Memorandum

State of Florida
Department of Environmental Protection

TO: Jerry Kissel

THRU:

FROM: William Leffler, PE

DATE: May 3, 2001

SUBJECT **7770017 Anderson Columbia Asphalt Plant relocation to SR 18 and US 301**

Jerry:

I am returning this relocation notice to you. While it is permitted on a statewide basis, the relocation is a district function,

You have the $250 fee which you tell me is for a minor revision. Different districts and local programs handle the fee differently. Some consider relocation an administrative revision others a minor revision. All that I see doing is to revise the location in arms and issuing a letter authorizing operation at the proposed location. The operating permit project number gets advanced by one number when reflecting the new location.

I see that the particulate and visible emissions testing that was submitted with the relocation request is now over a year old. It is time for new testing, but there may not be enough work at the old site to complete testing before relocating. Scott Cleveland at Anderson Columbia will be in touch to schedule new testing at the new location.

Bill

Department of Environmental Protection

COPY

Division of Air Resources Management

RECEIVED
APR 25 2001
BUREAU OF AIR REGULATION

D.E.P.
APR 13 2001
Southwest District Tampa

NOTIFICATION OF INTENT TO RELOCATE AIR POLLUTANT EMITTING FACILITY

See Instructions for Form No. 62-210.900(6)
Submit to DEP district office for the area in which the facility is to be relocated.

(DEP Note: Update existing facility location data in ARMS. Do not create new facility record.)

Current Facility Information

1. Facility ID: **7770017**	2. Permit Number: **7770017-002-AO**
3. Facility Owner or Operator: **Anderson Columbia Co., Inc.**	
4. Facility Name: **Anderson Columbia Co., Inc. Plant #10**	
5. Facility Street Address or Location Description: **¼ mile East of Intersection of SR18 and US301**	
6. City: **Maxville**	7. County: **Clay**
8. Shutdown Date at This Location: **5/15/01**	

Proposed New Facility Location

1. Facility Street Address or Location Description: **Approx. ¾ East of I-75 on CR 470, North side of road.**		
2. City: **Sumterville**	3. County: **Sumter**	4. Zip Code: **NA**
5. Facility Coordinates: UTM Zone	UTM East or Latitude **N28° 44.948'**	UTM North or Longitude **W82° 5.779'**
6. Startup Date at New Location: **6/1/01**		
7. Facility Comment:		

Owner/Authorized Representative or Responsible Official

Name and Title of Owner/Authorized Representative or Responsible Official: **Mr. T H. McRae/President**		
Organization/Firm: **Anderson Columbia Co., Inc.**		
Street Address or P. O. Box: **P.O. Box 1829**		
City: **Lake City**	State: **Florida**	Zip: **32056**
Telephone: **(904) 752-7585**	Fax: **(904) 755-5853**	

Facility Contact

Name and Title of Facility Contact: **Mr. Scott Cleveland/Environmental Manager**		
Organization/Firm: **Anderson Columbia Co., Inc.**		
Street Address or P. O. Box: **P.O. Box 1829**		
City: **Lake City**	State: **Florida**	Zip: **32056**
Telephone: **(904) 752-7585 ext. 243**	Fax: **(904) 755-5853**	

Certification

Statement by Owner/Authorized Representative or Responsible Official:

I hereby certify that the information given in this report is correct to the best of my knowledge.

