HOOD PACKAGING CORPORATION
MADISON, MISSISSIPPI

Voluntary Remediation Program
Semiannual Progress Report No. 5
Hood Packaging Corporation Site
Valdosta, Georgia

Prepared By:
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April 20, 2019

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

APPENDICES

APPENDIX A Field Notes from Groundwater and Surface Water Sampling

APPENDIX B Analytical Results from Groundwater and Surface Water Sampling

ENGINEERING CERTIFICATION

I certify that I am a qualified groundwater scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by State registration and completion of accredited university courses, that enable me to make sound professional judgements regarding groundwater monitoring and contaminant fate-and-transport. I further certify that this report was prepared by myself or by a subordinate working under my direction.

Henry M. Rollins, P.E.
Georgia Registration No. 14285

4/20/19
Date

1.0 INTRODUCTION

This is the fifth Semiannual Progress Report being submitted under the Voluntary Remediation Program (VRP) on behalf of Hood Packaging Corporation (Hood) for the property known as Tract 2 located in the 900 block of River Street, Valdosta, Lowndes County, Georgia. The purpose of this report is to provide the Georgia Environmental Protection Division (EPD) with information concerning the activities accomplished on the site during the fifth six-month period since the site was approved for participation in the Georgia Voluntary Remediation Program, and to detail activities planned for the next six months.

2.0 BACKGROUND

Hood owns property in the 900 block on both sides of River Street in Valdosta, Georgia. Hood acquired a multi-wall bag manufacturing facility on the site in 1992 and operated the facility until May of 2009. The property consists of three parcels, known as Tracts 1, 2, and 3, all of which were listed on the Georgia Hazardous Site Inventory (HSI) as site 10089. Tracts 1 and 3 have been removed from the HSI by EPD, and Hood has sold Tract 3 to a third party. The site location is shown in Figure 1.

Unknown to Hood at the time of the 1992 acquisition, Tract 2 had been used for the manufacturing of fertilizer from the early 1900's to the 1970's. The site was listed on the HSI because of the presence of metals at levels exceeding the Georgia Hazardous Site Response Act (HSRA) notification thresholds.

Site investigations were conducted over a period of years that delineated the extent of contamination of the metals arsenic, lead, and barium in both soil and groundwater. A

site Compliance Status Report (CSR) was prepared in 1999 and a Corrective Action Plan was submitted in 2006.

In 2010, the EPA and EPD performed a Site Reconnaissance and Pre-CERCLIS Screening Assessment (PSA) of Tract 2. The PSA employed XRF technology, and the results indicated the presence of additional metals, at above HSRA notification levels, at several locations. Hood subsequently took samples at the locations identified in the PSA and subjected them to laboratory analysis. The results of these analyses found only one additional metal, zinc, at the location identified in previous investigations as Large Area 4, at concentrations exceeding the HSRA notification levels. Delineation for zinc at Large Area 4 to default Type 2 Risk Reduction Standards has now been completed.

Hood prepared and submitted a VRP Application and Investigation and Remediation Plan on September 12, 2014. The VRP application resulted in the issuance of Consent Order No. EPD-VRP-013, which, once executed, enrolled the site in the VRP program. This consent order was fully executed on September 20, 2016. Semiannual progress reports are due on April 20 and October 20 of each year.

3.0 ACTIVITIES COMPLETED IN THIS REPORTING PERIOD

3.1 Groundwater Activities

3.1.1 *Monitoring Well Installation and Repair*

There was one new well installed during this reporting period. This new well was installed on City of Valdosta property to function as a Point of Demonstration Well as defined in OGGA 12-8-102(a)(10). This well has

been designated MW-SB-17. The approximate location of this well has been added to the site drawings found in the Figures in this report. A well construction drawing is found in Figure 4. None of the other existing wells required any maintenance or repair. The location of all monitoring wells is shown on the drawing in Figure 2. Monitoring well construction details are found in Table 4.

3.1.1 *Groundwater Sampling*

Another round of groundwater sampling was conducted on February 13 and 14, 2019, for the purpose of providing additional data on the groundwater concentrations of arsenic, lead, barium, and zinc, the previously determined constituents of concern. The following wells were sampled: MW-SB-1R, MW-SB-1A, MW-SB-2, MW-SB-2AR, MW-SB-4R, MW-SB-5, MW-SB-6, MW-SB-8, MW-SB-9, MW-SB-9A, MW-SB-12R, MW-SB-13, MW-SB-14, and MW-SB-15. Water levels were measured in the following additional wells: MW-SB-3, MW-SB-7, MW-SB-10, MW-SB-11, and MW-SB-16. Sampling was performed by Joe McVay, P.G. Field notes from the sampling event are found in Appendix A. The results from this sampling event, as well as historic events, are presented in Table 1. The laboratory reports are found in Appendix B. A drawing showing the measured concentrations at each well is found as Figure 7. Groundwater results for the February 2019, sampling were generally within expected ranges based on historical results.

3.1.3 *Groundwater Levels and Equipotentials*

Groundwater elevation measurements were taken from the wells that were monitored during this semiannual period, as well as the remaining wells on Tract 2. Overall, the water levels measured in the February 2019 sampling event were higher than normal due to higher than normal rainfall. There was a somewhat larger than normal upward vertical gradient exhibited at the locations where multiple wells are present. These water levels, as well as historic levels, are presented in Table 2.

A site drawing showing estimated groundwater equipotential lines is found in Figure 3. This drawing shows groundwater flow patterns similar to those in the past with a high point near the center of Tract 2.

3.2 Surface Water Activities

Surface water samples were taken while personnel were on-site to conduct the groundwater monitoring activities. Samples were taken on February 14, 2019 at the six locations previously sampled. These include: where the surface drain flows under the entrance road to the City park; slightly downstream where the drain passes under River Street; further downstream where the drain passes beneath Magnolia Street, Lankford Drive, and Baytree Road; and at an upstream sample location. The sampling locations are shown on Figure 6.

The results from these recent surface water samples as well as historic results are found in Table 3. The laboratory reports are found in Appendix B. The results of the February 14, 2019, surface water sampling showed no significant impact from

arsenic or barium at any location. The lead surface water results were 34.7 µg/l at the Park Road Ditch location and declined to background levels at the Lankford Drive sampling location. The zinc surface water results were 222 µg/l at the Park Road Ditch location and declined to expected background at the Lankford Drive sampling location.

3.3 Exposure Area Discussion

During the prior reporting period, significant additional soil sampling was conducted. The results of this sampling, in addition to previous soil sampling, confirmed that metals of concern are distributed broadly across a large portion of the site. This pattern is consistent with the evidence that suggests that after the fertilizer manufacturing operations ceased, the site was graded to smooth the contours. This explains why the fertilizer building slab is covered with about a foot of material consisting of soils and demolition debris, similar to the materials found distributed widely across the site.

The distribution of contaminants supports the use of area averaging techniques to develop expected concentrations in an exposure area risk analysis. For the purpose of developing a 95% UCL estimate of the mean concentration in the exposure area, a large-volume composite sample was prepared from the 111 individual samples taken in the exposure area. This large-volume sample was thoroughly mixed and 10 replicate analyses were conducted. The results from these analyses were submitted in the prior VRP report. The 95% UCL estimate of the mean concentrations based on these 10 samples was computed using EPA's ProUCL software. The results of this analysis are found in Table 5.

In order to evaluate the potential direct exposure risk associated with the calculated exposure area concentrations, computations were performed using standard procedures specified in 391-3-19-.07(9). These computations showing the Type 4 RRS concentrations based on site-specific exposure factors are found in Tables 6 and 7.

These computations were provided to EPD via email prior to a planned meeting to discuss site issues.

3.4 Contact with the City of Valdosta

During this reporting period, approval was received from Scott Fowler, the Environmental Manager of the City of Valdosta, for the location of the new groundwater monitoring well on City property. The well was installed on March 6, 2019.

4.0 PLANNED ACTIVITIES FOR THE NEXT REPORTING PERIOD

4.1 Groundwater Activities

The new Point of Demonstration well will be sampled in the next reporting period, and additional groundwater monitoring will be discussed at the meeting to be held with EPD personnel on May 22, 2019.

4.2 Surface Water Activities

Additional surface water monitoring will be discussed at the meeting to be held with EPD personnel on May 22, 2019.

4.3 Exposure Area and Area Averaging Approach to Type 4 RRS

A meeting is scheduled with EPD personnel on May 22, 2019, to discuss the materials provided to EPD by email on February 8, 2019. These materials included computations for development of a 95% upper confidence limit estimate of exposure concentrations based on an area averaging approach and calculation of potential Type 4 RRS based on site-specific exposure factors that would be managed by appropriate environmental covenants.

The goal of this meeting is to obtain EPD guidance that will help define the final corrective measures for the site.

5.0 VRP PROJECT MANAGEMENT

5.1 Professional Oversight

Oversight for this project is being provided by H. Martin Rollins, P.E. (Georgia #14285). A summary of hours committed to this project during the reporting period is shown in the following table. Significant additional professional time was expended by contract personnel.

H. M. Rollins, P.E. (Georgia #14285)		
	Hours Invoiced	Work Completed
October 2018	58.5	Oversight of the work described in this report.
November 2018	1.0	
December 2018	16.0	
January 2019	17.5	
February 2019	30.4	
March 2019	36.3	

5.2 Project Schedule

All delineation activities are now complete. Discussions concerning Type 4 RRS and final corrective actions are planned for the EPD meeting on May 22, 2019. Planned project completion is still within the VRP completion guidance.

6.0 REFERENCES

H. M. Rollins Company, Inc., 1999.
Compliance Status Report. Prepared by H. M. Rollins Company, Inc., Last Revision September, 1999.

H. M. Rollins Company, Inc., 2006.
Corrective Action Plan. Prepared by H. M. Rollins Company, Inc., Last Revision May 1, 2006.

H. M. Rollins Company, Inc., 2014.
Voluntary Remediation Program, Application, Investigation, and Remediation Plan. Prepared by H. M. Rollins Company, Inc., September, 2014.

H. M. Rollins Company, Inc., 2017.
Voluntary Remediation Program, Semiannual Progress Report No. 1. Prepared by H. M. Rollins Company, Inc., April 20, 2017.

H. M. Rollins Company, Inc., 2018.
Voluntary Remediation Program, Semiannual Progress Report No. 2. Prepared by H. M. Rollins Company, Inc., October 20, 2017.

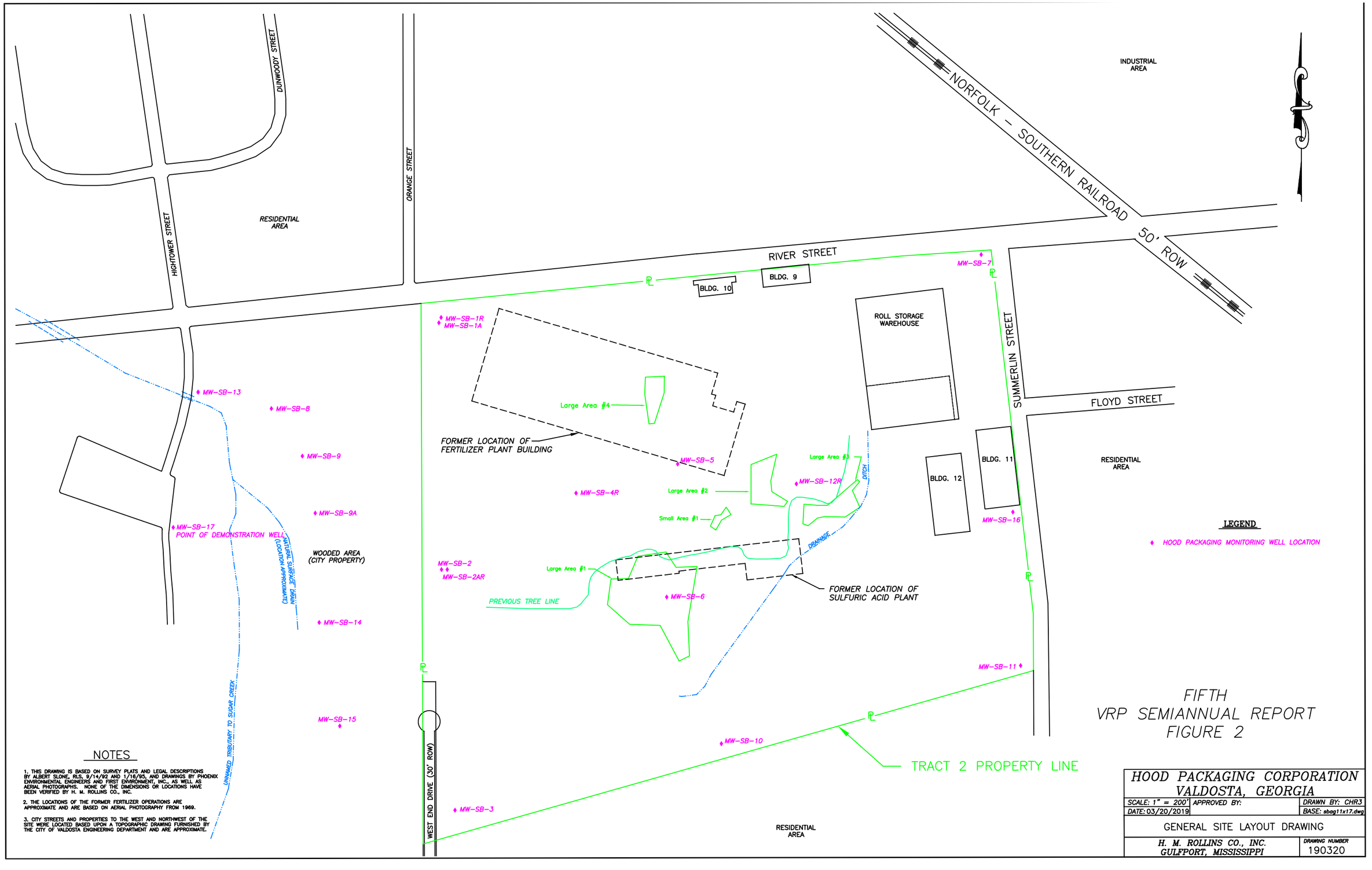
H. M. Rollins Company, Inc., 2018.
Voluntary Remediation Program, Semiannual Progress Report No. 3. Prepared by H. M. Rollins Company, Inc., April 20, 2018.

