N/A

Well Casing Diameter (in):	2
Bore Hole Diameter (in):	8
Annular Space (AS) Length (ft):	22
Screened Interval (ft bgs):	33.6-53.6

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	13.01
Volume of water in AS (gal)	=	9.50
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	13.01
Volume of water in casing (gal)	=	2.12
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.62
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	34.86
ACTUAL VOLUME PURGED (gal)	=	2.6

*bailed Dry ** on 4/8/2011

Method of Purging : bailer

Field Parameters	Reading								
Time	4:15	4:20	4:25	4:30					Final Sample
Volume (gal)	.5	1.0	1.5	2.0					
Flow Rate (gpm)	—	—	—	—					N/A
DTW (ft toc)	43.35	46.54	49.29	52.17					
pH	7.72	7.70	7.71	7.74					
Conductivity (µS/cm)	3670	3660	3660	3670					
Temperature (ºC)	14.66	14.49	14.38	14.26					
Turbidity (NTU)	45.35	144.4	246.7	340.3					
Eh/Redox (mV)									
DO (mg/L)	2.40	2.80	3.34	3.07					

Purging Field Notes:

started bailing @ 4:15, well went dry @ 4:35. Bailed ~2.6 gal water went from mostly clear to dark sandy brown. Collected Pesticides(1), Nitrate/Nitrite(1), perchlorate(1), TAL metals(2), HE(2), GRO(2), DRO(2), VOC(3)

Sample Date/Time: 4/11/2010 1405 Sample ID/TR #: MW01042011

Sampler's signature/date: [signature] 4/11/2011

Reviewer's signature/date: [signature] 12 APR 2011

WELL SAMPLING DATA FORM

Well Number: MW02
Start Date: 4/8/2011
Start Time: 1400

Well Casing Diameter (in):	2	Well TD:	49.45
Bore Hole Diameter (in):	8	Well DTW:	~ 38.56
Annular Space (AS) Length (ft):	12	Water Column:	~~38.56~~ 10.89
Screened Interval (ft bgs):	37-47	Pump Intake (ft bgs)	N/A

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	10.89
Volume of water in AS (gal)	=	7.95
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	10.89
Volume of water in casing (gal)	=	1.78
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	9.73
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	29.18
ACTUAL VOLUME PURGED (gal)	=	2.5

** Bailed Dry **

Method of Purging : Bailer

Field Parameters	Reading								
Time	2:00	2:05	2:10	2:15					Final Sample
Volume (gal)	.5	1.0	~~2~~ 1.5	2.0					
Flow Rate (gpm)	—	—	—						N/A
DTW (ft toc)	41.32	44.11	46.3	48.12					
pH	7.12	7.18	7.07	7.11					
Conductivity (µS/cm)	1570	2000	2140	2280					
Temperature (ºC)	14.89	14.62	15.13	14.63					
Turbidity (NTU)	48.02	147.2	310.1	366.5					
Eh/Redox (mV)									
DO (mg/L)	3.89	2.94	3.01	3.96					

Purging Field Notes:
Bailed dry on 4/8/2011, ~ 2.5 gal removed. water went from clear to very turbid w/ high turbidity. collected samples on 4/11/2011 VOC(3), EDB(2), DRO(2), Nitrate/Nitrite(1), total & dissolved metals(2), perchlorate(1), 1,4E(1), pesticides(1)

Sample Date/Time: 4/11/2011 0830
Sample ID/TR #: MW02042011
Sampler's signature/date: [signature] 4/11/2011
Reviewer's signature/date: [signature] 12APR2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW-03
Start Date: 4-11-11
Start Time: 1325

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 43-53

Well TD: 56.70
Well DTW: 46.17
Water Column: 10.53
Pump Intake (ft bgs): 54.20

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	10.53
Volume of water in AS (gal)	=	7.69
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	10.53
Volume of water in casing (gal)	=	1.72
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	9.41
ACTUAL VOLUME PURGED (gal)	=	1.25

Method of Purging : low flow

VOCs
DRO
GRO
perchlorate
NO_3/NO_2
Metals total
metals-diss
explosives (2)

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1345	0	100	0	46.50	7.36	5100	13.84	2.08		1.77
1350	5	100	0.5	46.61	7.29	5240	13.81	1.34		0.78
1355	10	100	1.0	46.65	7.28	5240	13.93	1.03		0.55
1400	15	100	1.5	46.65	7.27	5200	13.77	0.67		0.39
1405	20	100	2.0	46.65	7.27	5160	13.86	0.29		0.30
1410	25	100	2.5	46.65	7.27	5130	13.89	0.27		0.24
1415	30	100	3.0	46.65	7.29	5100	13.94	0.01		0.19
1420	35	100	3.5	46.65	7.27	5060	14.00	0.29		0.17
1425	40	100	4.0	46.65	7.27	5050	14.02	0.30		0.16
1430	45	100	4.5	46.65	7.26	4990	14.06	—		0.15
1432	47	100	4.7	46.65	7.27	5000	14.10	0.27		0.16
1535	final water level =			46.68						

Purging Field Notes:
P = 35 PSI, Neck = 50 sec, Purge = 6 sec, Q = 100 ml/min
very clear water

Sample Date/Time: 4-11-11 1439 Sample ID/TR/#: MW03042411

Sampler's signature/date: Grant Kolb 4-11-11

Reviewer's signature/date: SHultgren 12 APR 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW18D
Start Date: 4/11/11
Start Time: 1100

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 6
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 49-59

Well TD: 59.9
Well DTW: 43.08
Water Column: 16.82
Pump Intake (ft bgs): 57.9

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.79
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	9.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	16.82
Volume of water in casing (gal)	=	2.74
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.5
ACTUAL VOLUME PURGED (gal)	=	~ 1 gal

Method of Purging : low flow 2IST

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1115	10	80	0.8	43.75	7.34	7870	12.27	18.71		2.35
1120	15	80	1.2	43.75	7.29	7860	12.42	46.43		1.22
1125	20	80	1.6	43.75	7.27	7870	12.30	64.62		0.79
1130	25	80	2.0	43.75	7.26	7890	12.35	64.23		0.62
1135	30	80	2.4	43.75	7.26	7890	12.36			0.58
1140	35	80	2.8	43.75	7.26	7890	12.36	65.10		0.55
1145	40	80	3.2	43.75	7.26	7900	12.32			0.49

Purging Field Notes:
sulfur smell, 30psi, 30s recharge, 3s purge, yellow tint

GRO, DRO, metals, VOCs, explosives, NO_3/NO_2, perchlorate

Sample Date/Time: 4/11/11 1150 Sample ID/TR #: MW18D042011

Sampler's signature/date: 4/11/11

Reviewer's signature/date: 12 APR 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW20
Start Date: 12APR2011
Start Time: 8:00am

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 10

Well TD: 59.40
Well DTW: 44.87
Water Column: 14.53
Pump Intake (ft bgs): 57.37

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	14.53
Volume of water in casing (gal)	=	2.37
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.13
ACTUAL VOLUME PURGED (gal)	=	4

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
8:42	0	300	4	45.92	6.76	18300	13.88	.49		1.34
8:45	3	300	4.9	45.92	6.74	18400	13.81	2.81		1.04
8:50 ~~9:06~~	8	300	6.4	45.92	6.74	18600	13.93	.94		.89
8:55	13	300	7.9	45.92	6.74	18600	13.95	1.01		.86
8:58	16	300	8.8	45.92	6.74	18700	13.96	.95		.86
9:01	19	300	9.7	45.92	6.74	18800	13.97	.26		.84
9:04	22	300	10.6	45.92	6.75	18800	13.96	0.00		.84
9:07	25	300	11.5	45.92	6.75	18800	13.94	.96		.82
9:10	28	300	12.4	45.92	6.75	18800	13.97	.01		.81

Purging Field Notes: Drew down water level before taking parameters to increase flow rate.
45 psi, 6 s purge, 25 s recharge. Collected explosives (2), DROs (2), pesticides, SVOCs, VOCs (5), GROs (2), dissolved & total metals, nitrates, perchlorate

Sample Date/Time: 12APR2011, 9:20am Sample ID/TR #: MW2004 2011

Sampler's signature/date: Hannah Wolfman

Reviewer's signature/date: E Gallagher, 12 APR 2011

conductivity should read 1880.0.

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW 22D
Start Date: 4-12-11
Start Time: 1315
Well TD: 58.77
Well DTW: 41.58
Water Column: 17.19
Pump Intake (ft bgs): 56.10

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 47-57

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	17.19
Volume of water in casing (gal)	=	2.80
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.56
ACTUAL VOLUME PURGED (gal)	=	3.3

Method of Purging : low flow

VOCs
DRO (2)
GRO
NO_3/NO_2
SVOCs, pesticides, explosives (2), dioxins (2), perchlor., metals - tot / metals - diss

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1325	0	250	0	41.88	7.11	7220	15.66	2.81		0.70
1330	5	250	1.25	41.88	7.08	5760	15.58	0.93		0.35
1335	10	250	2.5	41.88	7.09	5490	15.51	0.42		0.17
1340	15	250	3.75	41.88	7.08	5330	15.54	0.89		0.11
1345	20	250	5.0	41.88	7.07	5240	15.66	0.13		0.09
1350	25	250	6.25	41.88	7.07	5160	15.59	0.36		0.08
1355	30	250	7.5	41.88	7.07	5100	15.52	0.41		0.07
1400	35	250	8.75	41.88	7.07	5050	15.65	0.79		0.06
1405	40	250	10.0	41.88	7.07	4990	15.57	0.43		0.06
1410	45	250	11.25	41.88	7.07	4980	15.57	0.08		0.05
1415	50	250	12.5	41.88	7.07	4990	15.66	0.37		0.06
1410	Final water level = 41.88									

Purging Field Notes:
P = 40 psi, reach = 20 sec, purge = 10 sec, Q = 250 ml/min

Sample Date/Time: 4-12-11 1430
Sample ID/TR #: MW22D042011
Sampler's signature/date: Grant Kolb 4-12-11
Reviewer's signature/date: 12 APR 2011

QC sample time = 1430
Blind dup = FW022042011 w sample time = 1500

WELL SAMPLING DATA FORM

Well Number:	MW22S
Start Date:	4-6-11
Start Time:	1515
Well Casing Diameter (in):	2"
Bore Hole Diameter (in):	8"
Annular Space (AS) Length (ft):	12'
Screened Interval (ft bgs):	31-41
Well TD:	43.54
Well DTW:	41.47
Water Column:	2.07
Pump Intake (ft bgs)	no pump

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	2.07
Volume of water in AS (gal)	=	1.51
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	2.07
Volume of water in casing (gal)	=	0.34
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	1.85
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	5.55
ACTUAL VOLUME PURGED (gal)	=	0.75

Method of Purging: bailer

Field Parameters	Reading								Final Sample
Time	1520	1530	1540	collected partial sample 4-9-11 @ 0815 VOCs perchlorate, metals, tot cyn	4-11-11 0815 collected TPH-DRO	4-12-11 0900 collected pesticides + explosives	4-13-11 0845 collected GRO, nitrates, SVOCs	4-14-11 @ 0800 collected dioxins/furans (2)	
Volume (gal)	0.25	0.5	0.75						
Flow Rate (gpm)									N/A
DTW (ft toc)	41.49'	42.44	42.75						
pH	6.96	7.00	7.40						
Conductivity (µS/cm)	4445	4270	4270						
Temperature (ºC)	15.05	14.92	14.52						
Turbidity (NTU)	553.2	>1100	>1100						
Eh/Redox (mV)									
DO (mg/L)	4.46	5.94	5.31						

Purging Field Notes:

Minimal H_2O available in well – very muddy – well dry after removal of ≤ 0.75 gal

Sample Date/Time: 4-9-11 0815

Sample ID/TR #: MW22S042011

Sampler's signature/date: Grant Kolb 4-9-11

Reviewer's signature/date: [signature] 14APR2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: SMW01
Start Date: 13-April-2011
Start Time: 0825

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 29.9 - 49.9

Well TD: 52.15
Well DTW: 27.71
Water Column: 24.44
Pump Intake (ft bgs): 50.15

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	~~3.98~~ 24.44
Volume of water in casing (gal)	=	~~20.04~~ 3.98
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	20.04
ACTUAL VOLUME PURGED (gal)	=	2.21

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0840	15	200	5.0	30.14	7.87	2000	12.07	2.05		.93
0843	18	160	5.480	30.12	7.87	1990	12.21	3.04		0.89
0846	21	160	5.96	30.15	7.87	2000	12.24	1.43		0.87
0849	24	160	6.44	30.14	7.87	1990	12.26	1.35		0.88
0852	27	160	6.92	30.15	7.87	1990	12.27	1.68		0.85
0855	30	160	7.40	30.15	7.87	1990	12.34	1.51		0.82
0858	33	160	7.88	30.15	7.86	1980	12.43	1.61		0.80
0901	36	160	8.36	30.15	7.87	1980	12.51	1.57		0.81

Ending DTW = 30.14 ft BTS

Purging Field Notes:

35psi 22 sec recharge, 5 sec purge. Samples collected: VOC, Nitrate/Nitrite, total dissolved metals, HE, SVOC, perchlorate

Sample Date/Time: 4/13/2011 0910 Sample ID/TR #: SMW01042011

Sampler's signature/date: Jta Reale 4/13/2011

Reviewer's signature/date: [signature] 13 APR 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW01
Start Date: 4/14/2011
Start Time: 1012

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 44-59

Well TD: 61.23
Well DTW: 36.21
Water Column: 25.02
Pump Intake (ft bgs): ~~6~~ 59.23

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	~~12.41~~ 17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	25.02
Volume of water in casing (gal)	=	4.09
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	16.49
ACTUAL VOLUME PURGED (gal)	=	1.65

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1015	3	250	1.0	36.85	7.46	2900	12.17	4.05		0.97
1018	6	250	1.750	36.85	7.49	2890	12.14	3.30		0.85
1021	9	250	2.850	36.85	7.48	2880	12.11	2.41		0.79
1024	12	250	3.25	36.85	7.48	2870	12.16	2.10		0.73
1027	15	250	4.0	36.85	7.48	2850	12.10	3.33		0.68
1030	18	250	4.750	36.85	7.49	2850	12.05	3.40		0.66
1033	21	250	5.50	36.85	7.49	2850	12.12	1.87		0.65
1036	24	250	6.25	36.85	7.49	2840	12.13	1.94		0.64

Purging Field Notes:

pH 50, 9.5 sec purge, 11.0 sec recharge. samples collected: Total & dissolved metals Nitrate, HE, Dioxins, VOC, Perchlorate,

Sample Date/Time: 4/14/2011 1045 Sample ID/TR #: TMW01042011

Sampler's signature/date: [signature] 4/14/2011

Reviewer's signature/date: [signature] 15 APR 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW02
Start Date: 15APR2011
Start Time: 8:15

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 16
Screened Interval (ft bgs): 67.9-81.9

Well TD: 84.9
Well DTW: 55.32
Water Column: 29.58
Pump Intake (ft bgs): 82.09

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	~~.07~~ 0.73
Column of water or length of AS (whichever is less)	X	14
Volume of water in AS (gal)	=	10.22
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	29.58
Volume of water in casing (gal)	=	4.82
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	15.04
ACTUAL VOLUME PURGED (gal)	=	3.5

Method of Purging : low flow.

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
9:02	0	200	7	56.83						
9:05	3	200	7.6	56.83						
9:08	6	200	8.2	56.83						
9:11	9	200	8.8	56.83						
9:14	12	200	9.4	56.83						
9:17	15	200	10.0	56.85						
9:20	18	200	10.6	56.85						
9:23	21	200	11.2	56.85						
9:26	24	200	11.8	56.85						

Data lost during recovery of equipment on 20 APR 2011

Purging Field Notes:
45 psi, 10s purge, 10s recharge. Collected explosives (2), dioxins (2), VOCs (3), total and dissolved metals, nitrates, perchlorate

Sample Date/Time: 15APR2011 9:45 Sample ID/TR #: TMW02042011

Sampler's signature/date: Hannah Wolfram 15APR2011

Reviewer's signature/date: [signature] 20 APR 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMWØ3
Start Date: 4/5/11
Start Time: 1000

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 49.8 - 69.8

Well TD: 73.06
Well DTW: 56.75
Water Column: 16.31
Pump Intake (ft bgs): 70.06

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	16.31
Volume of water in AS (gal)	=	11.91
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	16.31
Volume of water in casing (gal)	=	2.66
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	14.57
ACTUAL VOLUME PURGED (gal)	=	3.17

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1057	0	200	4.0	56.90	7.82	4340	13.25	1.88		1.81
1102	5	200	5.0	56.90	7.81	4340	13.18	1.19		1.65
1107	10	200	6.0	56.90	7.82	4400	13.27	1.52		1.69
1112	15	200	7.0	56.90	7.81	4400	13.27	0.93		1.61
1117	20	200	8.0	56.90	7.81	4400	13.31	1.03		1.55
1122	25	200	9.0	56.90	7.81	4410	13.35	1.41		1.61
1127	30	200	10.0	56.90	7.81	4420	13.28	1.42		1.54
1132	35	200	11.0	56.90	7.81	4420	13.33	1.11		1.42
1137	40	200	12.0	56.90	7.81	4420	13.33	1.25		1.44

Purging Field Notes:
40 psi, 30s rchg, 12s purge, Q = 200 mL/min
NO_3/NO_2, VOC, SVOC x3, metals - total & diss, perchlorate, explosives x 3

Sample Date/Time: 4/8/11 1140 hrs Sample ID/TR #: TMWØ3Ø42011

Sampler's signature/date: [signature] 4/5/11

Reviewer's signature/date: [signature] 09 APR 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW03
Start Date: 4-12-11
Start Time: 1135

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 49.8 - 69.8

Well TD: 73.06
Well DTW: 56.81
Water Column: 16.25
Pump Intake (ft bgs): 70.06

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	16.25
Volume of water in AS (gal)	=	11.86
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	16.25
Volume of water in casing (gal)	=	2.65
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	14.51
ACTUAL VOLUME PURGED (gal)	=	1.5

Method of Purging : low flow

NO_3/NO_2 only

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1140	0	150	0	56.91	7.67	4300	12.98	1.22		2.11
1145	05	150	0.75	56.94	7.63	4280	13.07	0.85		1.10
1150	10	150	1.5	56.94	7.59	4290	13.48	0.71		0.41
1155	15	150	2.25	56.94	7.58	4270	13.46	0.44		0.29
1200	20	150	3.0	56.94	7.58	4310	13.71	0.36		0.25
1205	25	150	3.75	56.94	7.58	4320	14.07	0.58		0.22
1210	30	150	4.5	56.94	7.58	4310	14.05	0.55		0.25
1215	35	150	5.25	56.94	7.58	4300	14.34	0.00		0.22
1217	37	150	5.55	56.94	7.58	4310	14.47	—		0.23
1230	final water level = 56.94									

Purging Field Notes:
P = 40 psi, purge = 12 sec, Q = 150 ml/min
very stable water level & clear water

Sample Date/Time: 4-12-11 1230 Sample ID/TR #: TMW03042011
Sampler's signature/date: Grant Kolb 4-12-11
Reviewer's signature/date: [signature] 12 APR 2011

FORT WINGATE DEPOT ACTIVITY LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW04
Start Date: 13 April 2011
Start Time: 1020

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 50-70

Well TD: 72.25
Well DTW: 56.34
Water Column: 15.91
Pump Intake (ft bgs): 70.25

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back) = 0.73
Column of water or length of AS (whichever is less) X 15.91
Volume of water in AS (gal) = 11.61
Gallons per foot of casing (from chart on back) = 0.163
Column of water X 15.91
Volume of water in casing (gal) = 2.60
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal) = 14.20
ACTUAL VOLUME PURGED (gal) = 1.28

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1030	0	160	2L	56.95	7.92	3960	13.07	2.96		1.76
1033	3	160	2.48	56.95	7.92	3960	13.12	2.74		1.57
1036	6	160	2.96	56.95	7.93	3950	13.27	2.47		1.47
1039	9	160	2.44	56.95	7.93	3940	13.23	2.52		1.39
1042	12	160	2.92	56.95	7.93	3940	13.30	2.47		1.42
1045	15	160	3.40	56.95	7.93	3940	13.15	2.83		1.33
1048	18	160	3.88	56.95	7.93	3930	13.31	2.77		1.30
1051	21	160	4.36	56.95	7.93	3930	13.32	2.67		1.29
1054	24	160	4.84	56.96	7.92	3940	13.30	2.71		1.29

Purging Field Notes:
purge water has yellowish tint, no odor. Pump settings: 50psi, 6.5sec purge, 23.5 sec recharge
collected: VOC, nitrate, total & dissolved metals, HE, SVOC. Ending DTW=56.95 ft BES

Sample Date/Time: 4/13/2011 1100 Sample ID/TR #: TMW04D420011

Sampler's signature/date: Jt Reale 4/13/2011

Reviewer's signature/date: GWagner, 13 APR 2011

TMW06 [redacted]

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: [redacted]
Start Date: 4/11/2011
Start Time: 1105

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 45-55

Well TD: 57.24
Well DTW: 47.23
Water Column: 10.01
Pump Intake (ft bgs): 55.24

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	10.01
Volume of water in AS (gal)	=	7.31
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	10.01
Volume of water in casing (gal)	=	1.63
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	8.94
ACTUAL VOLUME PURGED (gal)	=	.71

Method of Purging : low flows

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1140	0	80	1.0	48.70	7.77	3760	12.68	11.00		1.38
1143	3	80	1.240	48.73	7.73	3770	12.98	3.13		1.28
1146	6	80	1.48	48.73	7.67	3770	12.96	3.10		1.25
1149	9	80	1.720	48.73	7.69	3770	12.85	0.99		1.27
1152	12	80	1.960	48.73	7.73	3780	12.83	1.17		1.21
1155	15	80	2.20	48.73	7.61	3780	12.88	0.20		1.19
1158	18	80	2.440	48.73	7.60	3780	12.79	0.32		1.20
1201	21	80	2.680	48.73	7.60	3780	12.86	0.25		1.23

Purging Field Notes:
well is stable @ 1205, began collecting samples @ 1210. Collected full suite VOC (3), Nitrate/nitrite (1), total (1) & dissolved (1) metals, HE (2), SVOC (1), perchlorate (1), ferrous iron (1) DTW = 48.73 ft BTOC

Sample Date/Time: 4/11/2011 1210 Sample ID/TR #: TMW06 042011

Sampler's signature/date: [signature]

Reviewer's signature/date: [signature] 12 APR 2011

WELL SAMPLING DATA FORM

Well Number:	TMW07
Start Date:	4/11/2011
Start Time:	1000
Well TD:	67.37
Well DTW:	47.30
Water Column:	20.07
Pump Intake (ft bgs)	N/A

Well Casing Diameter (in):	2
Bore Hole Diameter (in):	8
Annular Space (AS) Length (ft):	12
Screened Interval (ft bgs):	57.37-67.37

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	20.07
Volume of water in casing (gal)	=	3.27
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.03
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	36.09
ACTUAL VOLUME PURGED (gal)	=	~5.0 gal

bailed Dry on 4/11/2011

Method of Purging : bailer

Field Parameters	Reading								
Time	1005	1010	1015	1020					Final Sample
Volume (gal)	.5	1.0	1.5	2.0					
Flow Rate (gpm)	—	—	—	—					N/A
DTW (ft toc)	49.41	52.32	55.67	57.21	Bailed Dry on 4/11/2011				
pH	7.83	7.84	7.83	7.80					
Conductivity (µS/cm)	4880	4870	4840	4920					
Temperature (ºC)	12.37	12.25	12.63	12.07					
Turbidity (NTU)	7.86	7.23	6.17	1.60					
Eh/Redox (mV)									
DO (mg/L)	2.34	2.10	2.20	2.49					

Purging Field Notes:

bailed dry on 4/11/2011. ~ 5 gallons bailed.
Sampled on 4/12/11 NO_3/NO_2, metals, SVOC, VOC, explosives, dioxin/furan

Sample Date/Time: 4/12/11 0930

Sample ID/TR #: TMW07040411

Sampler's signature/date: Matt Mart 4/12/11

Reviewer's signature/date:

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW08
Start Date: 4/11/11
Start Time: 0910

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 30
Screened Interval (ft bgs): 32-62

Well TD: 62.41
Well DTW: 36.77
Water Column: 25.64
Pump Intake (ft bgs): 60.41

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	25.64
Volume of water in AS (gal)	=	18.72
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	25.64
Volume of water in casing (gal)	=	4.18
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	22.90
ACTUAL VOLUME PURGED (gal)	=	~ 1.5

Method of Purging : low flow

move one decimal to the left final conductivity should read 1610.0uS/cm

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0910	10	150	1.5	36.86	7.18	16200	11.54	146.7		0.86
0915	15	150	2.25	36.88	7.16	16200	11.59			0.45
0920	20	150	3.0	36.88	7.16	16100	11.62	72.33		0.41
0925	25	150	3.75	36.88	7.16	16200	11.66	64.21		0.35
0930	30	150	4.50	36.88	7.15	16200	11.77	49.75		0.31
0935	35	150	5.25	36.88	7.16	16200	11.69	36.93		0.27
0940	40	150	6.00	36.88	7.17	16000	11.84	28.76		0.28
0945	45	150	6.75	36.88	7.16	16100	11.81	27.32		0.27

Purging Field Notes:
yellow water cleared up @ 30min. collected: metals, NO_3/NO_2, VOCs, ~~SVOCs~~ AM1, perchlorate, pesticides

Sample Date/Time: 4/11/11 0945 Sample ID/TR #: TMW08042011

Sampler's signature/date: 4/11/11

Reviewer's signature/date: 12APR2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW 10
Start Date: 4-14-11
Start Time: 1320

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 32
Screened Interval (ft bgs): 31.23-61.23

Well TD: 61.80
Well DTW: 37.11
Water Column: 24.69
Pump Intake (ft bgs): 59.47

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	24.69
Volume of water in AS (gal)	=	18.02
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	24.69
Volume of water in casing (gal)	=	4.02
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	22.04
ACTUAL VOLUME PURGED (gal)	=	1.67

Method of Purging : low flow

VOCs
NO_3/NO_2
perchlorate
metals - tot
metals - diss
explosives

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1340	X	120	X	37.37	7.49	8610	13.31	2.58		1.78
1345	5	120	0.6	37.43	7.44	8710	13.20	1.95		1.17
1350	10	120	1.2	37.46	7.45	8690	13.16	0.97		0.93
1355	15	120	1.8	37.50	7.45	8720	13.06	0.51		0.88
1400	20	120	2.4	37.53	7.44	8690	13.23	0.70		0.85
1405	25	120	3.0	37.53	7.45	8710	13.50	0.98		1.12
1410	30	120	3.6	37.53	7.45	8690	13.42	1.25		1.38
1415	35	120	4.2	37.53	7.45	8760	13.56	1.36		1.50
1420	40	120	4.8	37.53	7.45	8790	13.50	0.59		1.54
1425	45	120	5.4	37.53	7.44	8850	13.52	0.90		1.56
1430	50	120	6.0	37.53	7.44	8820	13.58	0.71		1.49
1432	52	120	6.24	37.53	7.44	8830	13.56	0.91		1.51
1515	Final water level=			37.53						

Purging Field Notes:
P = 30 psi, purge = 5 sec, Neck = 20 sec, Q = 120 ml/min

Sample Date/Time: 4-14-11 1445 Sample ID/TR #: TMW10042011
Sampler's signature/date: Grant Kolb 4-14-11
Reviewer's signature/date: 14APR2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW 11
Start Date: 4-13-11
Start Time: 0905

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 27'
Screened Interval (ft bgs): 55-80'

Well TD: 82.52
Well DTW: 65.63
Water Column: 16.89
Pump Intake (ft bgs): 80.52

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	16.89
Volume of water in AS (gal)	=	12.33
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	16.89
Volume of water in casing (gal)	=	2.75
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	15.08
ACTUAL VOLUME PURGED (gal)	=	3.4

Method of Purging : low flow

VOCs
NO_3/NO_2
perchlorate
metals-tot
metals-diss
explosives (2)
dioxin (2)

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0910	0	200	0	66.03	7.76	2170	13.00	28.51		1.70
0920	10	200	2.0	66.20	7.71	2180	13.21	4.88		1.35
0930	20	200	4.0	66.28	7.72	2180	13.24	2.59		1.36
0940	30	200	6.0	66.31	7.74	2190	13.28	2.23		1.59
0945	35	200	7.0	66.33	7.74	2180	13.31	1.92		2.07
0950	40	200	8.0	66.33	7.74	2180	13.32	1.68		1.95
0955	45	200	9.0	66.33	7.74	2180	13.36	1.58		2.12
1000	50	200	10.0	66.33	7.74	2180	13.44	1.49		2.27
1005	55	200	11.0	66.33	7.74	2170	13.54	1.49		2.40
1010	60	200	12.0	66.33	7.74	2170	13.47	1.14		2.57
1012	62	200	12.4	66.33	7.74	2170	13.55	1.04		2.65
1015	64	200	12.8	66.33	7.74	2170	13.60	1.18		2.63
1150	Final water	level =	66.33							

Purging Field Notes:
strong Sulfur odor P = 45psi, Tech = 20sec, purge = 10 sec, Q = 200 ml/min

Sample Date/Time: 4-13-11 1000 Sample ID/QR #: TMW11042011 QC sample = TMW11042011 w time = 1000

Sampler's signature/date: Grant Kolb 4-13-11

Reviewer's signature/date: [signature] 14 APR 2011

Blind dup = FW01042011 time = 1130

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW13
Start Date: 13APR2011
Start Time: 8:20

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 60.7-70.7

Well TD: 73.78 ft
Well DTW: 59.62 ft
Water Column: 14.16
Pump Intake (ft bgs): 71.45

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	14.16
Volume of water in casing (gal)	=	2.31
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.07
ACTUAL VOLUME PURGED (gal)	=	~~5~~ 4.17

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
8:52	0	400	5	60.34	7.60	2310	13.13	64.11		.33
8:55	3	400	6.2	60.34	7.65	2310	13.13	24.12		.30
8:58	6	400	7.4	60.34	7.60	2320	13.12	9.11		.29
9:01	9	400	8.6	60.34	7.61	2310	13.17	.70		.30
9:04	12	400	9.8	60.34	7.64	2310	13.13	.66		.28
9:07	15	400	11.0	60.34	7.61	2310	13.18	.53		.30
9:10	18	400	12.2	60.34	7.60	2310	13.20	.43		.26
9:13	21	400	13.4	60.34	7.61	2310	13.19	0.00		.27
9:16	24	400	14.6	60.34	7.62	2310	13.23	0.00		.25
9:19	27	400	15.8	60.34	7.63	2310	13.21	0.00		.28

Purging Field Notes:

35 psi, 8s purge, 15s recharge. Collected VOCs,(3) perchlorate, total and dissolved metals, dioxins (2) and nitrates. ~~for~~ Collected 3 sets for QA purposes.

