ATTACHMENT D.1.
VPA MONITORING REPORT
VPA01423

Coles Point Wastewater TP

Month: February
Report Date: 3-1-2011

I hereby certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

The following attachments are included with this submittal:

(X) Attachment D.1- D.3 - Wastewater Monitoring (A daily operational log and any contractual lab certification sheets are required as an addendum to this report).	(1/Month)
( ) Attachment D.4 - Wastewater Monitoring	(1/5 Years)
(X) Attachments D.5 Land Application Monitoring	(1/Month)
( ) Attachments D.6 Soil Monitoring	(1/Year and 1/5 Year)
( ) Attachment D.7 Groundwater Monitoring	(1/Quarter)
( ) Attachment D.8 Groundwater Monitoring	(1/Year)
( ) Attachment D.9 Surfacewater Monitoring	(1/Quarter)
(X) Attachment D.10. Daily Freeboard Monitoring Log	(1/Month)

(X) Other Lab reports - bench sheets

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Coles Point Wastewater Treatment Plant
Westmoreland County
P.O. Box 1000
Montross, Va. 22520

GARY W FRANCE
Printed Name

Gary W France
Signature

Plant Operations
Title

3-1-11
Date

ATTACHMENT D.2
VPA MONITORING REPORT
Location: Flow Meter
Wastewater Monitoring
This monitoring is required by VPA01423, Part I.A. Wastewater Influent to Storage Pond

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Coles Point Wastewater TP

VPA01423

Year: FEBRUARY 2011

Parameter	Influent Flow (Avg.)	Influent Flow (Total)	Volume from Storage to each site	Volume in Storage	Remaining Storage Capacity	pH	TSS	BOD_5
Limits	NL	NL	NL	NL	NL	NL	60 mg/l	60 mg/l
Units	MGD	MG	MG	MG	MG	S.U.	mg/l	mg/l
Frequency	Continuous	Continuous	*********	1/Day	1/Day	1/Month	1/Month	1/Month
Sample Type	Measure	Recorded	From D.3	Calculated	Calculated	Grab	8 HC	8HC
Required Reporting	1/Month	1/Month	1/Month	1/Month	1/Month	1/Month	1/Month	1/Month
Month	**********	*********	Identify site(s):	**********	**********	**********	**********	**********
January								
February	9268.9285	259,530 1A	NO S1	0	2,979,840	7.18	3.6	<3.0
March		1B	IRRIGATION S2	2,956,560	23,280			
April		2A	EVENTS S3	799,280	2,180,560			
May		2B	DURING					
June		3A	THIS					
July		3B	PERIOD					
August								
September								
October								
November								
December								

ATTACHMENT D.3
VPA MONITORING REPORT

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Coles Point Wastewater TP Location: Storage Pond

Monitoring Required by VPA01423 Part I.A. Wastewater from Storage Pond to Spray Fields
*Requirement of the NMP which expires July 9, 2006
Effluent Monitoring: Monthly Parameters

VPA01428
Year: February 2011

Parameter	Total Kjeldahl Nitrogen (TKN)	Ammonia Nitrogen (NH_3-N)	Nitrate Nitrogen (NO_3-N)	Alkalinity	Storage Tank Freeboard	Total Potassium	pH	Total Sodium	Total Chloride	Total Boron	Total Phosphorus	Total Residual Chlorine (TRC)
Limits	NL	NL	NL	NL	2ft. min.	NL	NL	NL	NL	NL	NL	1.5 (min.)
Units	mg/l	mg/l	mg/l	mg/l	ft.	mg/l	S.U.	mg/l	mg/l	mg/l	mg/l	mg/l
Frequency	1/Month	1/Month	1/Month	1/Month	1/Day	1/Month	1/Day	1/Month	1/Month	2/Year	1/Month	1/Day
Sample Type	Grab	Grab	Grab	Grab	Measure	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Required Reporting	Monthly	Monthly	Monthly	Monthly	Monthly	Monthy	Monthly	Monthly	Monthly	2/Year	Monthly	Monthly
Month	*******	**********	*********	**********	********	********	********	********	*******	*******	********	********
January										XXXXX		
February	0.78	0.63	15.27	194.4 SI	34'	29.6	7.62	187.0	93.8	XXXXX	2.77	N/A
March				52	2.25'					XXXXX		
April				23	25.42'							
May										XXXXX		
June										XXXXX		
July										XXXXX		
August										XXXXX		
September										XXXXX		
October												
November										XXXXX		
December										XXXXX		