H. M. Rollins Company, Inc., 2018.
Voluntary Remediation Program, Semiannual Progress Report No. 4. Prepared by H. M. Rollins Company, Inc., October 20, 2018.

HOOD PACKAGING CORPORATION
VALDOSTA, GEORGIA

SITE LOCATION MAP

H.M. ROLLINS CO., INC. GULFPORT, MISSISSIPPI	U.S.G.S. TOPOGRAPHIC MAP QUAD: VALDOSTA 7.5 MINUTE SERIES
DRAWING NUMBER: 170315	Figure 1



NOTES

1. THIS DRAWING IS BASED ON SURVEY PLATS AND LEGAL DESCRIPTIONS BY ALBERT SLONE, RLS, 9/14/92 AND 1/16/95, AND DRAWINGS BY PHOENIX ENVIRONMENTAL ENGINEERS AND FIRST ENVIRONMENT, INC., AS WELL AS AERIAL PHOTOGRAPHS. NONE OF THE DIMENSIONS OR LOCATIONS HAVE BEEN VERIFIED BY H. M. ROLLINS CO., INC.

2. THE LOCATIONS OF THE FORMER FERTILIZER OPERATIONS ARE APPROXIMATE AND ARE BASED ON AERIAL PHOTOGRAPHY FROM 1969.

3. CITY STREETS AND PROPERTIES TO THE WEST AND NORTHWEST OF THE SITE WERE LOCATED BASED UPON A TOPOGRAPHIC DRAWING FURNISHED BY THE CITY OF VALDOSTA ENGINEERING DEPARTMENT AND ARE APPROXIMATE.

FIFTH
VRP SEMIANNUAL REPORT
FIGURE 2

HOOD PACKAGING CORPORATION VALDOSTA, GEORGIA		
SCALE: 1" = 200'	APPROVED BY:	DRAWN BY: CHR3
DATE: 03/20/2019		BASE: sbag11x17.dwg
GENERAL SITE LAYOUT DRAWING		
H. M. ROLLINS CO., INC. GULFPORT, MISSISSIPPI		DRAWING NUMBER 190320

TRACT 1 PROPERTY LINES TRUNCATED BY LIMITS OF DRAWING BORDER.

TRACT 1

CHAINLINK FENCE

WATER WELL

MULTIWALL BAG PLANT BUILDINGS 3,4,5,6,&7

INDUSTRIAL AREA

NORFOLK - SOUTHERN RAILROAD

50' ROW

DUNWOODY STREET

HIGHTOWER STREET

ORANGE STREET

RESIDENTIAL AREA

RIVER STREET

BLDG. 10

BLDG. 9

ROLL STORAGE WAREHOUSE

SUMMERLIN STREET

FLOYD STREET

BLDG. 11

BLDG. 12

RESIDENTIAL AREA

MW-SB-7
187.33

MW-SB-1R
MW-SB-1A
186.03
183.61

MW-SB-13
176.74

MW-SB-8
178.09

MW-SB-9
179.85

MW-SB-9A
180.51

MW-SB-14
179.83

MW-SB-15
183.41

WOODED AREA (CITY PROPERTY)

NATURAL SURFACE DRAIN (LOCATION APPROXIMATE)

UNNAMED TRIBUTARY TO SUGAR CREEK

Large Area #4

FORMER LOCATION OF FERTILIZER PLANT BUILDING

MW-SB-5
193.03

Large Area #3

Large Area #2

Small Area #1

MW-SB-4R
187.27

MW-SB-12R
188.56

MW-SB-16
191.57

Large Area #1

MW-SB-2
185.32

MW-SB-2AR
186.35

MW-SB-6
191.36

FORMER LOCATION OF SULFURIC ACID PLANT

MW-SB-11
190.53

MW-SB-10
188.02

MW-SB-3
186.42

WEST END DRIVE (30' ROW)

TRACT 2 PROPERTY LINE

RESIDENTIAL AREA

NOTES

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LEGEND

♦ HOOD PACKAGING MONITORING WELL LOCATION

–188– GROUNDWATER CONTOURS AND ELEVATIONS

VRP FIFTH SEMIANNUAL REPORT
FIGURE 3

HOOD PACKAGING CORPORATION VALDOSTA, GEORGIA		
SCALE: 1" = 200'	APPROVED BY:	DRAWN BY: TRC
DATE: 04/06/19		BASE:
SITE DRAWING SHOWING GROUNDWATER CONTOURS ON FEBRUARY 13–14, 2019		
H. M. ROLLINS CO., INC. GULFPORT, MISSISSIPPI		DRAWING NUMBER 190406

HTW DRILLING LOG

HOLE No. SB-17

1. COMPANY NAME: H. M. Rollins Company	2. DRILLING SUBCONTRACTOR: Betts Environmental Recovery	SHEET 1 OF 1 SHEETS 1
3. PROJECT: Hood Packaging Corp.	4. LOCATION: River Street Valdosta, GA	
5. NAME OF DRILLER: Caleb Harnage	6. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe	
7. SIZE AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: DPT 2"x 5' spoon; 4.25 HSA	8. HOLE LOCATION: 325.5' S16°W from SB-13	
	9. SURFACE ELEVATION: NA	
	10. DATE STARTED: 3/6/19	11. DATE COMPLETED: 3/6/19
12. OVERBURDEN THICKNESS:	15. DEPTH GROUNDWATER ENCOUNTERED: 8.0'	
13. DEPTH DRILLED INTO ROCK:	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:	
14. TOTAL DEPTH OF HOLE: 12'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
Monitoring Well Set		X		

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX No. e	ANALYTICAL SAMPLE No. f	BLOW COUNTS g	REMARKS h
	2	Grey sand very fine					
		Tan Sand					
	4						
		orange/yellow/grey clay					
	6						
	8						
	10						

Figure 4 A

MRK FORM 55 | PROJECT | HOLE No.

TYPE II MONITORING WELL INSTALLATION DIAGRAM

EARTH SYSTEMS, L.L.C. 165 ELLIS MILL ROAD MILLEDGEVILLE, GA 31061	JOB NAME: Hood Packaging Corp. WELL NOUMBER: SB-17 WELL LOCATION: In park
Top of Casing Elevation: 184.90 Feet	Bentonite Type: POS Chips
Type Sand Pack: 20-30 washed	Cement Type: Portland
Screen Material: .01 slotted PVC	Field Geologist: Joe McVay
Riser Material: PVC	Drilling Contractor" Betts Environmental
Riser Diameter: 2"	Amount of Bentonite Used: 8- 50 lb bags
Drilling Method: DPT & Rotary	Amount of Sand Used: 8 bags
Auger Size and Type: 4.25" HAS	

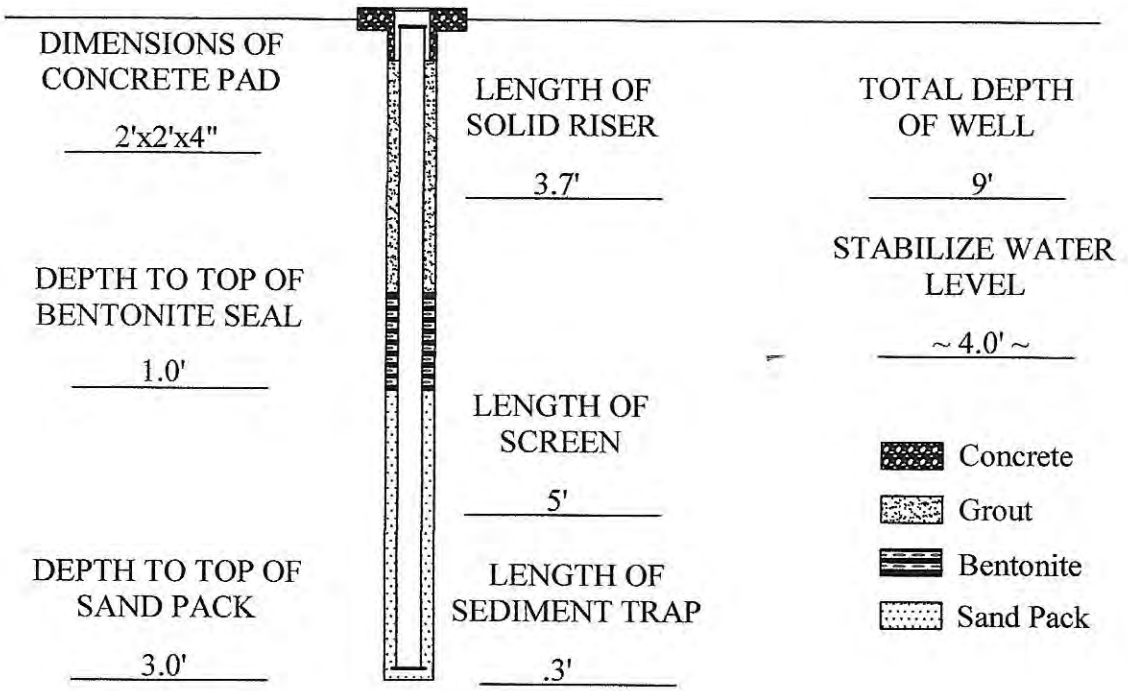
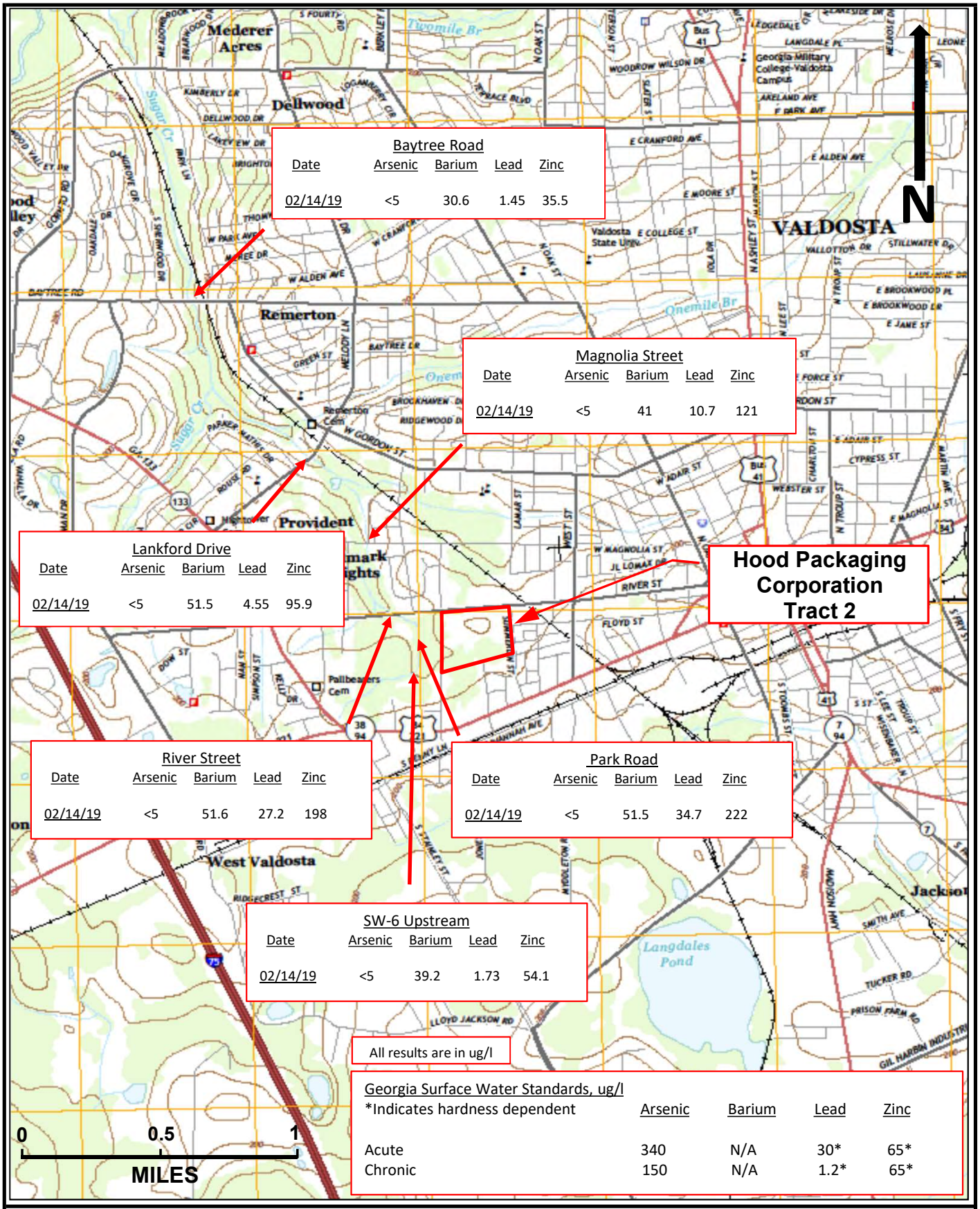