Sample Date/Time: 13APR2011 9:30 Sample ID/TR #: TMW13042011

Sampler's signature/date: Hannah Wolfman 13APR2011

Reviewer's signature/date: [signature] 14APR2011

FW04: Sample Date/Time: 13APR 2011
Sample ID/TR #: FW04042011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW 14A
Start Date: 4-13-11
Start Time: 1300

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 94.25 - 109.25

Well TD: 112.10
Well DTW: 62.64
Water Column: 49.46
Pump Intake (ft bgs): 95.7

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	49.46
Volume of water in casing (gal)	=	8.06
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	20.47
ACTUAL VOLUME PURGED (gal)	=	1.1

Method of Purging : low flow

VOCs
NO_3/NO_2
perchlorate
metals-tot.
metals-diss
SVOCs
explosives
dioxin

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1315	0	60	0	62.65	8.33	1870	16.06	3.96		1.58
1320	5	60	0.3	62.65	8.51	1860	15.88	4.15		1.16
1325	10	60	0.6	62.65	8.60	1860	15.45	3.56		1.05
1330	15	60	0.9	62.65	8.64	1870	15.47	2.59		0.99
1335	20	60	1.2	62.65	8.71	1870	15.50	1.38		0.98
1340	25	60	1.5	62.65	8.72	1880	15.46	0.97		1.07
1345	30	60	1.8	62.65	8.72	1880	15.41	2.14		1.19
1350	35	60	2.1	62.65	8.72	1890	15.36	1.71		1.32
1355	40	60	2.4	62.65	8.73	1880	15.86	0.92		1.02
1400	45	60	2.7	62.65	8.72	1880	15.69	1.32		1.04
1405	50	60	3.0	62.65	8.72	1880	15.80	1.34		0.97
1410	55	60	3.3	62.65	8.72	1880	15.92	0.74		0.90
1415	60	60	3.6	62.65	8.70	1890	16.84	0.69		0.87
1417	62	60	3.72	62.65	8.69	1890	17.49	—		0.85
1419	64	60	3.84	62.65	8.70	1890	17.57	0.45		0.86
1421	66	60	3.96	62.65	8.70	1890	17.89	0.74		0.86

Purging Field Notes:
Strong sulfur odor to water. P = 50PSI, purge = 6 sec, Rech = 50 sec, Q = 60 ml/min

Sample Date/Time: 4-13-11 1500 Sample ID/TR #: TMW14AQ42011
Sampler's signature/date: Grant Kolb 4-13-11
Reviewer's signature/date: C Dellagnol 13 APR 2011

Final water level at 1600 hrs = 62.65'

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW 15
Start Date: 4-15-11
Start Time: 0900
Well TD: 76.65
Well DTW: 63.59
Water Column: 13.06
Pump Intake (ft bgs): 74.8

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 17'
Screened Interval (ft bgs): 56-71'

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	13.06
Volume of water in AS (gal)	=	9.53
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	13.06
Volume of water in casing (gal)	=	2.13
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.66
ACTUAL VOLUME PURGED (gal)	=	2.98

Method of Purging : low flow

VOC
NO3/NO2
perchlorate
Metals-tot
metals-diss
SVOC
explosives
dioxins

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0820	0	200	0	63.88	7.62	2240	11.73	2.29		0.88
0825	5	200	1.0	63.95	7.61	2230	11.97	1.45		1.50
0830	10	200	2.0	63.98	7.62	2230	12.07	1.25		1.63
0835	15	200	3.0	63.98	7.64	2220	12.05	0.68		1.79
0840	20	200	4.0	64.01	7.65	2210	12.04	0.42		1.87
0845	25	200	5.0	64.01	7.66	2220	12.14	0.18		1.99
0850	30	200	6.0	64.01	7.67	2210	12.11	0.00		2.09
0855	35	200	7.0	64.01	7.67	2220	12.22	—		2.13
0900	40	200	8.0	64.01	7.68	2220	12.26	0.01		2.19
0905	45	200	9.0	64.01	7.68	2220	12.21	—		2.22
0907	47	200	9.4	64.01	7.68	2220	12.24	0.02		2.21
1105	final water level =			64.01						

Purging Field Notes:
P=55psi, Rech = 20 sec, purge = 8 sec, Q = 200 ml/min
H2O has strong sulfur odor.

Sample Date/Time: 4-15-11 0930 Sample ID/TR #: TMW15Q42011
Sampler's signature/date: Grant Kolb 4-15-11
Reviewer's signature/date: [illegible] 4/18/2011

blind dup = FW25Q42011 w sample time of 1200

WELL SAMPLING DATA FORM

Well Number: TMW-16
Start Date: 4-7-11
Start Time: 1545

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 127.2 - 142.2

Well TD: 142.20
Well DTW: 54.94
Water Column: 87.26
Pump Intake (ft bgs)

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	87.26
Volume of water in casing (gal)	=	14.22
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	26.63
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	79.89
ACTUAL VOLUME PURGED (gal)	=	306

Method of Purging : BENNETT PUMP

Field Parameters	Reading								
Time	1558	1601	1605	1613	1622	1631			Final Sample
Volume (gal)	1	3	6	10	15	19			
Flow Rate (gpm)	—	1	.75	.5	.56	.44			N/A
DTW (ft toc)	54.94								
pH	8.23	8.06	8.01	8.00	8.33	8.40			
Conductivity (µS/cm)	1800	1770	1780	1760	1750	1820			
Temperature (ºC)	12.94	12.82	12.77	12.78	12.81	12.85			
Turbidity (NTU)	192.2	14.43	32.70	8.10	41.24	24.42			
Eh/Redox (mV)									
DO (mg/L)	2.41	2.19	2.00	1.23	1.51	1.02			

Purging Field Notes:

PURGED 19 GALS, WELL WENT DRY. WL BLW TOP OF PUMP ≈ 138'

Sample Date/Time: 4/9/11 0950
Sample ID/TR #: TMW16Ø42Ø11
Sampler's signature/date: 4/9/11
Reviewer's signature/date: 08 APR 2011

Dioxins VOC's.
Perchlorate SVOC's.
Nitrate NIT Explosives

WELL SAMPLING DATA FORM

Well Number: TMW-16
Start Date: 4-8-11
Start Time: 1335

Well Casing Diameter (in): _____
Bore Hole Diameter (in): _____
Annular Space (AS) Length (ft): _____
Screened Interval (ft bgs): _____

Well TD: 142.20
Well DTW: 97.58
Water Column: 44.62
Pump Intake (ft bgs) _____

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	
Column of water or length of AS (whichever is less)	X	
Volume of water in AS (gal)	=	
Gallons per foot of casing (from chart on back)	=	
Column of water	X	FRONT PAGE
Volume of water in casing (gal)	=	
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	
Number of EV to be purged	X	
TOTAL VOLUME TO BE PURGED (gal)	=	
ACTUAL VOLUME PURGED (gal)	=	

Method of Purging : BENNETT PUMP

Field Parameters	Reading								Final Sample
Time	1342	1350	1401	1402					
Volume (gal)	1	5	10	11					
Flow Rate (gpm)	r	.5	.46						N/A
DTW (ft toc)	97.58								
pH	8.57	8.66	8.61	J					
Conductivity (µS/cm)	1890	1840	1810						
Temperature (ºC)	13.00	12.91	12.94						
Turbidity (NTU)	1100+	104.8	336.2						
Eh/Redox (mV)									
DO (mg/L)	5.55	4.25	5.35						

Purging Field Notes:
PURGED 11 GALS BEFORE WELL DRY. TOTAL PURGED 30 GALS.

Sample Date/Time: 4/9/11 0950
Sample ID/TR #: TMW16042011
Sampler's signature/date: 4/9/11
Reviewer's signature/date: 09 APR 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW-17
Start Date: 4-15-11
Start Time: 0745

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 112-127

Well TD: 130.45
Well DTW: 61.46
Water Column: 68.99
Pump Intake (ft bgs): 128.45

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	68.99
Volume of water in casing (gal)	=	11.25
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	23.66
ACTUAL VOLUME PURGED (gal)	=	~~≈ 3.0 GALS~~ .75 GALS

Method of Purging : LOW FLOW

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0810	0	100	100	63.02	8.75	1730	12.24	9.23		1.56
0820	10	100	1	64.11	9.54	1700	12.27	5.64		1.36
0825	15	100	1.5	65.22	9.69	1690	12.16	4.00		1.24
0830	20	.50	1.75	66.13	9.70	1690	12.24	3.65		1.13
0835	25	.50	2.00	66.01	9.71	1700	12.40	3.48		1.23
0840	30	.50	2.25	66.03	9.71	1710	12.32	2.33		1.09
0845	35	.50	2.50	66.02	9.70	1710	12.41	2.31		0.98
0850	40	.50	2.75	66.01	9.71	1700	12.39	1.89		0.89
0855	45	.50	3.00	66.00	9.71	1700	12.42	1.68		0.88

Purging Field Notes:

PURGING VOL. TO HIGH, REDUCED FLOW WL STABILIZED AT ≈ 66.0'

Sample Date/Time: 4-15-11@0900 Sample ID/TR #: TMW-17042011

Sampler's signature/date: Jennifer S. Hebert 4-15-11

Reviewer's signature/date:

VOC, TAL METALS, N+N, PER

WELL SAMPLING DATA FORM

Well Number: TMW 18
Start Date: 4-5-11
Start Time: 1545

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 148.7-158.7

Well TD: 160.7
Well DTW: 54.11
Water Column: 106.59
Pump Intake (ft bgs):

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	106.59
Volume of water in casing (gal)	=	17.37
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	26.13
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	78.39
ACTUAL VOLUME PURGED (gal)	=	26 GALS TOTAL PURGED DRY TWICE

Method of Purging : BENNETT PUMP

Field Parameters	Reading								Final Sample
Time	1603	1607	1612	1623	1633				
Volume (gal)	1	5	10	15	18				
Flow Rate (gpm)	–	1	1	0.46	0.30				N/A
DTW (ft toc)	54.11	—	—	146.55	156				
pH	10.31	10.21	10.06	9.95		DRY			
Conductivity (µS/cm)	2980	2970	2960	2950					
Temperature (ºC)	13.26	13.15	13.13	13.12					
Turbidity (NTU)	5.08	4.03	94.87	11.53					
Eh/Redox (mV)									
DO (mg/L)	4.46	4.50	3.49	2.89					

Purging Field Notes:

PURGED 18 GALS BEFORE WELL WENT DRY.

PURGED 2GALS BEFORE COLLECTING SAMPLE

Sample Date/Time: 4-12-11 @ 1335
Sample ID/TR #: TMW18042011
Sampler's signature/date: [signature]
Reviewer's signature/date: [signature] 12 APR 2011

WELL SAMPLING DATA FORM

Well Number: TMW 18
Start Date: 4-8-2014
Start Time: 1425

Well Casing Diameter (in): _____
Bore Hole Diameter (in): _____
Annular Space (AS) Length (ft): _____
Screened Interval (ft bgs): _____

Well TD: _____
Well DTW: 113.05
Water Column: _____
Pump Intake (ft bgs) _____

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	
Column of water or length of AS (whichever is less)	X	
Volume of water in AS (gal)	=	
Gallons per foot of casing (from chart on back)	=	
Column of water	X	FRONT PAGE
Volume of water in casing (gal)	=	
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	
Number of EV to be purged	X	
TOTAL VOLUME TO BE PURGED (gal)	=	
ACTUAL VOLUME PURGED (gal)	=	

Method of Purging : BENNET PUMP

Field Parameters	Reading								
Time	1440	1448	1453						Final Sample
Volume (gal)	1	5	8						
Flow Rate (gpm)	—	0.5	0.6						N/A
DTW (ft toc)	113.05		≈156.						
pH	9.83	10.18		"					
Conductivity (µS/cm)	2990	2920		"					
Temperature (ºC)	13.25	13.16		"					
Turbidity (NTU)	143.8	37.0							
Eh/Redox (mV)									
DO (mg/L)	4.62	3.25							

Purging Field Notes:

WELL WENT DRY AFTER PURGING 8 GALS.
TOTAL PURGED 26 GALS.

Sample Date/Time: _____
Sampler's signature/date: _____
Reviewer's signature/date: _____

Sample ID/TR #: _____

WELL SAMPLING DATA FORM

Well Number: TMW-19
Start Date: 4-6-11
Start Time: 1015

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 172.97 - 187.97

Well TD: 187.97
Well DTW: 42.00
Water Column: 145.97
Pump Intake (ft bgs)

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	145.97
Volume of water in casing (gal)	=	23.79
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	36.2
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	108.6
ACTUAL VOLUME PURGED (gal)	=	50 G

Method of Purging : BENNETT PUMP

Field Parameters	H2S	Reading							
Time	1040	1045	1052	1101	1114	1130			Final Sample
Volume (gal)	1	5	10	15	20	25			
Flow Rate (gpm)									N/A
DTW (ft toc)	42.00								
pH	7.74	7.74	7.72	7.71	7.80	7.91			
Conductivity (µS/cm)	3220	2900	2900	2910	2890	2890			
Temperature (ºC)	12.70	12.68	12.60	12.56	12.59	12.62			
Turbidity (NTU)	49.98	4.78	4.93	8.18	11.89	12.0			
Eh/Redox (mV)									
DO (mg/L)	1.05	0.14	0.08	0.05	0.06	0.05			

Purging Field Notes:
PURGED 25 GALS. COULDN'T GET FINAL WATER LEVEL DUE TO MOISTURE ON THE CASING & PUMP HOSES. + DEPTH.

Sample Date/Time: 4/9/11 0840
Sample ID/TR #: TMW19042011
Sampler's signature/date: 4/9/11
Reviewer's signature/date: 09 APR 2011

Metals DFT
VOCs, Explosives
SVOCs

WELL SAMPLING DATA FORM

Well Number: TMW-19
Start Date: 4-8-11
Start Time:

Well Casing Diameter (in):
Bore Hole Diameter (in):
Annular Space (AS) Length (ft):
Screened Interval (ft bgs):

Well TD:
Well DTW: 42.02
Water Column:
Pump Intake (ft bgs)

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	
Column of water or length of AS (whichever is less)	X	
Volume of water in AS (gal)	=	
Gallons per foot of casing (from chart on back)	=	
Column of water	X	FRONT PAGE
Volume of water in casing (gal)	=	
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	
Number of EV to be purged	X	
TOTAL VOLUME TO BE PURGED (gal)	=	
ACTUAL VOLUME PURGED (gal)	=	

Method of Purging : BENNETT PUMP

Field Parameters	Reading								
Time	1224	1229	1235	1245	1258	1312			Final Sample
Volume (gal)	1	5	10	15	20	25			
Flow Rate (gpm)	—	1	.83	.5	.42	.36			N/A
DTW (ft toc)	42.02			~128					
pH	8.17	8.39	8.40	8.39	8.42	8.45			
Conductivity (µS/cm)	3140	2920	2940	2890	2900	2880			
Temperature (ºC)	12.79	12.72	12.69	12.69	12.74	12.77			
Turbidity (NTU)	36.36	17.07	38.08	56.51	70.27	93.91			
Eh/Redox (mV)									
DO (mg/L)	4.06	4.38	2.33	1.82	2.12	1.44			

Purging Field Notes:

PURGED 25 GALS. SAME ISSUE WITH E-TAPE STICKING TO THE CASING OR HOSES DUE TO MOISTURE.

Sample Date/Time: 4/9/11 0940
Sample ID/TR #: TMW19042011
Sampler's signature/date: Matt Monk 4/9/11
Reviewer's signature/date: [signature] 09APR2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW 21
Start Date: 8APR2011
Start Time: 9:00 am

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 48 - ~~58~~ 58

Well TD: 61.31
Well DTW: 50.48
Water Column: 10.83
Pump Intake (ft bgs): 58.98

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=0.73
Column of water or length of AS (whichever is less)	X 10.83
Volume of water in AS (gal)	= 7.91
Gallons per foot of casing (from chart on back)	=0.163
Column of water	X 10.83
Volume of water in casing (gal)	= 1.77
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	= 9.68
ACTUAL VOLUME PURGED (gal)	= 5.1

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
9:57	0	100	3	52.32	7.77	2610	12.94	1.00		.28
10:00	3	100	3.3	52.32	7.77	2620	13.00	.85		.23
10:03	6	100	3.6	52.32	7.76	2610	12.99	.72		.22
10:06	9	100	3.9	52.32	7.76	2620	13.14	.76		.21
10:09	12	100	4.2	52.32	7.76	2610	13.12	.79		.20
10:12	15	100	4.5	52.32	7.75	2620	13.12	.79		.20
10:15	18	100	4.8	52.33	7.75	2620	13.19	.67		.19
10:18	21	100	5.1	52.33	7.75	2620	13.23	~~9~~0.76		.19

Purging Field Notes:
Used 40 psi, 30 recharge, 5 purge. Collected VOCs(3) Nitrate/Nitrite (1), total & dissolved metals (2), perchlorate (1), HE (2)

Sample Date/Time: 8APR2011 10:45 Sample ID/TR #: TMW21042011
Sampler's signature/date: Hannah Nicholson 8APR2011
Reviewer's signature/date: [signature] 09APR2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW21
Start Date: 4-12-11
Start Time: 0920

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 48-58

Well TD: 61.31
Well DTW: 50.55
Water Column: 10.76
Pump Intake (ft bgs): 58.78

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	10.76
Volume of water in AS (gal)	=	7.85
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	10.76
Volume of water in casing (gal)	=	1.75
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	9.6
ACTUAL VOLUME PURGED (gal)	=	1.9

Method of Purging : low flow

** nitrates only **

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0935	0	100	0	51.10	7.71	2590	12.98	10.78		2.21
0940	5	100	0.5	51.39	7.66	2600	13.44	4.90		0.76
0950	15	100	1.5	51.66	7.66	2600	13.77	2.92		0.49
1000	25	100	2.5	51.87	7.66	2610	12.97	1.06		0.39
1005	30	200	3.5	52.17	7.66	2600	12.79	1.04		0.35
1010	35	200	4.5	52.28	7.67	2590	12.73	2.30		0.45
1015	40	100	5.0	52.33	7.66	2590	12.73	2.97		0.47
1020	45	100	5.5	52.33	7.67	2600	12.77	2.56		0.37
1025	50	100	6.0	52.33	7.67	2590	12.68	2.46		0.32
1030	55	100	6.5	52.33	7.66	2590	12.64	1.80		0.30
1035	60	100	7.0	52.33	7.67	2590	12.59	2.02		0.31
1040	final water level = 52.33									

Purging Field Notes:
Re-sample for nitrates – expired holding time. Water level stable at 52.33 @ 1015. Parameters then stable @ 1035 after purging w stable H_2O level for 20 min

Sample Date/Time: 4-12-11 1030 Sample ID/TR #: TMW21042011
Sampler's signature/date: Grant Kolb 4-12-11
Reviewer's signature/date: 12 APR 2011

P = 40psi, rock = 30 sec, purge = 5 sec, Q = 100 ml/min
At 1005 & 1020, increase purge to 8 sec to achieve 200 ml/min flow

WELL SAMPLING DATA FORM

Well Number: TMW22
Start Date: 4/11/2011
Start Time: 1630

Well Casing Diameter (in):	2
Bore Hole Diameter (in):	8
Annular Space (AS) Length (ft):	12
Screened Interval (ft bgs):	55.23-65.2

Well TD:	65.20
Well DTW:	48.99
Water Column:	16.21
Pump Intake (ft bgs)	—

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	16.21
Volume of water in casing (gal)	=	2.64
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.40
Number of EV to be purged	X	~~34.2~~ 3
TOTAL VOLUME TO BE PURGED (gal)	=	34.21
ACTUAL VOLUME PURGED (gal)	=	5.0

Bailed Dry on 4/11/2011

Method of Purging : bailer

Field Parameters	Reading								Final Sample
Time	1630	1633	1636	1639					
Volume (gal)	.5	1.0	1.5	2.0					
Flow Rate (gpm)	—								N/A
DTW (ft toc)	52.11	53.99	55.99	57.87					
pH	7.81	7.68	7.78	7.70					
Conductivity (µS/cm)	3400	3410	3410	3560					
Temperature (ºC)	13.95	13.72	13.41	13.04					
Turbidity (NTU)	14.83	19.16	147.2	330.4					
Eh/Redox (mV)									
DO (mg/L)	2.09	1.86	3.17	4.03					

Bailed Dry on 4/11/2011

Purging Field Notes:

Bailed Dry on 4/11/2011. Bailed ~ 5.0 gallons

sampled on 4/12/11 : NO_3/NO_2, metals, SVOC, VOC, explosives, perchlorate

Sample Date/Time: 4/12/11 0820

Sampler's signature/date: Matt Mast 4/12/11

Reviewer's signature/date:

Sample ID/TR #: TMW22042011

WELL SAMPLING DATA FORM

Well Number:	TMW23
Start Date:	4/12/2011
Start Time:	1145

Well Casing Diameter (in):	2	Well TD:	59.57
Bore Hole Diameter (in):	8	Well DTW:	45.59
Annular Space (AS) Length (ft):	12	Water Column:	13.98
Screened Interval (ft bgs):	49-59	Pump Intake (ft bgs)	—

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	13.98
Volume of water in casing (gal)	=	2.28
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.04
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	33.12
ACTUAL VOLUME PURGED (gal)	=	5.0

**bailed Dry on 4/12/2011*

Method of Purging : bailer

Field Parameters	Reading								
Time	1230	1233	1236	1239					Final Sample
Volume (gal)	.5	1.0	1.5	2.0					
Flow Rate (gpm)	—	—							N/A
DTW (ft toc)	47.32	49.48	51.12	53.70					
pH	7.97	8.00	7.91	7.84					
Conductivity (µS/cm)	3140	3190	3170	3180					
Temperature (ºC)	13.67	12.97	12.80	12.74					
Turbidity (NTU)	4.30	461.2	304.4	295.6					
Eh/Redox (mV)									
DO (mg/L)	3.32	4.41	4.15	4.70					

Bailed Dry on 4/12/2011

Purging Field Notes:

bailed dry on 4/12, ~5.0 gallons bailed
sampled on 4/13: NO_3/NO_2, metals, perchlorate, VOCs, pesticides, dioxin/furans, explosives

Sample Date/Time: 4/13/11 @1045 Sample ID/TR #: TMW23042011

Sampler's signature/date: Matt Mead 4/13/11

Reviewer's signature/date: 13APR2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW24
Start Date: 4/14/2011
Start Time: 1215

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 44-54

Well TD: 55.41
Well DTW: 38.98
Water Column: 16.43
Pump Intake (ft bgs): 55.41

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	16.43
Volume of water in casing (gal)	=	2.67
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.44
ACTUAL VOLUME PURGED (gal)	=	1.54

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1245	0	150 30	3.0	44.85	7.86	3780	12.31	2.62		1.27
1248	3	130	3.390	44.93	7.86	3790	12.33	2.50		1.25
1251	6	130	3.78	44.93	7.86	3780	12.34	1.20		1.25
1254	9	130	4.17	44.93	7.86	3790	12.50	1.21		1.23
1257	12	130	4.556	44.93	7.86	3790	12.53	1.37		1.22
1300	15	130	4.95	44.93	7.86	3800	12.54	1.10		1.20
1303	18	130	5.44	44.93	7.85	3790	12.48	1.22		1.21
1306	21	130	5.843	44.93	7.85	3800	12.50	1.20		1.19

Purging Field Notes:
purged well down to 44.83 ft, stabilized & began collecting parameters. reduced flow to 130ml/min, settings 35 psi, 25 sec recharge, 5 sec purge. ending DTW = 44.99 ft BTS

Sample Date/Time: 4/14/2011
Sample ID/TR #: TMW 24042011
Sampler's signature/date: Jtn Reale 4/15/2011
Reviewer's signature/date:

samples collected: VOC, HE, total & dissolved metals, perchlorate, nitrate pesticides

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW25
Start Date: 12APR2011
Start Time: 10:30

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 42.5-52.5

Well TD: 55.25
Well DTW: 39.02
Water Column: 16.23
Pump Intake (ft bgs): 53.0

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	.13
Column of water	X	16.23
Volume of water in casing (gal)	=	2.11
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	10.87
ACTUAL VOLUME PURGED (gal)	=	~~4~~ 3.43 gallons

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
11:15 ~~0~~	0	200	7	42.90	7.46	3920	12.32	6.39		1.00
11:18	3	200	7.6	42.90	7.47	3920	12.33	6.61		.99
11:21	6	200	8.2	42.90	7.46	3920	12.32	8.84		.98
11:24	9	200	8.8	42.90	7.46	3920	12.34	6.68		.95
11:27	12	200	~~9.6~~ 9.4	42.90	7.46	3920	12.33	6.54		1.01
11:30	15	200	10.0	42.90	7.46	3920	12.34	6.98		.95
11:33	18	200	10.6	42.90	7.46	3920	12.41	5.23		.94
11:36	21	200	11.2	42.92	7.46	3930	12.44	5.35		.93
11:39	24	200	11.8	42.92	7.46	3920	12.46	5.27		.90
11:42	27	200	12.4	42.92	7.46	3930	12.50	4.75		.91
11:45	30	200	13.0	42.92	7.47	3920	12.81	6.14		.90

Purging Field Notes: ~~para~~ Drew down water level before taking parameters to increase flow rate.
Sample time=12:00. Collected explosives (2), dissolved and ~~total~~ metals, VOCs (3), nitrates

Sample Date/Time: 12APR2011 12:00 Sample ID/TR #: TMW25042011
Sampler's signature/date: Hannah McKeown 12APR2011
Reviewer's signature/date: [signature] 12APR2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW26
Start Date: 12APR2011
Start Time: 2:10 pm

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 45-55

Well TD: 58.24
Well DTW: 26.08
Water Column: 32.16
Pump Intake (ft bgs): 48.4

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	32.16
Volume of water in casing (gal)	=	5.24
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	14.00
ACTUAL VOLUME PURGED (gal)	=	2 1.54 gallons

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
2:40	0	150	3	28.11	8.33	3550	13.97	4.64		1.02
2:44	4	150	3.6	28.11	8.18	3540	13.96	2.23		.90
2:47	7	150	4.05	28.11	8.09	3560	13.87	1.53		.87
2:50	10	150	4.5	28.11	8.02	3810	14.09	1.64		.85
2:53	13	150	4.95	28.11	7.95	3560	13.87	1.15		.84
2:56	16	150	5.4	28.11	7.90	3580	13.78	1.61		.85
2:59	19	150	5.85	28.11	7.89	3540	13.82	1.24		.85