N/A NO IRRIGATION EVENTS During This period

Parameter	Calcium*	Mag-nesium*	% Moisture*
Units	mg/l	mg/l	%
Spring Month:			
Late Summer Month:			

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ATTACHMENT D.5
VPA MONITORING REPORT
Location: Land Application Site
Land Application
This monitoring is required by VPA01423 Part I.A. Land Application Monitoring
*Requirement of the NMP which expires July 9, 2006

Coles Point Wastewater TP

VPA01423

Month/Year: February 2011

	Total Gallons Applied	in/hr	in/period	in/wk	Cumulative in/year	Nov through Feb. Cumulative Inches
Limit:	**********	0.25	1.0	2.0	20	5.9
Units:	gal.	in/hr	in/day	in/wk	in/yr	in/winter
Zone: 1A						
1B	NO IRRIGATION EVENTS DURING THIS PERIOD					
2A						
2B						
3A						
3B						

	Effluent Plant Available Nitrogen (PAN) Applied	Other N Applied (Fertilizer, etc.)	Total PAN applied year to date	Effluent Phosphorus Applied	Other Phosphorus Applied (Fertilizer, etc.)	Effluent Phosphorus Applied Year to Date	Effluent Potassium Applied	Other Potassium Applied (Fertilizer, etc.)	Effluent Potassium Applied Year to Date
Limit	*********	**********	60 lb/a first year; 160 lb/a year 2-5; 30 lb/a Nov-Feb*	*******	********	*********	*********	*******	*******
Units	lb/acre	lb/acre	lb/acre	lb/acre	lb/acre	lb/acre	lb/acre	lb/acre	lb/acre
Zone: 1A									
1B	NO IRRIGATION EVENTS DURING THIS PERIOD								
2A									
2B									
3A									
3B									

Attach. D.10. VPA Monitoring / Coles Point WWTP

Daily Freeboard Measurement Operational Log

Facility Name: Coles Point WWTP
Permit #: VPA 01423
Month: February
Year: 2011

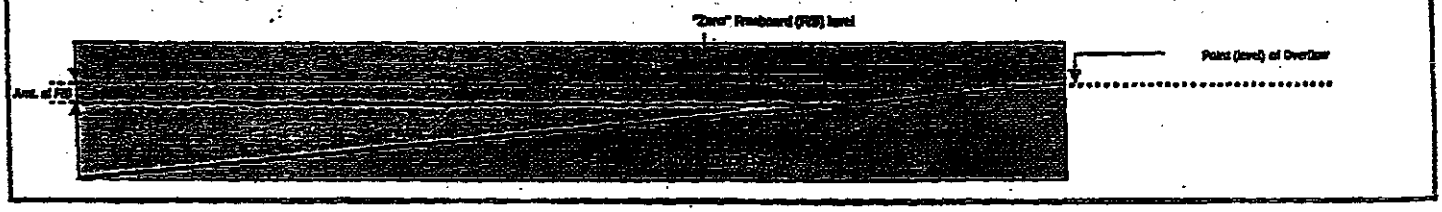
pH Method: Standard Methods 18th Edition 4500-H B and Manufacturer's instructions
Freeboard Method: Ruler Measurement from calibrated 'Zero' freeboard point