Figure 4 B

HOOD PACKAGING CORPORATION
VRP Corrective Action Implementation Schedule

Task	Duration	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18	Month 19	Month 20	Month 21	Month 22	Month 23	Month 24	Month 25	Month 26	Month 27	Month 28	Month 29	Month 30	Month 31	Month 32	Month 33	Month 34	Month 35
VRP Acceptance	-																																			
Complete Soil Delineation for Zinc	6 months																																			
Complete Groundwater Delineation for Zinc	6 months																																			
Soil Sampling for Disposal Characterization	6 months																																			
Prepare Corrective Action Plan	5 months																																			
Choose Contractors	2 months																																			
Complete Preliminary Site Work	3 months																																			
Complete Groundwater pH Adjustment	3 months																																			
Install Cap System or Excavate & Dispose Offsite	7 months																																			
Complete Survey and Environmental Covenants	3 months																																			
Prepare and Submit Final CSR	7 months																																			



HOOD PACKAGING CORPORATION
VALDOSTA, GEORGIA

SITE LOCATION MAP

H.M. ROLLINS CO., INC. GULFPORT, MISSISSIPPI	U.S.G.S. TOPOGRAPHIC MAP QUAD: VALDOSTA 7.5 MINUTE SERIES
DRAWING NUMBER: 190404	Figure 6

TRACT 1 PROPERTY LINES TRUNCATED BY LIMITS OF DRAWING BORDER.

TRACT 1

CHAINLINK FENCE

WATER WELL

MULTIWALL BAG PLANT BUILDINGS 3,4,5,6,&7

INDUSTRIAL AREA

NORFOLK - SOUTHERN RAILROAD

50' ROW

DUNWOODY STREET

ORANGE STREET

HIGHTOWER STREET

RESIDENTIAL AREA

RIVER STREET

BLDG. 10

BLDG. 9

ROLL STORAGE WAREHOUSE

SUMMERLIN STREET

FLOYD STREET

BLDG. 11

BLDG. 12

RESIDENTIAL AREA

MW-SB-7
As <5 µg/L
Ba 33 µg/L
Pb <1 µg/L
Zn 23 µg/L

MW-SB-1R
MW-SB-1A
As <5 µg/L
Ba 11 µg/L
Pb <1 µg/L
Zn 890 µg/L

MW-SB-13
As 46 µg/L
Ba 168 µg/L
Pb 34 µg/L
Zn 442 µg/L

MW-SB-8
As <5 µg/L
Ba 50 µg/L
Pb 3 µg/L
Zn 2930 µg/L

MW-SB-9
As <5 µg/L
Ba 16 µg/L
Pb <1 µg/L
Zn 2500 µg/L

MW-SB-9A
As <5 µg/L
Ba 12 µg/L
Pb <1 µg/L
Zn 5890 µg/L

WOODED AREA (CITY PROPERTY)

NATURAL SURFACE DRAIN (LOCATION APPROXIMATE)

UNNAMED TRIBUTARY TO SUGAR CREEK

MW-SB-14
As 32 µg/L
Ba 22 µg/L
Pb 164 µg/L
Zn 88 µg/L

MW-SB-15
As <5 µg/L
Ba 39 µg/L
Pb 2 µg/L
Zn <10 µg/L

Large Area #4

FORMER LOCATION OF FERTILIZER PLANT BUILDING

As 40 µg/L
Ba <10 µg/L
Pb <1 µg/L
Zn 1750 µg/L
MW-SB-5

Large Area #3

MW-SB-12R
As <5 µg/L
Ba 12 µg/L
Pb <1 µg/L
Zn 97 µg/L

MW-SB-16

Large Area #2

Small Area #1

MW-SB-4R
As <5 µg/L
Ba <10 µg/L
Pb <1 µg/L
Zn 3970 µg/L

As 11 µg/L
Ba 35 µg/L
Pb 4 µg/L
Zn 1370 µg/L
MW-SB-2
MW-SB-2AR
As <5 µg/L
Ba 27 µg/L
Pb <1 µg/L
Zn 2950 µg/L

Large Area #1

MW-SB-6
As 59 µg/L
Ba 13 µg/L
Pb 1710 µg/L
Zn 3020 µg/L

FORMER LOCATION OF SULFURIC ACID PLANT

MW-SB-11

MW-SB-10

TRACT 2 PROPERTY LINE

WEST END DRIVE (30' ROW)

MW-SB-3

RESIDENTIAL AREA

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LEGEND

♦ HOOD PACKAGING MONITORING WELL LOCATION

TABLE OF SITE DELINEATION VALUES

	GROUNDWATER (µg/L)
As	10
Ba	2,000
Pb	15
Zn	2,000

VRP FIFTH SEMIANNUAL REPORT FIGURE 7

HOOD PACKAGING CORPORATION VALDOSTA, GEORGIA

SCALE: 1" = 200'	APPROVED BY:
DATE: 04/05/19	DRAWN BY: TRC
	BASE:

GROUNDWATER SAMPLING RESULTS FROM FEBRUARY 13-14, 2019

H. M. ROLLINS CO., INC.
GULFPORT, MISSISSIPPI

DRAWING NUMBER 190405

TABLE 1

Hood Packaging Corporation
Valdosta, Georgia
Summary of Analytical Results - Monitoring Wells

		Metals, µg/l				
HSRA Type 1 Standards (µg/l)		10	2000	15	2000	
Well No.	Date	Arsenic	Barium	Lead	Zinc	Notes
MW-SB-1	5/24/1997	<5	43	55		
MW-SB-1	5/24/1997	<5	41	54		DUPLICATE
MW-SB-1	8/27/1997	<5	61	31		
MW-SB-1	8/27/1997	<5	64	29		
MW-SB-1	10/17/1997	<5	53	46		
MW-SB-1	7/26/2001	<5	127	42		
MW-SB-1	3/7/2006	24	77	64		
MW-SB-1	3/7/2006	<5	21	<5		FILTERED IN LAB
MW-SB-1R	4/20/2017	<5	44	<1	14	
MW-SB-1R	11/21/2017	<5	35	<1	15	
MW-SB-1R	3/23/2018	<5	38	<1	26	
MW-SB-1R	2/13/2019	<5	33	<1	23	
MW-SB-1A	10/17/1997	<5	87	<5		
MW-SB-1A	10/17/1997	<5	115	<5		DUPLICATE
MW-SB-1A	7/26/2001	<50	35	<5		
MW-SB-1A	3/7/2006	<5	72	<5		
MW-SB-1A	3/7/2006	<5	14	<5		FILTERED IN LAB
MW-SB-1A	4/20/2017	<5	13	<1	374	
MW-SB-1A	11/21/2017	<5	11	<1	1,090	
MW-SB-1A	3/22/2018	<5	<10	<1	614	
MW-SB-1A	2/13/2019	<5	11	<1	890	
MW-SB-2	5/24/1997	6	71	<5		
MW-SB-2	5/24/1997	15	72	10		DUPLICATE
MW-SB-2	8/27/1997	7	27	<5		
MW-SB-2	10/14/1997	13		<5		
MW-SB-2	7/26/2001	10	13	<5		
MW-SB-2	3/7/2006	40	32	<5		
MW-SB-2	3/7/2006	36	<10	<5		FILTERED IN LAB

Prepared by: H. M. Rollins Co., Inc.
Gulfport, Mississippi

TABLE 1

Hood Packaging Corporation
Valdosta, Georgia
Summary of Analytical Results - Monitoring Wells

		Metals, µg/l				
HSRA Type 1 Standards (µg/l)		10	2000	15	2000	
Well No.	Date	Arsenic	Barium	Lead	Zinc	Notes
MW-SB-2	4/19/2017	9	26	<1	526	
MW-SB-2	11/20/2017	9	19	3	578	
MW-SB-2	3/22/2018	8	22	3	589	
MW-SB-2	2/13/2019	11	35	4	1,370	
MW-SB-2A	10/14/1997	<10		<5		
MW-SB-2A	10/8/1998	<5	37	<5		
MW-SB-2A	10/8/1998	<5	37	<5		DUPLICATE
MW-SB-2A	7/26/2001	<250	<10	<5		
MW-SB-2A	3/7/2006	<5	11	<5		
MW-SB-2A	3/7/2006	<5	<10	<5		FILTERED IN LAB
MW-SB-2AR	4/19/2017	<5	43	<1	408	
MW-SB-2AR	11/20/2017	<5	13	<1	14,700	
MW-SB-2AR	3/22/2018	<5	<10	<1	28,300	
MW-SB-2AR	2/13/2019	<5	27	<1	2,950	
MW-SB-3	5/24/1997	<5	30	<5		
MW-SB-3	5/24/1997	<5	36	<5		DUPLICATE
MW-SB-3	8/27/1997	<5	38	<5		
MW-SB-3	7/26/2001	<5	186	13		
MW-SB-3	10/4/2001			14		
MW-SB-3	10/4/2001			<5		FILTERED
MW-SB-3	10/4/2001			16		DUPLICATE
MW-SB-3	10/4/2001			<5		DUPLICATE / FILTERED
MW-SB-4	10/16/1997	<5	22	<5		
MW-SB-4	10/16/1997	<5	31	<5		DUPLICATE
MW-SB-4	7/26/2001	<25	21	<5		
MW-SB-4R	4/20/2017	<5	<10	<1	2,230	
MW-SB-4R	11/20/2017	<5	<10	<1	1,770	
MW-SB-4R	3/23/2018	<5	<10	<1	1,420	

Prepared by: H. M. Rollins Co., Inc.
Gulfport, Mississippi

TABLE 1

Hood Packaging Corporation
Valdosta, Georgia
Summary of Analytical Results - Monitoring Wells