Purging Field Notes: 30psi, 7s purge, 50s recharge
Drew down well before taking parameters to increase flow. Collected VOCs(3), explosives (2), perchlorate, total and dissolved metals, nitrates

Sample Date/Time: 12APR2011 3:15pm Sample ID/TR #: TMW26042011

Sampler's signature/date: Hannah Nolman 12APR2011

Reviewer's signature/date: 12 APR 2011 C Allgaier

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW 27
Start Date: 4-9-11
Start Time: 0845

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 63-73

Well TD: 73.26
Well DTW: 27.55
Water Column: 45.71
Pump Intake (ft bgs): 72.4

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	45.71
Volume of water in casing (gal)	=	7.45
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	16.21
ACTUAL VOLUME PURGED (gal)	=	0.9

Method of Purging : low flow

VOCs
perchlorate
metals - total
metals - diss
dioxins

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
~~0855~~	0	100	0	~~28.12~~	7.79	1463	10.83	1.15		0.67
0900	5	100	0.5	~~28.38~~	7.70	1468	11.18	0.10		0.20
0905	10	100	1.0	~~28.45~~	7.69	1472	11.29	0.30		0.19
0910	15	100	1.5	~~28.45~~	7.69	1468	11.18	0.01		0.15
0915	20	100	2.0	~~28.45~~	7.69	1468	11.71	0.00		0.12
0920	25	100	2.5	~~28.45~~	7.69	1474	11.46	0.00		0.11
0925	30	100	3.0	~~28.45~~	7.69	1500	11.38	0.01		0.10
0927	32	100	3.2	~~28.45~~	7.69	1490	11.53	—		0.09
0929	34	100	3.4	~~28.45~~	7.69	1500	11.56	0.00		0.10
1015	Final water level =			28.45						

Purging Field Notes:

P = 30psi, purge = 5 sec, rech = 20 sec, Q = 100ml/min
very clear water

Sample Date/Time: 4-9-11 0930 Sample ID/TR #: TMW27042011

Sampler's signature/date: Grant Kolb 4-9-11

Reviewer's signature/date: [signature] 09 APR 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TEMW 28
Start Date: 4/8/2011
Start Time: 1140

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 40.3 - 50.3

Well TD: 50.3'
Well DTW: 17.62
Water Column: 32.68
Pump Intake (ft bgs): 49.3

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	= .73
Column of water or length of AS (whichever is less)	X 12
Volume of water in AS (gal)	= 8.76
Gallons per foot of casing (from chart on back)	= .163
Column of water	X 32.68
Volume of water in casing (gal)	= 5.33
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	= 14.09
ACTUAL VOLUME PURGED (gal)	= ~~15.75~~ 4.16 gallons

Method of Purging: low-flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
11:54	0	125	6	18.58	7.39	1490	12.68	2785		.35
11:57	3	125	6.375	18.58	7.22	1460	12.60	201.0		.11
12:00	6	125	6.750	18.58	7.20	1445	12.82	188.9		.09
12:03	9	125	7.125	18.58	7.18	1448	12.47	165.0		.09
12:06	12	125	7.500	18.55	7.17	1441	12.53	140.3		.08
12:09	15	125	7.875	18.55	7.17	1456	12.78	123.2		.07
12:12	18	125	8.250	18.55	7.17	1450	12.78	~~Ø~~ 107.8		.07
12:20	26	125	9.250	18.55	7.15	1451	12.87	81.25		.15
12:28	34	125	10.250	18.55	7.22	1460	12.99	39.57		.26
12:36	42	125	11.250	18.55	7.16	1455	12.89	20.38		.16
12:44	50	125	12.250	18.55	7.14	1458	13.15	11.05		.14
12:52	58	125	13.250	18.55	7.13	1459	13.31	7.04		.12
12:56	62	125	~~13.625~~ 13.75	18.55	7.13	1457	13.21	8.12		.14
~~12:59~~ 13:00	66	125	14.25	18.55	7.16	1454	13.81	~~5.85~~ 6.35		.10
13:04	70	125	14.75	18.55	7.13	1441	13.05	5.22		.09
1308	74	125	15.25	18.55	7.14	1439	13.06	4.20		.09
13:12	78	125	15.75	18.55	7.13	1443	13.10	5.05		.09

Purging Field Notes:
30 psi, 6s purge, 40s recharge. Sample time 13:30.
Collected: Metals (dissolved & total), VOCs, 2 explosives

Sample Date/Time: 8APR2011 13:30 Sample ID/TR #: TMW28042011

Sampler's signature/date: [signature] 8APR2011

Reviewer's signature/date: [signature] 09/APR2011

WELL SAMPLING DATA FORM

Well Number: TMW-29
Start Date: 4-6-11
Start Time: 1600

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 51.65-61.65

Well TD: 61.65
Well DTW: 56.97
Water Column: 4.68
Pump Intake (ft bgs): no pump

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	4.68
Volume of water in AS (gal)	=	3.42
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	4.68
Volume of water in casing (gal)	=	0.76
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	4.18
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	12.54
ACTUAL VOLUME PURGED (gal)	=	2

Method of Purging : bailer

Field Parameters	Reading								Final Sample
Time	1605	1612	1618	4-9-11 1045 collected barium sample VOCs perchlorate total & dissolved metals	4-11-11 0845 nitrate + sample completed				
Volume (gal)	0.5	0.75	1.0						
Flow Rate (gpm)									N/A
DTW (ft toc)	56.97	58.91	59.05						
pH	7.84	7.77	7.74						
Conductivity (ųS/cm)	2540	2530	2540						
Temperature (ºC)	12.64	12.63	12.61						
Turbidity (NTU)	>1100	1022	539.7						
Eh/Redox (mV)									
DO (mg/L)	4.01	5.03	5.95						

Purging Field Notes: well bailed dry after removal of ≈2 gal

Sample Date/Time: 4-9-11 1045
Sample ID/TR #: TMW29042011
Sampler's signature/date: Grant Kolb 4-9-11
Reviewer's signature/date: [signature] 12 APR 2011

WELL SAMPLING DATA FORM

Well Number: TMW 30
Start Date: 4-8-11
Start Time: 0825

Well Casing Diameter (in):	2	Well TD:	46.65
Bore Hole Diameter (in):	8	Well DTW:	38.72
Annular Space (AS) Length (ft):	12	Water Column:	7.93
Screened Interval (ft bgs):	36.65 - 46.65	Pump Intake (ft bgs)	46.65

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	~~5.79~~ 7.93
Volume of water in AS (gal)	=	5.79
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	7.93
Volume of water in casing (gal)	=	1.29
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	7.08
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	21.25
ACTUAL VOLUME PURGED (gal)	=	~~22~~ GALS

Method of Purging : 12 VOLT PUMP

Field Parameters	Reading								Final Sample
Time	0922	0927	0934	0940	0946	0948			
Volume (gal)	1	5	10	15	20	22			
Flow Rate (gpm)	—	1	.71	.83	.83	1			N/A
DTW (ft toc)	38.72					41.85			
pH	7.58	7.59	7.59	7.60	7.60				
Conductivity (µS/cm)	2280	2210	2210	2220	2210				
Temperature (ºC)	12.23	12.38	12.41	12.42	12.45				
Turbidity (NTU)	23.98	7.09	4.67	2.45	2.74				
Eh/Redox (mV)									
DO (mg/L)	4.68	6.86	6.90	6.82	6.68				

1100 hrs 4-12-11 resampled for NO3 only

Purging Field Notes:

Sample Date/Time: 4-8-11 @ 1000 Sample ID/TR #: TMW30042011

Sampler's signature/date: 4-8-11

Reviewer's signature/date: 08 APR 2011

T+D METALS (2) PEST. CYANIDE SVOC (2)
EXPLOSIVES HERB. PERC.
VOC (3) W. PHOS. DRO (2)
N+N ~~DRO~~ DIOXINS/FURANS (2)

resampled for NO3 on 4-12-11 @ 1100 hrs GK

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW-31D
Start Date: 4-14-11
Start Time: 0815

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 32
Screened Interval (ft bgs): 77-107

Well TD: 107.03
Well DTW: 35.53
Water Column: 71.50
Pump Intake (ft bgs):

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	32
Volume of water in AS (gal)	=	23.36
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	71.50
Volume of water in casing (gal)	=	11.65
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	35.01
ACTUAL VOLUME PURGED (gal)	=	≈ 3 GALS

Method of Purging : LOW FLOW

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0839	0	250	250 ml	35.53	8.37	2700	11.86	1.51		2.11
0843	4	250	1	35.75	8.06	2610	12.02	1.58		0.82
0847	8	250	2	35.92	8.04	2600	12.00	0.44		0.72
0850	12	250	3	35.98	7.84	2550	11.98	0.39		0.65
0853	15	250	4	36.01	7.83	2546	11.95	0.95		0.89
0856	18	250	5	36.02	7.77	2530	12.01	0.67		1.01
0859	21	250	6	36.0	7.75	2520	11.96	0.48		1.03
0902	24	250	7	36.01	7.72	2520	12.04	0.26		1.08
0905	27	250	8	36.0	7.68	2510	12.06	0.17		1.12
0908	30	250	9	36.03	7.68	2510	12.13	0.51		1.16
0911	33	250	10	36.0	7.67	2510	12.10	0.79		1.20
0914	36	250	11	36.02	7.66	2510	12.09	1.01		1.24
0917	39	250	12	36.03	7.66	2500	12.12	2.02		1.29

Purging Field Notes:

WL. STABILIZED @ ≈ 1 GAL (4L). 36.01'.

Sample Date/Time: 4-14-11 @ 0945 Sample ID/TR #: TMW31D042011
Sampler's signature/date: Frederick S. Debrincat 4-14-11
Reviewer's signature/date: 14 APR 2011

N+N, T+D METALS, CYANIDE
SVOC, VOC, DRO, EXPLOS. W. PHOS
DIOXINS/FURANS, PEST. HERB, PERC.

WELL SAMPLING DATA FORM

Well Number: TMW-31S
Start Date: 4-6-11
Start Time: 1230

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 52.85-62.85

Well TD: 62.85
Well DTW: 35.46
Water Column: 27.39
Pump Intake (ft bgs) 62.85

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	27.39
Volume of water in casing (gal)	=	4.47
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	13.23
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	39.69
ACTUAL VOLUME PURGED (gal)	=	14 GALS, WELL WENT DRY

Method of Purging : 12 VOLT PUMP

Field Parameters	4-6-11 Reading						4-7-11		
Time	1254	1256	1258	1302	1306	1310	1404	1435	Final Sample
Volume (gal)	1	3	6	9	12	14			
Flow Rate (gpm)									N/A
DTW (ft toc)	35.46					~62	36.16		
pH	7.21	7.15	7.19	7.18	7.17			COLLECTED	
Conductivity (µS/cm)	2910	2860	2740	2910	2870			SAMPLE	
Temperature (ºC)	12.84	12.80	12.95	12.98	13.04				
Turbidity (NTU)	641.5	152.6	83.2	149.2	213.4				
Eh/Redox (mV)									
DO (mg/L)	3.70	4.85	2.29	3.35	4.14				

Purging Field Notes:

PURGE 14 GALS, WELL WENT DRY. FINAL WL JUST ABOVE TD.

Sample Date/Time: 4-7-11 @ 1445
Sample ID/TR #: TMW31S042011
Sampler's signature/date:
Reviewer's signature/date: 7 APR 2011

T+D METALS	HERB.	CYANIDE
EXPLOSIVES	PEST.	W. PHOS.
VOC	SVOC	DRO
N+N	DCBC	DIOXINS / FURANS

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW-32
Start Date: 4-14-11
Start Time: 1035

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 119-139

Well TD: 139.1
Well DTW: 38.85
Water Column: 100.25
Pump Intake (ft bgs):

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	100.25
Volume of water in casing (gal)	=	16.3
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	32.36
ACTUAL VOLUME PURGED (gal)	=	34 GAL

Method of Purging : LOW FLOW

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1057	0	100	0.1	38.85	8.29	3520	12.96	1.75		1.92
1102	5	100	1.5	39.10	8.65	3420	13.19	3.86		0.40
1107	10	100	3	39.12	8.71	3240	13.04	3.30		0.34
1112	15	100	~~4.8~~ 4.5	39.23	8.76	3100	13.27	2.20		0.29
1117	20	100	5.50	39.35	8.74	3080	13.24	2.16		0.22
1122	25	100	6.5	39.44	8.75	3060	13.33	2.05		0.17
1127	30	100	8.0	39.51	8.72	3060	13.33	2.24		0.12
1132	35	100	9.5	39.57	8.72	3050	13.35	2.20		0.13
1137	40	100	10.0	39.60	8.73	3050	13.40	1.20		0.14
1142	45	100	11.5	39.61	8.74	3050	13.40	1.01		0.12
1147	50	100	13.0	39.61	8.74	3050	13.39	0.74		0.10

Purging Field Notes:
LOW FLOWED 13 L BEFORE COLLECTING SAMPLE.
STABILIZATION REACHED.

Sample Date/Time: 4-14-11 @ 1200 Sample ID/TR #: TMW32042011
Sampler's signature/date: [signature] 4-14-11
Reviewer's signature/date: [signature] 14 APR 2011

N+N, T&D METALS, CYANIDE
SVOC, VOC, DRO, EXPLO. W. PHOS.
DIOXINS/FURANS, PEST, HERB. PERC

WELL SAMPLING DATA FORM

Well Number: TMW-33
Start Date: 4-11-11
Start Time: 1550

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 25
Screened Interval (ft bgs): 57.5 - 37.5

Well TD: 60.65
Well DTW: 43.50
Water Column: 17.15
Pump Intake (ft bgs) 60.65

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17.15
Volume of water in AS (gal)	=	12.52
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	2.80
Volume of water in casing (gal)	=	.46
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	13.0
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	38.9
ACTUAL VOLUME PURGED (gal)	=	24 GALS

TOTAL PURGED DRY TWICE

Method of Purging : 12 VOLT PUMP

Field Parameters	Reading								Final Sample
Time	1604	1607	1610	1613	1620				
Volume (gal)	1	3	6	9	12				
Flow Rate (gpm)		.67	1	1	.43				N/A
DTW (ft toc)	43.50	—	—	—	DRY ≈	59.0			
pH	7.26	7.19	7.23	7.25	7.22				
Conductivity (uS/cm)	9830	8,000	9410	9740	1085				
Temperature (ºC)	15.50	15.68	15.64	15.61	15.54				
Turbidity (NTU)	101.4	11.14	8.79	15.85	~~15.54~~				
Eh/Redox (mV)	7				172.0				
DO (mg/L)	2.75	2.24	1.66	1.48	3.14				

Purging Field Notes:

WELL WENT DRY @ 12 GALS PURGED WL ≈ 59.00 TOP OF PUMP.
PURGED 2 GALS BEFORE COLLECTING SAMPLE

Sample Date/Time: 4-12-11 @ 1515
Sample ID/TR #: TMW33042011
Sampler's signature/date: [signature] 4-12-11
Reviewer's signature/date: [signature] 12 APR 2011

WELL SAMPLING DATA FORM

Well Number: TMW-33
Start Date: 4-12-11
Start Time: 0955

Well Casing Diameter (in): _____
Bore Hole Diameter (in): _____
Annular Space (AS) Length (ft): _____
Screened Interval (ft bgs): _____

Well TD: _____
Well DTW: 43.63
Water Column: _____
Pump Intake (ft bgs) _____

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	
Column of water or length of AS (whichever is less)	X	
Volume of water in AS (gal)	=	
Gallons per foot of casing (from chart on back)	=	
Column of water	X	FRONT
Volume of water in casing (gal)	=	PAGE
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	
Number of EV to be purged	X	
TOTAL VOLUME TO BE PURGED (gal)	=	
ACTUAL VOLUME PURGED (gal)	=	

Method of Purging : 12 VOLT PUMP

Field Parameters	Reading								Final Sample
Time	1002	1004	1007	1011	1017				
Volume (gal)	1	3	6	9	12				
Flow Rate (gpm)	—	1	1	.75	.5				N/A
DTW (ft toc)	43.63	—	—	—	≈59.00				
pH	7.17	7.08	7.04	7.04					
Conductivity (µS/cm)	9720	9340	9610	9730					
Temperature (ºC)	14.99	15.21	15.57	15.59	DRY				
Turbidity (NTU)	275.6	20.51	25.90	23.17					
Eh/Redox (mV)									
DO (mg/L)	2.68	2.49	2.86	3.02					

Purging Field Notes:

PURGED ANOTHER 12 GALS, WELL DRY
WL ≈ 59.0' TOP OF PUMP

Sample Date/Time: _____
Sampler's signature/date: _____
Reviewer's signature/date: _____

Sample ID/TR #: _____

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW34
Start Date: 11APR2011
Start Time: 12:50

Well Casing Diameter (in): 8
Bore Hole Diameter (in): 2
Annular Space (AS) Length (ft): 26
Screened Interval (ft bgs): 6627-6647mcl

Well TD: 60.01
Well DTW: 45.60
Water Column: ~~12.50~~ 14.41
Pump Intake (ft bgs): 1578

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	14.41
Volume of water in AS (gal)	=	10.52
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	~~0.+~~ 14.41
Volume of water in casing (gal)	=	2.35
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.87
ACTUAL VOLUME PURGED (gal)	=	5

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1:20	6	~~400~~ 300	6	45.88	7.31	6190	14.65	1.76		2.87
1:23	3	300	6.9	45.88	7.30	6200	14.73	2.66		2.12
1:26	6	300	7.8	45.88	7.29	6190	14.73	2.35		1.71
1:29	9	300	8.7	45.88	7.21	6200	14.76	2.10		1.61
1:32	12	300	9.6	45.88	7.16	6200	14.79	1.38		1.51
1:35	15	300	10.5	45.84	7.16	6170	14.88	1.39		1.38
1:38	18	300	11.4	45.84	7.16	6170	14.92	1.22		~~1.39~~ 1.30
1:41	21	300	12.3	45.84	7.16	6150	14.95	1.77		1.23
1:44	24	300	13.2	45.84	7.16	6150	14.86	.88		1.17
1:50	30	300	15	45.84	7.16	6060	14.98	.64		1.10
1:53	33	300	15.9	45.84	7.16	6070	15.01	.90		1.10
1:56	36	300	16.8	45.84	7.16	6060	14.98	1.02		1.07
1:59	39	300	17.7	45.84	7.16	6050	14.86	.74		1.06
2:02	42	300	18.6	45.84	7.16	6000	14.86	.60		1.06

Purging Field Notes:
35psi, 6s purge, 20s recharge. Sample time 14:10. Collected nitrates, perchlorate, DRO(2), GROs (2), VOCs(3)

Sample Date/Time: 11APR2011 14:10 Sample ID/TR #: TMW34042011

Sampler's signature/date: Hannah McGuire 11APR2011

Reviewer's signature/date: 12APR2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW 35
Start Date: 4-14-11
Start Time: 1330

Well Casing Diameter (in): 8
Bore Hole Diameter (in): 2
Annular Space (AS) Length (ft): 27
Screened Interval (ft bgs): 55.31 - 25.31

Well TD: 57.31
Well DTW: 43.44
Water Column: 13.87
Pump Intake (ft bgs): 55.31

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	13.87
Volume of water in AS (gal)	=	10.13
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	13.87
Volume of water in casing (gal)	=	2.26
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.4
ACTUAL VOLUME PURGED (gal)	=	≈ 3.5 GALS

Method of Purging : LOW FLOW

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1400	0	200	8	44.10	7.27	5120	15.0	1.21		0.23
1405	5	200	9	44.10	7.27	5110	14.89	1.57		0.19
1410	10	200	10	44.10	7.27	5040	14.95	.93		0.19
~~1415~~ ~~1420~~	15	200	11	44.10	7.27	5000	14.99	1.12		0.16
~~1420~~ 1420	20	200	12	44.10	7.27	4980	14.90	0.52		0.30
~~1425~~ ~~1430~~	25	200	13	44.10	7.26	4970	14.89	0.89		0.30
1430	30	200	14	44.10	7.27	4980	14.88	1.02		0.28

Purging Field Notes:

PURGED 2 GAL (8)L BEFORE WL STABILIZED @ 44.10'.

Sample Date/Time: 4-14-11 @ 1445 Sample ID/TR #: TMW 35042011

Sampler's signature/date: Jessica E. Hebenstreit 4-14-11

Reviewer's signature/date: [signature] 14 APR 2011

VOC, SVOC, DRO,
PEST. HERB, GRO
N+N. T+D METALS

WELL SAMPLING DATA FORM

Well Number: TMW-36
Start Date: 4-11-11
Start Time: 1400

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 134-154

Well TD: 154.35
Well DTW: 25.40
Water Column: 128.95
Pump Intake (ft bgs) ≈ 152.00

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	128.95
Volume of water in casing (gal)	=	21.02
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	37.08
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	111.24
ACTUAL VOLUME PURGED (gal)	=	46 GALS TOTAL

Method of Purging : BENNET PUMP

Field Parameters	Reading								Final Sample
Time	1415	1420	1425	1434	1442	1454	1502		
Volume (gal)	1	5	10	15	20	25	29		
Flow Rate (gpm)	—	0.8	1	.56	.63	.42	.38		N/A
DTW (ft toc)	25.40						≈153		
pH	7.99	7.84	7.81	7.79	7.80	7.85			
Conductivity (µS/cm)	2870	2780	2630	2740	~~2450~~ 2716	2800			
Temperature (°C)	12.97	12.84	12.79	12.75	12.70	12.80			
Turbidity (NTU)	1.44	1.18	2.89	1.28	1.46	16.85			
Eh/Redox (mV)									
DO (mg/L)	2.54	2.56	2.56	2.50	2.12	2.05			

Purging Field Notes:

H2S. PURGED 29 GALS BEFORE WELL STOPPED PUMPING WL ≈ 153. PURGED 2 GALS BEFORE COLLECTING SAMPLE TMW36042011. ALSO COLLECTED DUP FWO42011 & TRIP.

Sample Date/Time: 4-13-11 @ 1130
Sample ID/TR #: TMW36042011
Sampler's signature/date: Justin S. Bebbard 4-13-11
Reviewer's signature/date: [signature] 12 APR 2011

N+N, TAD METALS, EXPLO. PERC. SVOC, VOC, DRO, HERB, PEST, CYANIDE, DIOXINS/FURANS, W. PHOS.

WELL SAMPLING DATA FORM

Well Number: TMW-36
Start Date: 4-12-11
Start Time: 1045

Well Casing Diameter (in): _____
Bore Hole Diameter (in): _____
Annular Space (AS) Length (ft): _____
Screened Interval (ft bgs): _____

Well TD: _____
Well DTW: 86.22
Water Column: _____
Pump Intake (ft bgs) _____

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	
Column of water or length of AS (whichever is less)	X	
Volume of water in AS (gal)	=	
Gallons per foot of casing (from chart on back)	=	
Column of water	X	FRONT PAGE
Volume of water in casing (gal)	=	
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	
Number of EV to be purged	X	
TOTAL VOLUME TO BE PURGED (gal)	=	
ACTUAL VOLUME PURGED (gal)	=	

Method of Purging : BENNETT PUMP

Field Parameters	Reading								
Time	1055	1059	1105	1111	1119	~~1126~~ 1128	1130		Final Sample
Volume (gal)	1	3	6	9	12	15	17		
Flow Rate (gpm)	—	.5	.5	.5	0.38	0.43	.5		N/A
DTW (ft toc)	86.22	—	—	—	—	—	≈152	DRY	
pH	7.96	8.26	8.26	8.26	8.26	8.47			
Conductivity (µS/cm)	3060	2910	2890	2870	2900	2840			
Temperature (ºC)	12.63	12.97	12.92	12.83	12.84	12.88			
Turbidity (NTU)	19.29	9.40	3.57	9.83	17.50	53.71			
Eh/Redox (mV)									
DO (mg/L)	6.41	2.28	1.91	1.66	1.92	4.82			

Purging Field Notes:

PURGE AN ADDITIONAL 17 GALS, BEFORE WELL WENT DRY, WL ≈ 152. TOP OF PUMP.
TOTAL PURGED 46.

Sample Date/Time: _____ Sample ID/TR #: _____
Sampler's signature/date: _____
Reviewer's signature/date: _____

WELL SAMPLING DATA FORM

Well Number: TMW-37
Start Date: 4-12-11
Start Time: 0820

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 6
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 110.70 – 90.7

Well TD: 110.70
Well DTW: 44.76
Water Column: 65.94
Pump Intake (ft bgs): ≈ 110

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	65.94
Volume of water in casing (gal)	=	10.75
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	19.51
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	58.53
ACTUAL VOLUME PURGED (gal)	=	30 GALS TOTAL

Method of Purging : BENNETT PUMP

Field Parameters	Reading								Final Sample
Time	0850	0856	0903	0914	0920				
Volume (gal)	1	5	10	15	18				
Flow Rate (gpm)	~~0.67~~	0.67	.71	.46	.5				N/A
DTW (ft toc)	44.76				≈110				
pH	8.24	7.79	7.76	8.03					
Conductivity (uS/cm)	3190	2300	2330	2540	DRY				
Temperature (ºC)	12.94	12.88	12.80	12.86					
Turbidity (NTU)	6.54	0.30	17.33	6.63					
Eh/Redox (mV)									
DO (mg/L)	1.82	2.86	1.67	0.17					

Purging Field Notes:

PURGED 18 GALS, WELL DRY. WL ≈ 110' E-TAPE ON TOP OF PUMP 108.9'. H2S. PURGED TWO GALS BEFORE COLLECTING SAMPLE. 4-13-11 @ 1430.