Signature

4/11/01
Date

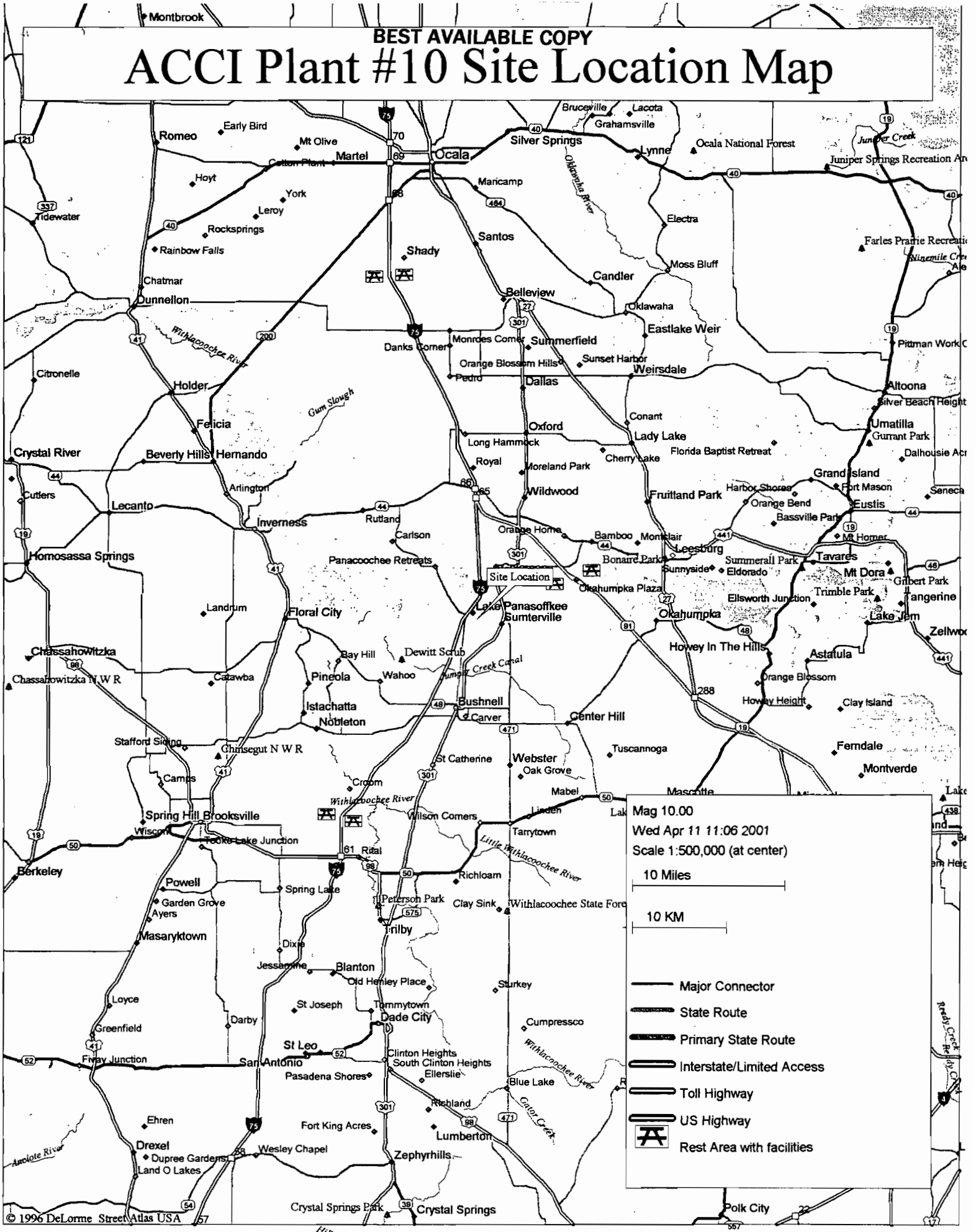
Supplemental Requirements

1. Provide a scale map (e.g., the relevant portion of a USGS topographic map) showing the proposed new location of the facility and points of air pollutant emissions in relation to residences, roads, and other features of the surrounding area.