VPA01423

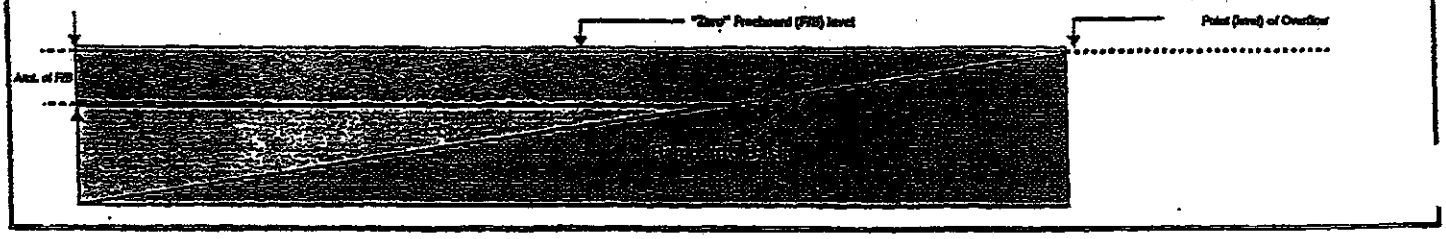
Date	Time	pH Meter Calibration (Record actual buffer values) Buffer 1	Buffer 2	Temp.	pH Sample Time	pH Analysis Time	Effluent pH S.U.	Initials	Freeboard (Inches) Basin 1	Basin 2	Basin 3	STORAGE 1	STORAGE 2	STORAGE 3	
									408"	28"	338.5	0"	380"	69.5"	
1	0835	4.01	7.01	22.6	0930	0940	7.37	DWA	408"	28"	335.5	0"	380"	70.5"	
2	0715	4.01	7.01	22.9	0830	0841	7.52	DWA	408"	28"	336	0"	380"	72"	1.5
3	0730	4.01	7.01	22.3	0930	0940	7.50	DRB	408"	28"	334.5	0"	380"	73.5"	1.5
4	0725	4.01	7.01	22.5	0950	0958	7.50	DRB	408"	28"	333.5	0"	380"	74.5"	1
5	0720	4.01	7.01	22.9	0735	0743	7.53	DRB	408"	28"	332.5	0"	380"	75.5"	1
6	0733	4.00	7.01	21.4	0930	0941	7.32	DWA	408"	28"	330.5	0"	380"	77.5"	2
7	0740	4.01	7.01	22.9	0932	0943	7.25	DWA	408"	28"	329.5	0"	380"	78.5	1
8	0753	4.01	7.01	22.9	0920	0932	7.42	DWA	408"	28"	328	0	380"	80	1.5
9	0710	4.01	7.01	21.3	0930	0942	7.55	DWA	408"	28"	327"	0"	380"	81	1
10	0708	4.01	7.01	22.3	0955	1010	7.56	DWA	408"	28"	326"	0"	380"	82	1
11	0735	4.00	7.01	21.0	1010	1020	7.61	DRB	408"	28"	325"	0"	381"	83	1
12	0730	4.01	7.01	22.1	1015	1022	7.57	DRB	408"	27"	323"	0"	381"	85	2
13	0735	4.00	7.01	21.6	0935	0946	7.45	DWA	408"	27"	321.5	0"	381"	86.5	1.5
14	0745	4.01	7.01	22.8	0930	0940	7.66	DWA	408"	27"	319.5	0"	381"	88.5	2
15	0740	4.01	7.01	22.2	0940	0950	7.60	DWA	408"	27"	318.5	0"	381"	89.5	1
16	0830	4.01	7.01	22.4	0905	09:15	7.58	S.C	408"	27"	317.5	0"	381"	90.5	1
17	0748	4.01	7.01	22.3	0930	0941	7.64	DWA	408"	27"	316.5	0"	381"	91.5	1
18	0730	4.00	7.01	21.7	1030	1043	7.68	DRB	408"	27"	315.5	0"	381"	92.5	1
19	0735	4.00	7.01	20.9	1035	1045	7.70	DRB	408"	27"	314	0"	381"	94	1.5
20	0750	4.00	7.01	20.6	0935	0946	7.59	DWA	408"	27"	313	0"	381"	95	1
21	0752	4.00	7.01	21.0	0950	1000	7.77	DWA	408"	27"	312	0"	381"	96"	1
22	0765	4.00	7.02	22.2	0945	0955	7.80	DWA	408"	27"	311	0"	381"	97"	1
23	0705	4.02	7.01	21.9	0948	1003	7.93	DWA	408"	27"	310	0"	381"	98"	1
24	0745	4.00	7.01	21.9	0750	1000	7.79	DRB	408"	27"	309"	0"	381"	99"	1
25	0825	4.01	7.01	23.1	1040	1050	7.44	DRB	408"	27"	308"	0"	381"	100"	1
26	0735	4.00	7.01	21.9	1030	1040	7.73	DRB	408"	27"	307"	0"	381"	101"	1
27	0800	4.00	7.01	21.9	0945	1006	7.76	DWA	408"	27"	306"	0"	381"	102"	1
28	0830	4.01	7.01	23.0	1000	1010	7.80	DWA	408"	27"	305"	0"	381"	103"	1
29															
30															
31															
Minimum pH							7.25					0	2956560	799.280	
Maximum pH							7.93					2979840	23280	2180560	
Minimum F/B									34'	2.25'	25.42'				

Note: "Freeboard" measurement is the vertical distance (inches) from the water level to the level at which wastewater will leave the settling basin.
Note: If the "Freeboard" is less than 24 inches, DEQ must immediately be notified, and a written statement of explanation and corrective measures is due within 5 days.