Sample Date/Time: 4-13-11 @ 1430
Sample ID/TR #: TMW37042011
Sampler's signature/date: [signature] 4-13-11
Reviewer's signature/date: [signature] 13 APR 2011

N+N, T+D METALS, EXPRO, PERC.
SVOC, VOC, DRO HERB, PEST, CYANIDE,
DIOXINS/FURANS, W. PHOS

WELL SAMPLING DATA FORM

Well Number: TMW-37
Start Date: 4-13-11
Start Time: 0805

Well Casing Diameter (in): _____
Bore Hole Diameter (in): _____
Annular Space (AS) Length (ft): _____
Screened Interval (ft bgs): _____

Well TD: 110.70
Well DTW: 67.37
Water Column: _____
Pump Intake (ft bgs) ≈ 110'

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	
Column of water or length of AS (whichever is less)	X	
Volume of water in AS (gal)	=	
Gallons per foot of casing (from chart on back)	=	
Column of water	X	
Volume of water in casing (gal)	=	
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	
Number of EV to be purged	X	
TOTAL VOLUME TO BE PURGED (gal)	=	
ACTUAL VOLUME PURGED (gal)	=	

FRONT TPACK

Method of Purging : BENNETT PUMP

Field Parameters	Reading								Final Sample
Time	0825	0828	0833	0836	0839				
Volume (gal)	1	3	6	9	12				
Flow Rate (gpm)	~~0.67~~	0.69	0.75	0.75	1				N/A
DTW (ft toc)	67.37				≈109				
pH	9.01	9.02	9.03	9.06	9.10				
Conductivity (µS/cm)	2300	2330	2320	2350	2410	↓			
Temperature (ºC)	12.97	12.92	12.88	12.88	12.91	DR			
Turbidity (NTU)	40.56	4.81	4.03	13.25	22.72	↓			
Eh/Redox (mV)									
DO (mg/L)	4.35	2.99	3.48	4.37	4.54				

Purging Field Notes:

PURGED 12 GALS BEFORE WELL WENT DRY.
WL ≈ 110

Sample Date/Time: _____ Sample ID/TR #: _____
Sampler's signature/date: _____
Reviewer's signature/date: _____

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW-22
Start Date: 10-11-11
Start Time: 0925
Well TD: 37.9'
Well DTW: 15.75'
Water Column: 22.15
Pump Intake (ft bgs): 35.9

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 12'
Screened Interval (ft bgs): 25-35'

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	22.15
Volume of water in casing (gal)	=	3.61
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.37
ACTUAL VOLUME PURGED (gal)	=	1.33

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1000	0	200	0	15.75	8.57	758	10.97	1.50		0.28
1005	5	200	1.0	15.75	8.39	758	10.90	0.84		0.29
1010	10	200	2.0	15.75	8.35	767	10.74	0.67		0.18
1015	15	200	3.0	15.75	8.37	769	10.85	0.28		0.11
1020	20	200	4.0	15.75	8.35	770	10.81	0.15		0.17
1025	25	200	5.0	15.75	8.35	768	10.81	0.21		0.16
1105	final H_2O level =			15.75						

Purging Field Notes:
docked 21ST. P = 30 psi, Rech = 25, Purge = 5 sec, Q = 200 ml/min very clear water

Sample Date/Time: 10-11-11 1030 Sample ID/TR #: CMW22102011
Sampler's signature/date: Grant Kolb 10-11-11
Reviewer's signature/date: [signature] 12 OCT 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW 04
Start Date: 10-14-11
Start Time: 1115

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 22'
Screened Interval (ft bgs): 115-135'

Well TD: 137.91
Well DTW: 46.14
Water Column: 91.77
Pump Intake (ft bgs): 116.85

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	91.77
Volume of water in casing (gal)	=	14.96
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	31.02
ACTUAL VOLUME PURGED (gal)	=	1.28

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1130	0	200	0	46.15	8.35	4890	13.84	3.86		0.45
1135	5	200	1.0	46.15	8.25	5040	13.40	1.74		0.23
1140	10	200	2.0	46.15	8.26	5090	13.46	0.21		0.22
1145	15	200	3.0	46.15	8.26	5130	13.54	0.23		0.20
1150	20	200	4.0	46.15	8.25	5150	13.49	0.13		0.24
1152	22	200	4.4	46.15	8.25	5140	13.33	0.05		0.24
1154	24	200	4.8	46.15	8.25	5140	13.43	0.24		0.24
1235	final water level =			46.16						

Purging Field Notes: docked 215T. Water has strong sulfur odor.
P= 50 psi, Tech = 30 sec, Purge = 105ec, Q = 200ml/min

Sample Date/Time: 10-14-11 1230 Sample ID/TR #: CMW04102011
Sampler's signature/date: Grant Kolb 10-14-11
Reviewer's signature/date: 15OCT2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW 87
Start Date: 10-14-11
Start Time: 1300

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22'
Screened Interval (ft bgs):

Well TD: ~~44.18'~~ 66.60'
Well DTW: 41.18'
Water Column: 25.42
Pump Intake (ft bgs): 64.6

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	25.42
Volume of water in casing (gal)	=	4.14
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	20.2
ACTUAL VOLUME PURGED (gal)	=	0.61

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1310	0	100	0	41.41	8.04	1520	16.70	0.37		3.19
1315	5	100	0.5	41.45	7.84	1500	16.05	0.34		0.59
1320	10	100	1.0	41.45	7.84	1500	16.07	0.26		0.45
1325	15	100	1.5	41.45	7.84	1510	16.24	0.07		0.45
1330	20	100	2.0	41.45	7.83	1510	16.26	0.10		0.42
1333	23	100	2.3	41.45	7.83	1510	16.40	—		0.43
1430	Final water level =			41.49						

Purging Field Notes: very clear water. stable water level
P=40psi, Mech = 40 sec, Purge = 5 sec, Q = 100 ml/min

Sample Date/Time: 10-14-11 1420 Sample ID/TR #: CMW87102011
Sampler's signature/date: Grant Kolb 1400
Reviewer's signature/date: [signature] 15 OCT 2011

WELL SAMPLING DATA FORM

Well Number: CMW-10
Start Date: 12-Oct-2011
Start Time:

Well Casing Diameter (in):	2	Well TD:	73.1
Bore Hole Diameter (in):	8	Well DTW:	64.79
Annular Space (AS) Length (ft):	22	Water Column:	8.31
Screened Interval (ft bgs):	53.1-73.1	Pump Intake (ft bgs)	No Pump

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	8.31
Volume of water in AS (gal)	=	6.07
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	8.31
Volume of water in casing (gal)	=	1.35
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	7.42
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	22.26
ACTUAL VOLUME PURGED (gal)	=	5.5

Method of Purging : Bailing

Field Parameters	Reading								
Time	1237	1243	1250	1259	1311	1321			Final Sample
Volume (gal)	0.25	0.75	1.50	2.50	4.0	5.5			
Flow Rate (gpm)	/	/	/	/	/	/			N/A
DTW (ft toc)	64.79	65.48	66.20	67.13	68.66	70.28			
pH	8.69	8.81	9.15	9.62	10.37	11.49			
Conductivity (µS/cm)	5020	4990	5070	5240	5370	5660			
Temperature (ºC)	12.82	12.19	12.24	12.17	12.28	12.19			
Turbidity (NTU)	0.95	14.08 6.04 DUP	34.34	55.57	53.52	38.60			
Eh/Redox (mV)	/	/	/		/	/			
DO (mg/L)	6.19	6.04	6.26	6.14	6.47	6.04			

DO

Purging Field Notes:

Bailed MW dry at 1340. Rem DB Removed ~5.5 gallons.

10-18-11 water level ≈ 70.04'

Sample Date/Time: 10-18-11 1600 Sample ID/TR #: CMW10 10 2011

Sampler's signature/date: Grant Kolk 10-18-11

Reviewer's signature/date: SAllgeier 20 OCT 2011

10-18-11 Collected partial sample: VOCs, SVOCs, explosives, total metals, dissolved metals

10-19-11 1330 Collected nitrates, perchlorate

Well Purged Dry using low flow pump on 11 OCT 2011 0900 12 OCT 2011 10 ft DTW

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW14
Start Date: 11 OCT 2011
Start Time: 9:25 am
Well TD: 96.75 ft
Well DTW: 30.60 ft
Water Column: 66.15 ft
Pump Intake (ft bgs): 95.75 ft

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 84.2 - 94.2

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	~~66.15~~ 12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	66.15
Volume of water in casing (gal)	=	10.78
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	19.54
ACTUAL VOLUME PURGED (gal)	=	11.5

Method of Purging : Low flow pump, pumped all water out

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
10:31		30	3.0	35.62	12.19	5880	14.57	1.09		1.84
10:40		20	3.3	36.13	12.19	5870	15.50	1.12		1.81
12:07	0	450	19.5	58.75	12.39	5930	12.02	4.17		3.81
12:10	3	450	20.85	60.53	12.40	5930	12.03	2.09		3.65
12:13	6	450	22.2	61.55	12.40	5930	12.01	1.64		3.56
12:16	9	450	23.55	63.15	12.40	5930	12.01	1.56		3.51
12:20	13	450	25.35	64.84	12.40	5930	11.99	1.77		3.47
12:25	18	450	27.6	68.04	12.40	5920	12.01	3.00		3.41
12:30	23	450	29.85	71.12	12.39	5910	11.98	3.10		3.35
12:35	28	450	32.1	73.64	12.39	5900	12.05	4.56		3.30
12:40	33	450	34.35	75.37	12.38	5900	12.13	4.31		3.20
12:45	38	450	36.6	76.93	12.37	5890	12.17	5.85		2.88
12:50	43	450	38.85	78.78	12.37	5890	12.19	5.59		1.38
12:55	48	375	41.1	80.11	12.36	5880	12.28	5.31		1.20
13:00	53	375	43.0	81.47	12.33	5830	12.58	5.73		1.80
13:10	63	100	45	82.68	12.30	5820	13.36	6.19		1.30

Purging Field Notes:

CMW14's water level continued to drop at very low flow rates (Q=15 mL/min) and after lowering the water level significantly (DTW≈54.76). The well was pumped until the pump stopped pumping water at a depth of DTW=83.47 ft. ~~Tbs~~

Sample Date/Time: No samples taken Sample ID/TR #: NA

Sampler's signature/date: Hannah Volgamore 11 OCT 2011

Reviewer's signature/date: [signature] 12 OCT 2011

The majority of pumping was done at ~~psi=50~~ pressure=50 psi, purge=12 s, recharge=10 s.

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW-14
Start Date: 10-14-11
Start Time: 1010

Well Casing Diameter (in):
Bore Hole Diameter (in):
Annular Space (AS) Length (ft):
Screened Interval (ft bgs):

Well TD:
Well DTW: 57.91
Water Column:
Pump Intake (ft bgs):

WELL VOLUME CALCUATION
Gallons per foot of annular space (from chart on back) =
Column of water or length of AS (whichever is less) X
Volume of water in AS (gal) =
Gallons per foot of casing (from chart on back) =
Column of water X
Volume of water in casing (gal) =
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal) =
ACTUAL VOLUME PURGED (gal) =

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
Well was purged dry w ZIST undocked										
3 days ago. Collect samples today.										
1050 final water level = 65.11'										

Purging Field Notes:
P = 50 psi, rech = 10 sec, purge = 10 sec, Q = 300 ml/min Sampled w ZIST undocked

Sample Date/Time: 10-14-11 1030 Sample ID/TR #: CMW141X 2011
Sampler's signature/date: Grant Kollo 10-14-11
Reviewer's signature/date: SKWagner, ZX 15 OCT 2011

WELL SAMPLING DATA FORM

Well Number: CMW-17
Start Date: 10-11-11
Start Time:

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 34.24 - 54.24

Well TD: 54.24
Well DTW: 19.50
Water Column: 34.74
Pump Intake (ft bgs): NO PUMP

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	34.74
Volume of water in casing (gal)	=	5.66
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	21.72
Number of EV to be purged	X	~~6~~ 3
TOTAL VOLUME TO BE PURGED (gal)	=	65.16
ACTUAL VOLUME PURGED (gal)	=	15 + GALS PURGED DRY

Method of Purging : 12 VOLT PUMP

Field Parameters	Reading 10/11/11							10/12/11	
Time	1044	1047	1051	1056	1101	1110		1015	Final Sample
Volume (gal)	1	3	6	9	12	15		3	
Flow Rate (gpm)									N/A
DTW (ft toc)	19.50	—	—	—	—	≈51.0			
pH	8.73	8.74	8.80	8.82	8.86	8.89	DRY		
Conductivity (μS/cm)	980	1006	1030	1027	1039	1057			
Temperature (ºC)	12.3	11.8	11.9	11.9	11.9	11.9			
Turbidity (NTU)	14.57	568	97.4	347	125	750			
Eh/Redox (mV)									
DO (mg/L)	3.55	2.90	2.03	1.66	2.26	3.14			

Purging Field Notes:

PURGED DRY AFTER 15+ GALS PUMPED.

PURGED 3 GALS BEFORE COLLECTING SAMPLE ON 10/12/11 @ 1015

Sample Date/Time: 10/12/11 @ 1015
Sample ID/TR #: CMW17102011
Sampler's signature/date: Judith E. [signature] 10/12/11
Reviewer's signature/date: [signature] 13 OCT 2011

COLLECTE T+D METALS, N+N, PERC., EXPLOSIVES, + VOC

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

FW03

Well Number: CMW-18
Start Date: 10-12-11
Start Time: 0925
Well TD: 54.10'
Well DTW: 41.44
Water Column: 12.66
Pump Intake (ft bgs): 52.10

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 34.10 - 54.10'

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12.66
Volume of water in AS (gal)	=	9.24
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	12.66
Volume of water in casing (gal)	=	2.06
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.30
ACTUAL VOLUME PURGED (gal)	=	2.13

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1000	0	200	0	41.52	7.22	833	13.74	2.87		3.36
1005	5	200	1.0	41.53	7.20	826	13.43	0.91		4.12
1010	10	200	2.0	41.58	7.20	823	13.51	0.55		4.45
1015	15	200	3.0	41.63	7.20	828	13.43	0.45		4.50
1020	20	200	4.0	41.66	7.19	825	13.50	0.37		4.47
1025	25	200	5.0	41.68	7.20	827	13.53	0.44		4.67
1030	30	200	6.0	41.69	7.21	829	13.54	0.26		4.61
1035	35	200	7.0	41.71	7.21	829	13.65	0.37		4.60
1040	40	200	8.0	41.71	7.21	829	13.55	0.35		4.60
1315	final water level =			41.72						

Purging Field Notes: Water has strong sulfur odor.
Purged 10-15 min before beginning to measure parameters
P=35 PSi, Rech = 30 sec, Purge = 7 sec, Q = 200 mL/min

Sample Date/Time: 10-12-11 1109 Sample ID/TR #: CMW1810201 1

Sampler's signature/date: Grant Kolb 10-12-11

Reviewer's signature/date: [signature] 13 OCT 2011

blind dup = FW0310201 1 time = 1400 hrs

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW-19
Start Date: 10-13-11
Start Time: 1310
Well TD: 51.30
Well DTW: 25.89
Water Column: 25.41
Pump Intake (ft bgs): 36.3

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 36.3-51.3

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	25.41
Volume of water in casing (gal)	=	4.14
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	16.55
ACTUAL VOLUME PURGED (gal)	=	0.67

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1325	0	50	0	25.89	9.23	1412	16.76	13.98		2.68
1330	5	50	0.25	25.89	9.30	1352	16.58	13.26		2.01
1335	10	50	0.5	25.89	9.33	1335	16.39	20.67		1.52
1340	15	50	0.75	25.89	9.35	1332	16.38	36.28		1.33
1345	20	50	1.0	25.89	9.31	1336	16.28	52.43		1.18
1350	25	50	1.25	25.89	9.30	1331	16.21	54.14		1.10
1355	30	50	1.5	25.89	9.28	1352	16.18	74.25		1.05
1400	35	50	1.75	25.89	9.20	1361	16.10	—		0.92
1405	40	50	2.0	25.89	9.21	1345	19.83	80.11		0.96
1410	45	50	2.25	25.89	9.21	1345	19.23	98.05		0.96
1415	50	50	2.5	25.89	9.21	1350	17.51	90.16		0.95
1605	Final water level=			25.89						

Purging Field Notes: Docked 21ST. Water has strong sulfur odor. P= 30psi, Rech = 55 sec, Purge = 3.5 sec, Q = 50ml/min water becomes cloudier as Purging proceeds

Sample Date/Time: 10-13-11 1500 Sample ID/TR #: CMW19QA2011

Sampler's signature/date: Grant Kolb 10-13-11

Reviewer's signature/date: [signature] 15 OCT 2011

Well blows dry while filling last bottle, Must stop sampling at 1605.

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW 19
Start Date: 10-14-11
Start Time: 0830

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 36.3 - 51.3

Well TD: 51.30
Well DTW: 25.93
Water Column: 25.37
Pump Intake (ft bgs): 36.3

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	25.37
Volume of water in casing (gal)	=	4.14
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	16.55
ACTUAL VOLUME PURGED (gal)	=	0.53

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
~~0835~~	0	70	0	25.93	9.46	1950	10.05	21.55		0.77
0900	5	70	0.35	25.93	9.42	1970	—	11.73		0.47
0905	10	70	0.7	25.93	9.37	1970	10.81	38.40		0.29
0910	15	70	1.05	25.93	9.36	1930	11.05	67.71		0.24
0915	20	70	1.4	25.93	9.35	1900	11.30	100.2		0.20
0920	25	70	1.75	25.93	9.33	1850	11.85	132.7		0.17
0923	28	70	1.96	25.93	9.33	1850	11.76	—		0.17
0955	Final water level = 25.93									

Purging Field Notes: water becomes more turbid w continued purging. Re-stabilize well from yesterday when well below NP during sampling. Increased Q from yesterday since only one

Sample Date/Time: 10-14-11 0930 Sample ID/TR#: CMW19102011

Sampler's signature/date: Grant Kolb 10-14-11

Reviewer's signature/date: [signature] 15 OCT 2011

sample is needed (SVOCs) P = 30psi, Neck = 45 sec, Purge = 4 sec, Q = 70 ml/min Undocked ZIST before readings.

WELL SAMPLING DATA FORM

Well Number: CMW22
Start Date: 11-Oct-2011
Start Time: 1014

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 96.5-

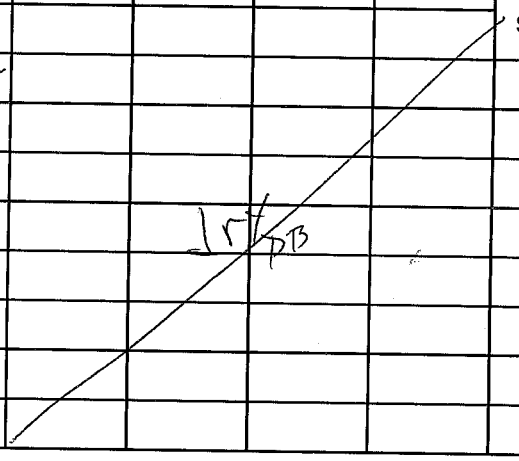
Well TD: 120.33
Well DTW: 114.49
Water Column: 5.84
Pump Intake (ft bgs) No pump

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	5.84
Volume of water in AS (gal)	=	4.26
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	5.84
Volume of water in casing (gal)	=	0.95
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	5.21
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	15.63
ACTUAL VOLUME PURGED (gal)	=	2.25

Method of Purging : bailing

Field Parameters	Reading								
Time	1033	1046	1053	1112					Final Sample
Volume (gal)	0.25	0.50	1.25	1.75					
Flow Rate (gpm)	/	/	/	/					N/A
DTW (ft toc)	114.48	117.35	117.35	118.23					
pH	6.92	8.27	8.35	8.42					
Conductivity (µS/cm)	712	705	698	705					
Temperature (ºC)	12.44	12.16	12.10	12.30					
Turbidity (NTU)	3.57	11.81	27.08	137.0					
Eh/Redox (mV)	/	/	/	/					
DO (mg/L)	2.55	2.54	2.44	2.27					



Purging Field Notes:

Bailed dry on 11-Oct, 1126. Sampled 12-Oct-2011 at 1425 Nitrite/nitrate; TAL Metals dissolved & total; VOCs (3)

Sample Date/Time: 12-Oct-2011 / 1425
Sample ID/TR #: CMW22102011
Sampler's signature/date: Dave R
Reviewer's signature/date: SOllagher, 13 OCT 2011

WELL SAMPLING DATA FORM

Well Number: CMW23
Start Date: 11 Oct 11
Start Time: 0905

Well Casing Diameter (in):	2	Well TD:	106.6
Bore Hole Diameter (in):	8	Well DTW:	97.16
Annular Space (AS) Length (ft):	22	Water Column:	9.44
Screened Interval (ft bgs):	84-104	Pump Intake (ft bgs)	

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	9.44
Volume of water in AS (gal)	=	6.89
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	9.44
Volume of water in casing (gal)	=	1.54
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	8.43
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	25.29
ACTUAL VOLUME PURGED (gal)	=	2.8

Method of Purging : bailer

Field Parameters	Reading								
Time	0915	0923	0931	0938	0947	1001			Final Sample
Volume (gal)	0.25	0.75	1.25	1.75	2.25	2.50			
Flow Rate (gpm)									N/A
DTW (ft toc)	98.98	100.62	102.10	103.63	105.64	106.10			
pH	8.27	8.23	8.28	8.24	8.34				
Conductivity (µS/cm)	1132	2240	3800	4930	6110				
Temperature (ºC)	12.28	11.89	11.77	11.76	11.63				
Turbidity (NTU)	1.69	31.78	256.68	35.86	93.12				
Eh/Redox (mV)									
DO (mg/L)	4.52	3.48	2.81	1.63	2.56				

Purging Field Notes:

bailed dry ~ 2.8 gal on 11 Oct. Sampled 12-oct-2011 @ 1515 Collected samples for VOCs (3), explosives (2) & TAL metals both total & dissolved.

Sample Date/Time: 12-oct-2011 / 1515
Sample ID/TR #: CMW23102011
Sampler's signature/date: Dave P
Reviewer's signature/date:

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW24
Start Date: 13OCT2011
Start Time: 8:30 am
Well TD: 260.00ft
Well DTW: 45.32 ft
Water Column: 214.68 ft
Pump Intake (ft bgs): 258.34ft

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 32
Screened Interval (ft bgs): 230-260

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back) = 0.73
Column of water or length of AS (whichever is less) X 32
Volume of water in AS (gal) = 23.36
Gallons per foot of casing (from chart on back) = 0.163
Column of water X 214.68ft
Volume of water in casing (gal) = 34.99
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal) = 58.35
ACTUAL VOLUME PURGED (gal) = 2

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
9:17	0	80	6	51.28	9.17	2830	13.83	3.97		1.44
9:20	3	80	6.24	51.28	9.17	2820	13.71	1.38		1.41
9:23	6	80	6.48	51.28	9.17	2810	13.55	1.11		1.38
9:26	9	80	6.72	51.28	9.13	2820	13.57	0.84		1.34
9:29	12	80	6.96	51.28	8.90	2810	13.83	0.86		1.31
9:32	15	80	7.2	51.28	8.78	2810	13.83	0.44		1.24
9:35	18	80	7.44	51.28	8.72	2810	14.02	0.28		1.20
9:38	21	80	7.68	51.28	8.70	2810	14.21	0.32		1.15
9:41	24	80	7.92	51.28	8.70	2810	14.39	0.25		1.17

No Further Entries

Purging Field Notes:
90 psi, 7.5 s on, 25 s off. Collected: pesticides, VOCs (3), Explosives (2), SVOCs, total metals, dissolved metals, nitrate

Sample Date/Time: 13OCT2011 9:45am Sample ID/TR #: CMW241011

Sampler's signature/date: [signature] 13OCT2011

Reviewer's signature/date: [signature] 14 OCT 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: CMW25
Start Date: 14OCT2011
Start Time: 8:20
Well TD: 98.78ft
Well DTW: 37.36ft
Water Column: 61.42
Pump Intake (ft bgs): 96.78

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 27
Screened Interval (ft bgs): 71-96

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	= 0.73
Column of water or length of AS (whichever is less)	X 27
Volume of water in AS (gal)	= 19.71
Gallons per foot of casing (from chart on back)	= 0.163
Column of water	X 61.42
Volume of water in casing (gal)	= 10.01
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	= 29.71
ACTUAL VOLUME PURGED (gal)	= 2.2

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
9:13	0	150	5	37.40	8.71	1082	13.60	4.40		1.26
9:16	~~0~~ 3	150	5.45	37.40	8.70	1083	13.62	6.23		1.29
9:19	6	150	5.9	37.40	8.71	1083	13.10	11.35		1.20
9:22	9	150	6.35	37.40	8.79	1073	13.84	16.08		1.05
9:25	12	150	6.8	37.40	8.81	693	14.22	24.51		0.85
9:28	15	150	7.25	37.40	8.80	1044	14.47	30.45		0.82
9:31	18	150	7.7	37.40	8.80	1028	14.65	35.11		0.80
9:34	21	150	8.15	37.40	8.79	1000	14.77	35.33		0.77
9:37	24	150	8.6	37.40	8.78	1075	14.99	32.63		0.78

No Further Entries

Purging Field Notes:
35psi, 10s purge, 20s recharge
Collected: pesticides, total metals, dissolved metals, VOCs(3), nitrates

Sample Date/Time: 14OCT2011 9:45 Sample ID/TR #: CMW251012011
Sampler's signature/date: [signature] 14OCT2011
Reviewer's signature/date: [signature] 15OCT2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: EMW Q1
Start Date: 10-15-11
Start Time: 0760
Well TD: 118.7
Well DTW: 108.18
Water Column: 9.82
Pump Intake (ft bgs): 116.7

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): ~~22~~ 17,
Screened Interval (ft bgs): 103 - 118

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	9.82
Volume of water in AS (gal)	=	7.17
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	9.82
Volume of water in casing (gal)	=	1.60
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	8.77
ACTUAL VOLUME PURGED (gal)	=	0.34

Method of Purging :

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0815	0	40	0	108.55	7.48	8250	12.59	—		0.75
0820	5	40	0.2	108.59	8.30	8360	12.26	7.81		0.47
0825	10	40	0.4	108.64	8.79	8390	12.26	5.96		0.44
0830	15	40	0.6	108.73	8.72	8340	12.50	5.14		0.45
0835	20	40	0.8	108.83	8.79	8230	12.66	3.14		0.49
0840	25	40	1.0	108.86	8.76	8170	13.12	4.98		0.48
0845	30	40	1.2	108.86	8.75	8140	13.41	3.08		0.46
0847	32	40	1.28	108.86	8.75	8150	13.48	—		0.47
1000	Final water level =			112.90						

Purging Field Notes: clear water
P = 75 psi, rech = 55 sec, Purge = 5 sec, Q = 40 ml/min
Increased Q to 300 ml/min during sampling. Dwell soon below N due to insufficient water column to support high Q. Cut Q back to 80-90 ml/min & resumed sampling.

Sample Date/Time: 10-15-11 0820 Sample ID/TR #: EMWQ11&2011
Sampler's signature/date: Grant Kolb 10-15-11
Reviewer's signature/date: [signature] 17 OCT 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: EMWØ2
Start Date: 13OCT2Ø11
Start Time: 12:10

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 93-108

Well TD: 108.4 ft
Well DTW: 74.00 ft
Water Column: 34.4 ft
Pump Intake (ft bgs): 107.70

*original well DTW on 12OCT2Ø11 before purging = 31.73 ft
*original water column = 76.67

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	= 0.73
Column of water or length of AS (whichever is less)	X 17
Volume of water in AS (gal)	= 12.41
Gallons per foot of casing (from chart on back)	= 0.163
Column of water	X 34.4
Volume of water in casing (gal)	= 5.6
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	= 18
ACTUAL VOLUME PURGED (gal)	= 18.5

Method of Purging : Besst pump, purged dry OCT 12, 2011

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
12:37	0	100	1	75.31	8.18	6860	15.66	0.48		1.90
12:40	3	100	1.3	75.63	8.18	6870	15.68	0.14		1.75
12:43	6	100	1.6	75.94	8.18	6870	15.61	0.48		1.76
12:46	9	100	1.9	76.27	8.18	6860	15.56	0.01		1.75

No Further Entries

Purging Field Notes:
Well was purged dry on 11OCT2Ø11 (about 18 gallons purged). While taking parameters, P=55psi, on=5s, off=25s. While taking samples, P=55psi, on=12s, off=18s, Q=250mL/min

Sample Date/Time: 13OCT2Ø11 13:05 Sample ID/TR #: EMWØ21Ø2Ø11
Sampler's signature/date: [signature] 13OCT2011
Reviewer's signature/date: [signature], 14OCT2011

Collected: Explosives(2), SVOCs, pesticides, VOCs(3), total metals, dissolved metals, nitrate
Final DTW ~~83.7~~ = 83.74

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: EMW03
Start Date: 17-Oct-2011
Start Time: 0910
Well TD: 92.90
Well DTW: 36.81
Water Column: 56.09
Pump Intake (ft bgs): 80.90

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 78-93

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	56.09
Volume of water in casing (gal)	=	9.14
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	21.55
ACTUAL VOLUME PURGED (gal)	=	1.029

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0920	0	160	0	36.81	11.87	7280	14.83	0.77		0.67
0925	5	160	0.8	38.25	11.58	6810	13.72	0.00		0.00 DB 0.29
0930	10	160	1.6	39.12	11.06	6510	13.34	0.00		0.21
0935	15	160	2.4	40.30	10.64	6210	13.58	0.18		0.16
0940	20	100	2.9	41.22	10.14	5900	14.20	0.00		0.21
0945	25	100	3.4	41.24	10.04	5820	14.38	0.00		0.25
0950	30	100	3.9	41.24	10.01	5800	14.48	0.00		0.27
0955	35	100	4.4	41.24	9.97	5760	14.51	0.00		0.31
1000	40	100	4.9	41.24	9.87	5777	14.48	0.00		0.36

DB

Purging Field Notes:

17-Oct-2011. Pressure into controller 50psi; purge on 5 secs; recharge off 50 secs; collected samples for VOCs (3), nitrate/nitrite, TAL Metals total & dissolved; SVOCs; pesticides; explosives.

Sample Date/Time: 17-Oct-2011/1010 Sample ID/TR #: EMW03102011

Sampler's signature/date: [signature] 17-Oct-2011

Reviewer's signature/date: [signature] 18 OCT 2011

WELL SAMPLING DATA FORM

Well Number: EMW-04
Start Date: 10-11-11
Start Time: 1340

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 100-115

Well TD: 115.0
Well DTW: 100.16
Water Column: 14.84
Pump Intake (ft bgs) ~~98~~ 113

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	14.84
Volume of water in AS (gal)	=	11.28
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	14.84
Volume of water in casing (gal)	=	2.42
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	17.26
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	51.78
ACTUAL VOLUME PURGED (gal)	=	5 GALS, WELL DRY

Method of Purging : DEDICATED BENNETT PUMP

Field Parameters	Reading							10-19-11	
Time	1355	1400	1405	1408	1414			1230	Final Sample
Volume (gal)	INITIAL	1	3	4	5				
Flow Rate (gpm)									N/A
DTW (ft toc)	100.16				114			109.87	
pH	7.91	7.85	7.17	7.62	7.54	DRY			
Conductivity (µS/cm)	1089	1098	1099	1104	1102				
Temperature (ºC)	14.7	13.9	13.4	13.3	13.3				
Turbidity (NTU)	294	6.27	8.42	7.86	16.13				
Eh/Redox (mV)									
DO (mg/L)	1.28	.89	1.38	1.67	1.68				

Purging Field Notes:

PURGED ~~WE~~ 5 GALS, WELL DRY, WILL SAMPLE AFTER RECHARGE.

