APPENDIX D

WATER SAMPLING DATA SHEETS

WATER LEVEL & PRODUCT MEASUREMENTS

ECM group

PROJECT NAME & NUMBER: YOLANDA 98-507-14

DATE: 7/12/05

BY: MST

WELL ID	TIME MEASURED	DEPTH TO PRODUCT (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH	COMMENTS: (well condition, odor, etc.)
MW-1			9.40	/	
MW-2			11.02	23.40	
MW-3			11.68	30.60	
MW-4			11.53	23.50	
MW-5			7.11	/	
MW-5A			8.42	/	
MW-7			13.00	/	
MW-8				/	
MW-9				/	
MW-10			11.60	/	
MW-11				/	
MW-12				/	
MW-15			11.23	/	
MW-16			11.38	/	

WATER LEVEL & PRODUCT MEASUREMENTS

ECM group

PROJECT NAME & NUMBER: YOLANDA 98-507-14

DATE: 7/12/05

BY: MSS

WELL ID	TIME MEASURED	DEPTH TO PRODUCT (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH	COMMENTS: (well condition, odor, etc.)
MW-17			7.07	/	
MW-18				/	
MW-19				/	
MW-20				/	
V-1			9.96	/	
AG-2			10.40	/	
MW-21 d 25			13.14	25.00	
MW-21 d 75			12.77	75.00	
MW-21 d 145			14.65	145.00	
MW-21 d 180			14.70	180.00	
MW-22 d 25			16.40	25.00	
MW-22 d 75			14.28	75.00	
MW-22 d 145			14.38	145.00	
MW-22 d 165			14.37	165.00	

WATER LEVEL & PRODUCT MEASUREMENTS

ECM group

PROJECT NAME & NUMBER: YOLANDA 98-507-14

DATE: 7/12/05

BY: MSJ

WELL ID	TIME MEASURED	DEPTH TO PRODUCT (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH	COMMENTS: (well condition, odor, etc.)
MW-23 d25			15.09	25.00	
MW-23 d75			15.17	75.00	
MW-23 d145			15.52	145.00	
MW-23 d180			15.59	180.00	

WATER SAMPLING DATA

Job Name YOLANDA Job Number 98-507-14

Well Number MW-2 Date 7/12/05 Time

Well Diameter 2" Well Depth (spec.) Well Depth (sounded) 23.40

Depth to Water (static) 11.02 TOC elev.

G.W. Elev. Maximum Drawdown Limit (if applicable)

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft^3
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{4.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft

Initial height of water in casing 12.38 Volume 2.01 gallons

Total to be evacuated = 3 x Initial Volume 6.05 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___Yes X No After _____ gallons Recovery Rate

Water color Odor

Description of sediments or material in sample:

Additional Comments:

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	76.7	73.7	71.6				
pH	6.82	6.79	6.86				
EC (umhos/cm)	970	961	974				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

11:00

WATER SAMPLING DATA

Job Name YOLANDA Job Number 98-507-14

Well Number MW-3 Date 7/12/05 Time

Well Diameter 2" Well Depth (spec.) Well Depth (sounded) 30.60

Depth to Water (static) 11.68 TOC elev.

G.W. Elev. Maximum Drawdown Limit (if applicable)

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft^3
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{4.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft

Initial height of water in casing 18.92 Volume 3.08 gallons

Total to be evacuated = 3 x Initial Volume 9.25 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___Yes X No After _____ gallons Recovery Rate

Water color Odor

Description of sediments or material in sample:

Additional Comments:

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	76.4	72.6	71.4				
pH	6.32	6.32	6.40				
EC (umhos/cm)	897	872	891				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

11:20

WATER SAMPLING DATA

Job Name YOLANDA Job Number 98-507-H

Well Number MW-4 Date 7/12/05 Time

Well Diameter 2" Well Depth (spec.) Well Depth (sounded) 23.50

Depth to Water (static) 11.53 TOC elev.

G.W. Elev. Maximum Drawdown Limit (if applicable)

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft^3
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{4.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft

Initial height of water in casing 11.97 Volume 1.95 gallons

Total to be evacuated = 3 x Initial Volume 5.85 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___Yes X No After _____ gallons Recovery Rate

Water color Odor

Description of sediments or material in sample:

Additional Comments:

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	72.5	71.6	70.1				
pH	7.35	7.46	7.31				
EC (umhos/cm)	650	688	576				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

10:05

WATER SAMPLING DATA

Job Name YOLANDA Job Number 98-507-H

Well Number MW-21d25 Date 7/12/05 Time

Well Diameter MULTI-LEVEL Well Depth (spec.) Well Depth (sounded) 25.00

Depth to Water (static) 13.14 TOC elev.