Cross-sectional view of Settling Basin - Example 1 (Basin side wall is higher than level of overflow)



Cross-sectional view of Settling Basin - Example 2 (Basin side wall is the point/level of overflow)



Primary Laboratories, Inc.

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ANALYTICAL LABORATORY REPORT

Westmoreland County
Attn: Gary France
P.O. Box 1000
Montross, Va. 22520

22-Feb-11

Project: Coles Point
Date Received: 9-Feb-11
Date Sampled: 8-Feb-11
Work Order No: 1102083-01
Client ID: **Plant Composite**

Test Description	Final Result	Reporting Limit	Units of Measure	Method Numbers*	Date Analyzed	Tech. Initials
TSS	3.6	1.0	mg/L	2540 D	14-Feb-11 at 15:15	HV
BOD	<3.0	3.0	mg/L	5210 B	11-Feb-11 at 9:00	NA

Date Sampled: 8-Feb-11
Work Order No: 1102083-02
Client ID: **Storage Grab**

Test Description	Final Result	Reporting Limit	Units of Measure	Method Numbers*	Date Analyzed	Tech. Initials
Alkalinity	194.4	0.2	mg/L as $CaCO_3$	2320 B	10-Feb-11 at 15:00	NA
Nitrate	15.27	0.01	mg/L	4500 NO_3^- E	11-Feb-11 at 10:00	HV
Total Phosphorus	2.77	0.10	mg/L	4500P E	10-Feb-11 at 11:00	NA
Ammonia	0.63	0.01	mg/L	4500NH_3 F	10-Feb-11 at 9:00	NA
Chloride	93.8	0.2	mg/L	4500CL G	11-Feb-11 at 14:00	NA
TKN	0.78	0.20	mg/L	4500 N/NH_3	14-Feb-11 at 9:00	NA

Primary Laboratories, Inc.
Results

22-Feb-11

Project: Coles Point
Date Received: 9-Feb-11
Date Sampled: 8-Feb-11
Work Order No: 1102083-02
Client ID: **Storage Grab**

Test Description	Final Result	Reporting Limit	Units of Measure	Method Numbers*	Date Analyzed	Tech. Initials
METALS						
Potassium	29.6	1.0	mg/L	EPA 200.2/3120B	22-Feb-11 at 10:30	HV
Sodium	187.0	10.0	mg/L	EPA 200.2/3120B	22-Feb-11 at 10:30	HV

* All methods are Standard Methods 18th Edition unless otherwise noted.

Signature: Parry L. Bragg Date: 2/28/11
Laboratory Manager

These analytical results are based upon materials provided by the client and are intended for the exclusive use of the client. These analytical results represent the best judgement of Primary Laboratories, Inc. Primary Laboratories, Inc. assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report. This report is not to be reproduced except with the written approval of Primary Laboratories, Inc.