PURGED 1 GAL BEFORE SAMPLING.

Sample Date/Time: 10-19-11 @ 1245
Sample ID/TR #: EMW-04102011
Sampler's signature/date: Frederick E. Bethards 10-19-11
Reviewer's signature/date: 20OCT2011

N+N, T+D METALS, SVOC, VOC

WELL SAMPLING DATA FORM

Well Number: FW-31
Start Date: 10-13-11
Start Time: 1355

Well Casing Diameter (in):	4
Bore Hole Diameter (in):	8
Annular Space (AS) Length (ft):	22
Screened Interval (ft bgs):	32-52

Well TD:	52.00
Well DTW:	41.88
Water Column:	10.12
Pump Intake (ft bgs)	52.00

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.59
Column of water or length of AS (whichever is less)	X	10.12
Volume of water in AS (gal)	=	6.0
Gallons per foot of casing (from chart on back)	=	0.6528
Column of water	X	10.12
Volume of water in casing (gal)	=	6.60
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.6
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	37.82
ACTUAL VOLUME PURGED (gal)	=	12 GALS WELL DRY

Method of Purging : 12 VOLT PUMP

Field Parameters	Reading								
Time	1402	1406	1409	1412	1418		0910	0925	Final Sample
Volume (gal)	INITIAL	3	6	9	12			3	
Flow Rate (gpm)									N/A
DTW (ft toc)	41.88				52		45.90		
pH	8.12	8.05	8.06	8.14	8.25			COLLECTED	
Conductivity (µS/cm)	2332	2333	2350	2350	2363			SAMPLE	
Temperature (ºC)	14.3	12.8	12.7	12.6	12.7				
Turbidity (NTU)	9.54	7.11	8.49	10.12	8.78				
Eh/Redox (mV)									
DO (mg/L)	4.15	3.81	3.58	3.39	3.49				

Purging Field Notes:

PURGED 12 GALS, WELL DRY.
PURGED 3 GALS, BEFORE COLLECTING SAMPLE FW-31102011

Sample Date/Time: 10-14-11 @ 0925
Sample ID/TR #: FW-31102011
Sampler's signature/date: Frederick G. Wilhamb 10-14-11
Reviewer's signature/date: [signature] 15 OCT 2011

SVOC, T+D METALS, N+N, EXPLOSIVES

WELL SAMPLING DATA FORM

Well Number: ~~FW~~ FW-35
Start Date: 10-12-11
Start Time: 1550

Well Casing Diameter (in):	4	Well TD:	32.15
Bore Hole Diameter (in):	8	Well DTW:	23.17
Annular Space (AS) Length (ft):	22	Water Column:	8.99
Screened Interval (ft bgs):	32-12	Pump Intake (ft bgs)	32.15

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.59
Column of water or length of AS (whichever is less)	X	8.89
Volume of water in AS (gal)	=	5.298
Gallons per foot of casing (from chart on back)	=	0.6528
Column of water	X	8.89
Volume of water in casing (gal)	=	5.80
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.10
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	33.3
ACTUAL VOLUME PURGED (gal)	=	10 GALS WELL DRY

Method of Purging : 12 VOLT PUMP

Field Parameters	Reading						10-14-11		
Time	1604	1606	1609	1612	1614		0800	0830	Final Sample
Volume (gal)	1	3	6	9	10			3	
Flow Rate (gpm)									N/A
DTW (ft toc)	23.17	—	—	—	31.8		24.78		
pH	7.19	7.08	7.15	7.18				SAMPLE	
Conductivity (µS/cm)	4030	4000	3960	4066				COLLECTED	
Temperature (ºC)	12.5	12.5	12.1	12.0	DRY				
Turbidity (NTU)	17.19	4.67	11.80	56.1					
Eh/Redox (mV)									
DO (mg/L)	1.28	1.44	1.67	1.16					

Purging Field Notes:

PURGED 10 GALS, WELL DRY. FINAL DEPTH 31.8.
PURGED 3 GALS BEFORE SAMPLING.

Sample Date/Time: 10-14-11 @ ~~FD~~ 0830 Sample ID/TR #: FW-35102011
Sampler's signature/date: Frederick G. Delbrook 10-14-11
Reviewer's signature/date: [signature] 15 OCT 2011

~~VOC~~, SVOC, T+D METALS, N+N, EXPLOSIVES

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: KMW 09
Start Date: 10-11-11
Start Time: 1215

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 12'
Screened Interval (ft bgs): 60-70'

Well TD: 72.9'
Well DTW: 40.41'
Water Column: 32.49
Pump Intake (ft bgs): 70.9

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	32.49
Volume of water in casing (gal)	=	5.30
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	14.06
ACTUAL VOLUME PURGED (gal)	=	1.30

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1225	0	100	0	40.41	7.39	3480	13.23	1.82		1.57
1240	5	100	0.5	40.41	7.62	3480	13.83	—		0.60
1245	10	100	1.0	40.41	7.68	3520	13.63	—		0.51
1250	15	100	1.5	40.41	7.67	3500	—	4.79		0.53
1255	20	100	2.0	40.41	7.63	3510	13.59	0.49		0.49
1300	25	100	2.5	40.41	7.59	3510	13.75	0.33		0.45
1305	30	100	3.0	40.41	7.56	3510	13.70	0.29		0.42
1310	35	100	3.5	40.41	7.53	3520	13.11	0.81		0.35
1313	40	100	4.0	40.41	7.50	3520	13.82	0.18		0.30
1320	45	100	4.5	40.41	7.51	3530	13.66	—		0.29
1322	47	100	4.7	40.41	7.50	3520	13.63	—		0.28
1324	49	100	4.9	40.41	7.50	3530	13.75	0.62		0.28
~~1325~~	final H2O level =			40.59						
1435										

Purging Field Notes: Docked 215 T.
P= 40psi, Teach = 30sec, Tpurge = 5, Q ≈ 100ml/min
slight sulfur smell to water

Sample Date/Time: 10-11-11 1330 Sample ID/TR #: KMW091020211

Sampler's signature/date: Grant Kolb 10-11-11

Reviewer's signature/date: [signature] 12 OCT 2011

began splitting gas while filling last bottle increased Teach to 60sec & reduced purge to 40sec complete filling final bottle

WELL SAMPLING DATA FORM

Well Number: KMW 10
Start Date: 10-11-11
Start Time: 1500

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 158-168

Well TD: 171.02
Well DTW: 166.72
Water Column: 4.30
Pump Intake (ft bgs) N-A

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	4.30
Volume of water in AS (gal)	=	3.19
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	4.30
Volume of water in casing (gal)	=	0.70
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	3.89
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	11.67
ACTUAL VOLUME PURGED (gal)	=	3

Method of Purging : bailer

Field Parameters	Reading								Final Sample
Time	1515	1518	1522	1635	10-12-11 0900 collected VOCs NO3/NO2 SVOCs total metals	10-13-11 1009 collected remainder of sample Perchlorate, Diss metals			
Volume (gal)	0.5	0.75	1.0	1.25					
Flow Rate (gpm)									N/A
DTW (ft toc)	167.20	167.42	167.63	168.08					
pH	~~7.28~~ 6.83	6.92	7.25	7.32					
Conductivity (ųS/cm)	923	930	926	941					
Temperature (ºC)	13.06	12.99	13.07	13.19					
Turbidity (NTU)	10.59	9.79	16.75	16.13					
Eh/Redox (mV)									
DO (mg/L)	5.98	5.51	5.07	5.14					

Purging Field Notes:
Clear water. Bailed well dry after removal of ≈ 3 gal

Sample Date/Time: 12OCT2011 0900
Sample ID/TR #: KMW10102011
Sampler's signature/date: [signature] 10-12-11
Reviewer's signature/date: [signature] 15OCT2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: KMW-11
Start Date: 10-13-11
Start Time: 1020

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22'
Screened Interval (ft bgs): 35-55

Well TD: 57.44
Well DTW: 32.46
Water Column: 24.98
Pump Intake (ft bgs): 55.44

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	24.98
Volume of water in casing (gal)	=	4.07
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	20.13
ACTUAL VOLUME PURGED (gal)	=	1.05

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1040	0	100	0	32.77	8.50	1040	13.10	0.59		4.37
1045	5	100	0.5	32.82	8.61	1032	12.89	0.51		2.93
1050	10	100	1.0	32.98	8.63	1019	12.88	0.22		2.00
1055	15	100	1.5	33.01	8.59	1019	12.91	0.11		1.75
1100	20	70	1.85	33.01	8.59	1020	12.97	0.21		1.60
1105	25	70	2.20	33.04	8.58	1019	12.95	0.18		1.57
1110	30	70	2.55	33.06	8.58	1021	12.88	0.09		1.46
1115	35	70	2.90	33.06	8.58	1021	12.80	0.12		1.36
1120	40	70	3.25	33.11	8.58	1022	12.81	0.21		1.27
1125	45	70	3.60	33.11	8.57	1020	12.87	0.33		1.29
1130	50	70	3.95	33.11	8.57	1020	12.86	0.26		1.30
1250	final water level =			33.11						

Purging Field Notes:
very clear water. Initial P = 40psi, w reach = 30sec, purge = 4 sec, Q = 100 ml/min. But drawdown unstable

Sample Date/Time: 10-13-11 1250 Sample ID/TR #: KMW111&2011
Sampler's signature/date: Grant Kolb 10-13-11
Reviewer's signature/date: CM Wagner 14 OCT 2011

Reduce P to 30 psi & Q = 78 ml/min; drawdown stable.

WELL SAMPLING DATA FORM

Well Number: KMW-12
Start Date: ~~0910~~ 10/11/11
Start Time: 0910

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 55.49 - 75.49

Well TD: ~~48.72~~ 75.49
Well DTW: 49.06
Water Column: 26.43
Pump Intake (ft bgs) 73.49

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	26.43
Volume of water in casing (gal)	=	4.31
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	20.4
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	61.1
ACTUAL VOLUME PURGED (gal)	=	22 GALS

Method of Purging : DEDICATED BENNETT PUMP

Field Parameters	Reading								Final Sample
Time	0935	0939	0943	0947	0952	1000			
Volume (gal)	INITIAL	3	5	8	10	12			
Flow Rate (gpm)									N/A
DTW (ft toc)	49.06					72			
pH	7.14	7.21	7.25	7.37	7.63				
Conductivity (µS/cm)	3750	3720	3750	3820	3750				
Temperature (ºC)	11.5	11.3	11.4	11.3	11.3	DRY			
Turbidity (NTU)	7.47	18.21	7.76	4.77	3.06				
Eh/Redox (mV)	~~1.20~~	~~1.12~~	~~2.63~~	—	—				
DO (mg/L)	1.20	1.12	2.63	—	—				

Purging Field Notes:

AT 8 GALS STARTED PUMPING AIR/N2, POOR DO READINGS.
PURGED 12 GALS, WELL DRY
N+N, T+D METALS, VOC, EXPLOSIVES

Sample Date/Time: 10-13-11 @ 0850
Sample ID/TR #: KMW-12102011
Sampler's signature/date: [signature] 10-13-11
Reviewer's signature/date: [signature] 14 OCT 2011

WELL SAMPLING DATA FORM

Well Number: KMW-12
Start Date: 10-12-11
Start Time: 0845

Well Casing Diameter (in): _____
Bore Hole Diameter (in): _____
Annular Space (AS) Length (ft): _____
Screened Interval (ft bgs): _____

Well TD: 142.20
Well DTW: 55.77
Water Column: _____
Pump Intake (ft bgs) 140.00

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	
Column of water or length of AS (whichever is less)	X	
Volume of water in AS (gal)	=	
Gallons per foot of casing (from chart on back)	=	
Column of water	X	
Volume of water in casing (gal)	=	
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	
Number of EV to be purged	X	
TOTAL VOLUME TO BE PURGED (gal)	=	
ACTUAL VOLUME PURGED (gal)	=	

FRONT PAGE

Method of Purging : DEDICATED BENNETT PUMP

Field Parameters	Reading								Final Sample
Time	0902	0908	0913	0917	0920				
Volume (gal)	INITIAL	3	6	9	10				
Flow Rate (gpm)									N/A
DTW (ft toc)	55.77				72.10				
pH	7.25	7.15	7.12	7.06					
Conductivity (µS/cm)	4290	4300	4290	4280					
Temperature (ºC)	11.1	11.2	11.2	11.3					
Turbidity (NTU)	2.93	87.0	25.2	8.90					
Eh/Redox (mV)									
DO (mg/L)	4.70	3.34	2.58	2.09					

Purging Field Notes:

PURGED 10 GALS, WELL DRY. TOTAL PURGED 22 GALS.

Sample Date/Time: _____
Sampler's signature/date: _____
Reviewer's signature/date: _____

Sample ID/TR #: _____

WELL SAMPLING DATA FORM

Well Number: MW01
Start Date: 11-Oct-2011
Start Time:

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 33.6-53.6

Well TD: 54.80
Well DTW: 41.81
Water Column: 12.99
Pump Intake (ft bgs) no pump

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12.99
Volume of water in AS (gal)	=	9.45
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	~~2.12~~ TP 12.99
Volume of water in casing (gal)	=	2.12
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.60
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	34.80
ACTUAL VOLUME PURGED (gal)	=	3.25

Method of Purging : bailer

Field Parameters	Reading								Final Sample
Time	1427	1432	14.38	1444	1450				
Volume (gal)	0.25	0.75	1.25	2.0	2.75				
Flow Rate (gpm)	/	/	/	/	/				N/A
DTW (ft toc)	41.81	45.10	47.04	49.83	52.84				
pH	7.11	7.65	7.84	7.92	7.90				
Conductivity (µS/cm)	3740	3740	3720	3680	3710	TP			
Temperature (°C)	15.54	15.02	14.93	14.92	14.87				
Turbidity (NTU)	4.25	115.6	199.7	190.2	244.5				
Eh/Redox (mV)	/	/	/	/	/				
DO (mg/L)	~~9.33~~ TP 4.33	4.27	4.14	4.75	4.88				

Purging Field Notes:

Bailed dry 11-oct, ~3.25 gallons removed. 13-oct-2011 at 0822 collected samples, nitrate/nitrite; TAL metal both total & dissolved; vocs (3); pesticides; TPH-GRO (2); TPH-DRO (2); explosives (2); perchlorate. Finished sampling at 0905

Sample Date/Time: 13-oct-2011 / 0822
Sample ID/TR #: MW01 10/2011
Sampler's signature/date: 13-Oct-2011
Reviewer's signature/date: 14OCT2011

WELL SAMPLING DATA FORM

Well Number:	MW02
Start Date:	11-Oct-2011
Start Time:	1317
Well TD:	48.45
Well DTW:	38.72
Water Column:	10.73
Pump Intake (ft bgs)	no pump

Well Casing Diameter (in):	2
Bore Hole Diameter (in):	8
Annular Space (AS) Length (ft):	12
Screened Interval (ft bgs):	37-47

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	10.73
Volume of water in AS (gal)	=	7.83
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	10.73
Volume of water in casing (gal)	=	1.75
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	9.58
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	28.74
ACTUAL VOLUME PURGED (gal)	=	2.25

Method of Purging : bailer

Field Parameters	Reading								
Time	1331	1336	1342	1349					Final Sample
Volume (gal)	0.25	0.75	1.25	2.00					
Flow Rate (gpm)	/	/	/	/					N/A
DTW (ft toc)	38.72	41.14	43.56	47.61					
pH	6.83	6.87	6.75	6.88					
Conductivity (µS/cm)	2140	2330	2390	2380					
Temperature (ºC)	15.81	14.98	15.01	14.96					
Turbidity (NTU)	116.3	132.0	320.5	175.8					
Eh/Redox (mV)	/	/	/	/					
DO (mg/L)	4.04	4.44	4.38	3.90	/				

DRY

Purging Field Notes:

Bailer MW dry on 11-Oct, ~2.25 gallons purged. 13-Oct-2011 Started Sampling at 0827, collected nitrate/nitrite, TAL metals both dissolved & total; VOCs (3); pesticides; TPH-GRO (2); TPH-DRO (2); perchlorate; explosives, bailed dry so only got 1.5 bttls. of explosives instead of 2.

Sample Date/Time: 13-Oct-2011 / 0827

Sample ID/TR #: MW02102011

Sampler's signature/date: 13-Oct-2011

Reviewer's signature/date: 14 OCT 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW03
Start Date: 17OCT2011
Start Time: 11:30am

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 43-53

Well TD: 56.70
Well DTW: 45.92
Water Column: 10.78
Pump Intake (ft bgs): 54.20

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	10.78
Volume of water in AS (gal)	=	7.87
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	10.78
Volume of water in casing (gal)	=	1.76
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	~~12.54~~ 9.63
ACTUAL VOLUME PURGED (gal)	=	10.5

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
12:00	0	120	2	46.51	7.37	5200	15.43	.99		.21
12:03	3	120	2.36	46.51	7.36	5180	15.33	.58		.18
12:06	6	120	2.72	46.51	7.35	5150	15.38	.52		.16
12:09	9	120	3.08	46.51	7.35	5130	15.13	.36		.14
12:12	12	120	3.44	46.51	7.35	5100	15.02	.69		.13
12:15	15	120	3.8	46.51	7.34	5070	14.83	.30		.12
12:18	18	120	4.16	46.51	7.34	5030	14.75	.32		.11
12:21	21	120	4.52	46.51	7.35	5010	14.73	.16		.10
12:24	24	120	4.88	46.51	7.34	4990	14.76	.44		.08
12:27	27	120	5.24	46.51	7.34	4950	14.72	.30		.08
12:30	30	120	5.6	46.51	7.34	4940	14.64	.58		.08
12:33	33	120	5.96	46.51	7.34	4940	14.69	.37		.09
		No Further Entries								

Purging Field Notes:

6s purge, 50s recharge, 35 psi. Collected: explosives (2), DRO(2), VOCs(3), GRO(2), nitrate, total & diss. metals, perchlorate. Final DTW = 46.40ft

Sample Date/Time: 14OCT2011 12:40 Sample ID/TR #: MW03102011

Sampler's signature/date: Hannah Wolfman 14OCT2011

Reviewer's signature/date: [signature] 18 OCT 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW19D
Start Date: 14-Oct-2011
Start Time: 0930

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 49-59

Well TD: 59.9
Well DTW: 42.92
Water Column: 16.98
Pump Intake (ft bgs): 57.9

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	~~0.79~~ DTB 0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	16.98
Volume of water in casing (gal)	=	2.77
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.53
ACTUAL VOLUME PURGED (gal)	=	0.7

Method of Purging : low-flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0930	0	~~90~~ ~~0.90~~ DTB	~~0.08~~ ~~0.90~~ DTB	42.82	8.92	8010	12.89	2.90	/	3.16
0935	5	~~90~~ ~~0.90~~ DTB	0.45	43.41	8.72	7930	13.90	2.10	/	1.10
0940	10	~~90~~ ~~0.90~~ DTB	0.9	43.77	8.43	7940	14.15	1.50	/	0.10
0945	15	90	1.35	43.92	7.78	7940	14.22	1.50	/	0.07
0950	20	90	1.80	43.92	7.74	7960	14.20	1.60	/	0.10
0955	25	90	2.25	43.92	7.88	7940	14.25	1.41	/	0.07
1000	30	90	2.7	43.92	7.92	7950	14.26	1.62	/	0.13
				DTB						

Purging Field Notes:

Slight sulfur odor; pressure out to controller 30psi; purge on at 3psi, recharge off at 30secs; collected nitrate/nitrite,

Sample Date/Time: 14-Oct-2011/1010 Sample ID/TR #: MW18D102011

Sampler's signature/date: [signature] /14-Oct-2011

Reviewer's signature/date: [signature] 15OCT2011

TAL metals total & dissolved; VOCs(3); TPH-DRO(2); TPH-GRO(2); explosives(2); perchlorate.

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW20
Start Date: 14OCT2011
Start Time: 2:05pm

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 10

Well TD: 59.40
Well DTW: 44.94
Water Column: 14.46
Pump Intake (ft bgs): 57.07

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	14.46
Volume of water in casing (gal)	=	2.36
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.12
ACTUAL VOLUME PURGED (gal)	=	1

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
2:27	0	100	1	45.38	6.88	18000	17.97	1.10		2.08
2:30	3	100	1.3	45.38	6.88	18000	18.03	.79		1.93
2:33	6	100	1.6	45.36	6.88	18000	18.04	.94		1.88
2:36	9	100	1.9	45.36	6.88	18000	18.06	.56		1.75
2:39	12	100	2.2	45.36	6.88	18000	18.18	.33		1.67
2:42	15	100	2.5	45.35	6.88	18000	18.13	.49		1.63
2:45	18	100	2.8	45.35	6.88	18000	18.36	.37		1.55
2:48	21	100	3.1	45.35	6.88	18100	18.21	.01		1.54
2:51	24	100	3.4	45.35	6.88	18100	18.26	.40		1.54

No further entries

Purging Field Notes:
45 psi, 6 s purge, 24 s recharge. Collected: nitrate, DRO(2) explosives (2), pesticides, SVOCs, perchlorate, VOCs(3), GRO(2), total & dissolved metals

Sample Date/Time: 14OCT2011 15:00 Sample ID/TR #MW2818 2011

Sampler's signature/date: Hannah Wolfman 14OCT2011

Reviewer's signature/date: [signature] 15OCT2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: MW22D
Start Date: 14-Oct-2011
Start Time: 1200

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 47-57

Well TD: 58.77
Well DTW: 41.80
Water Column: 16.97
Pump Intake (ft bgs): 56.10

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	16.97
Volume of water in casing (gal)	=	2.77
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.53
ACTUAL VOLUME PURGED (gal)	=	20.1

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1225	0	200	0	41.80	7.60	5470	17.08	1.11	/	1.18
1230	5	200	1.0	42.05	7.58	6630	16.45	0.20	/	0.85
1235	10	200	2.0	42.03	7.55	5720	16.23	0.93	/	0.69
1240	15	200	3.0	42.04	7.54	5520	16.20	0.60	/	0.56
1245	20	200	4.0	42.04	7.53	5535	16.16	0.43	/	0.44
1250	25	200	5.0	42.04	7.53	5528	16.14	0.41	/	0.36
1255	30	200	6.0	42.04	7.52	5516	16.14	0.38	/	0.30
1300	35	200	7.0	42.04	7.53	5522	16.18	0.42	/	0.30
1305	40	200	8.0	42.04	7.52	5518	16.12	0.41	/	0.28
				DTB						

Purging Field Notes:

Pressure into controller 30 psi; recharge of 4-20 secs; purge on 10 secs. Flow rate 200 ml/min. Collected VOCs (2), TPH-GRO(2), TPH-DRO (2)

Sample Date/Time: 14-Oct-2011/1317 Sample ID/TR #: MW22D102011 / QC also MW22D102011 Sample time 1355

Sampler's signature/date: 14-Oct-2011

Reviewer's signature/date: 15 OCT 2011

FD02102011 Sample time 1455 - blind sample

SVOCs; Pesticides; explosives (2); TAL metals total & dissolved; nitrate/nitrite; perchlorate. QC sample sample time 1355 MW22D102011 for Apple lab.

WELL SAMPLING DATA FORM

Well Number: MW22S
Start Date: 11 Oct 11
Start Time: 1345

Well Casing Diameter (in):	2	Well TD:	43.54
Bore Hole Diameter (in):	8	Well DTW:	41.59
Annular Space (AS) Length (ft):	12	Water Column:	
Screened Interval (ft bgs):	31-41	Pump Intake (ft bgs)	—

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	1.95
Volume of water in AS (gal)	=	1.42
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	1.95
Volume of water in casing (gal)	=	0.32
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	1.74
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	5.22
ACTUAL VOLUME PURGED (gal)	=	0.75

Method of Purging : bailer

Field Parameters	Reading								
Time	1400	1410	1420						Final Sample
Volume (gal)	0.25	0.50	0.75						
Flow Rate (gpm)									N/A
DTW (ft toc)	42.16	42.56	42.98						
pH	6.97	6.98	6.95						
Conductivity (µS/cm)	4540	4340	4290						
Temperature (ºC)	15.90	15.73	15.47						
Turbidity (NTU)	281.7	129.1	738.3						
Eh/Redox (mV)									
DO (mg/L)	6.96	2.88	3.65						

Purging Field Notes:

13-oct-2011 @ 1118 bailed well dry, collected TPH-DRO (2); VOCs (3) nitrate/nitrite; perchlorate; TAL metals both total & dissolved.
14-oct-2011 @ 0822 bailed well dry, collected pesticides & TPH-DRO 1.5 bottles. 15-oct-2011 @ 1110 bailed well dry, collected SVOCs & explosives 1.5 bottles

Sample Date/Time: 13-oct-2011/1118 / 14-oct-2011/0822 Sample ID/TR #: MW22S10211

Sampler's signature/date: 15-oct-2011 / [signature] 15-Oct-2011/1110

Reviewer's signature/date: [signature]

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: SMW01
Start Date: 14OCT2011
Start Time: 11:45 am

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 29.9-49.9

Well TD: 52.15
Well DTW: 28.86 ft
Water Column: 23.29
Pump Intake (ft bgs): 50.15

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	23.29
Volume of water in casing (gal)	=	3.80
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	19.86
ACTUAL VOLUME PURGED (gal)	=	3.4

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
12:43	0	150	3 11	31.03	7.81	2020	14.18	0.99		.75
12:46	3	150	11.45	31.03	7.81	2010	14.23	1.07		.75
12:49	6	150	11.9	31.01	7.82	2020	14.56	1.14		.76
12:52	9	150	12.35	31.01	7.82	2020	14.37	1.51		.74
12:55	12	150	12.8	31.01	7.82	2010	14.14	1.54		.76
12:58	15	150	13.25	31.01	7.82	2010	14.19	1.53		.74

No further Entries

Purging Field Notes:

35 psi, 5 s purge, 25 s recharge. Collected: explosives(2), SVOCs, VOCs (3), perchlorate, total & dissolved metals, nitrate. Final DTW = 30.80 ft

Sample Date/Time: 14OCT2011 15:08 Sample ID/TR #: SMW01102011

Sampler's signature/date: Hannah M Lofgren 14OCT2011

Reviewer's signature/date: [signature] 15 OCT 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW81
Start Date: 17OCT2011
Start Time: 2:05 pm

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 44-59

Well TD: 61.23 ft
Well DTW: 36.59 ft
Water Column: 24.64
Pump Intake (ft bgs): 59.23

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	24.64
Volume of water in casing (gal)	=	4.02
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	16.43
ACTUAL VOLUME PURGED (gal)	=	21

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
2:24	0	250	3	37.12	7.55	2960	13.91	.36		.14
2:27	3	250	3.75	37.12	7.54	2940	13.88	.51		.12
2:30	6	250	4.5	37.12	7.54	2930	13.86	.87		.11
2:33	9	250	5.25	37.12	7.55	2900	13.86	.80		.10
2:36	12	250	6	37.12	7.54	2890	13.93	.65		.09
2:39	15	250	6.75	37.12	7.55	2900	13.89	.62		.08
2:42	18	250	7.5	37.12	7.54	2910	13.93	.86		.07 .08
2:45	21	250	8.25	37.12	7.55	2900	13.91	.26		.07
		No further entries								

Purging Field Notes:
8 s purge, 22 s recharge, 50 psi. Collected - total & dissolved metals, nitrate, perchlorate, VOCs (3), explosives (2). Final DTW = 36.81 ft

Sample Date/Time: 17OCT2011 14:55 Sample ID/TR #: TMW81162011

Sampler's signature/date: Hannah Wolman 17OCT2011

Reviewer's signature/date: [signature] 18OCT2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW02
Start Date: 18OCT2011
Start Time: 8:10 am

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 16
Screened Interval (ft bgs): 67.9-81.9

Well TD: 84.9 ft
Well DTW: 55.46 ft
Water Column: 29.44 ft
Pump Intake (ft bgs): 81.76

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	16
Volume of water in AS (gal)	=	11.68
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	29.44
Volume of water in casing (gal)	=	4.80
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	16.48
ACTUAL VOLUME PURGED (gal)	=	1.5

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
8:43	0	110	3	56.25	8.01	4480	12.51	.09		.21
8:46	3	110	3.33	56.25	8.01	4480	12.50	.01		.16
8:49	6	110	3.66	56.25	8.02	4470	12.63	.00		.15
8:52	9	110	3.99	56.25	8.02	4470	12.70	.00		.14
8:55	12	110	4.32	56.25	8.01	4470	12.72	.01		.11
8:58	15	110	4.65	56.25	8.02	4470	12.84	.00		.10
9:01	18	110	4.98	56.25	8.02	4470	12.86	.00		.10

No Further Entries

Purging Field Notes:

50 psi, 9s purge, 21s recharge. Collected: total & dissolved metals, nitrate, perchlorate, VOCs (3) explosives (2). Final DTW = 56.27 ft

Sample Date/Time: 18OCT2011 9:05 Sample ID/TR #: TMW02102011

Sampler's signature/date: Hannah Wolfman 18OCT2011

Reviewer's signature/date: [signature] 19 OCT 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW 03
Start Date: 10-14-11
Start Time: 1500

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 47.8-69.8

Well TD: 73.06
Well DTW: 56.90
Water Column: 16.16
Pump Intake (ft bgs): 70.06

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	16.16
Volume of water in AS (gal)	=	11.80
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	16.16
Volume of water in casing (gal)	=	2.63
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	14.43
ACTUAL VOLUME PURGED (gal)	=	0.88

Method of Purging :

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1515	0	150	0	57.05	7.68	4390	15.82	0.60		1.64
1520	5	150	0.75	57.05	7.69	4380	15.56	0.45		0.70
1525	10	150	1.5	57.10	7.69	4390	15.57	0.19		0.40
1530	15	150	2.25	57.10	7.70	4400	15.38	0.14		0.33
1535	20	150	3.0	57.10	7.70	4390	15.12	0.18		0.25
1537	22	150	3.3	57.10	7.70	4400	15.05	—		0.26
	Final water level =			57.10						

Purging Field Notes: P = 40 psi, Mech = 30 sec, Purge = 10 sec
Q = 150 ml/min. very clear water

Sample Date/Time: 10-14-11 1600 Sample ID/TR #: TMW03102011
Sampler's signature/date: Grant Kolb 10-14-11
Reviewer's signature/date: CDWagner 15 OCT 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW04
Start Date: 14 Oct 11
Start Time: 1110

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 50-70

Well TD: ~~56.40'~~ 72.25'
Well DTW: 56.40'
Water Column: 15.85
Pump Intake (ft bgs): 70.25

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	15.85
Volume of water in AS (gal)	=	11.57
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	15.85
Volume of water in casing (gal)	=	2.58
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	14.15
ACTUAL VOLUME PURGED (gal)	=	~1.5 gal

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1135	25	180	2.0	56.84	7.76	4020	13.83	1.78		2.60
1138	28	180	2.54	56.84	7.78	4010	13.98	1.71		2.47
1141	31	180	3.08	56.84	7.77	4010	13.83	1.52		2.38
1144	34	180	3.62	56.86	7.76	4000	13.81	1.46		2.26
1147	37	180	4.16	56.86	7.77	4000	13.80	1.62		2.13
1150	40	180	4.70	56.86	7.77	4000	13.95	1.43		2.13
1153	43	180	5.24	56.86	7.77	4000	13.96	1.51		2.13

Purging Field Notes:
collected: VOCs, NO_3/NO_2, explosives, perchlorate, metals, SVOCs. yellow tint to H_2O
50 psi, 24s recharge, 6s purge. DTW ending = 56.86'

Sample Date/Time: 10/14/11 1155 Sample ID/TR #: TMW04102011

Sampler's signature/date: 10/14/11

Reviewer's signature/date: 15 OCT 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW06
Start Date: 13-oct-2011
Start Time: 1352

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 45-55

Well TD: 57.24
Well DTW: 46.98
Water Column: 10.26
Pump Intake (ft bgs): 55.24

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	10.26
Volume of water in AS (gal)	=	7.49
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	10.26
Volume of water in casing (gal)	=	1.67
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	9.16
ACTUAL VOLUME PURGED (gal)	=	1.44

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1352	Ø	170	0.17	46.98	8.42	4210	18.02	1.01	/	4.51
1355	3	170	0.51	47.61	7.60	4010	14.44	1.65	/	0.76
1400	8	170	1.36	47.81	7.59	4020	14.36	0.33	/	0.66
1405	13	170	2.21	48.02	7.58	4050	14.19	1.39	/	0.55
1410	18	130	2.86	48.02	7.57	4100	14.20	0.29	/	0.49
1415	23	130	3.51	48.05	7.55	4120	14.72	0.19	/	0.41
1420	28	130	4.16	48.05	7.54	4160	14.76	0.18	/	0.43
1425	33	130	4.81	48.05	7.53	4160	14.73	0.20	/	039
1430	38	130	5.46	48.05	7.53	4160	14.71	0.18	/	0.38
				DTB						

Purging Field Notes:

Flow rate 130 ml/min; pressure out to pump controller 27psi; on at 10secs; off cycle at 20secs; collected samples for nitrate/nitrite;

Sample Date/Time: 13-oct-2011 / 1435 Sample ID/TR #: TMW061020111 TAL metals total & dissolved, SVOCs, VOCs (8) & explosives (2)

Sampler's signature/date: Dan R / 13-oct-2011

Reviewer's signature/date: [signature] 14 OCT 2011

WELL SAMPLING DATA FORM

Well Number:	~~FB~~ DB TMW-87
Start Date:	13-oct-2011
Start Time:	1540

Well Casing Diameter (in):	2	Well TD:	67.37
Bore Hole Diameter (in):	9	Well DTW:	47.26
Annular Space (AS) Length (ft):	12	Water Column:	20.11
Screened Interval (ft bgs):	57.37-67.37	Pump Intake (ft bgs)	no pump

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	~~20.11~~ DB 12
Volume of water in AS (gal)	=	~~14.68~~ DB 8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	20.87 DB 11
Volume of water in casing (gal)	=	3.28
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.04
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	36.12
ACTUAL VOLUME PURGED (gal)	=	~5.0

Method of Purging : bailing

Field Parameters	Reading								
Time	1540	1550	1556	1604	1611				Final Sample
Volume (gal)	0.5	1.0	1.75	2.75	3.75				
Flow Rate (gpm)	/	/	/	/	/				N/A
DTW (ft toc)	49.01	52.39	55.20	59.18					
pH	7.62	7.83	7.84	7.79	7.74		dry		
Conductivity (µS/cm)	5120	5060	5060	5060	5150				
Temperature (ºC)	13.93	13.49	13.69	13.54	13.57				
Turbidity (NTU)	11.51	6.45	5.61	10.55	20.94				
Eh/Redox (mV)	/	/	/	/	/				
DO (mg/L)	2.04	2.65	3.98	3.98	3.72				

Purging Field Notes:

Bailed well dry, removed ~5 gals. 15-oct-2011 @ 1200 collected perchlorate, TAL metals total & dissolved, SVOCs, VOCs (3) & explosives (2). 17 oct-2011, sampled for nitrate/nitrite.

Sample Date/Time: 15-oct-2011/1200 / 17-oct-2011/0810 Sample ID/TR #: TMW87102011

Sampler's signature/date: [signature] 18 OCT 2011

Reviewer's signature/date: [signature] 17-Oct-2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW08
Start Date: 10/13/11
Start Time: 0845

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 30
Screened Interval (ft bgs): 32-62

Well TD: 62.41
Well DTW: 36.64
Water Column:
Pump Intake (ft bgs): 60.41

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	23.77
Volume of water in AS (gal)	=	17.35
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	23.77
Volume of water in casing (gal)	=	3.87
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	21.22
ACTUAL VOLUME PURGED (gal)	=	7.1

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0855	10	130	1.3	36.74	7.28	16400	13.07			0.33
0857	13	130	2.6 3.9	36.74	7.27	16400	13.07	39.69		0.32
0900	16	130	3.9 7.8	36.75	7.27	16400	13.13	31.06		0.30
0903	19	130	3.9 11.7	36.75	7.27	16400	13.13	25.69		0.27
0906	22	130	3.9 15.6	36.75	7.27	16300	13.13	28.19		0.29
0909	25	130	3.9 19.5	36.75	7.28	16300	13.16	36.62		0.29
0912	28	130	3.9 23.4	36.75	7.28	16300	13.16	29.69		0.29
0915	31	130	3.9 27.3	36.75	7.27	16300	13.18	25.24		0.27

Purging Field Notes: ↑ note Cond = 16.4 mS/cm = 16400 µS/cm
water has yellow tint, water level stabilized quickly @ 36.75', 20s recharge, 6s purge. VOC, NO_3/NO_2, metals, pesticides, perchlorate

Sample Date/Time: 10/13/11 0920 Sample ID/TR #: TMW08 10 2011

Sampler's signature/date: 10/13/11

Reviewer's signature/date: 14 OCT 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW-18
Start Date: 10-18-11
Start Time: 1235

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 32
Screened Interval (ft bgs): 31.23 - 61.23

Well TD: 61.80
Well DTW: 37.41
Water Column: 24.39
Pump Intake (ft bgs): 59.47

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	24.39
Volume of water in AS (gal)	=	17.80
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	24.39
Volume of water in casing (gal)	=	3.78
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	21.78
ACTUAL VOLUME PURGED (gal)	=	0.93

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1250	0	100	0	37.57	7.31	8910	15.92	2.14		2.98
1255	5	100	0.5	37.64	7.43	8740	15.37	1.38		1.81
1300	10	100	1.0	37.67	7.43	8720	14.85	0.45		1.44
1305	15	100	1.5	37.71	7.43	8730	14.58	1.06		1.35
1310	20	100	2.0	37.75	7.43	8730	14.62	0.81		1.26
1315	25	100	2.5	37.75	7.43	8720	14.88	0.95		1.21
1320	30	100	3.0	37.75	7.43	8750	14.71	0.98		1.15
1325	35	100	3.5	37.78	7.43	8710	14.66	0.78		1.15
1415	Final water level =			37.78						

Purging Field Notes: clear water, sulfur odor
P = 30psi, Reach = 20sec, Purge = 5sec, Q = ~~100~~ 100 ml/min

Sample Date/Time: 10-18-11 1330 Sample ID/TR #: TMW18182011
Sampler's signature/date: Grant Kolb 10-18-11
Reviewer's signature/date: CMWagner 19 OCT 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

FW01

Well Number: TMW 11
Start Date: 10-17-11
Start Time: 0800

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 27'
Screened Interval (ft bgs): 53-80

Well TD: 82.52
Well DTW: 66.09
Water Column: 16.43
Pump Intake (ft bgs): 80.52

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	16.43
Volume of water in AS (gal)	=	11.99
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	16.43
Volume of water in casing (gal)	=	2.68
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	14.67
ACTUAL VOLUME PURGED (gal)	=	3.2

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0830	0	200	0	66.41	7.80	2240	13.21	5.96		2.10
0835	5	200	1.0	66.52	7.60	2320	13.27	9.90		1.64
0840	10	200	2.0	66.61	7.57	2330	13.35	3.32		1.36
0845	15	200	3.0	66.65	7.56	2330	13.39	1.56		1.19
0850	20	200	4.0	66.68	7.52	2290	13.44	2.01		1.17
0855	25	200	5.0	66.68	7.53	2290	13.47	2.53		1.29
0900	30	200	6.0	66.74	7.55	2290	13.52	1.95		1.52
0905	35	200	7.0	66.74	7.56	2290	13.62	1.76		1.72
0910	40	200	8.0	66.74	7.58	2290	13.66	1.58		2.07
0915	45	200	9.0	66.74	7.60	2290	13.74	1.90		2.29
0920	50	200	10.0	66.74	7.61	2290	13.76	1.62		2.42
0925	55	200	11.0	66.74	7.61	2280	13.79	1.50		2.59
0927	57	200	11.4	66.74	7.61	2280	13.83	—		2.62
0930	60	200	12.0	66.74	7.61	2280	13.85	1.66		2.61
1100	Final	water	level =	66.74						

Purging Field Notes: very clear water w strong sulfur odor
P = 45psi, Tech = 20 sec, Purge = 10 sec, Q = 200 ml/min

Sample Date/Time: 10-17-11 1000 Sample ID/TR #: TMW11102011
Sampler's signature/date: Grant Kolb 10-17-11
Reviewer's signature/date: [signature] 19 OCT 2011

FW01 10 2011 time 1430 = Blind Dup.

FW&I

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW-11
Start Date: 10-18-11
Start Time: 0755

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 27'
Screened Interval (ft bgs): 55-80

Well TD: 82.52
Well DTW: 66.11
Water Column: 16.41
Pump Intake (ft bgs): 80.52

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	16.41
Volume of water in AS (gal)	=	11.98
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	16.41
Volume of water in casing (gal)	=	2.67
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	14.65
ACTUAL VOLUME PURGED (gal)	=	

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0815	0	200	0	66.38	7.67	2150	11.83	1.21		5.64
0820	5	200	1.0	66.61	7.65	2160	12.54	1.10		5.35
0825	10	200	2.0	66.68	7.63	2160	12.61	0.94		5.01
0830	15	200	3.0	66.74	7.63	2160	12.62	0.78		4.67
0835	20	200	4.0	66.76	7.65	2160	12.70	0.85		6.36
0840	25	200	5.0	66.79	7.65	2160	12.68	0.86		6.43
0845	30	200	6.0	66.79	7.66	2160	12.73	0.80		6.39
0850	35	200	7.0	66.79	7.66	2160	12.84	1.02		6.28
0855	40	200	8.0	66.79	7.67	2160	12.91	0.91		6.76
0900	45	200	9.0	66.79	7.66	2160	12.95	0.58		6.78
0910	Final water level = 66.79									

Purging Field Notes: very clear water, strong sulfur odor
P = 45 psi, Rech = 20 sec, Purge = 10 sec, Q = 200 ml/min

Sample Date/Time: 10-18-11 0900 Sample ID/TR #: TMW11102011
Sampler's signature/date: Grant Kolb 10-18-11
Reviewer's signature/date: SWagner, 19 OCT 2011

b/i d dup
FW&I sample time = 1130 for NO3 only

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW13 (FW84)
Start Date: ~~17APR~~ 17OCT2011
Start Time: 8:20 am

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 60.7-70.7

Well TD: 73.78 ft
Well DTW: 59.78
Water Column: 14
Pump Intake (ft bgs): 71.45

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	14
Volume of water in casing (gal)	=	2.28
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.04
ACTUAL VOLUME PURGED (gal)	=	2.6

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
9:06	0	240	3	60.19	7.63	2320	13.34	0.65		.94
9:09	3	240	3.72	60.19	7.62	2320	13.37	.84		.82
9:12	6	240	4.44	60.19	7.62	2320	13.37	.51		.74
9:15	9	240	5.16	60.19	7.62	2320	13.39	.68		.66
9:18	12	240	5.88	60.19	7.61	2330	13.40	.88		.62
9:21	15	240	6.6	60.19	7.61	2330	13.41	.65		.59
9:24	18	240	7.32	60.19	7.61	2330	13.42	.52		.56
9:27	21	240	8.04	60.19	7.60	2330	15.46	.57		.54
9:30	24	240	8.76	60.19	7.61	2330	13.46	.71		.53
9:33	27	240	9.48	60.19	7.61	2330	13.50	.42		.51
9:36	30	240	10.2	60.19	7.61	2330	13.52	.49		.51
			No Further Entries							

Purging Field Notes:

1l/s purge, 20s recharge, 40 psi. Collected: total metals, dissolved metals, perchlorate, nitrate, VOCs (3). Collected 3 sets: 2 for TMW13 (sample time: 9:45) 1 set for FW84102811 (sample time: 10:45)

Sample Date/Time: 17OCT2011 9:45/10:45 Sample ID/TR #: TMW13102811, FW84102811

Sampler's signature/date: Hannah Johnson 17OCT2011

Reviewer's signature/date: [signature] 18OCT2011

Final DTW = 60.01 ft

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW14A
Start Date: 16-17-11
Start Time: 1115

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 94.25 - 109.25

Well TD: 112.10
Well DTW: 63.08
Water Column: 49.02
Pump Intake (ft bgs): 95.7

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	49.02
Volume of water in casing (gal)	=	7.99
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	20.4
ACTUAL VOLUME PURGED (gal)	=	0.77

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1130	0	60	0	63.09	8.49	1910	18.60	0.15		2.61
1135	5	~~60~~	0.3	63.09	8.35	1910	17.80	0.22		2.49
1140	10	60	0.6	63.09	8.09	1900	17.58	0.62		2.04
1145	15	60	0.9	63.09	8.39	1890	17.19	1.36		1.46
1150	20	60	1.2	63.09	8.52	1890	17.20	1.10		0.98
1155	25	60	1.5	63.09	8.60	1900	17.42	0.93		0.81
1200	30	60	1.8	63.09	8.63	1900	17.59	0.99		0.75
1205	35	60	2.1	63.09	8.65	1890	17.42	0.82		0.73
1210	40	60	2.4	63.09	8.66	1900	17.60	0.75		0.69
1215	45	60	2.7	63.09	8.65	1900	17.56	0.56		0.68
1218	48	60	2.88	63.09	8.66	1900	17.63	0.62		0.68
1400	Final water level = 63.09									

Purging Field Notes: Dock ZIST. Clear water w strong sulfur odor.
P = 50psi, Rech = 50 sec, Purge = 6 sec, Q = 60 ml/min

Sample Date/Time: 16-17-11 1300 Sample ID/TR #: TMW14A102011
Sampler's signature/date: Grant Kolb 16-17-11
Reviewer's signature/date: [signature] 18 OCT 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW 15 (FW&S)
Start Date: 10-18-10
Start Time: 0920

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8.1
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 56-71'

Well TD: 76.65
Well DTW: 63.94
Water Column: 12.71
Pump Intake (ft bgs): 74.8

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12.71
Volume of water in AS (gal)	=	9.28
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	12.71
Volume of water in casing (gal)	=	2.07
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.35
ACTUAL VOLUME PURGED (gal)	=	32.67

Method of Purging :

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0930	0	250	0	64.20	7.72	2210	13.18	0.28		2.73
0935	5	250	1.25	64.23	7.70	2210	13.15	0.26		2.61
0940	10	250	2.5	64.25	7.69	2210	13.19	0.19		2.47
0945	15	250	3.75	64.28	7.69	2210	13.24	0.21		2.46
0950	20	250	5.0	64.28	7.70	2200	13.26	0.09		2.59
0955	25	250	6.25	64.28	7.71	2200	13.29	0.00		2.78
1000	30	250	7.5	64.28	7.71	2210	13.29	0.00		2.89
1005	35	250	8.75	64.28	7.72	2210	13.22	0.00		3.26
1010	40	250	10.0	64.28	7.72	2210	13.19	0.00		3.21
1145	Final water level =			64.28						

Purging Field Notes: very clear water; strong sulfur odor
P = 55 psi, Rech = 20 psc, purge = 7 psc, Q = 250 ml/min

Sample Date/Time: 10-18-11 1030 Sample ID/TR #: TMW15102011 Blind duplicate
Sampler's signature/date: Grant Kolb 10-18-11 FW&S sample time = 1530
Reviewer's signature/date: 19 OCT 2011

WELL SAMPLING DATA FORM

Well Number: TMW-16
Start Date: 10-12-11
Start Time: 1450

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 127.2 – 142.2

Well TD: 142.00
Well DTW: 55.31
Water Column: ~~86.69~~ 86.69
Pump Intake (ft bgs) 140.0

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	86.69
Volume of water in casing (gal)	=	14.13
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	26.5
Number of EV to be purged	X	~~79.5~~ 3
TOTAL VOLUME TO BE PURGED (gal)	=	79.5
ACTUAL VOLUME PURGED (gal)	=	12+21 = 33gal

Method of Purging : DEDICATED BENNETT PUMP

Field Parameters	Reading								Final Sample
Time	~~1358~~	1409	1425	1437	1448	1451			
Volume (gal)	1	5	10	15	20	21			
Flow Rate (gpm)									N/A
DTW (ft toc)	55.31			134.6		138.4			
pH	8.31	8.02	8.00	8.32	8.41				
Conductivity (µS/cm)	2054	1855	1854	1858	2074				
Temperature (ºC)	13.6	13.1	13.1	13.2	13.2				
Turbidity (NTU)	39.7	3.90	4.17	30.0	45.3				
Eh/Redox (mV)									
DO (mg/L)	0.94	0.91	0.91	1.05	0.92				

Purging Field Notes:

WELL DRY PURGED 21 GALS, NO WATER @ 138.4 TOP OF PUMP.
10/15/11 collected VOC, perchlorate, metals (total & diss), explosives, SVOCs

Sample Date/Time: 10/15/11 0803
Sample ID/TR #: TMW16102011
Sampler's signature/date: 15-OCT-2011
Reviewer's signature/date: 18OCT2011

WELL SAMPLING DATA FORM

Well Number: TMW-16
Start Date: ~~1210~~ 10-13-11
Start Time: 1210

Well Casing Diameter (in): _____
Bore Hole Diameter (in): _____
Annular Space (AS) Length (ft): _____
Screened Interval (ft bgs): _____

Well TD: _____
Well DTW: 97.98
Water Column: _____
Pump Intake (ft bgs) _____

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	
Column of water or length of AS (whichever is less)	X	
Volume of water in AS (gal)	=	
Gallons per foot of casing (from chart on back)	=	
Column of water	X	
Volume of water in casing (gal)	=	
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	
Number of EV to be purged	X	
TOTAL VOLUME TO BE PURGED (gal)	=	
ACTUAL VOLUME PURGED (gal)	=	

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Method of Purging : DEDICATED BENNETT PUMP

Field Parameters	Reading								Final Sample
Time	1220	1230	1242	1247					
Volume (gal)	INITIAL	5	10						
Flow Rate (gpm)									N/A
DTW (ft toc)	97.98								
pH	8.54	8.60	8.55						
Conductivity (µS/cm)	2057	1968	1879	DRY					
Temperature (ºC)	13.7	13.2	13.1						
Turbidity (NTU)	399	75.8	348						
Eh/Redox (mV)									
DO (mg/L)	3.62	3.93	5.94						

Purging Field Notes:

PURGED 12 GALS, WELL DRY, (2ND TIME). TOTAL PURGED 33 GALS.

Sample Date/Time: _____ Sample ID/TR #: _____
Sampler's signature/date: _____
Reviewer's signature/date: _____

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW17
Start Date: 18OCT2011
Start Time: 10:05

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 112-127

Well TD: 130.45 ft
Well DTW: ~~5~~ 61.88 ft
Water Column: 68.57 ft
Pump Intake (ft bgs): 128.45

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	68.57 ft
Volume of water in casing (gal)	=	11.18
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	23.59
ACTUAL VOLUME PURGED (gal)	=	27

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
11:04	6	40	10	74.22	9.44	1840	17.08	1.83		.31
11:07	3	40	10.12	74.20	9.43	1840	17.55	2.32		.26
11:10	6	40	10.24	74.20	9.42	1850	17.72	1.68		.25
11:13	9	40	10.36	74.20	9.41	1840	17.68	1.83		.22
11:16	12	40	10.48	74.20	9.41	1840	17.74	.90		.22
11:19	15	40	10.6	74.20	9.40	1850	17.80	1.38		.21

No Further Entries

Purging Field Notes:

50psi, 5s purge, 53s recharge. Collected: VOCs(3), nitrate, total & dissolved metals, perchlorate. Final DTW=73.84 ft

Sample Date/Time: 18OCT2011 11:25 Sample ID/TR #: TMW171020211

Sampler's signature/date: Hannah Wohlman 18OCT2011

Reviewer's signature/date: Steven D. Wagner 19OCT2011

WELL SAMPLING DATA FORM

Well Number: TMW-18
Start Date: 10-11-11
Start Time: 1440

Well Casing Diameter (in):	2	Well TD:	160.77
Bore Hole Diameter (in):	8	Well DTW:	54.35
Annular Space (AS) Length (ft):	12	Water Column:	106.42
Screened Interval (ft bgs):	148.7 - 158.7	Pump Intake (ft bgs)	≈ 158

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	106.42
Volume of water in casing (gal)	=	17.35
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	26.11
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	78.33
ACTUAL VOLUME PURGED (gal)	=	23 GALS. PURGED DRY, TWICE.

Method of Purging : DEDICATED BENNETT PUMP

Field Parameters	Reading								Final Sample
Time	1450	1453	1456	1500	1507	1514	1520		
Volume (gal)	0.5	3.0	6.0	9.0	12.0	15	17		
Flow Rate (gpm)									N/A
DTW (ft toc)	54.35					~~≈157~~	≈157		95.06
pH	9.87	9.73	9.68	9.59	9.51	9.60			
Conductivity (µS/cm)	2682	2689	2676	2678	2672	2677			
Temperature (°C)	14.1	~~9.87~~ 13.4	13.3	13.3	13.4	13.3			
Turbidity (NTU)	6.81	2.64	2.56	1.80	2.46	4.51			
Eh/Redox (mV)									
DO (mg/L)	1.80	0.65	0.54	0.65	0.89	1.03			

Purging Field Notes:

PURGED 17 GALS, WELL DRY. WL BELOW TOP OF PUMP.

PURGED 3 GALS BEFORE COLLECTING SAMPLE.

Sample Date/Time: 10-18-11 @ 0815 Sample ID/TR #: TMW-18102011

Sampler's signature/date: Jaclyn S. Hebrank 10-18-11

Reviewer's signature/date: [signature] 19 OCT 2011

VOC, EXPLOSIVES, SVOC, N+N, T+D METALS, PERC.

WELL SAMPLING DATA FORM

Well Number: TMW-18
Start Date: 10-13-11
Start Time: 1300

Well Casing Diameter (in): _____
Bore Hole Diameter (in): _____
Annular Space (AS) Length (ft): _____
Screened Interval (ft bgs): _____

Well TD: _____
Well DTW: 124.65
Water Column: _____
Pump Intake (ft bgs) _____

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	
Column of water or length of AS (whichever is less)	X	
Volume of water in AS (gal)	=	
Gallons per foot of casing (from chart on back)	=	
Column of water	X	
Volume of water in casing (gal)	=	
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	
Number of EV to be purged	X	
TOTAL VOLUME TO BE PURGED (gal)	=	
ACTUAL VOLUME PURGED (gal)	=	

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Method of Purging : BENNETT PUMP

Field Parameters	Reading								Final Sample
Time	1306	1311	1318						
Volume (gal)	INITIAL	3	6						
Flow Rate (gpm)									N/A
DTW (ft toc)	124.65		≈157						
pH	10.12	9.83	9.94						
Conductivity (µS/cm)	3120	3040	2990	DRY					
Temperature (°C)	14.0	13.5	13.6						
Turbidity (NTU)	31.7	12.49	9.63						
Eh/Redox (mV)									
DO (mg/L)	3.64	2.63	3.88						

Purging Field Notes:

PURGED 6 GALS, WELL DRY. TOTAL PURGED 23 GALS. WILL SAMPLE AFTER RECHARGE.

Sample Date/Time: _____
Sampler's signature/date: _____
Reviewer's signature/date: _____

Sample ID/TR #: _____

WELL SAMPLING DATA FORM

Well Number: TMW-19
Start Date: 10-12-11
Start Time: 1200

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 17
Screened Interval (ft bgs): 172.97 - 187.97

Well TD: 187.97
Well DTW: 42.14
Water Column: 145.83
Pump Intake (ft bgs) ≈186.00

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17
Volume of water in AS (gal)	=	12.41
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	145.83
Volume of water in casing (gal)	=	23.77
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	36.18
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	108.54
ACTUAL VOLUME PURGED (gal)	=	

Method of Purging : DEDICATED BENNETT PUMP

Field Parameters	H_2S	Reading							
Time	1206	1212	1224	1236	1250	1305	1322	1326	Final Sample
Volume (gal)	INITIAL	5	10	15	20	25	30	31	
Flow Rate (gpm)									N/A
DTW (ft toc)	~~42.14~~							≈184	
pH	8.13	8.15	8.07	7.96	8.00	8.04	8.18		
Conductivity (µS/cm)	3220	3070	2980	2970	2960	2950	2934		
Temperature (ºC)	13.5	12.9	12.9	12.9	12.9	12.9	13.0		
Turbidity (NTU)	21.02	6.69	10.56	8.38	7.34	9.31	12.09	DRY	
Eh/Redox (mV)									
DO (mg/L)	1.83	0.73	0.95	1.08	1.05	0.93	0.90		

Purging Field Notes:

PURGED 31 GALS, WELL DRY. WATER LEVEL ≈ BELOW 184, E-TAPE HUNG UP @ 184 NO WATER.