		Metals, µg/l				
HSRA Type 1 Standards (µg/l)		10	2000	15	2000	
Well No.	Date	Arsenic	Barium	Lead	Zinc	Notes
MW-SB-4R	2/13/2019	<5	<10	<1	3,970	
MW-SB-5	10/16/1997	<5	67	<5		
MW-SB-5	10/16/1997	<5	103	<5		DUPLICATE
MW-SB-5	7/26/2001	26	<10	<5		
MW-SB-5	4/20/2017	39	<10	<1	1,180	
MW-SB-5	11/20/2017	56	<10	<1	1,810	
MW-SB-5	3/23/2018	50	<10	<1	1,680	
MW-SB-5	2/14/2019	40	<10	<1	1,750	
MW-SB-6	10/16/1997	2,660	358	64		
MW-SB-6	10/16/1997	2,720	350	62		DUPLICATE
MW-SB-6	7/26/2001	2,520	<10	810		
MW-SB-6	3/7/2006	717	<10	434		
MW-SB-6	3/7/2006	700	<10	403		FILTERED IN LAB
MW-SB-6	4/20/2017	72	11	464	1,920	
MW-SB-6	11/21/2017	131	14	2,670	2,610	
MW-SB-6	3/23/2018	63	<10	2,750	2,220	
MW-SB-6	2/14/2019	59	13	1,710	3,020	
MW-SB-7	10/16/1997	<5	36	<5		
MW-SB-7	10/16/1997	<5	89	<5		DUPLICATE
MW-SB-7	10/8/1998	<5	17	<5		
MW-SB-7	10/8/1998	<5	13	<5		DUPLICATE
MW-SB-7	7/26/2001	<5	24	<5		
MW-SB-8	10/17/1997	<5	89	7		
MW-SB-8	10/17/1997	<5	85	7		DUPLICATE
MW-SB-8	10/17/1997			5		FILTERED
MW-SB-8	10/8/1998	<5	47	<5		
MW-SB-8	10/8/1998	<5	44	<5		DUPLICATE
MW-SB-8	7/25/2001	<50	59	5		

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Gulfport, Mississippi

TABLE 1

Hood Packaging Corporation
Valdosta, Georgia
Summary of Analytical Results - Monitoring Wells

		Metals, µg/l				
HSRA Type 1 Standards (µg/l)		10	2000	15	2000	
Well No.	Date	Arsenic	Barium	Lead	Zinc	Notes
MW-SB-8	3/8/2006	<5	49	<5		
MW-SB-8	3/8/2006	<5	46	<5		FILTERED IN LAB
MW-SB-8	4/19/2017	<5	54	6	2,230	
MW-SB-8	11/20/2017	<5	33	<1	3,120	
MW-SB-8	3/22/2018	<5	26	6	2,660	
MW-SB-8	2/14/2019	<5	50	3	2,930	
MW-SB-9	10/17/1997	<5	51	<5		
MW-SB-9	10/17/1997	<5	67	<5		DUPLICATE
MW-SB-9	7/26/2001	<50	31	<5		
MW-SB-9	3/8/2006	<5	18	<5		
MW-SB-9	3/8/2006	<5	14	<5		FILTERED IN LAB
MW-SB-9	4/19/2017	<5	61	4	2,270	
MW-SB-9	11/20/2017	<5	18	<1	2,980	
MW-SB-9	3/22/2018	<5	13	<1	2,530	
MW-SB-9	2/13/2019	<5	16	<1	2,500	
MW-SB-9A	11/19/1997	<5	23	<5		
MW-SB-9A	11/19/1997	<5	22	<5		DUPLICATE
MW-SB-9A	11/19/1997	<5	15	<5		FILTERED
MW-SB-9A	7/26/2001	<50	12	<5		
MW-SB-9A	3/8/2006	<5	<10	<5		
MW-SB-9A	3/8/2006	<5	<10	<5		FILTERED IN LAB
MW-SB-9A	4/19/2017	<5	11	<1	4,390	
MW-SB-9A	11/20/2017	<5	11	<1	5,970	
MW-SB-9A	3/22/2018	<5	<10	<1	6,640	
MW-SB-9A	2/13/2019	<5	12	<1	5,890	
MW-SB-10	10/17/1997	<5	57	<5		
MW-SB-10	10/17/1997	<5	64	<5		DUPLICATE
MW-SB-10	7/26/2001	<5	110	<5		

Prepared by: H. M. Rollins Co., Inc.
Gulfport, Mississippi

TABLE 1

Hood Packaging Corporation
Valdosta, Georgia
Summary of Analytical Results - Monitoring Wells

		Metals, µg/l				
HSRA Type 1 Standards (µg/l)		10	2000	15	2000	
Well No.	Date	Arsenic	Barium	Lead	Zinc	Notes
MW-SB-11	11/19/1997	<5	59	<5		
MW-SB-11	11/19/1997	<5	60	<5		DUPLICATE
MW-SB-11	11/19/1997	<5	64	7		FILTERED
MW-SB-11	10/9/1998	<5	52	<5		
MW-SB-11	10/9/1998	<5	55	<5		DUPLICATE
MW-SB-11	7/26/2001	<5	73	<5		
MW-SB-12	11/19/1997	15	16	<5		
MW-SB-12	11/19/1997	17	15	<5		DUPLICATE
MW-SB-12	11/19/1997	20	16	<5		FILTERED
MW-SB-12	7/26/2001	29	<10	<5		
MW-SB-12R	4/20/2017	7	187	4	44	
MW-SB-12R	11/20/2017	<5	<10	<1	46	
MW-SB-12R	3/23/2018	<5	21	<1	63	
MW-SB-12R	2/14/2019	<5	12	<1	97	
MW-SB-13	11/19/1997	14	50	9		
MW-SB-13	11/19/1997	16	51	8		DUPLICATE
MW-SB-13	11/19/1997	20	50	<5		FILTERED
MW-SB-13	10/8/1998	16	76	67		
MW-SB-13	10/8/1998	15	72	52		DUPLICATE
MW-SB-13	10/8/1998	14	68	<5		FILTERED
MW-SB-13	7/26/2001	16	123	158		
MW-SB-13	3/8/2006	13	102	29		
MW-SB-13	3/8/2006	<5	89	16		FILTERED IN LAB
MW-SB-13	4/20/2017	21	90	39	359	
MW-SB-13	11/21/2017	57	221	16	188	
MW-SB-13	3/23/2018	112	184	24	718	
MW-SB-13	2/14/2019	46	168	34	442	
MW-SB-14	11/19/1997	41	149	212		

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Gulfport, Mississippi

TABLE 1

Hood Packaging Corporation
Valdosta, Georgia
Summary of Analytical Results - Monitoring Wells

		Metals, µg/l				
HSRA Type 1 Standards (µg/l)		10	2000	15	2000	
Well No.	Date	Arsenic	Barium	Lead	Zinc	Notes
MW-SB-14	11/19/1997	41	139	191		DUPLICATE
MW-SB-14	11/19/1997	49	140	136		FILTERED
MW-SB-14	10/8/1998	50	79	211		
MW-SB-14	10/8/1998	51	80	249		DUPLICATE
MW-SB-14	7/26/2001	72	60	144		
MW-SB-14	3/8/2006	32	25	96		
MW-SB-14	3/8/2006	38	18	63		FILTERED IN LAB
MW-SB-14	4/19/2017	30	42	144	108	
MW-SB-14	11/20/2017	29	71	173	388	
MW-SB-14	3/22/2018	15	15	138	92	
MW-SB-14	2/13/2019	32	22	164	88	
MW-SB-15	10/9/1998	<5	54	<5		
MW-SB-15	10/9/1998	<5	38	<5		FILTERED
MW-SB-15	7/26/2001	<5	62	<5		
MW-SB-15	3/8/2006	<5	59	<5		
MW-SB-15	3/8/2006	<5	27	<5		FILTERED IN LAB
MW-SB-15	4/19/2017	<5	34	<1	<10	
MW-SB-15	11/20/2017	<5	31	<1	<10	
MW-SB-15	3/22/2018	<5	32	1	<10	
MW-SB-15	2/14/2019	<5	39	2	<10	
MW-SB-16	10/9/1998	<5	36	<5		
MW-SB-16	10/9/1998	<5	38	<5		DUPLICATE
MW-SB-16	7/26/2001	<5	36	<5		

Prepared by: H. M. Rollins Co., Inc.
Gulfport, Mississippi

TABLE 2

Hood Packaging Corporation

Valdosta, Georgia

Table of Groundwater Elevations

DATE OF MEASUREMENT:		5/24/1997		8/26/1997		10/16/1997		11/19/1997		10/9/1998		5/8/2001		7/25/2001		10/4/2001		3/8/2006		4/19/2017		11/21/2017		3/22/2018		2/13/2019	
WELL	ELEV, MP, feet NGVD	DIST TO WATER, ft	GW ELEV, ft NGVD	DIST TO WATER, ft	GW ELEV, ft NGVD	DIST TO WATER, ft	GW ELEV, ft NGVD	DIST TO WATER, ft	GW ELEV, ft NGVD	DIST TO WATER, ft	GW ELEV, ft NGVD	DIST TO WATER, ft	GW ELEV, ft NGVD	DIST TO WATER, ft	GW ELEV, ft NGVD	DIST TO WATER, ft	GW ELEV, ft NGVD	DIST TO WATER, ft	GW ELEV, ft NGVD	DIST TO WATER, ft	GW ELEV, ft NGVD	DIST TO WATER, ft	GW ELEV, ft NGVD	DIST TO WATER, ft	GW ELEV, ft NGVD	DIST TO WATER, ft	GW ELEV, ft NGVD
MW-SB-1	189.28	6.85	182.43	6.64	182.64	7.93	181.35	4.79	184.49	4.88	184.40	8.36	180.92	6.21	183.07	8.98	180.30	5.92	183.36										
MW-SB-1R	188.56																			8.10	180.46	8.65	179.91	7.69	180.87	4.95	183.61
MW-SB-1A	189.25							3.70	185.55	4.93	184.32	7.97	181.28	6.12	183.13	8.46	180.79	5.48	183.77	5.63	183.62	8.22	181.03	7.49	181.76	3.22	186.03
MW-SB-2	188.52	6.18	182.34	5.89	182.63	7.30	181.22	4.02	184.50	4.48	184.04	7.81	180.71	5.56	182.96	7.88	180.64	5.43	183.09	7.35	181.17	7.38	181.14	6.97	181.55	3.20	185.32
MW-SB-2A	188.58					7.33	181.25	3.28	185.30	5.30	183.28	7.57	181.01	6.10	182.48	7.79	180.79	5.13	183.45								
MW-SB-2AR	188.21																			6.56	181.65	6.78	181.43	6.84	181.37	1.86	186.35
MW-SB-3	192.32	9.61	182.71	8.97	183.35	11.03	181.29	6.99	185.33	8.22	184.10	11.41	180.91	9.23	183.09	11.64	180.68	8.21	184.11			11.01	181.31	10.80	181.52	5.90	186.42
MW-SB-4	192.88					6.66	186.22	2.50	190.38	3.15	189.73	6.27	186.61	4.05	188.83	6.80	186.08										
MW-SB-4R	193.44																			11.35	182.09						
MW-SB-4R*	193.87																					11.32	182.55	11.23	182.64	6.60	187.27
MW-SB-5	197.53					8.67	188.86	4.00	193.53	3.66	193.87	7.63	189.90	5.77	191.76	8.26	189.27	5.40	192.13	8.50	189.03	7.99	189.54	8.25	189.28	4.50	193.03
MW-SB-6	194.76					11.50	183.26	4.46	190.30	4.66	190.10	11.72	183.04	5.61	189.15	12.46	182.30	5.82	188.94	10.31	184.45	5.76	189.00	4.55	190.21	3.40	191.36
MW-SB-7	196.40					13.82	182.58	9.14	187.26	11.46	184.94	13.90	182.50	12.49	183.91	14.67	181.73	12.27	184.13			14.13	182.27	13.96	182.44	9.07	187.33
MW-SB-8	180.10					2.63	177.47	2.32	177.78	2.30	177.80	5.66	174.44	2.91	177.19	4.94	175.16	2.84	177.26	3.19	176.91	3.63	176.47	2.84	177.26	2.01	178.09
MW-SB-9	182.25					3.46	178.79	3.04	179.21	3.19	179.06	6.09	176.16	3.80	178.45	5.61	176.64	3.95	178.30	5.48	176.77	4.79	177.46	3.94	178.31	2.40	179.85
MW-SB-9A	183.86							3.49	180.37	3.56	180.30	6.06	177.80	4.12	179.74	5.86	178.00	4.25	179.61	5.61	178.25	5.49	178.37	4.96	178.90	3.35	180.51
MW-SB-10	193.04					10.77	182.27	6.10	186.94	6.53	186.51	10.86	182.18	8.76	184.28	11.36	181.68	7.98	185.06			10.38	182.66	9.82	183.22	5.02	188.02
MW-SB-11	199.38							11.21	188.17	15.02	184.36	16.37	183.01	15.30	184.08	17.10	182.28	8.76	190.62			16.32	183.06	14.61	184.77	8.85	190.53
MW-SB-12	199.08							3.96	195.12	4.00	195.08	7.68	191.40	6.72	192.36	7.88	191.20										
MW-SB-12R	198.83																			15.64	183.19	15.29	183.54	15.25	183.58	10.27	188.56
MW-SB-13	179.49							3.33	176.16	3.25	176.24	5.86	173.63	3.42	176.07	5.71	173.78	3.20	176.29	2.90	176.59	4.41	175.08	2.81	176.68	2.75	176.74
MW-SB-14	183.66							2.84	180.82	2.95	180.71	5.06	178.60	3.08	180.58	4.74	178.92	3.66	180.00	5.87	177.79	5.85	177.81	5.11	178.55	3.83	179.83
MW-SB-15	186.17									3.40	182.77	5.93	180.24	3.70	182.47	5.84	180.33	3.77	182.40	5.16	181.01	5.11	181.06	4.30	181.87	2.76	183.41
MW-SB-16	198.55									7.84	190.71	9.51	189.04	8.22	190.33	9.64	188.91	13.28	185.27			10.05	188.50	10.03	188.52	6.98	191.57