G.W. Elev. Maximum Drawdown Limit (if applicable)

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft^3
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{4.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft

Initial height of water in casing 11.86 Volume 0.11 gallons

Total to be evacuated = 3 x Initial Volume 0.35 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___Yes X No After _____ gallons Recovery Rate

Water color Odor

Description of sediments or material in sample:

Additional Comments:

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	75.3						
pH	6.92						
EC (umhos/cm)	847						
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

12:00

WATER SAMPLING DATA

Job Name YOLANDA Job Number 98-507-14

Well Number MW-21d75 Date 7/12/05 Time

Well Diameter MULTI-LEVEL Well Depth (spec.) Well Depth (sounded) 75.00

Depth to Water (static) 12.77 TOC elev.

G.W. Elev. Maximum Drawdown Limit (if applicable)

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft^3
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{4.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft

Initial height of water in casing 62.23 Volume 0.62 gallons

Total to be evacuated = 3 x Initial Volume 1.86 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___Yes X No After _____ gallons Recovery Rate

Water color Odor

Description of sediments or material in sample:

Additional Comments:

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	75.9	74.6					
pH	7.07	7.48					
EC (umhos/cm)	1005	1027					
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

12:30

WATER SAMPLING DATA

Job Name TOLANDA Job Number 98-507-K

Well Number MW-21d 145 Date 7/12/05 Time

Well Diameter MULTI-LEVEL Well Depth (spec.) Well Depth (sounded) 145.00

Depth to Water (static) 14.65 TOC elev.

G.W. Elev. Maximum Drawdown Limit (if applicable)

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{4.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft

Initial height of water in casing 130.35 Volume 1.30 gallons

Total to be evacuated = 3 x Initial Volume 3.91 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___Yes X No After _____ gallons Recovery Rate

Water color Odor

Description of sediments or material in sample:

Additional Comments:

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	77.9	73.3	72.6				
pH	7.40	6.87	7.03				
EC (umhos/cm)	608	613	606				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

12:55

WATER SAMPLING DATA

Job Name YOLANDA Job Number 98-507-14

Well Number MW-21 & 180 Date 7/10/05 Time

Well Diameter MULTI-LEVEL Well Depth (spec.) Well Depth (sounded) 180.00

Depth to Water (static) 14.70 TOC elev.

G.W. Elev. Maximum Drawdown Limit (if applicable)

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft^3
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{4.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft

Initial height of water in casing 165.30 Volume 1.65 gallons

Total to be evacuated = 3 x Initial Volume 4.95 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___Yes X No After _____ gallons Recovery Rate

Water color Odor

Description of sediments or material in sample:

Additional Comments:

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	73.9	71.3	71.1				
pH	6.88	6.78	7.06				
EC (umhos/cm)	538	531	552				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

13 of 15

WATER SAMPLING DATA

Job Name YOLANDA Job Number 98-507-14

Well Number MW-22 d25 Date 7/13/05 Time

Well Diameter MULTI-LEVEL Well Depth (spec.) Well Depth (sounded) 25.00

Depth to Water (static) 16.40 TOC elev.

G.W. Elev. Maximum Drawdown Limit (if applicable)

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft^3
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{4.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft

Initial height of water in casing 8.60 Volume 0.08 gallons

Total to be evacuated = 3 x Initial Volume 0.25 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___Yes X No After _____ gallons Recovery Rate

Water color Odor

Description of sediments or material in sample:

Additional Comments:

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	76.8						
pH	6.68						
EC (umhos/cm)	997						
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

12:05

WATER SAMPLING DATA

Job Name YOLANDA Job Number 98-507-14

Well Number MW-22d75 Date 7/13/05 Time

Well Diameter MULTI-LEVEL Well Depth (spec.) Well Depth (sounded) 75.00

Depth to Water (static) 14.28 TOC elev.

G.W. Elev. Maximum Drawdown Limit (if applicable)

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft^3
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{4.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft

Initial height of water in casing 60.72 Volume 0.60 gallons

Total to be evacuated = 3 x Initial Volume 1.82 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___Yes X No After _____ gallons Recovery Rate

Water color Odor

Description of sediments or material in sample:

Additional Comments:

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	77.1	72.1	71.0				
pH	6.20	6.49	6.67				
EC (umhos/cm)	1322	1348	1358				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

12:25