Coles Point Waste Treatment Facility

Daily Bench Sheet

														MONTH	YEAR	
			PH SM18 4500-H B		DO SM18 4500-O 1		CL2 SM20 4500-CL G							Feb	2011	
				SBR BASIN # 2			Chlorine Residual Sample				EFFLUENT SAMPLE			SETTLEABILITY %		
DAY	EFFLUENT TOTAL	DAILY +	TIME	Ph	DO	TEMP.	Cl2 RES.	Time Taken	Time Analyzed	Effluent PH	Effluent Temp	Time Taken	Time Analy	30 MIN SSV	60 MIN SSV	OPR
Pevious Day	42708750															
1	42719800	11,050	0930	7.07	1.75	9.5	1.51	0930	0933	7.37	8.0	0930	0940	92%	80°	DWA
2	42732250	12,450	0930	7.19	1.29	9.6	1.90	0930	0933	7.52	8.8	0930	0941	92%	84°	DWA
3	42744440	12,190	0930	7.02	2.33	9.9	1.60	0930	0933	7.50	8.0	0930	0940	95%	86%	DRB
4	42753320	8,880	0950	7.11	1.26	10.1	1.81	0950	0955	7.50	8.4	0950	0958	96%	85%	DRB
5	42760740	7,420	0935	7.00	1.90	10.0	1.54	0935	0940	7.53	8.4	0935	0943	93%	85%	DRB
6	42774620	13,880	0930	6.97	1.56	10.7	1.73	0930	0933	7.52	10.3	0930	0941	85%	68%	DWA
7	42784980	10,360	0932	7.07	1.23	10.3	1.94	0932	0935	7.25	8.8	0932	0943	94%	78%	DWA
8	42796660	11,680	0920	7.08	1.65	10.9	2.10	0920	0923	7.42	9.0	0920	0932	90%	74%	DWA
9	42804670	8,030	0930	7.18	1.85	9.9	1.68	0930	0933	7.55	6.7	0930	0942	90%	65%	DWA
10	42812730	8,040	0955	7.20	3.34	10.0	1.57	0955	0958	7.56	8.3	0955	1010	90%	75%	DWA
11	42821380	8,650	1010	7.11	1.98	10.1	1.69	1010	1015	7.61	8.1	1010	1020	84%	56%	DRB
12	42834150	12,770	1015	7.38	0.52	10.1	3.88	1015	1020	7.57	7.2	1015	1022	85%	60%	DRB
13	42845430	11,280	0935	7.13	1.03	10.2	2.00	0935	0938	7.45	8.5	0935	0946	76%	56%	DWA
14	42857870	12,440	0930	7.16	1.14	10.9	2.38	0930	0933	7.66	10.3	0930	0940	75%	58%	DWA
15	42869770	4,900	0940	7.24	1.38	10.4	1.95	0940	09[illegible]	7.50	8.9	0940	0950	86%	73%	DWA
16	42885210	5,770	0905	7.21	1.54	10.6	1.95	0905	0908	7.58	9.2	0905	0915	78%	60%	S.C
17	42875330	6,790	0930	7.24	1.52	11.2	1.50	0930	0933	7.64	10.0	0930	0941	83%	66%	DWA
18	42882080	6,750	1030	7.17	0.49	12.2	1.74	1030	1035	7.68	11.8	1030	1043	90%	78%	DRB
19	42893100	11,020	1035	7.15	0.37	12.3	2.34	1035	1041	7.70	13.8	1035	1045	65%	50%	DRB
20	42902030	8,930	0935	7.26	1.80	12.0	1.77	0935	0938	7.59	10.6	0935	0946	87%	72%	DWA
21	42911480	9,450	0950	7.26	.96	12.0	2.18	0950	0953	7.77	12.8	0950	1000	80%	80%	DWA
22	42919440	7,960	0945	7.40	1.21	11.3	1.63	0945	0948	7.80	10.6	0945	0955	89%	74%	DWA
23	42925880	6,440	0948	7.30	1.36	11.5	2.00	0948	0951	7.83	11.0	0948	1003	90%	78%	DWA
24	42932750	6,870	0950	7.23	1.02	11.3	1.76	0950	0955	7.79	10.7	0950	1000	67%	50%	DRB
25	42942150	9,400	1040	7.07	2.68	12.6	2.03	1040	1045	7.44	15.9	1040	1058	75%	57%	DRB
26	42950950	8,800	1030	7.01	1.68	11.8	1.80	1030	1035	7.73	11.0	1030	1040	74%	57%	DRB
27	42959980	9030	0945	7.15	1.49	12.3	1.68	0945	0948	7.76	13.3	0945	1005	92%	77%	DWA
28	42968280	8300	1000	7.05	1.28	12.9	1.58	1000	1003	7.80	15.9	1000	1010	90%	75%	DWA
29	TOTAL	259,530		6.97/7.40						7.26/7.93						
30	AVG	9268.9285														
31																
NOTE: PH TAKEN OF EFFLUENT SAMPLE FROM STORAGE TANK DURING MONTHLY TESTING										7.62	6.4	1312	1346			