* New elevation after repair

TABLE 3

Hood Packaging Corporation
Valdosta, Georgia
Surface Water Sampling Results

		Arsenic	Barium	Lead	Zinc
Georgia Surface Water Standards, µg/l	Acute	340	N/A	30*	65*
* indicates hardness dependent	Chronic	150	N/A	1.2*	65*
Date	**Sample ID**	All results in µg/l.			
02/14/19	Park Road Ditch	<5	51.5	34.7	222
03/23/18	Park Road Ditch	<5	42.3	8.08	301
11/21/17	Park Road Ditch	<5	31	5	89
04/20/17	Park Road Ditch	<5	38.6	1.68	134
11/16/16	Park Road Ditch	2		2	<20
07/25/01	Park Road Ditch	7	58	41	
05/09/01	Park Road Ditch	<5	30	6	
08/10/99	Park Road Ditch	12	69	67	
11/17/97	Park Road Ditch	5	46	32	
02/14/19	River Street Ditch	<5	51.6	27.2	198
03/23/18	River Street Ditch	<5	39	4.14	147
11/21/17	River Street Ditch	<5	28	3	36.5
04/20/17	River Street Ditch	<5	39.7	19.6	113
11/16/16	River Street Ditch	2		3	<20
07/25/01	River Street Ditch	<5	56	15	
05/09/01	River Street Ditch	<5	56	32	
08/10/99	River Street Ditch	<5	30	13	
11/17/97	River Street Ditch	5	63	34	
02/14/19	Magnolia Street Ditch	<5	41	10.7	121
03/23/18	Magnolia Street Ditch	<5	26.1	<1	38.1
11/21/17	Magnolia Street Ditch	<5	22	<1	13.2
03/07/06	Magnolia Street Ditch	<5	35	<5	
05/09/01	Magnolia Street Ditch	<5	30	<5	
02/14/19	Lankford Drive Ditch	<5	51.5	4.55	95.9
03/23/18	Lankford Drive Ditch	<5	45.9	1.84	32.5
11/21/17	Lankford Drive Ditch	<5	43	1	29
05/09/01	Lankford Drive Ditch	<5	50	<5	
02/14/19	Baytree Road Ditch	<5	30.6	1.45	35.5
03/23/18	Baytree Road Ditch	<5	19.5	<1	19.2
11/21/17	Baytree Road Ditch	<5	28	2	20.7

Prepared by: H. M. Rollins Co., Inc.
Gulfport, Mississippi

TABLE 3

Hood Packaging Corporation
Valdosta, Georgia
Surface Water Sampling Results

			Arsenic	Barium	Lead	Zinc
Georgia Surface Water Standards, µg/l		Acute	340	N/A	30*	65*
* indicates hardness dependent		Chronic	150	N/A	1.2*	65*
Date	**Sample ID**		All results in µg/l.			
05/09/01	Baytree Road Ditch		<5	30	<5	
02/14/19	SW-6 Upstream		<5	39.2	1.73	54.1
03/30/18	SW-6 Upstream		<5	36.5	3.21	25.5

Prepared by: H. M. Rollins Co., Inc.
Gulfport, Mississippi

TABLE 4

Monitoring Well Construction Details
Hood Packaging Corporation
Valdosta, Georgia

Well No.	Total Depth (feet, BLS)	Screen Length (feet)	Construction	Measuring Point Elevation (feet NGVD)
MW-SB-1R	30	10	2" PVC	188.56
MW-SB-1A	51	10	2" PVC	189.25
MW-SB-2	13	10	2" PVC	188.52
MW-SB-2AR	33.5	10	2" PVC	188.21
MW-SB-3	17	10	2" PVC	192.32
MW-SB-4R	24.4	10	2" PVC	193.87
MW-SB-5	11	5	2" PVC	197.53
MW-SB-6	17	10	2" PVC	194.76
MW-SB-7	24	10	2" PVC	196.40
MW-SB-8	13	5	2" PVC	180.10
MW-SB-9	13	5	2" PVC	182.25
MW-SB-9A	12	10	2" PVC	183.86
MW-SB-10	19	10	2" PVC	193.04
MW-SB-11	22	15	2" PVC	199.38
MW-SB-12R	19	10	2" PVC	198.83
MW-SB-13	12.5	10	2" PVC	179.49
MW-SB-14#	6.5	5	2" PVC	183.66
MW-SB-15	7	5	2" PVC	186.17
MW-SB-16	15	10	2" PVC	198.55
MW-SB-17	9	5	2" PVC	184.90

Normal UCL Statistics for Uncensored Full Data Sets

ESTIMATE OF SITE-WIDE AVERAGE CONCENTRATIONS FROM EPA PROUCL SOFTWARE

Hood Packaging Corporation, Valdosta, GA

User Selected Options	
Date/Time of Computation	ProUCL 5.12/6/2019 10:16:06 AM
From File	Metal Results Analysis FOR UCL CALCS.xls
Full Precision	OFF
Confidence Coefficient	95%

Arsenic

General Statistics

Total Number of Observations	10	Number of Distinct Observations	10
		Number of Missing Observations	0
Minimum	51.8	Mean	61.85
Maximum	74.7	Median	61.55
SD	7.762	SD of logged Data	0.125
Coefficient of Variation	0.126	Skewness	0.25

Normal GOF Test

Shapiro Wilk Test Statistic	0.956	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.842	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.112	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.262	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	66.35	95% Adjusted-CLT UCL (Chen-1995)	66.09
		95% Modified-t UCL (Johnson-1978)	66.38

Suggested UCL to Use

95% Student's-t UCL	66.35		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

TABLE 5 A

	A	B	C	D	E	F	G	H	I	J	K	L
1	**Normal UCL Statistics for Uncensored Full Data Sets**											
2	**ESTIMATE OF SITE-WIDE AVERAGE CONCENTRATIONS FROM EPA PROUCL SOFTWARE**											
3			**Hood Packaging Corporation, Valdosta, GA**									
42	**Barium**											
43												
44	**General Statistics**											
45	Total Number of Observations					10	Number of Distinct Observations					9
46							Number of Missing Observations					0
47	Minimum					543	Mean					609.5
48	Maximum					726	Median					596.5
49	SD					55.98	SD of logged Data					0.0889
50	Coefficient of Variation					0.0918	Skewness					1.099
51												
52	**Normal GOF Test**											
53	Shapiro Wilk Test Statistic					0.909	**Shapiro Wilk GOF Test**					
54	5% Shapiro Wilk Critical Value					0.842	Data appear Normal at 5% Significance Level					
55	Lilliefors Test Statistic					0.205	**Lilliefors GOF Test**					
56	5% Lilliefors Critical Value					0.262	Data appear Normal at 5% Significance Level					
57	**Data appear Normal at 5% Significance Level**											
58												
59	**Assuming Normal Distribution**											
60	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
61	95% Student's-t UCL					642	95% Adjusted-CLT UCL (Chen-1995)					645.2
62							95% Modified-t UCL (Johnson-1978)					643
63												
64	**Suggested UCL to Use**											
65	95% Student's-t UCL					642						
66												
67	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
68	Recommendations are based upon data size, data distribution, and skewness.											
69	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
70	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
71	**TABLE 5 B**											
72												

1	**Normal UCL Statistics for Uncensored Full Data Sets**											
2	**ESTIMATE OF SITE-WIDE AVERAGE CONCENTRATIONS FROM EPA PROUCL SOFTWARE**											
3			**Hood Packaging Corporation, Valdosta, GA**									
73	**Lead**											
74												
75	**General Statistics**											
76	Total Number of Observations					10	Number of Distinct Observations					9
77							Number of Missing Observations					0
78	Minimum					918	Mean					1150
79	Maximum					1420	Median					1095
80	SD					157	SD of logged Data					0.135
81	Coefficient of Variation					0.137	Skewness					0.438
82												
83	**Normal GOF Test**											
84	Shapiro Wilk Test Statistic					0.951	**Shapiro Wilk GOF Test**					
85	5% Shapiro Wilk Critical Value					0.842	Data appear Normal at 5% Significance Level					
86	Lilliefors Test Statistic					0.2	**Lilliefors GOF Test**					
87	5% Lilliefors Critical Value					0.262	Data appear Normal at 5% Significance Level					
88	**Data appear Normal at 5% Significance Level**											
89												
90	**Assuming Normal Distribution**											
91	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
92	95% Student's-t UCL					1241	95% Adjusted-CLT UCL (Chen-1995)					1239
93							95% Modified-t UCL (Johnson-1978)					1242
94												
95	**Suggested UCL to Use**											
96	95% Student's-t UCL					1241						
97												
98	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
99	Recommendations are based upon data size, data distribution, and skewness.											
100	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
101	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
102	**TABLE 5 C**											
103												

1	**Normal UCL Statistics for Uncensored Full Data Sets**											
2	**ESTIMATE OF SITE-WIDE AVERAGE CONCENTRATIONS FROM EPA PROUCL SOFTWARE**											
3			**Hood Packaging Corporation, Valdosta, GA**									
104	**Zinc**											
105												
106	**General Statistics**											
107	Total Number of Observations					10	Number of Distinct Observations					9
108							Number of Missing Observations					0
109	Minimum					817	Mean					1112
110	Maximum					1250	Median					1130
111	SD					133.6	SD of logged Data					0.129
112	Coefficient of Variation					0.12	Skewness					-1.181
113												
114	**Normal GOF Test**											
115	Shapiro Wilk Test Statistic					0.892	**Shapiro Wilk GOF Test**					
116	5% Shapiro Wilk Critical Value					0.842	Data appear Normal at 5% Significance Level					
117	Lilliefors Test Statistic					0.15	**Lilliefors GOF Test**					
118	5% Lilliefors Critical Value					0.262	Data appear Normal at 5% Significance Level					
119	**Data appear Normal at 5% Significance Level**											
120												
121	**Assuming Normal Distribution**											
122	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
123	95% Student's-t UCL					1189	95% Adjusted-CLT UCL (Chen-1995)					1164
124							95% Modified-t UCL (Johnson-1978)					1187
125												
126	**Suggested UCL to Use**											
127	95% Student's-t UCL					1189						
128												
129	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
130	Recommendations are based upon data size, data distribution, and skewness.											
131	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
132	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
133												
134	**Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be**											
135	**reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.**											
136	**TABLE 5 D**											

RAGS Part B - Equations 6 & 7 - Risk-based Preliminary Remediation Goals
GEORGIA TYPE 4 STANDARDS - INDUSTRIAL SCENARIO
SOIL
ARSENIC

Common Variables

EF	50	exposure frequency	days/yr	(Site Specific)
ED	25	exposure duration	yr	(Site Specific)
BW	80	adult body weight	kg	(391-3-19 Table 3)
AT	70	averaging time	yr	(391-3-19 Table 3)

Ingestion of Soil - *ARSENIC*

IR_{soil}	50	soil ingestion rate	mg/day	(Site Specific)
SF_o	1.5	oral cancer slope factor	$(mg/kg\text{-}day)^{-1}$	(EPA IRIS)
RfD_o	3.00E-04	oral chronic reference dose	$(mg/kg\text{-}day)^{-1}$	(EPA IRIS)

Inhalation of Particulates - ARSENIC

IR_{air}	20	inhalation rate	m^3/day	(391-3-19 Table 3)
PEF	4.63E+09	particulate emission factor	m^3/kg	(391-3-19 Table 3)
1/VF	0	1 / soil-to air volatilization factor	$1 / (m^3/kg)$	(chemical specific)
SF_i	NA	inhalation cancer slope factor	$(mg/kg\text{-}day)^{-1}$	**(No data in IRIS)**
RfD_i	NA	inhalation chronic reference dose	$(mg/kg\text{-}day)^{-1}$	**(No data in IRIS)**

Eq. 6 Exposure To Soil: Carcinogenic Effects - ARSENIC

TR	1.00E-05	target excess cancer risk	unitless	(391-3-19 Table 3)

$$C_{(risk\ based)} = \frac{TR * BW * AT * 365}{EF * ED * [(SF_o * 1.00E\text{-}6 * IR_{soil}) + (SF_i * IR_{air} * (1/VF + 1/PEF))]}$$