Sample Date/Time: _____ Sample ID/TR #: _____

Sampler's signature/date: _____

Reviewer's signature/date: _____

WELL SAMPLING DATA FORM

Well Number: TMW-19
Start Date: 10-13-11
Start Time: 1030

Well Casing Diameter (in): _____
Bore Hole Diameter (in): _____
Annular Space (AS) Length (ft): _____
Screened Interval (ft bgs): _____

Well TD: _____
Well DTW: 45.62
Water Column: _____
Pump Intake (ft bgs) _____

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	
Column of water or length of AS (whichever is less)	X	
Volume of water in AS (gal)	=	
Gallons per foot of casing (from chart on back)	=	
Column of water	X	FRONT PAGE
Volume of water in casing (gal)	=	
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	
Number of EV to be purged	X	
TOTAL VOLUME TO BE PURGED (gal)	=	
ACTUAL VOLUME PURGED (gal)	=	

Method of Purging : DEDICATED BENNETT PUMP

Field Parameters	Reading								
Time	1036	1042	1052	1101	1110	1120			Final Sample
Volume (gal)	INITIAL	5	10	15	20	24			
Flow Rate (gpm)									N/A
DTW (ft toc)	45.62								
pH	8.47	8.43	8.44	8.44	8.43				
Conductivity (µS/cm)	3050	3010	3000	2970	2910				
Temperature (ºC)	13.0	~~3010~~ 13.9	12.7	12.7	12.7	DRY			
Turbidity (NTU)	54.3	36.8	31.0	61.3	104				
Eh/Redox (mV)									
DO (mg/L)	3.25	2.89	3.01	2.05	1.96				

Purging Field Notes:

PURGED 24 GALS, WELL DRY (2ND TIME) TOTAL PURGED 55 GALS. Collected samples for TAL Metals total & dissolved, SVOCs, VOCs, explosives. Pressure to pump 36 psi

Sample Date/Time: 0840 / 15-Oct-2011
Sample ID/TR #: TMW19102011
Sampler's signature/date: [signature] / 15-Oct-2011
Reviewer's signature/date: [signature] 17 OCT 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW21
Start Date: 11 OCT 2011
Start Time: 14:40

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 48-58

Well TD: 61.31 ft
Well DTW: ~~50.55~~ 49.54 ft
Water Column: 11.77
Pump Intake (ft bgs): 58.98

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	11.77
Volume of water in AS (gal)	=	8.59
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	11.77
Volume of water in casing (gal)	=	1.92
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	10.51
ACTUAL VOLUME PURGED (gal)	=	15

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
~~15:34~~	~~16:39~~	60	5	52.83	7.68	2660	15.30	6.65		1.04
15:42	3	60	5.18	52.83	7.68	2650	15.31	6.19		1.00
15:45	6	60	5.36	52.83	7.68	2650	15.24	5.26		.95
15:48	9	60	5.54	52.83	7.68	2650	15.29	4.54		.91
15:51	12	60	5.72	52.83	7.68	2640	15.82	5.68		.91
15:54	15	60	5.90	52.83	7.68	2640	15.65	3.99		.90

No further entries

Purging Field Notes:
P=40 psi, off=20 s, on=3 s
Sampled: explosives (2), nitrate, VOCs (3), perchlorate, total & dissolved metals

Sample Date/Time: 11 OCT 2011 16:10 Sample ID/TR #: TMW21102011
Sampler's signature/date: Hannah Wolgamott 11 OCT 2011
Reviewer's signature/date: [signature] 12 OCT 2011

WELL SAMPLING DATA FORM

Well Number:	TMW 22
Start Date:	11 Oct 11
Start Time:	1510
Well Casing Diameter (in):	2
Bore Hole Diameter (in):	8
Annular Space (AS) Length (ft):	12
Screened Interval (ft bgs):	55.23 - 65.29
Well TD:	65.20
Well DTW:	48.65
Water Column:	16.55
Pump Intake (ft bgs)	

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.7573
Column of water or length of AS (whichever is less)	X	16.55
Volume of water in AS (gal)	=	12.08
Gallons per foot of casing (from chart on back)	=	0.1632
Column of water	X	16.55
Volume of water in casing (gal)	=	2.700
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	14.79
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	44.34
ACTUAL VOLUME PURGED (gal)	=	~5.0

Method of Purging : bailer

Field Parameters	Reading								
Time	1525	1530	1539	1545	1555				Final Sample
Volume (gal)	0.5	1.0	1.5	2.0	3.5				
Flow Rate (gpm)									N/A
DTW (ft toc)	51.15	54.40	56.79		59.62				
pH	7.65	7.76	7.62	7.62	7.64				
Conductivity (µS/cm)	3440	3440	3550	3600	3590				
Temperature (ºC)	13.90	13.36	13.04	12.83	13.17				
Turbidity (NTU)	12.9	40.79	63.7	159.6	452.8				
Eh/Redox (mV)									
DO (mg/L)	2.13	2.95	1.95	1.75	2.22				

Purging Field Notes:

bailed dry on 11 Oct 11 ~ 5 gal purged; 13-Oct-2011 sampled well, collected, nitrate/nitrite, TAL metals total & dissolved; 5 VOCs VOCs (3); explosives (2); perchlorate.

Sample Date/Time: 13-Oct-2011 / 1213

Sample ID/TR #: TMW22102011

Sampler's signature/date: [signature] / 13-Oct-2011

Reviewer's signature/date: [signature] 14 OCT 2011

WELL SAMPLING DATA FORM

Well Number:	TMW 23
Start Date:	10/17/11
Start Time:	0900
Well TD:	59.57
Well DTW:	45.57
Water Column:	14.00
Pump Intake (ft bgs)	

Well Casing Diameter (in):	2
Bore Hole Diameter (in):	8
Annular Space (AS) Length (ft):	12
Screened Interval (ft bgs):	49-59

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	14.00
Volume of water in casing (gal)	=	2.28
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	11.04
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	33.12
ACTUAL VOLUME PURGED (gal)	=	5.1

Method of Purging : bail dry

Field Parameters	Reading								Final Sample
Time	0920	0930	0940	0950	1010				
Volume (gal)	0.5	1.25	1.75	3.5	5.1				
Flow Rate (gpm)									N/A
DTW (ft toc)	47.05	51.15	54.05	56.10	56.70				
pH	8.17	7.97	7.96	7.64					
Conductivity (µS/cm)	3270	3260	3240	3310					
Temperature (ºC)	12.56	12.34	12.44	12.49					
Turbidity (NTU)	172.5	262.6	170.8	245.6					
Eh/Redox (mV)									
DO (mg/L)	3.65	3.00	3.35	2.55					

Purging Field Notes:

10/18 collected: NO_3/NO_2, diss & total metals, perchlorate, pesticides, VOCs, explosives

bailed dry on 10/17 ~ 5.1 gal purged

Sample Date/Time: 10/18/11 0846 Sample ID/TR #: TMW23102011

Sampler's signature/date: [signature]

Reviewer's signature/date: [signature] 10/20/2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW-24
Start Date: 10-17-11
Start Time: 1420

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 44-54'

Well TD: 55.41
Well DTW: 38.92
Water Column: 16.49
Pump Intake (ft bgs): 53.41

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	= 0.73
Column of water or length of AS (whichever is less)	X 12
Volume of water in AS (gal)	= 8.76
Gallons per foot of casing (from chart on back)	= 0.163
Column of water	X 16.49
Volume of water in casing (gal)	= 2.69
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	= 11.45
ACTUAL VOLUME PURGED (gal)	= 3.45

Method of Purging :

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1440	0	130	0	39.61	7.77	3840	15.52	1.07		2.14
1445	5	130	0.65	40.34	7.73	3860	14.72	0.72		1.28
1450	10	130	1.3	40.82	7.74	3880	14.52	0.56		1.22
1455	15	130	1.95	41.32	7.71	3880	14.45	0.10		1.15
1500	20	130	2.6	41.67	7.70	3900	14.48	0.10		1.07
1505	25	150	3.35	42.18	7.71	3900	14.14	0.21		1.06
1510	30	150	4.1	42.53	7.72	3900	14.07	0.25		0.98
1515	35	170	4.95	42.92	7.72	3900	13.96	0.64		0.90
1520	40	200	5.95	43.48	7.73	3920	13.63	0.56		0.84
1525	45	200	6.95	43.98	7.73	3910	13.63	0.60		0.82
1530	50	200	7.95	44.29	7.73	3880	13.62	0.64		0.85
1535	55	200	8.95	44.65	7.74	3880	13.67	0.92		0.91
1540	60	200	9.95	44.91	7.75	3870	13.55	0.89		0.99
1545	65	200	10.95	45.15	7.75	3870	13.72	0.80		1.07
1550	70	200	11.95	45.30	7.75	3880	13.75	0.69		1.10
1555	75	200	12.95	45.30	7.75	3880	—	0.83		1.09

Purging Field Notes:
To ~~maintain~~ achieve stable drawdown at Q = 200 ml/min, recharge = 25 sec, purge = 7 sec, P = 35 psi. Suggest

Sample Date/Time: 10-17-11 1600 Sample ID/TR#: TMW24 1[illegible]2011
Sampler's signature/date: Grant Kolb 10-17-11
Reviewer's signature/date: [signature] 18OCT2011

achieving Q = 200 ml/min for stabilizing parameters & drawdown.
Final water level at 1630 = 45.41.

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW25
Start Date: 12-oct-2011
Start Time: 0830

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 42.5 - 52.5

Well TD: 55.25
Well DTW: 39.08
Water Column: 16.17
Pump Intake (ft bgs): 53.0

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.13
Column of water	X	16.17
Volume of water in casing (gal)	=	2.10
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	10.86
ACTUAL VOLUME PURGED (gal)	=	2 ~~3~~ DTB

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0943	0	170	4.0	43.21	7.63	3760	12.69	6.23	/	0.21
0946	3	170	4.6	43.21	7.63	3750	12.14	6.49	/	0.20
0950	7	170	5.4	43.24	7.63	3760	12.86	6.74	/	0.19
0955	12	170	9.2	43.29	7.63	3760	12.58	5.43	/	0.17
1000	17	170	7.4	43.30	7.63	3770	12.97	5.56	/	0.16
				DTB						

Purging Field Notes:
Sample time 1009; collected explosives (3); TAL metals dissolved & total; VOCs (3) & nitrates. Pump settings - 24 psi; on-time 8 secs; off-time 10 secs.

Sample Date/Time: 12-oct-2011 Sample ID/TR #: TMW25101011

Sampler's signature/date:

Reviewer's signature/date: 13 OCT 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW 26
Start Date: 10-12-11
Start Time: 1400
Well TD: 58.24
Well DTW: 26.53
Water Column: 31.71
Pump Intake (ft bgs): 48.4

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 12'
Screened Interval (ft bgs): 45-65

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	31.71
Volume of water in casing (gal)	=	5.17
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	13.93
ACTUAL VOLUME PURGED (gal)	=	1.27

Method of Purging :

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1420	0	150	0	26.56	8.54	3340	16.17	43.72		4.09
1425	5	100	0.75	26.55	7.96	3430	15.36	2.02		3.51
1430	10	100	1.25	26.55	7.85	3440	15.37	1.64		3.04
1435	15	100	1.75	26.55	7.81	3470	15.30	1.42		2.63
1440	20	100	2.25	26.55	7.81	3480	15.33	1.10		2.18
1445	25	100	2.75	26.55	7.80	3530	15.31	1.01		2.10
1450	30	100	3.25	26.55	7.79	3490	15.11	1.19		2.06
1455	35	100	3.75	26.55	7.79	3370	15.14	1.22		1.91
1500	40	100	4.25	26.55	7.78	3400	15.24	1.24		1.72
1505	45	100	4.75	26.55	7.78	3370	15.39	1.21		1.74
1550	final water level = 26.58									

Purging Field Notes: Docked ZIST
Water has strong sulfur odor. P = 30psi, reach = 25 sec, purge = 5 sec, Q = 140-150 ml/min, but H2O level above ZIST dropped.

Sample Date/Time: 10-12-11 1500 Sample ID/TR #: TMW26102011

Sampler's signature/date: Grant Kolb 10-12-11

Reviewer's signature/date: CAllagher 13 OCT 2011

Reduced purge to 4 sec, Q = 100 ml/min, & H2O level immediately stabilized. Undocked ZIST after sampling

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW 26
Start Date: 10-13-11
Start Time: 0800

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 45-55

Well TD: 58.24
Well DTW: 26.58'
Water Column: 31.66
Pump Intake (ft bgs): 48.4

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	31.66
Volume of water in casing (gal)	=	5.16
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	13.92
ACTUAL VOLUME PURGED (gal)	=	2.53

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0820	0	100	0	27.31	9.11	3410	11.24	2.35		2.74
0825	5	100	0.5	27.51	8.95	3440	11.32	—		2.29
0830	10	200	1.5	28.03	8.66	3500	11.65	3.32		2.07
0835	15	200	2.5	28.34	8.81	3480	11.74	3.05		1.85
0840	20	200	3.5	28.58	8.64	3520	11.82	2.22		1.78
0845	25	200	4.5	28.72	8.47	3540	11.88	1.23		1.74
0850	30	200	5.5	28.88	8.32	3560	11.89	0.61		~~0.64~~
0855	35	200	6.5	29.03	8.15	3560	11.95	0.82		1.72
0900	40	200	7.5	29.08	7.97	3590	12.07	0.92		1.61
0906	46	200	8.5	29.16	7.89	3590	11.49	1.20		1.58
0907	47	200	8.9	29.16	7.88	3590	12.01	—		1.58
0910	50	200	9.5	29.16	7.89	3590	12.07	0.96		1.58
0920	Final H2O level =			28.61						

Purging Field Notes:

ZIST wire snapped while docking. ZIST now leaks. Increased Q from yesterday until drawdown eventually stabilized

Sample Date/Time: 10-13-11 0915 Sample ID/TR #: TMW26102011

Sampler's signature/date: Grant Kolb 10-13-11

Reviewer's signature/date: [signature] 14 OCT 2011

Final P = 30 psi, neck = 23 sec, purge = 7 sec. Q = 200 ml/min

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW 27
Start Date: 10-15-11
Start Time: 1010

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 63-73'

Well TD: 73.26
Well DTW: 28.04
Water Column: 45.22
Pump Intake (ft bgs): 72.4

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	45.22
Volume of water in casing (gal)	=	7.37
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	16.13
ACTUAL VOLUME PURGED (gal)	=	0.88

Method of Purging : Low Flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1030	0	100	0	28.64	8.37	1710	15.40	5.06		3.01
1035	5	100	0.5	28.75	8.16	1550	14.61	2.62		0.66
1040	10	100	1.0	28.78	8.11	1530	14.55	0.83		0.36
1045	15	100	1.5	28.82	8.09	1520	14.58	0.02		0.27
1050	20	100	2.0	28.84	8.08	1530	14.64	—		0.21
1055	25	100	2.5	28.84	8.07	1510	14.78	0.24		0.18
1100	30	100	3.0	28.84	8.06	1510	14.87	0.79		0.15
1103	33	100	3.3	28.84	8.07	1510	14.85	—		0.16
1130	Final water level = 28.84									

Purging Field Notes: Very clear water; strong sulfur odor
P= 30psi, reach = 20 sec, purge = 4 sec, Q= 100 ml/min

Sample Date/Time: 10-15-11 1130 Sample ID/TR #: TMW27102011
Sampler's signature/date: Grant Kolb 10-15-11
Reviewer's signature/date: [signature] 17 OCT 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW28
Start Date: 12 OCT 2011
Start Time: 8:20 am

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 40.3 - 50.3

Well TD: 50.3 ft
Well DTW: 18.48 ft
Water Column: 31.82 ft
Pump Intake (ft bgs): 49.5

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	31.82 ft
Volume of water in casing (gal)	=	5.19
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	13.95
ACTUAL VOLUME PURGED (gal)	=	21

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
9:09	0	160	5	19.81	7.41	1450	11.72	4.06		1.84
9:12	3	160	5.48	19.81	7.38	1450	11.78	3.93		1.42
9:15	6	160	5.96	19.81	7.35	1438	11.92	3.50		1.24
9:18	12	160	6.44	19.81	7.35	1440	12.04	2.86		1.17
9:21	15	160	6.92	19.81	7.34	1440	11.97	1.32		1.09
9:24	18	160	7.4	19.81	7.34	1440	12.02	1.74		1.02
9:27	21	160	7.88	19.81	7.34	1440	12.16	1.96		~~1.96~~ 1.03
9:30	24	160	8.36	19.81	7.34	1440	12.00	1.04		1.01

Purging Field Notes:

purge = 5s, recharge = 25s, Pressure = 30 psi
Collected: VOCs (3), total metals, dissolved metals

Sample Date/Time: 12 Oct 2011 9:35 Sample ID/TR #: TMW28 12 2011

Sampler's signature/date: Hannah McLennan 12 OCT 2011

Reviewer's signature/date: G. Wagner 13 OCT 2011

WELL SAMPLING DATA FORM

Well Number: TMW29
Start Date: 18-Oct-2011
Start Time: 0804

Well Casing Diameter (in):	2	Well TD:	61.65
Bore Hole Diameter (in):	8	Well DTW:	57.18'
Annular Space (AS) Length (ft):	12	Water Column:	4.47'
Screened Interval (ft bgs):	51.65-61.65	Pump Intake (ft bgs)	no pump

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	4.47
Volume of water in AS (gal)	=	3.26
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	4.47
Volume of water in casing (gal)	=	0.73
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	3.99
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	11.97
ACTUAL VOLUME PURGED (gal)	=	2.5

Method of Purging : bailer

Field Parameters	Reading								
Time	0818	0823	0831	0842					Final Sample
Volume (gal)	0.25	0.75	1.25	2.0					
Flow Rate (gpm)	/	/	/	/					N/A
DTW (ft toc)	57.18	57.65	59.78	60.12					
pH	7.64	8.04	8.04	8.02					
Conductivity (µS/cm)	2520	2530	2520	2580					
Temperature (ºC)	11.48	11.53	11.59	11.48					
Turbidity (NTU)	12.39	127.9	276.90	100.20					
Eh/Redox (mV)	/	/	/	/					
DO (mg/L)	1.92	3.56	2.43	2.30					

Purging Field Notes:

Well bailed dry 18-Oct-2011.
10-18-11 0830 Collected complete sample: VOCs, NO_3/NO_2, perchlorate, total and dissolved metals, explosives.

Sample Date/Time: 10-19-11 0830 Sample ID/TR #: TMW29/102011
Sampler's signature/date: Grant Kolb 10-19-11
Reviewer's signature/date: [signature] 19 OCT 2011

WELL SAMPLING DATA FORM

Well Number: TMW30
Start Date: 10-13-11
Start Time: 1545

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 36.65 - 46.65

Well TD: 46.65
Well DTW: 39.21
Water Column: 7.44
Pump Intake (ft bgs) 46.65

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	7.44
Volume of water in AS (gal)	=	5.43
Gallons per foot of casing (from chart on back)	=	~~1.21~~ .163
Column of water	X	~~1.21~~ 7.44
Volume of water in casing (gal)	=	1.21
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	6.64
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	19.9
ACTUAL VOLUME PURGED (gal)	=	30.0

Method of Purging : 12 VOLT PUMP

Field Parameters	Reading							10-17-11	
Time	1554	1559	1604	1609	1614	1620	1627	0910	Final Sample
Volume (gal)	INITIAL	5	10	15	20	25	30		
Flow Rate (gpm)									N/A
DTW (ft toc)	39.21						≈45	39.21	
pH	7.88	7.69	7.65	7.63	7.63	7.62	7.63	COLLECTED	
Conductivity (µS/cm)	2456	2299	2331	2293	2300	2291	2290	SAMPLE	
Temperature (°C)	14.1	12.5	12.5	12.6	12.7	12.6	12.7		
Turbidity (NTU)	103	32.8	25.3	3.78	2.97	3.14	5.13		
Eh/Redox (mV)									
DO (mg/L)	3.15	5.48	5.29	6.01	6.35	6.36	6.55		

Purging Field Notes:

PURGED 30.0 GALS. RECHARGE MAINTAINING W/ PUMP, WELL IS STABLE & 3 WELL VOLUMES PURGE. NO BOTTLES, WILL SAMPLE LATER. 10-17-11 COLLECTED SAMPLE, DUPLICATE SAMPLE FW-08 102011 ALSO COLLECTED APPL. SAMPLE

Sample Date/Time: 10-17-11 @ 0930
Sample ID/TR #: TMW-3010201

Sampler's signature/date: [signature] 10-17-11
Reviewer's signature/date: [signature] 18 OCT 2011

VOC, SVOC, DRO, PEST. EXPLOSIVES, N+N, T & D METALS, PERC.

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW-31D
Start Date: 4-14-11
Start Time: 0815

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 32
Screened Interval (ft bgs): 77-107

Well TD: 107.03
Well DTW: 35.53
Water Column: 71.50
Pump Intake (ft bgs):

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	32
Volume of water in AS (gal)	=	23.36
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	71.50
Volume of water in casing (gal)	=	11.65
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	35.01
ACTUAL VOLUME PURGED (gal)	=	≈ 3 GALS

Method of Purging: LOW FLOW

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0839	0	250	250 ml	35.53	8.37	2700	11.86	1.51		2.11
0843	4	250	1	35.75	8.06	2610	12.02	1.58		0.82
0847	8	250	2	35.92	8.04	2600	12.06	0.44		0.72
0850	12	250	3	35.98	7.84	2550	11.98	0.39		0.65
0853	15	250	4	36.01	7.83	2540	11.95	0.95		0.89
0856	18	250	5	36.02	7.77	2530	12.01	0.67		1.01
0859	21	250	6	36.0	7.75	2520	11.96	0.48		1.03
0902	24	250	7	36.01	7.72	2520	12.04	0.26		1.08
0905	27	250	8	36.0	7.68	2510	12.06	0.17		1.12
0908	30	250	9	36.03	7.68	2510	12.13	0.51		1.16
0911	33	250	10	36.0	7.67	2510	12.10	0.79		1.20
0914	36	250	11	36.02	7.66	2510	12.09	1.01		1.24
0917	39	250	12	36.03	7.66	2500	12.12	2.02		1.29

Purging Field Notes:
WL. STABILIZED @ ≈ 1 GAL (4L). 36.01'.

Sample Date/Time: 4-14-11 @ 0945   Sample ID/TR #: TMW31D042011
Sampler's signature/date: [signature] 4-14-11
Reviewer's signature/date: [signature] 14 APR 2011

NTN, T+D METALS, CYANIDE
SVOC, VOC, DRO, EXPLOS. W. PHOS
DIOXINS/FURANS, PEST. HERB. PERC.

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW31D
Start Date: 17-oct-2011
Start Time: 1417
Well TD: 107.03
Well DTW: 36.02
Water Column: 71.01
Pump Intake (ft bgs):

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 32
Screened Interval (ft bgs): 77-107

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	32
Volume of water in AS (gal)	=	23.36
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	71.01
Volume of water in casing (gal)	=	11.57
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	34.93
ACTUAL VOLUME PURGED (gal)	=	2.38

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1425	Ø	250	0.25	36.62	7.41	2670	15.07	0.00		1.55
1430	5	250	1.50	36.43	8.18	2770	14.16	0.00		0.48
1435	10	250	2.75	36.43	8.05	2772	14.12	0.00		0.40
1440	15	250	4.0	36.45	7.98	2680	14.12	0.12		0.36
1445	20	250	5.25	36.44	7.79	2610	14.20	0.03		0.94
1450	25	250	6.50	36.44	7.76	2600	14.69	0.00		1.03
1455	30	250	7.75	36.44	7.74	2659	14.10	0.00		1.07
1500 (~~1300~~)	35	250	9.0	36.44	7.73	2654	14.06	0.00		1.05

Purging Field Notes:
Collected Samples for VOCs (3); nitrate/nitrite; percholrate; TAL metals total & Dissolved; TPH-DRO (2); explosives; SVOCs; pesticides.

Sample Date/Time: 17-oct-2011/1510 Sample ID/TR #: TMW31D1Ø2Ø11
Sampler's signature/date: [signature] / 17-oct-2011
Reviewer's signature/date: [signature] 18OCT2011

pressure into controller 55psi; purge on 9secs; recharge off 20secs.
Flow 250 ml/min.

WELL SAMPLING DATA FORM

Well Number: TMW-31S
Start Date: 10-13-11
Start Time: 1510

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 52.85 - 62.85

Well TD: 62.85
Well DTW: 35.84
Water Column: 27.01
Pump Intake (ft bgs) 62.85

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	27.01
Volume of water in casing (gal)	=	4.40
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	13.16
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	39.5
ACTUAL VOLUME PURGED (gal)	=	11 GALS WELL DRY

Method of Purging : 12 VOLT PUMP

Field Parameters	Reading					10-14-11		
Time	1520	1523	1526	1529	1533		0950	1015	Final Sample
Volume (gal)	INITIAL	3	6	9	11			3	
Flow Rate (gpm)									N/A
DTW (ft toc)	27.01	—	—	—	≈61.5		37.14		
pH	7.53	7.56	7.42	7.43	7.45			COLLECTED	
Conductivity (uS/cm)	2966	2897	2914	3010	2941	DRY		SAMPLE	
Temperature (ºC)	15.1	13.5	13.3	13.1	13.3				
Turbidity (NTU)	21.5	131	67.7	478	243				
Eh/Redox (mV)									
DO (mg/L)	2.95	2.40	1.78	2.77	3.65				

Purging Field Notes:

PURGED 11 GALS WELL DRY. PURGED ADDITIONAL 3 GALS BEFORE SAMPLING

Sample Date/Time: 10-14-11 @ 1015
Sample ID/TR #: TMW-31S102011
Sampler's signature/date: [signature] 10-14-11
Reviewer's signature/date: [signature] 15Oct2011

VOC, DRO, T+D METALS, N+N, PERC, EXPLOSIVES, SVOC, PEST

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW-32
Start Date: 4-14-11
Start Time: 1035

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 119-139

Well TD: 139.1
Well DTW: 38.85
Water Column: 100,25
Pump Intake (ft bgs):

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	100.25
Volume of water in casing (gal)	=	16.3
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	32.36
ACTUAL VOLUME PURGED (gal)	=	3+GAL

Method of Purging: LOW FLOW

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1057	0	100	0.1	38.85	8.29	3520	12.96	1.75		1.92
1102	5	100	1.5	39.10	8.65	3420	13.19	3.86		0.40
1107	10	100	3	39.12	8.71	3240	13.04	3.30		0.34
1112	15	100	~~4.5~~ 4.5	39.23	8.76	3100	13.27	2.20		0.29
1117	20	100	5.50	39.35	8.74	3080	13.24	2.16		0.22
1122	25	100	6.5	39.44	8.75	3060	13.33	2.05		0.17
1127	30	100	8.0	39.51	8.72	3060	13.33	2.24		0.12
1132	35	100	9.5	39.57	8.72	3050	13.35	2.20		0.13
1137	40	100	10.0	39.60	8.73	3050	13.40	1.20		0.14
1142	45	100	11.5	39.61	8.74	3050	13.40	1.01		0.12
1147	50	100	12.0	39.61	8.74	3050	13.39	0.74		0.10

Purging Field Notes:
LOW FLOWED 13 L BEFORE COLLECTING SAMPLE, STABILIZATION REACHED.

Sample Date/Time: 4-14-11 @ 1200 Sample ID/TR #: TMW3204201[?]
Sampler's signature/date: [signature] 4-14-11
Reviewer's signature/date: [signature] 14 APR 2011

N+N, T+D METALS, CYANIDE
SVOC, VOC, DRO, EXPLO. W. PHOS.
DIOXINS/FURANS, PEST, HERB. PERC

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: JMW32
Start Date: 17-Oct-2011
Start Time: 1120

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 119739
Screened Interval (ft bgs):

Well TD: 139.1
Well DTW: 38.59
Water Column: 100.51
Pump Intake (ft bgs):

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	100.51
Volume of water in casing (gal)	=	16.39
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	32.44
ACTUAL VOLUME PURGED (gal)	=	0.87 1.11 DB

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1140	0	60	0.03	38.59	7.48	3331	19.30	0.43	/	4.53
1145	5	60	0.3	38.64	7.84	3240	18.41	0.01	/	3.08
1150	10	60	0.6	38.66	8.07	3220	17.31	0.00	/	1.62
1155	15	90	1.05	38.70	8.23	3890	16.46	0.42	/	0.52
1200	20	90	1.5	38.72	8.33	3830	16.41	0.00	/	0.39
1205	25	90	1.95	38.72	8.37	3760	16.48	1.45	/	0.35
1210	30	90	2.40	38.72	8.40	3620	16.49	1.67	/	0.29
1215	35	90	2.85	38.72	8.40	3543	16.48	1.13	/	0.28
1220	40	90	3.30	38.72	8.44	3523	16.47	0.96	/	0.27
1225	45	90	3.75	38.72	8.43	3533	16.45	0.93	/	0.26
1230	50	90	4.20	38.72	8.46	3531	16.44	0.98	/	0.26
				DB						

Purging Field Notes:

Sulfur odor. Collected samples nitrite/nitrate; VOCs(3); TAL metals total & dissolved; perchlorate; TPH-DRO(2); explosives (2); SVOCs; pesticides.