Allowable Concentration	218.027	mg/kg	for a target excess individual lifetime cancer risk of	1.00E-05

Eq. 7 Exposure To Soil: Noncarcinogenic Effects - ARSENIC

THI	1	target hazard index	unitless	(391-3-19 Table 3)

$$C_{(risk\ based)} = \frac{THI * BW * AT * 365}{EF * ED * [(1/RfD_o * 1.00E\text{-}6 * IR_{soil}) + (1/RfD_i * IR_{air} * (1/VF + 1/PEF))]}$$

Allowable Concentration	9,811	mg/kg	for a target hazard index of	1

Table 6 A

RAGS Part B - Equations 6 & 7 - Risk-based Preliminary Remediation Goals
GEORGIA TYPE 4 STANDARDS - INDUSTRIAL SCENARIO
SOIL
BARIUM

Common Variables

EF	50	exposure frequency	days/yr	(Site Specific)
ED	25	exposure duration	yr	(Site Specific)
BW	80	adult body weight	kg	(391-3-19 Table 3)
AT	70	averaging time	yr	(391-3-19 Table 3)

Ingestion of Soil - BARIUM

IR_{soil}	50	soil ingestion rate	mg/day	(Site Specific)
SF_o	0	oral cancer slope factor	$(mg/kg\text{-}day)^{-1}$	(IRIS Class D)
RfD_o	2.00E-01	oral chronic reference dose	$(mg/kg\text{-}day)^{-1}$	(EPA IRIS)

Inhalation of Particulates - BARIUM

IR_{air}	20	inhalation rate	m^3/day	(391-3-19 Table 3)
PEF	4.63E+09	particulate emission factor	m^3/kg	(391-3-19 Table 3)
1/VF	0	1 / soil-to air volatilization factor	$1 / (m^3/kg)$	(chemical specific)
SF_i	NA	inhalation cancer slope factor	$(mg/kg\text{-}day)^{-1}$	(IRIS Class D)
RfD_i	NA	inhalation chronic reference dose	$(mg/kg\text{-}day)^{-1}$	(No data in IRIS)

Eq. 6 Exposure To Soil: Carcinogenic Effects - BARIUM

TR	NA	target excess cancer risk	unitless	(391-3-19 Table 3)

$$C_{(risk\ based)} = \frac{TR * BW * AT * 365}{EF * ED * [(SF_o * 1.00E\text{-}6 * IR_{soil}) + (SF_i * IR_{air} * (1/VF + 1/PEF))]}$$

Allowable Concentration: No Carcinogenic Data mg/kg for a target excess individual lifetime cancer risk of NA

Eq. 7 Exposure To Soil: Noncarcinogenic Effects - BARIUM

THI	1	target hazard index	unitless	(391-3-19 Table 3)

$$C_{(risk\ based)} = \frac{THI * BW * AT * 365}{EF * ED * [(1/RfD_o * 1.00E\text{-}6 * IR_{soil}) + (1/RfD_i * IR_{air} * (1/VF + 1/PEF))]}$$

Allowable Concentration: 6,540,800 mg/kg for a target hazard index of 1

Table 6 B

RAGS Part B - Equations 6 & 7 - Risk-based Preliminary Remediation Goals
GEORGIA TYPE 4 STANDARDS - INDUSTRIAL SCENARIO
SOIL
ZINC

Common Variables

EF	50	exposure frequency	days/yr	(Site Specific)
ED	25	exposure duration	yr	(Site Specific)
BW	80	adult body weight	kg	(391-3-19 Table 3)
AT	70	averaging time	yr	(391-3-19 Table 3)

Ingestion of Soil - ZINC

IR_{soil}	50	soil ingestion rate	mg/day	(Site Specific)
SF_o	0	oral cancer slope factor	$(mg/kg\text{-}day)^{-1}$	(IRIS Class D)
RfD_o	3.00E-01	oral chronic reference dose	$(mg/kg\text{-}day)^{-1}$	(EPA IRIS)

Inhalation of Particulates - ZINC

IR_{air}	20	inhalation rate	m^3/day	(391-3-19 Table 3)
PEF	4.63E+09	particulate emission factor	m^3/kg	(391-3-19 Table 3)
1/VF	0	1 / soil-to air volatilization factor	$1 / (m^3/kg)$	(chemical specific)
SF_i	NA	inhalation cancer slope factor	$(mg/kg\text{-}day)^{-1}$	(IRIS Class D)
RfD_i	NA	inhalation chronic reference dose	$(mg/kg\text{-}day)^{-1}$	(No data in IRIS)

Eq. 6 Exposure To Soil: Carcinogenic Effects - ZINC

TR	NA	target excess cancer risk	unitless	(391-3-19 Table 3)

$$C_{(risk\ based)} = \frac{TR * BW * AT * 365}{EF * ED * [(SF_o * 1.00E\text{-}6 * IR_{soil}) + (SF_i * IR_{air} * (1/VF + 1/PEF))]}$$

Allowable Concentration	No Carcinogenic Data	mg/kg	for a target excess individual lifetime cancer risk of	NA

Eq. 7 Exposure To Soil: Noncarcinogenic Effects - ZINC

THI	1	target hazard index	unitless	(391-3-19 Table 3)

$$C_{(risk\ based)} = \frac{THI * BW * AT * 365}{EF * ED * [(1/RfD_o * 1.00E\text{-}6 * IR_{soil}) + (1/RfD_i * IR_{air} * (1/VF + 1/PEF))]}$$

Allowable Concentration	9,811,200	mg/kg	for a target hazard index of	1

Table 6 C

HOOD PACKAGING CORPORATION
VALDOSTA, GA

Calculations of Blood Lead Concentrations (PbBs) and Risk in Nonresidential Areas
U.S. EPA Technical Review Workgroup for Lead

Version date 06/14/2017

Edit Red Cells

Variable	Description of Variable	Units	GSDi and PbBo from Analysis of NHANES 2009-2014	GSDi and PbBo from Analysis of NHANES 2007-2010	GSDi and PbBo from Analysis of NHANES 2004-2007	GSDi and PbBo from Analysis of NHANES III (Phases 1&2)
PbS	Soil lead concentration	µg/g or ppm	1054	1129	776	100
$R_{fetal/maternal}$	Fetal/maternal PbB ratio	--	0.9	0.9	0.9	0.9
BKSF	Biokinetic Slope Factor	µg/dL per µg/day	0.4	0.4	0.4	0.4
GSD_i	Geometric standard deviation PbB	--	1.8	1.7	1.8	2.1
PbB_0	Baseline PbB	µg/dL	0.6	0.7	1.0	1.5
IR_S	Soil ingestion rate (including soil-derived indoor dust)	g/day	0.050	0.050	0.050	0.050
IR_{S+D}	Total ingestion rate of outdoor soil and indoor dust	g/day	--	--	--	--
W_S	Weighting factor; fraction of IR_{S+D} ingested as outdoor soil	--	--	--	--	--
K_{SD}	Mass fraction of soil in dust	--	--	--	--	--
$AF_{S,D}$	Absorption fraction (same for soil and dust)	--	0.12	0.12	0.12	0.12
$EF_{S,D}$	Exposure frequency (same for soil and dust)	days/yr	219	219	219	219
$AT_{S,D}$	Averaging time (same for soil and dust)	days/yr	365	365	365	365
PbB_{adult}	PbB of adult worker, geometric mean	µg/dL	2.1	2.3	2.1	1.6
$PbB_{fetal,\ 0.95}$	95th percentile PbB among fetuses of adult workers	µg/dL	5.0	5.0	5.0	5.0
PbB_t	Target PbB level of concern (e.g., 2-8 ug/dL)	µg/dL	**5.0**	**5.0**	**5.0**	**5.0**
$P(PbB_{fetal} > PbB_t)$	**Probability that fetal PbB exceeds target PbB, assuming lognormal distribution**	**%**	**5.0%**	**5.0%**	**5.0%**	**5.0%**

Table 7 A

Source: U.S. EPA (1996). Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil

HOOD PACKAGING CORPORATION
VALDOSTA, GA

Calculations of Preliminary Remediation Goals (PRGs) for Soil in Nonresidential Areas

U.S. EPA Technical Review Workgroup for Lead, Adult Lead Committee

Version date 06/14/2017

EDIT RED CELLS

Variable	Description of Variable	Units	GSDi and PbBo from Analysis of NHANES 2009-2014	GSDi and PbBo from Analysis of NHANES 2007-2010	GSDi and PbBo from Analysis of NHANES 1999-2004	GSDi and PbBo from Analysis of NHANES III (Phases 1&2)
$PbB_{fetal,\ 0.95}$	Target PbB in fetus (e.g., 2-8 µg/dL)	µg/dL	5	5	5	5
$R_{fetal/maternal}$	Fetal/maternal PbB ratio	--	0.9	0.9	0.9	0.9
BKSF	Biokinetic Slope Factor	µg/dL per µg/day	0.4	0.4	0.4	0.4
GSD_i	Geometric standard deviation PbB	--	1.8	1.7	1.8	2.1
PbB_0	Baseline PbB	µg/dL	0.6	0.7	1.0	1.5
IR_S	Soil ingestion rate (including soil-derived indoor dust)	g/day	0.050	0.050	0.050	0.050
$AF_{S,\ D}$	Absorption fraction (same for soil and dust)	--	0.12	0.12	0.12	0.12
$EF_{S,\ D}$	Exposure frequency (same for soil and dust)	days/yr	50	50	50	50
$AT_{S,\ D}$	Averaging time (same for soil and dust)	days/yr	365	365	365	365
PRG in Soil for no more than 5% probability that fetal PbB exceeds target PbB		**ppm**	**4,601**	**4,930**	**3,384**	**424**

TABLE 7 B

Changed Exposure Frequency to Site-Specific Value of 50 days/yr to Conservatively Estimate Trespass or Inspection/Maintenance Exposure Risk

2-13-19

SB-9

▽ 2.40

13 - 2.40 = 10.6

10.6 x 0.48 = 5.88

Ph	Temp	Cond	Turb	Time	gal
3.68	16.65	1.190	181	0815	1
3.65	17.15	1.217	26.5	0821	2
3.61	17.21	1.232	8.55	0840	3
3.59	17.45	1.248	5.24	0852	4
3.60	17.12	1.244	4.70	0900	5
3.59	17.31	1.46	4.95	0908	6

Sample Time 0912

SB-9A

▽

12 - 3.35 = 8.65

8.65 x 0.48 = 4.15

Ph	Temp	Cond	Turb	Time	gal
3.37	17.55	1.946	1.83	0920	1
3.34	17.71	1.934	3.01	0922	2
3.35	17.20	1.927	2.63	0929	3
3.34	17.41	1.866	1.48	0935	4
3.34	17.18	1.774	1.01	0940	5

Sample Time 0945

2-13-19

SB-14

▽ 3.83

9 - 3.83 = 5.17

5.17 x .48 = 2.48

Ph	Temp	Cond	Turb	Time	gal
3.87	14.62	0.122	278	1005	1
4.23	15.50	0.084	11.2	1013	2
4.25	15.55	0.076	6.0	1020	3
4.21	15.57	0.074	5.0	1028	4

Sample Time 1035

SB-2AR

▽ 1.86

35 - 1.86 = 33.14

33.14 x .48 = 15.9

Ph	Temp	Cond	Turb	Time	gal
3.49	19.52	0.574	4.16	1055	1
3.44	20.00	0.727	2.55	1110	3
3.43	20.2	0.780	2.09	1121	5
3.43	20.27	0.785	1.92	1131	7
3.42	20.26	0.798	2.13	1142	9
3.41	20.18	0.774	1.98	1155	11

Sample Time 1207

2-13-19

SB-2

▽ 3.20

15 - 3.20 = 11.8

11.8 X .48 = 5.66

Ph	Temp	Cond	Turb	Time	Gal
3.69	17.85	0.624	285	1157	1
3.74	17.20	0.608	94	1201	2
3.76	16.94	0.606	55.9	1205	3
3.81	17.04	0.599	58.7	1210	4
3.86	17.21	0.590	41.2	1215	5
3.85	17.21	0.591	26.5	1218	6
		Sample	Time	1222	

SB-1A

▽ 3.22

53.1 - 3.22 = 49.88

49.88 x .48 = 23.94

Ph	Temp	cond	Turb	Time	gal
3.84	20.36	2.317	2.20	12.31	1
3.98	20.64	1.823	85.3	1255	4
3.97	20.50	1.788	80.6	1310	8
3.87	20.67	1.891	51.4	1340	12
3.80	20.88	1.901	35.2	1355	14
3.82	20.52	1.981	27.1	1408	16
3.79	20.82	2.002	13.9	1423	18
3.77	20.83	2.001	9.5	1440	20
3.81	20.78	1.982	3.08	1458	22
		Sample	Time	1510	