Sample Date/Time: 17-Oct-2011/1250 Sample ID/TR #: JMW32102011

Sampler's signature/date: Dan B / 17-Oct-2011

Reviewer's signature/date: G Gallagher, 18 OCT 2011

Pressure to controller 55psi, purge on 6secs; recharge off 50secs.

WELL SAMPLING DATA FORM

Well Number: TMW-33
Start Date: 10-14-11
Start Time: 1140

Well Casing Diameter (in):	2	Well TD:	60.65
Bore Hole Diameter (in):	8	Well DTW:	43.48
Annular Space (AS) Length (ft):	25	Water Column:	17.08
Screened Interval (ft bgs):	37.5 - 57.5	Pump Intake (ft bgs)	60.65

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	17.08
Volume of water in AS (gal)	=	12.47
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	~~2.78~~ 17.08
Volume of water in casing (gal)	=	~~15.25~~ 2.78
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	15.25
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	45.76
ACTUAL VOLUME PURGED (gal)	=	12

Method of Purging : 12 VOLT PUMP

Field Parameters	Reading								Final Sample
Time	1148	1151	1154	1157	1200				
Volume (gal)	INITIAL	3	6	9	12				
Flow Rate (gpm)									N/A
DTW (ft toc)	43.48				≈58				
pH	7.23	7.36	7.33	7.41	7.20				
Conductivity (µS/cm)	1035	825	956	1010	1112				
Temperature (ºC)	16.3	15.8	15.7	15.6	15.6				
Turbidity (NTU)	28.7	22.0	14.44	16.06	559				
Eh/Redox (mV)									
DO (mg/L)	3.83	2.32	2.23	1.93	1.76				

Purging Field Notes:

PURGED 12 GALS, WELL DRY. Collected samples for TAL metals total & dissolved, SVOCs, VOCs (3), TPH-GRO(2) & TPH-DRO(2).

Sample Date/Time: 15-Oct-2011 / 0930
Sample ID/TR #: TMW33/8 2011
Sampler's signature/date: [signature] / 15-Oct-2011
Reviewer's signature/date: [signature] 17 OCT 2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW 34
Start Date: 18OCT2011
Start Time: 12:55 pm

Well Casing Diameter (in): 8
Bore Hole Diameter (in): 2
Annular Space (AS) Length (ft): 26
Screened Interval (ft bgs): 6627-6647 mcl

Well TD: 60.01 ft
Well DTW: 45.66 ft
Water Column: 14.35
Pump Intake (ft bgs): 158

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	.73
Column of water or length of AS (whichever is less)	X	14.35
Volume of water in AS (gal)	=	10.48
Gallons per foot of casing (from chart on back)	=	.163
Column of water	X	14.35
Volume of water in casing (gal)	=	2.34
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.82
ACTUAL VOLUME PURGED (gal)	=	1.6

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
13:15 ~~13:15~~	0	160	1.5	45.81	7.18	6280	16.50	5.48		.61
13:18	3	160	1.98	45.81	7.18	6250	16.46	5.77		.39
13:21	6	160	2.46	45.81	7.17	6220	16.43	4.14		.22
13:24	9	160	2.94	45.81	7.18	6220	16.29	4.30		.18
13:27	12	160	3.42	45.81	7.18	6190	16.33	4.70		.14
13:30	15	160	3.9	45.81	7.18	6200	16.42	4.19		.13
13:33	18	160	4.38	45.81	7.18	6230	16.43	1.82		.11
13:36	21	160	4.86	45.81	7.18	6220	16.45	2.23		.09
13:39	24	160	5.34	45.81	7.18	6220	16.49	3.13		.08
13:42	27	160	5.82	45.81	7.18	6240	16.44	6.69		.07
13:45	30	160	6.3	45.81	7.18	6240	16.71	2.34		.08

No Further Entries

Purging Field Notes:

35 psi, 6 s purge, 24 s recharge. Collected: DRO(2), GRO(2), VOCs (3), perchlorate, total & diss metals, nitrate. Final DTW = 45.80 ft

Sample Date/Time: 18OCT2011 15:55 Sample ID/TR #: TMW34182011

Sampler's signature/date: Hannah Wolfman 18OCT2011

Reviewer's signature/date: [signature] 19OCT2011

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW35
Start Date: 18-Oct-2011
Start Time: 0920

Well Casing Diameter (in): 8
Bore Hole Diameter (in): 2
Annular Space (AS) Length (ft): 27
Screened Interval (ft bgs): 25.31-55.31

Well TD: 57.31
Well DTW: 43.59
Water Column: 13.72
Pump Intake (ft bgs): 55.31

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	13.72
Volume of water in AS (gal)	=	10.02
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	13.72
Volume of water in casing (gal)	=	2.24
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	12.26
ACTUAL VOLUME PURGED (gal)	=	2.17

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
0950	0	200	0.2	43.59	7.54	4880	14.38	0.47		0.76
0955	5	200	1.20	43.79	7.53	4320	14.51	0.88		0.54
1000	10	200	2.20	43.85	7.53	4360	14.53	0.01		0.40
1005	15	200	3.20	43.94	7.54	4420	14.65	0.01		0.28
1010	20	200	4.20	43.97	7.54	4450	14.89	0.00		0.25
1015	25	200	5.20	43.97	7.54	4457	14.91	0.17		0.21
1020	30	200	6.20	43.97	7.54	4450	14.86	0.00		0.27
1025	35	200	7.20	43.97	7.54	4460	14.91	0.00		0.20
1030	40	200	8.20	43.97	7.54	4464	14.93	0.00		0.20
				DB						

Purging Field Notes: Pressure into controller 35 PSI; purge on & sess; recharge of 20 secs. Collected samples for nitrate/nitrite; TAL metals total & dissolved; SVOCs; VOCs (3); Pesticides; TPH-DRO (2); Perchlorate; TPH-GRO (2)

Sample Date/Time: 18-Oct-2011 / 1050 Sample ID/TR #: TMW35 101811

Sampler's signature/date: [signature] / 19-Oct-2011

Reviewer's signature/date: [signature] 19 OCT 2011

WELL SAMPLING DATA FORM

Well Number: TMW-~~46~~ 36
Start Date: 10-14-11
Start Time: 1305

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 134-154

Well TD: 154.35
Well DTW: 25.96
Water Column: 128.39
Pump Intake (ft bgs) ≈ 152

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	128.39
Volume of water in casing (gal)	=	20.9
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	37
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	111
ACTUAL VOLUME PURGED (gal)	=	56 GALS. PURGED DRY TWICE.

Method of Purging: DEDICATED BENNETT PUMP

Field Parameters	H2S			Reading					
Time	1315	1320	1326	1336	~~1337~~ 1349	1403	1418		Final Sample
Volume (gal)	1	5	10	15	20	25	30		
Flow Rate (gpm)								DRY	N/A
DTW (ft toc)	25.96						≈152		77.58
pH	7.89	7.82	7.77	7.76	7.72	7.77	8.26		
Conductivity (µS/cm)	3190	2980	2925	2914	2911	2932	3020		
Temperature (ºC)	13.8	13.3	13.1	13.1	13.2	13.3	13.4		
Turbidity (NTU)	8.41	3.32	3.50	2.43	2.48	3.10	5.70		
Eh/Redox (mV)									
DO (mg/L)	0.48	0.32	0.55	1.05	0.90	1.03	0.71		

Purging Field Notes:

PURGED 30 GALS, WELL DRY. E-TAPE, NO WATER AT TOP OF PUMP. ALSO COLLECTED FW-07102011 (DUP) + APPL. SAMPLE TMW3610201 PURGED 3 GALS BEFORE SAMPLING

Sample Date/Time: 10-18-11 @ 1100
Sample ID/TR #: TMW-36102011
Sampler's signature/date: [signature]
Reviewer's signature/date: [signature] 19OCT2011

VOC, SVOC, DRO, PEST. EXPLOSIVES, N+N, T+D METALS PERC

WELL SAMPLING DATA FORM

Well Number: TMW-36
Start Date: 10-17-11
Start Time: 1250

Well Casing Diameter (in): _____
Bore Hole Diameter (in): _____
Annular Space (AS) Length (ft): _____
Screened Interval (ft bgs): _____

Well TD: _____
Well DTW: 31.93
Water Column: _____
Pump Intake (ft bgs) _____

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	
Column of water or length of AS (whichever is less)	X	
Volume of water in AS (gal)	=	
Gallons per foot of casing (from chart on back)	=	
Column of water	X	
Volume of water in casing (gal)	=	
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	
Number of EV to be purged	X	
TOTAL VOLUME TO BE PURGED (gal)	=	
ACTUAL VOLUME PURGED (gal)	=	

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Method of Purging : DEDICATED BENNETT PUMP

Field Parameters	Reading								Final Sample
Time	1256	1301	1308	1319	1331	1343			
Volume (gal)	INITIAL	5	10	15	20	26			
Flow Rate (gpm)									N/A
DTW (ft toc)	31.93					≈153.			
pH	8.08	8.28	8.31	8.35	8.37	8.36			
Conductivity (µS/cm)	3220	2935	2923	2910	2931	2960			
Temperature (ºC)	13.4	13.1	13.0	13.2	13.0	13.1			
Turbidity (NTU)	6.27	2.66	2.08	2.09	4.30	9.50			
Eh/Redox (mV)									
DO (mg/L)	1.79	0.57	0.77	0.91	1.20	0.93			

DRY

Purging Field Notes:

PURGED 26 GALS, WELL DRY. TOTAL PURGED 56 GALS

Sample Date/Time: _____
Sampler's signature/date: _____
Reviewer's signature/date: _____

Sample ID/TR #: _____

WELL SAMPLING DATA FORM

Well Number: TMW-37
Start Date: 10-19-11
Start Time: 1445

Well Casing Diameter (in):	2	Well TD:	110.7
Bore Hole Diameter (in):	8	Well DTW:	44.86
Annular Space (AS) Length (ft):	12	Water Column:	65.84
Screened Interval (ft bgs):	90.7 - 110.7	Pump Intake (ft bgs)	~108

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	65.84
Volume of water in casing (gal)	=	10.73
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	19.49
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	58.47
ACTUAL VOLUME PURGED (gal)	=	36 GALS. PURGED DRY, TWICE.

Method of Purging : DEDICATED BENNETT PUMP.

Field Parameters	Reading							10-18-11	
Time	1458	1503	1508	1515	1523			0847	Final Sample
Volume (gal)	INITIAL	5	10	15	19	DRY			
Flow Rate (gpm)									N/A
DTW (ft toc)	44.86	—	—	—	≈ 110			74.42	
pH	8.30	7.84	7.74	8.17	8.31				
Conductivity (µS/cm)	3160	2426	2394	2523	31.30				
Temperature (ºC)	13.6	13.2	13.1	13.2	13.3				
Turbidity (NTU)	49.1	6.1	10.04	8.52	6.40				
Eh/Redox (mV)									
DO (mg/L)	0.36	0.50	0.60	0.83	0.80				

Purging Field Notes:

PURGED 19 GALS, WELL DRY. WL BELOW TOP OF PUMP.
TOTAL PURGED 36 GALS.
PURGED 3 GALS BEFORE SAMPLING

Sample Date/Time: 10-18-11 @ 0905 Sample ID/TR #: TMW-37102011
Sampler's signature/date: Julia E. Debrandt 10-18-11
Reviewer's signature/date: [signature] 19 OCT 2011

VOC, SVOC, PEST. EXPLOSIVES, DRO, N+N, T+D METALS, PERC

WELL SAMPLING DATA FORM

Well Number: TMW-37
Start Date: 10-17-4
Start Time: 1400

Well Casing Diameter (in): _____
Bore Hole Diameter (in): _____
Annular Space (AS) Length (ft): _____
Screened Interval (ft bgs): _____

Well TD: _____
Well DTW: 47.13
Water Column: _____
Pump Intake (ft bgs) _____

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	
Column of water or length of AS (whichever is less)	X	
Volume of water in AS (gal)	=	
Gallons per foot of casing (from chart on back)	=	
Column of water	X	
Volume of water in casing (gal)	=	
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	
Number of EV to be purged	X	
TOTAL VOLUME TO BE PURGED (gal)	=	
ACTUAL VOLUME PURGED (gal)	=	

FRONT PAGE

Method of Purging : DEDICATED BENNETT PUMP

Field Parameters	Reading								Final Sample
Time	1415	1421	1427	1436	1439				
Volume (gal)	INITIAL	5	10	15	17				
Flow Rate (gpm)									N/A
DTW (ft toc)	47.13				≈110				
pH	8.36	8.54	8.56	8.58					
Conductivity (µS/cm)	3140	2447	2371	2344					
Temperature (ºC)	13.8	13.2	13.1	13.1	DRY				
Turbidity (NTU)	11.03	4.11	10.53	33.9					
Eh/Redox (mV)									
DO (mg/L)	2.10	1.27	1.30	2.02					

Purging Field Notes:

PURGED 17 GALS, WELL DRY. TOTAL PURGED 36 GALS. WILL SAMPLE AFTER RECHARGE.

Sample Date/Time: _____
Sampler's signature/date: _____
Reviewer's signature/date: _____

Sample ID/TR #: _____

WELL SAMPLING DATA FORM

Well Number: TMW-38
Start Date: 10-19-11
Start Time: 0915

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 42
Screened Interval (ft bgs): 122 - 162

Well TD: ~~46.98~~ 162
Well DTW: 46.98
Water Column: 115.02
Pump Intake (ft bgs) 161

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	42
Volume of water in AS (gal)	=	30.66
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	115.02
Volume of water in casing (gal)	=	18.75
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	49.41
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	148.2
ACTUAL VOLUME PURGED (gal)	=	68 GALS, WELL DRY

Method of Purging : BENNETT PUMP

Field Parameters	Reading								
Time	1021	1024	1031	1037	1043	1050	1056	1101	Final Sample
Volume (gal)	1	5	10	15	20	25	30	35	
Flow Rate (gpm)									N/A
DTW (ft toc)	46.98						≈118	≈123	
pH	8.59	8.55	8.60	8.59	8.65	8.65	8.67	8.70	
Conductivity (uS/cm)	2501	2500	2495	2502	2560	2506	2503	2505	
Temperature (ºC)	13.5	13.4	13.5	13.3	13.4	13.5	13.5	13.5	
Turbidity (NTU)	604	158	153	96.6	107	176	187	193	
Eh/Redox (mV)									
DO (mg/L)	1.08	0.66	0.55	0.72	0.40	0.32	~~0.6~~ 0.41	0.32	

Purging Field Notes:

PURGED 68 GALS WELL DRY. RECHARGES QUICKLY.

PURGED 3 GALS BEFORE SAMPLING

Sample Date/Time: 10-19-11 @ 1445
Sample ID/TR #: TMW-3810201
Sampler's signature/date: [signature] 10-19-11
Reviewer's signature/date: [signature] 20OCT2011

VOC, SVOC, PEST, EXPLOSIVES, N+N, T+D METALS, PERC

WELL SAMPLING DATA FORM

Well Number: TMW-38
Start Date: 10-19-11
Start Time: ~~1435~~ 1400

Well Casing Diameter (in): _____
Bore Hole Diameter (in): _____
Annular Space (AS) Length (ft): _____
Screened Interval (ft bgs): _____

Well TD: _____
Well DTW: 113.60
Water Column: _____
Pump Intake (ft bgs) _____

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	
Column of water or length of AS (whichever is less)	X	
Volume of water in AS (gal)	=	
Gallons per foot of casing (from chart on back)	=	
Column of water	X	
Volume of water in casing (gal)	=	
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	
Number of EV to be purged	X	
TOTAL VOLUME TO BE PURGED (gal)	=	
ACTUAL VOLUME PURGED (gal)	=	

FROM PAGE 1

Method of Purging : BENNETT PUMP

Field Parameters	Reading								
Time	1107	1113	1119	1126	1133	1141	1147	1435	Final Sample
Volume (gal)	40	45	50	55	60	65	68		
Flow Rate (gpm)							~~150~~		N/A
DTW (ft toc)	≈127.5	≈132	≈137.5	≈143	≈149	≈155	≈158	113.60	
pH	8.70	8.72	8.70	8.69	8.69	8.69			COLLECTED SAMPLE
Conductivity (µS/cm)	2510	2520	2523	2523	2528	2532	"		
Temperature (°C)	13.6	13.5	13.5	13.6	13.6	13.6	"		
Turbidity (NTU)	409	545	554	510	681	740	"		
Eh/Redox (mV)							"		
DO (mg/L)	0.28	0.33	0.34	0.41	0.42	0.44	"		

Purging Field Notes:

Sample Date/Time: _____ Sample ID/TR #: _____
Sampler's signature/date: _____
Reviewer's signature/date: _____

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW 39D
Start Date: 10-19-11
Start Time: 0940

Well Casing Diameter (in): 2"
Bore Hole Diameter (in): 8"
Annular Space (AS) Length (ft): 32
Screened Interval (ft bgs): 72-102

Well TD: 102.77
Well DTW: 34.61
Water Column: 68.16
Pump Intake (ft bgs): 100.0

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	32
Volume of water in AS (gal)	=	23.36
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	68.16
Volume of water in casing (gal)	=	11.11
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	34.47
ACTUAL VOLUME PURGED (gal)	=	2.88

Method of Purging : low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1135	0	400	0	34.61	7.77	2650	13.46	4.22		0.51
1140	5	400	2.0	34.61	7.78	2640	13.49	4.08		0.34
1145	10	400	4.0	34.61	7.78	2640	13.47	3.51		0.30
1150	15	400	6.0	34.61	7.77	2630	13.58	3.15		0.28
1155	20	400	8.0	34.61	7.76	2620	13.64	2.96		0.27
1200	25	400	10.0	34.61	7.75	2620	13.65	2.65		0.27
1202	27	400	10.8	34.61	7.76	2620	13.67	2.58		0.27
1235	final water level =			34.61						

Purging Field Notes: Conditioned ~~Evacuated~~ ~~Developed~~ new well by purging 9 gal of water from 1105 to 1135 on 10-19-11, and then immediately began measuring parameters for stabilization and low flow sampling.

Sample Date/Time: 10-19-11 Sample ID/TR #: TMW39D10202011

Sampler's signature/date: Grant Kolb 10-19-11

Reviewer's signature/date: 20OCT2011

P = 50 psi, Rech = 10 sec, purge = 11 sec, Q = 400 mL/min

Initial H2O level at 1105 before beginning to condition new well tubing was 33.91.

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: TMW40D
Start Date: 19OCT2011
Start Time: 9:25 am

Well Casing Diameter (in): 2
Bore Hole Diameter (in): ~~8~~ 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 136-158

Well TD: 158.13
Well DTW: 31.00 ft
Water Column: 127.13
Pump Intake (ft bgs): 155 ft

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	22
Volume of water in AS (gal)	=	16.06
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	127.13
Volume of water in casing (gal)	=	20.72
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	36.78
ACTUAL VOLUME PURGED (gal)	=	47.59

Method of Purging: Low flow. Purged 13 L at 200 mL/min before taking parameters

Time	Minutes Elapsed	Flow Rate (mL/min)	Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
11:15	0	200	13	31.10	8.30	3130	14.29	4.40		1.09
11:18	3	200	13.6	31.10	8.28	3130	14.25	4.61		.90
11:21	6	200	14.2	31.10	8.29	3130	14.23	3.01		.84
11:24	9	200	14.8	31.10	8.28	3130	14.27	2.07		.80
11:27	12	200	15.4	31.10	8.30	3120	14.21	1.89		.80
11:30	15	200	16	31.10	8.30	3120	14.23	1.79		.78
11:33	18	200	16.6	31.10	8.30	3120	14.20	2.00		.77
11:36	21	200	17.2	31.11	8.30	3120	14.19	1.42		.78
	NO	Further Entries								

Purging Field Notes:

60 psi, 8 s purge, 22 s recharge. Collected: explosives (2) SVOC, pesticides, dissolved & total metals, perchlorate, nitrate, VOCs (3)

Sample Date/Time: 19OCT2011 11:45 Sample ID/TR #: TMW401021011

Sampler's signature/date: Hannah McGowan 19OCT2011 Final DTW = 31.11 ft

Reviewer's signature/date: 20OCT2011

WELL SAMPLING DATA FORM

Well Number: TMW-40S
Start Date: 10-12-11
Start Time: 1125

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 50-60

Well TD: 62.00
Well DTW: 59.66
Water Column: 2.34
Pump Intake (ft bgs) TD (BAILER)

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	~~12~~ 2.34
Volume of water in AS (gal)	=	1.71
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	2.34
Volume of water in casing (gal)	=	0.38
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	2.09
Number of EV to be purged	X	~~6~~ 3
TOTAL VOLUME TO BE PURGED (gal)	=	6.27
ACTUAL VOLUME PURGED (gal)	=	≈ 2 GALS, WELL DRY

Method of Purging : BAILER

Field Parameters	Reading								
Time	1135	1139	1144	1149	1156	1203	1213	1225	Final Sample
Volume ~~(gal)~~ LITERS	1	2	3	4	5	6	7	8	
Flow Rate (gpm)									N/A
DTW (ft toc)	59.66								
pH	10.34	10.36	10.29	10.26	10.31	10.20	10.92	10.84	
Conductivity (µS/cm)	2796	2813	2920	2970	3000	3060	3040	3050	
Temperature (ºC)	13.4	13.1	13.0	13.0	13.0	12.9	13.1	13.0	
Turbidity (NTU)	X								
Eh/Redox (mV)									
DO (mg/L)	2.45	1.67	1.51	1.42	1.49	1.79	2.03	2.14	

Purging Field Notes:

PURGED 8 L. ≈ 2 GALS. RECHARGE V. SLOW. DURING THE COLLECTION OF THE LAST LITER, ≈ 90 mL PER BAILER. WILL ALLOW TO RECHARGE * GROUNDWATER VERY TURB. TURBIDIMETER READINGS 1000+. CASING MUDDY, UNABLE TO GET ENDING WL.

Sample Date/Time: ~~Was Not Sampled~~ Sample ID/TR #: No Water

Sampler's signature/date:

Reviewer's signature/date: 20 OCT 2011

NO SAMPLE COLLECTED, VERY SLOW RECHARGE,
10-19-11 @ 0945, WL 61.29 ONLY 0.71 FT OF WATER IN WELL,

WELL SAMPLING DATA FORM

Well Number: TMW-41
Start Date: 10-17-11
Start Time: 1600

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 12
Screened Interval (ft bgs): 55.55-65.55

Well TD: 67.80 TOC
Well DTW: 40.83
Water Column: 26.97
Pump Intake (ft bgs) 67.80

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	12
Volume of water in AS (gal)	=	8.76
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	26.97
Volume of water in casing (gal)	=	4.40
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	13.16
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	39.47
ACTUAL VOLUME PURGED (gal)	=	16 GALS, WELL DRY

Method of Purging : 12 VOLT PUMP

Field Parameters	Reading								
Time	1610	1612	1615	1617	1620	1624	1630	1634	Final Sample
Volume (gal)	INITIAL	2	5	7	10	12	15	16	
Flow Rate (gpm)									N/A
DTW (ft toc)	40.83								
pH	7.99	7.98	7.98	7.97	7.97	7.99	7.97	DRY	
Conductivity (μS/cm)	3810	3740	3700	3710	3860	3840	3820		
Temperature (ºC)	13.6	12.9	12.8	12.8	12.8	12.9	12.9		
Turbidity (NTU)	70.1	75.0	112	116	102	90.6	162		
Eh/Redox (mV)									
DO (mg/L)	2.30	1.69	1.59	1.84	2.98	3.30	3.33		

Purging Field Notes:

PURGED 16 GALS, WELL DRY. HOWEVER, QUICK RECHARGE.

PURGED 3 GALS BEFORE SAMPLING.

Sample Date/Time: 10-18-11@1335

Sample ID/TR #: TMW-41/02011

Sampler's signature/date: [signature] 10-18-11

Reviewer's signature/date: [signature] 20 OCT 2011

VOC, SVOC, PEST, EXPLOSIVES, N+N, T+D METALS, PERC

FORT WINGATE DEPOT ACTIVITY
LOW FLOW WELL SAMPLING DATA FORM

Well Number: 7MW48
Start Date: 18 Oct-2011
Start Time: 1115
Well TD: 93.55
Well DTW: 34.48
Water Column: 59.07
Pump Intake (ft bgs): 91.0

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 24
Screened Interval (ft bgs): 71-91

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	24
Volume of water in AS (gal)	=	17.54
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	59.07
Volume of water in casing (gal)	=	9.63
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	27.17
*ACTUAL VOLUME PURGED (gal)	=	3.63

Method of Purging: low flow

Time	Minutes Elapsed	Flow Rate (mL/min)	*Cumulative Volume (L)	DTW (ft toc)	pH	Cond. (µS/cm)	Temp. (C)	Turbidity (NTU)	Redox (mV)	DO (mg/L)
1225	Ø	450	0.23	~~43.50~~ 34.50	7.24	2490	13.09	6.57	/	2.60
1230	5	450	2.48	34.50	7.42	2490	13.02	2.22	/	2.51
1235	10	450	4.73	34.50	7.43	2500	12.96	2.89	/	2.59
~~1245~~ 1240	15	450	6.98	34.50	7.43	2490	12.96	6.14	/	2.75
~~1250~~ 1245	20	450	9.23	34.50	7.43	2490	12.91	3.13	/	2.77
1250	25	450	11.48	34.50	7.43	2490	12.94	3.03	/	2.74
1255	30	450	13.73	34.50	7.43	2490	12.83	3.06	/	2.77

DB

* 7.1 gallons pumped prior to taking above field parameters
3.63 gallons pumped during above purging for field parameters
10.73 ← Total gals. pump from well

Purging Field Notes: started pumping at 1125 w/ new low flow pump. Pumped well at 450 ml/min for 60 mins before taking basic water chemistry field parameters noted above. Stabilized the drawdown during the 1-hr of pumping. Pressure into controller 60 psi, purge on at 10 secs, recharge off at 10 secs.

Sample Date/Time: 18 Oct-2011/1245
Sample ID/TR #: 7MW48I∅2011

Sampler's signature/date: [signature] / 18 Oct-2011

Reviewer's signature/date: [signature] 20 OCT 2011

Flow rate at 450 ml/min. Collected samples for perchlorate; TAL metals total & dissolved; nitrate/nitrite; VOCs (3); SVOCs; explosives (2); pesticides

* pumped ~7.1 gallons for 60 mins. before taking field parameters.

WELL SAMPLING DATA FORM

Well Number: TMW-49
Start Date: 10-18-11
Start Time: 1540

Well Casing Diameter (in): 2
Bore Hole Diameter (in): 8
Annular Space (AS) Length (ft): 22
Screened Interval (ft bgs): 42.26 - 62.26

Well TD: ~~62.71~~ 62.71 BLW TOC
Well DTW: 42.73
Water Column: 19.98
Pump Intake (ft bgs) 62.71

WELL VOLUME CALCUATION

Gallons per foot of annular space (from chart on back)	=	0.73
Column of water or length of AS (whichever is less)	X	19.98
Volume of water in AS (gal)	=	14.59
Gallons per foot of casing (from chart on back)	=	0.163
Column of water	X	19.98
Volume of water in casing (gal)	=	3.26
ONE EQUIVALENT VOLUME [EV] (AS + casing, gal)	=	17.85
Number of EV to be purged	X	3
TOTAL VOLUME TO BE PURGED (gal)	=	53.54
ACTUAL VOLUME PURGED (gal)	=	28 GALS, WELL DRY

Method of Purging : 12 VOLT PUMP

Field Parameters	Reading							10-19-11	
Time	1550	1555	1600	1606	1614	1624	1633	1340	Final Sample
Volume (gal)	INITIAL	5	10	15	20	25	28		
Flow Rate (gpm)									N/A
DTW (ft toc)	42.71						≈61	42.12	
pH	7.81	7.82	7.80	7.85	7.79	7.81			COLLECTED SAMPLE
Conductivity (µS/cm)	2641	2689	2737	2735	2748	2756	DRY		
Temperature (°C)	12.8	12.5	12.2	12.4	12.3	12.4			
Turbidity (NTU)	246	310	447	221	278	155			
Eh/Redox (mV)									
DO (mg/L)	6.81	7.01	7.15	6.10	6.34	6.37			

Purging Field Notes:

~~PURGED~~ PURGED 28 GALS WELL DRY. RECHARGE NEARLY KEEPING UP WITH PUMP. RECHARGES QUICKLY.
PURGED 3 GALS BEFORE SAMPLING.

Sample Date/Time: 10-19-11 @ 1340
Sample ID/TR #: TMW-49102011
Sampler's signature/date: Jaclyn E. Debbardt 10-19-11
Reviewer's signature/date: [signature] 20 OCT 2011

VOC, SVOC, PEST, EXPLOSIVES, N+N, T&D METALS, PERC