2-13-19

SB-1R

▽ 4.95

32.2 - 4.95 = 27.25

27.25 x .48 = 13.08

Ph	Temp	cond	Turb	Time	Gal
3.84	20.70	0.305	22.9	1240	1
3.85	20.59	0.297	12.2	1300	4
3.87	20.45	0.301	7.5	1319	8
3.88	20.20	0.314	6.97	1345	10
3.88	20.29	0.329	3.79	1400	12
3.88	20.42	0.335	3.85	1413	14
		Sample	Time	1430	

SB-4R

▽ 6.6

27.1 - 6.6 = 20.5

20.5 x .48 = 9.84

Ph	Temp	cond	Turb	Time	Gal
3.58	19.5	1.188	158	1505	1
3.51	19.8	1.240	22.3	1538	2
3.49	19.65	1.269	14.1	1514	3
3.48	19.88	1.334	7.6	1553	4
3.47	19.87	1.382	6.7	1600	5
3.47	19.90	1.410	5.7	1607	6
3.47	19.95	1.430	6.1	1616	7
3.46	19.96	1.432	5.9	1623	8
3.45	19.90	1.433	5.8	1635	9
		Sample	Time	1640	

2-14-19

SB-5

▽ 4.5

13 - 4.5 = 8.5

8.5 × .48 = 4.08

Ph	Temp	Cond	Turb	Time	gal
3.98	15.62	1.323	11.65	805	1
4.10	16.48	1.304	6.82	810	2
4.16	16.51	1.235	4.18	815	3
4.24	16.42	1.156	4.00	821	4
4.25	16.59	1.155	3.79	826	5
		Sample Time		830	

SB-12R

▽ 10.27

21.5 - 10.27 = 11.23

11.23 × .48 = 5.39

Ph	Temp	Cond	Turb	Time	gal
4.84	18.50	0.241	27.9	0850	1
4.87	19.00	0.251	5.67	0856	2
4.87	19.11	0.277	2.14	0906	3
4.86	19.17	0.296	2.12	0915	4
4.85	19.20	0.301	2.99	0924	5
4.84	19.22	0.307	2.14	0934	6
		Sample Time		0940	

2-14-19

SB-6

▽

20 - 3.40 = 16.60

16.60 × .48 = 7.97

Ph	Temp	Cond	Turb	Time	gal	
2.30	17.63	2.416	4.80	0950	1	
2.22	17.37	2.464	4.15	1001	2	
2.20	17.35	2.465	2.14	1010	3	
2.22	17.85	2.436	2.27	1020	4	DRY
					5	
	Sample Time			1555	6	
					7	
					8	

SB-15

▽

9.2 - 2.76 = 6.44

6.44 × .48 = 3.09

Ph	Temp	Cond	Turb	Time	gal
4.16	15.57	0.051	35.80	1045	1
4.32	15.47	0.046	18.81	1053	2
4.37	15.57	0.047	31.31	1101	3
4.43	15.61	0.044	30.05	1106	4
4.42	15.62	0.045	31.25	1115	5
		Sample Time		1120	

2-14-19

SB-8

▽ 2.01

9 - 2.01 = 6.99

6.99 x .48 = 3.55

Ph	Temp	Cond	Turb	Time	gal
3.78	16.67	2.862	13.70	1135	1
3.78	16.12	2.854	7.75	1148	2
3.77	16.40	2.856	6.87	1156	3
3.77	16.45	2.861	6.55	1205	4
	Sample Time			1215	

SB-13

▽ 2.75

9 - 2.75 = 6.25

6.25 x .48 = 3

Ph	Temp	Cond	Turb	Time	gal
5.20	18.07	0.513	69.7	1240	1
5.19	17.57	0.485	191.7	1251	2
5.53	17.33	0.477	41.2	1300	3
5.53	17.87	0.480	755.	1308	4
5.53	17.80	0.475	46.6	1330	DRY ST↑
	Sample Time			1335	

2-14-19

Park Road Ditch PRD	1345
River Street Ditch RSD	1355
Magnolia Street SW-3	1430
Langford Drive SW-4	1505
Baytree Road SW-5	1525
Up Stream SW-6	1405

Water Depth

SB-7	9.07
SB-16	6.98
SB-11	8.85
SB-3	5.90
SB-10	5.02

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

February 21, 2019

M. Rollins
H.M. Rollins Co.

608 34th St
Gulfport MS 39501

RE: HOOD Packaging Corporation

Dear M. Rollins: Order No: 1902F18

Analytical Environmental Services, Inc. received 20 samples on 2/15/2019 11:57:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES's accreditations are as follows:
-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/18-06/30/19.
State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective 07/01/18-06/30/19 and Total Coliforms/ E. coli, effective 04/25/17-04/24/20.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/19.
These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Paris Masoudi

Paris Masoudi

Project Manager

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1902F18

Date: _____ Page 1 of 2

COMPANY: H.M. Rollins
ADDRESS: 608 34th Street Gulf Port, Ms 39501
PHONE: (478) 804-2355
EMAIL:
SAMPLED BY: Joe McVay
SIGNATURE:

#	SAMPLE ID	SAMPLED: DATE	SAMPLED: TIME	GRAB	COMPOSITE	MATRIX (see codes)	PRESERVATION (see codes)	ANALYSIS REQUESTED: Arsenic	Barium	Lead	Zinc	REMARKS	Number of Containers
1	SB-1A	2/13/19	1510	X		GW	HN 03	X	X	X	X		
2	SB-1R	2/13/19	1430	X		GW	HN 03	X	X	X	X		
3	SB-2	2/13/19	12:22	X		GW	HN 03	X	X	X	X		
4	SB-2AR	2/13/19	12:07	X		GW	HN 03	X	X	X	X		
5	SB-4R	2/13/19	1640	X		GW	HN 03	X	X	X	X		
6	SB-5	2/14/19	0830	X		GW	HN 03	X	X	X	X		
7	SB-6	2/14/19	1555	X		GW	HN 03	X	X	X	X		
8	SB-8	2/14/19	1215	X		GW	HN 03	X	X	X	X		
9	SB-9	2/13/19	09:12	X		GW	HN 03	X	X	X	X		
10	SB-[redacted]9A	2/13/19	0945	X		GW	HN 03	X	X	X	X		
11	SB-12R	2/14/19	0940	X		GW	HN 03	X	X	X	X		
12	SB-13	2/14/19	1335	X		GW	HN 03	X	X	X	X		
13	SB-14	2/13/19	1035	X		GW	HN 03	X	X	X	X		
14	SB-15	2/14/19	1120	X		GW	HN 03	X	X	X	X		

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1.	2-15-19 1157	1.	2-15-19 1157
2.		2.	
3.		3.	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT: / / VIA:
IN: / / VIA:
client FedEx UPS US mail courier
other: _____

PROJECT INFORMATION
PROJECT NAME: Hood Packaging Corporation
PROJECT #:
SITE ADDRESS: River Street Valdosta, GA.
SEND REPORT TO: Mrollins@hmrollins.com
INVOICE TO (IF DIFFERENT FROM ABOVE): P.O. Box 3471 Gulfport, Ms 39505
QUOTE #: _____ PO#: _____

RECEIPT
Total # of Containers

Turnaround Time (TAT) Request
[X] Standard
[ ] 2 Business Day Rush
[ ] Next Business Day Rush
[ ] Same-Day Rush (auth req.)
[ ] Other _____

STATE PROGRAM (if any): _____
E-mail? [ ] Fax? [ ]
DATA PACKAGE: I ○ II ○ III ○ IV ○

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arrangements are made.

7.11.18_CO

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water ST=Stormwater WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1902F18

Date: _____ Page 2 of 2

COMPANY:	ADDRESS:
H.M. Rollins	608 34th Street Gulfport, MS 39501
PHONE: (478) 804-2355	EMAIL:
SAMPLED BY: Joe McVay	SIGNATURE:

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	GRAB	COMPOSITE	MATRIX (see codes)	PRESERVATION (see codes)	Arsenic	Barium	Lead	Zinc	REMARKS	Number of Containers
1	Park Road Ditch SW1	1345	2/14/19	X		GW	HN03	X	X	X	X		
2	River Street Ditch SW2	1355	2/14/19	X		GW	HN03	X	X	X	X		
3	Magnolia Street SW3	1430	2/14/19	X		GW	HN03	X	X	X	X		
4	Lankford Drive SW4	1505	2/14/19	X		GW	HN03	X	X	X	X		
5	Baytree Rd. SW5	1525	2/14/19	X		GW	HN03	X	X	X	X		
6	Upstream SW6	1405	2/14/19										
7													
8													
9													
10													
11													
12													
13													
14													

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1.	2-15-19 1157	1.	2.15.19 1157
2.		2.	
3.		3.	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT: / / VIA:
IN: / / VIA:
client FedEx UPS US mail courier
other: _____

PROJECT INFORMATION
PROJECT NAME: Hood Packaging Corporation
PROJECT #:
SITE ADDRESS: River Street Valdosta, GA.
SEND REPORT TO: Mrollins@hmrollins.com
INVOICE TO (IF DIFFERENT FROM ABOVE): P.O. Box 3471 Gulfport, MS. 39505
QUOTE #: _____ PO#: _____

RECEIPT
Total # of Containers

Turnaround Time (TAT) Request
- [X] Standard
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same-Day Rush (auth req.)
- [ ] Other _____

STATE PROGRAM (if any): _____
E-mail? ☐ Fax? ☐
DATA PACKAGE: I ○ II ○ III ○ IV ○

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arrangements are made.

7.11.18_CO

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water ST=Stormwater WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	SB-1A
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/13/2019 3:10:00 PM
Lab ID:	1902F18-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8				**(E200.2)**				
Arsenic	BRL	5.00		ug/L	274580	1	02/19/2019 15:34	KP
Barium	11.0	10.0		ug/L	274580	1	02/19/2019 15:34	KP
Lead	BRL	1.00		ug/L	274580	1	02/19/2019 15:34	KP
Zinc	890	10.0		ug/L	274580	1	02/19/2019 15:34	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	SB-1R
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/13/2019 2:30:00 PM
Lab ID:	1902F18-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8				**(E200.2)**				
Arsenic	BRL	5.00		ug/L	274580	1	02/19/2019 15:45	KP
Barium	32.8	10.0		ug/L	274580	1	02/19/2019 15:45	KP
Lead	BRL	1.00		ug/L	274580	1	02/19/2019 15:45	KP
Zinc	22.5	10.0		ug/L	274580	1	02/19/2019 15:45	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	SB-2
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/13/2019 12:22:00 PM
Lab ID:	1902F18-003	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8				**(E200.2)**				
Arsenic	10.6	5.00		ug/L	274580	1	02/19/2019 15:48	KP
Barium	35.0	10.0		ug/L	274580	1	02/19/2019 15:48	KP
Lead	3.86	1.00		ug/L	274580	1	02/19/2019 15:48	KP
Zinc	1370	10.0		ug/L	274580	1	02/19/2019 15:48	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	SB-2AR
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/13/2019 12:07:00 PM
Lab ID:	1902F18-004	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8				**(E200.2)**				
Arsenic	BRL	5.00		ug/L	274580	1	02/19/2019 15:50	KP
Barium	26.6	10.0		ug/L	274580	1	02/19/2019 15:50	KP
Lead	BRL	1.00		ug/L	274580	1	02/19/2019 15:50	KP
Zinc	2950	10.0		ug/L	274580	1	02/20/2019 17:59	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	SB-4R
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/13/2019 4:40:00 PM
Lab ID:	1902F18-005	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8				**(E200.2)**				
Arsenic	BRL	5.00		ug/L	274580	1	02/19/2019 16:25	KP
Barium	BRL	10.0		ug/L	274580	1	02/19/2019 16:25	KP
Lead	BRL	1.00		ug/L	274580	1	02/19/2019 16:25	KP
Zinc	3970	10.0		ug/L	274580	1	02/20/2019 18:01	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	SB-5
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/14/2019 8:30:00 AM
Lab ID:	1902F18-006	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8				**(E200.2)**				
Arsenic	40.0	5.00		ug/L	274580	1	02/19/2019 16:27	KP
Barium	BRL	10.0		ug/L	274580	1	02/19/2019 16:27	KP
Lead	BRL	1.00		ug/L	274580	1	02/19/2019 16:27	KP
Zinc	1750	10.0		ug/L	274580	1	02/19/2019 16:27	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	SB-6
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/14/2019 3:55:00 PM
Lab ID:	1902F18-007	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8				**(E200.2)**				
Arsenic	58.6	5.00		ug/L	274580	1	02/19/2019 16:29	KP
Barium	12.7	10.0		ug/L	274580	1	02/19/2019 16:29	KP
Lead	1710	1.00		ug/L	274580	1	02/19/2019 16:29	KP
Zinc	3020	10.0		ug/L	274580	1	02/20/2019 18:04	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	SB-8
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/14/2019 12:15:00 PM
Lab ID:	1902F18-008	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8				**(E200.2)**				
Arsenic	BRL	5.00		ug/L	274580	1	02/19/2019 16:32	KP
Barium	49.5	10.0		ug/L	274580	1	02/19/2019 16:32	KP
Lead	2.91	1.00		ug/L	274580	1	02/19/2019 16:32	KP
Zinc	2930	10.0		ug/L	274580	1	02/20/2019 18:06	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	SB-9
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/13/2019 9:12:00 AM
Lab ID:	1902F18-009	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8 (E200.2)								
Arsenic	BRL	5.00		ug/L	274580	1	02/19/2019 16:34	KP
Barium	16.2	10.0		ug/L	274580	1	02/19/2019 16:34	KP
Lead	BRL	1.00		ug/L	274580	1	02/19/2019 16:34	KP
Zinc	2500	10.0		ug/L	274580	1	02/19/2019 16:34	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	SB-9A
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/13/2019 9:45:00 AM
Lab ID:	1902F18-010	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8				**(E200.2)**				
Arsenic	BRL	5.00		ug/L	274580	1	02/19/2019 16:36	KP
Barium	11.6	10.0		ug/L	274580	1	02/19/2019 16:36	KP
Lead	BRL	1.00		ug/L	274580	1	02/19/2019 16:36	KP
Zinc	5890	20.0		ug/L	274580	2	02/20/2019 18:08	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	SB-12R
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/14/2019 9:40:00 AM
Lab ID:	1902F18-011	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8				**(E200.2)**				
Arsenic	BRL	5.00		ug/L	274580	1	02/19/2019 15:41	KP
Barium	11.8	10.0		ug/L	274580	1	02/19/2019 15:41	KP
Lead	BRL	1.00		ug/L	274580	1	02/19/2019 15:41	KP
Zinc	96.8	10.0		ug/L	274580	1	02/19/2019 15:41	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	SB-13
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/14/2019 1:35:00 PM
Lab ID:	1902F18-012	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8 (E200.2)								
Arsenic	46.4	5.00		ug/L	274580	1	02/19/2019 16:39	KP
Barium	168	10.0		ug/L	274580	1	02/19/2019 16:39	KP
Lead	33.8	1.00		ug/L	274580	1	02/19/2019 16:39	KP
Zinc	442	10.0		ug/L	274580	1	02/19/2019 16:39	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	SB-14
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/13/2019 10:35:00 AM
Lab ID:	1902F18-013	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8				**(E200.2)**				
Arsenic	32.1	5.00		ug/L	274580	1	02/19/2019 16:41	KP
Barium	21.7	10.0		ug/L	274580	1	02/19/2019 16:41	KP
Lead	164	1.00		ug/L	274580	1	02/19/2019 16:41	KP
Zinc	88.4	10.0		ug/L	274580	1	02/19/2019 16:41	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	SB-15
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/14/2019 11:20:00 AM
Lab ID:	1902F18-014	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8				**(E200.2)**				
Arsenic	BRL	5.00		ug/L	274580	1	02/19/2019 16:44	KP
Barium	39.3	10.0		ug/L	274580	1	02/19/2019 16:44	KP
Lead	1.70	1.00		ug/L	274580	1	02/19/2019 16:44	KP
Zinc	BRL	10.0		ug/L	274580	1	02/19/2019 16:44	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	PARK ROAD DITCH SWI
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/14/2019 1:45:00 PM
Lab ID:	1902F18-015	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8				**(E200.2)**				
Arsenic	BRL	5.00		ug/L	274580	1	02/19/2019 16:46	KP
Barium	51.5	10.0		ug/L	274580	1	02/19/2019 16:46	KP
Lead	34.7	1.00		ug/L	274580	1	02/19/2019 16:46	KP
Zinc	222	10.0		ug/L	274580	1	02/19/2019 16:46	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	RIVER STREET DITCH SWR
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/14/2019 1:55:00 PM
Lab ID:	1902F18-016	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8				**(E200.2)**				
Arsenic	BRL	5.00		ug/L	274580	1	02/19/2019 17:11	KP
Barium	51.6	10.0		ug/L	274580	1	02/19/2019 17:11	KP
Lead	27.2	1.00		ug/L	274580	1	02/19/2019 17:11	KP
Zinc	198	10.0		ug/L	274580	1	02/19/2019 17:11	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	MAGNOLIA STREET SW3
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/14/2019 2:30:00 PM
Lab ID:	1902F18-017	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8				**(E200.2)**				
Arsenic	BRL	5.00		ug/L	274580	1	02/19/2019 17:13	KP
Barium	41.0	10.0		ug/L	274580	1	02/19/2019 17:13	KP
Lead	10.7	1.00		ug/L	274580	1	02/19/2019 17:13	KP
Zinc	121	10.0		ug/L	274580	1	02/19/2019 17:13	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	LANKFORD DRIVE SW4
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/14/2019 3:05:00 PM
Lab ID:	1902F18-018	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8				**(E200.2)**				
Arsenic	BRL	5.00		ug/L	274580	1	02/19/2019 17:16	KP
Barium	51.5	10.0		ug/L	274580	1	02/19/2019 17:16	KP
Lead	4.55	1.00		ug/L	274580	1	02/19/2019 17:16	KP
Zinc	95.9	10.0		ug/L	274580	1	02/19/2019 17:16	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	BAY TREE RD. SW5
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/14/2019 3:25:00 PM
Lab ID:	1902F18-019	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8				**(E200.2)**				
Arsenic	BRL	5.00		ug/L	274580	1	02/19/2019 17:18	KP
Barium	30.6	10.0		ug/L	274580	1	02/19/2019 17:18	KP
Lead	1.45	1.00		ug/L	274580	1	02/19/2019 17:18	KP
Zinc	35.5	10.0		ug/L	274580	1	02/19/2019 17:18	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Feb-19

Client:	H.M. Rollins Co.	**Client Sample ID:**	UPSTREAM SW6
Project Name:	HOOD Packaging Corporation	**Collection Date:**	2/14/2019 2:05:00 PM
Lab ID:	1902F18-020	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Trace Elements by ICP/MS E200.8				**(E200.2)**				
Arsenic	BRL	5.00		ug/L	274580	1	02/19/2019 17:20	KP
Barium	39.2	10.0		ug/L	274580	1	02/19/2019 17:20	KP
Lead	1.73	1.00		ug/L	274580	1	02/19/2019 17:20	KP
Zinc	54.1	10.0		ug/L	274580	1	02/19/2019 17:20	KP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Clear Save as

AES ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: **H.M. Rollins Co.** AES Work Order Number: **1902F18**

2. Carrier: FedEx ☐ UPS ☐ USPS ☐ Client ■ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	●	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	○	●	○		
5.	Custody seals intact on shipping container?	○	○	●		
6.	Temperature blanks present?	●	○	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	●	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	●	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	●	○	○		
10.	Sampler name and/or signature on COC?	●	○	○		
11.	Were all samples received within holding time?	●	○	○		
12.	TAT marked on the COC?	●	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 1.7 °C Cooler 2 Temperature _____ °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments:

I certify that I have completed sections 1-15 (dated initials). MJ 2/15/19

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	●	○	○		
17.	Custody seals present on sample containers?	○	●	○		
18.	Custody seals intact on sample containers?	○	○	○		
19.	Do sample container labels match the COC?	●	○	○	incomplete info ☐ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	●	○	○		
21.	Were all of the samples listed on the COC received?	●	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	●	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	●	○	○		
24.	Were samples received in appropriate containers?	●	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	○	○	●		
26.	Were trip blanks submitted?	○	○	●	listed on COC ☐ not listed on COC ☐	

27. Comments:

This section only applies to samples where pH can be checked at Sample Receipt.

I certify that I have completed sections 16-27 (dated initials). BC 2/16/19

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	●	○	○		
29.	Containers meet preservation guidelines?	○	●	○		
30.	Was pH adjusted at Sample Receipt?	●	○	○		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

I certify that I have completed sections 28-30 (dated initials). BC 2/16/19

Locked

AES, Inc.
3080 Presidential Drive
Atlanta GA 30340

pH Adjustment Sheet

AES Sample ID number	Test Requested	pH as Received	Required pH	Preservative Required	Lot # of Preservative	Amount Added mL or Pellets*	Final pH	Tech's Initials	Date	Time
1902F18-019A 1of2	200.8	6	1	HNO_3	MET 838 74	0.5 mL Pellets	1	BC	2-16	944
1902F18-19A 2of2	200.8	4	1	HNO_3	MET 83374	0.5 mL Pellets	1	BC	2-16	945
						mL Pellets				
						mL Pellets				
						mL Pellets				
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						mL Pellets				

*** Number of Pellets when adding NAOH**

DWM 8/22/2014 10:01 AM

Client: H.M. Rollins Co.
Project Name: HOOD Packaging Corporation
Workorder: 1902F18

ANALYTICAL QC SUMMARY REPORT

BatchID: 274580

Sample ID: **MB-274580** Client ID: Units: **ug/L** Prep Date: **02/18/2019** Run No: **391456**
SampleType: **MBLK** TestCode: **Trace Elements by ICP/MS E200.8** BatchID: **274580** Analysis Date: **02/19/2019** Seq No: **8760537**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	BRL	5.00									
Barium	BRL	10.0									
Lead	BRL	1.00									
Zinc	BRL	10.0									

Sample ID: **LCS-274580** Client ID: Units: **ug/L** Prep Date: **02/18/2019** Run No: **391456**
SampleType: **LCS** TestCode: **Trace Elements by ICP/MS E200.8** BatchID: **274580** Analysis Date: **02/19/2019** Seq No: **8760538**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	104.5	5.00	100.0		105	85	115				
Barium	103.8	10.0	100.0		104	85	115				
Lead	104.4	1.00	100.0		104	85	115				
Zinc	122.5	10.0	100.0	7.531	115	85	115				

Sample ID: **1902F18-001AMS** Client ID: **SB-1A** Units: **ug/L** Prep Date: **02/18/2019** Run No: **391456**
SampleType: **MS** TestCode: **Trace Elements by ICP/MS E200.8** BatchID: **274580** Analysis Date: **02/19/2019** Seq No: **8760540**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	107.0	5.00	100.0		107	70	130				
Barium	121.1	10.0	100.0	11.04	110	70	130				
Lead	103.0	1.00	100.0		103	70	130				
Zinc	1003	10.0	100.0	889.8	113	70	130				

Sample ID: **1902F18-011AMS** Client ID: **SB-12R** Units: **ug/L** Prep Date: **02/18/2019** Run No: **391456**
SampleType: **MS** TestCode: **Trace Elements by ICP/MS E200.8** BatchID: **274580** Analysis Date: **02/19/2019** Seq No: **8760548**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	113.5	5.00	100.0	2.549	111	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: H.M. Rollins Co.
Project Name: HOOD Packaging Corporation
Workorder: 1902F18

ANALYTICAL QC SUMMARY REPORT

BatchID: 274580

Sample ID: **1902F18-011AMS** Client ID: **SB-12R** Units: **ug/L** Prep Date: **02/18/2019** Run No: **391456**
SampleType: **MS** TestCode: **Trace Elements by ICP/MS E200.8** BatchID: **274580** Analysis Date: **02/19/2019** Seq No: **8760548**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Barium	126.2	10.0	100.0	11.77	114	70	130				
Lead	106.4	1.00	100.0		106	70	130				
Zinc	201.8	10.0	100.0	96.79	105	70	130				

Sample ID: **1902F18-001AMSD** Client ID: **SB-1A** Units: **ug/L** Prep Date: **02/18/2019** Run No: **391456**
SampleType: **MSD** TestCode: **Trace Elements by ICP/MS E200.8** BatchID: **274580** Analysis Date: **02/19/2019** Seq No: **8760543**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	107.2	5.00	100.0		107	70	130	107.0	0.200	20	
Barium	124.6	10.0	100.0	11.04	114	70	130	121.1	2.89	20	
Lead	103.6	1.00	100.0		104	70	130	103.0	0.628	20	
Zinc	1004	10.0	100.0	889.8	114	70	130	1003	0.089	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		