2. If relocating to a different DEP district, provide a copy of the most recent compliance test report.

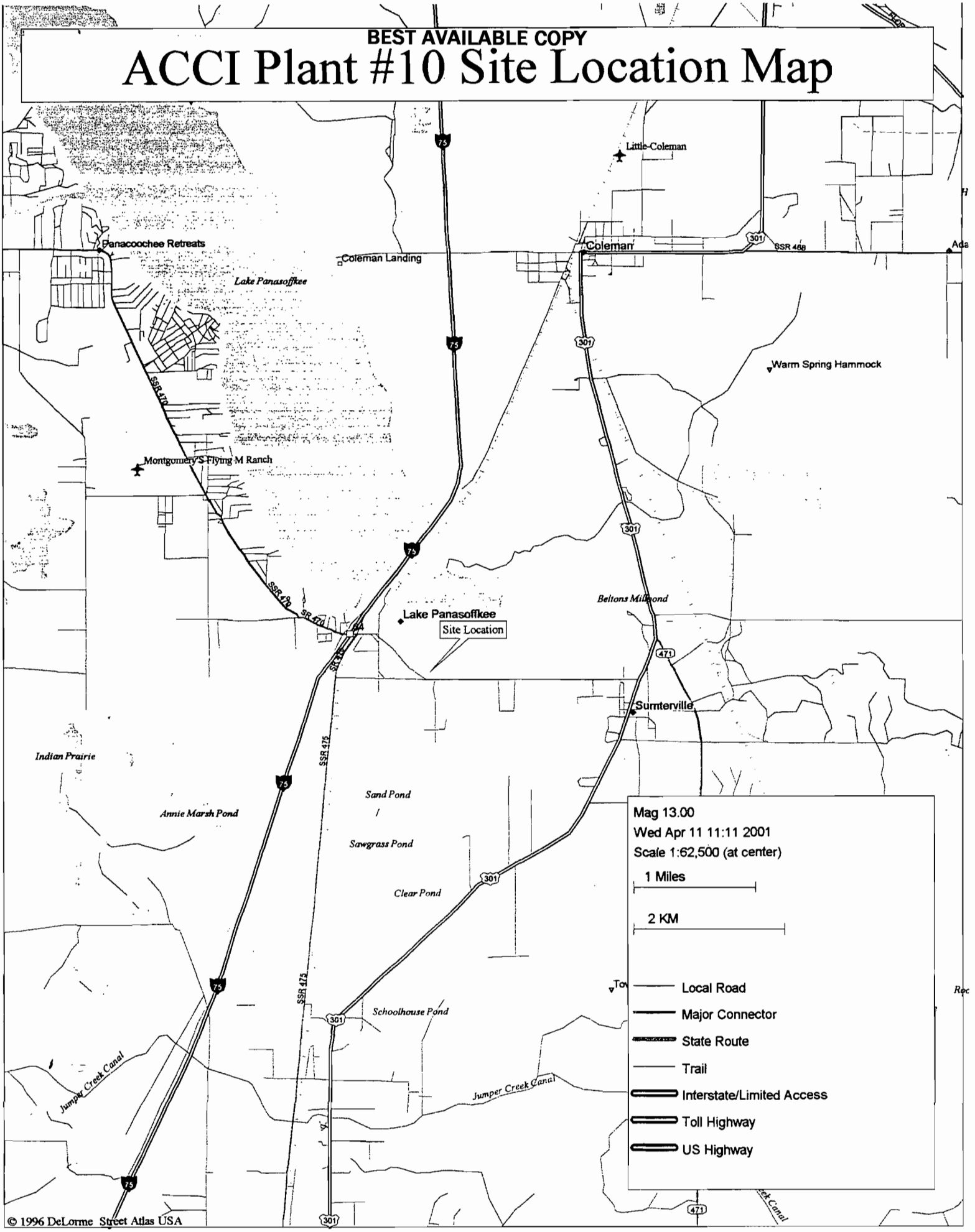
BEST AVAILABLE COPY

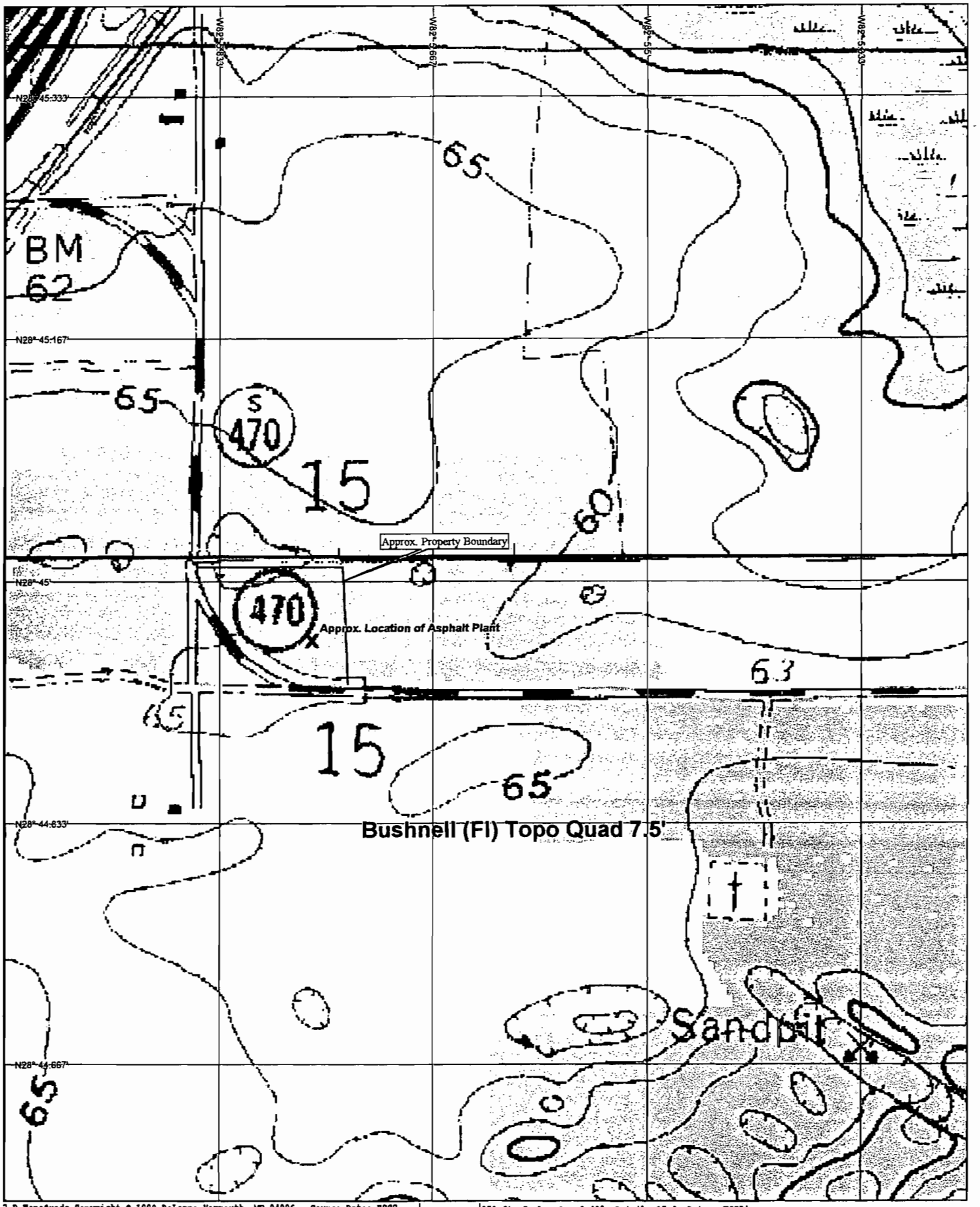
ACCI Plant #10 Site Location Map



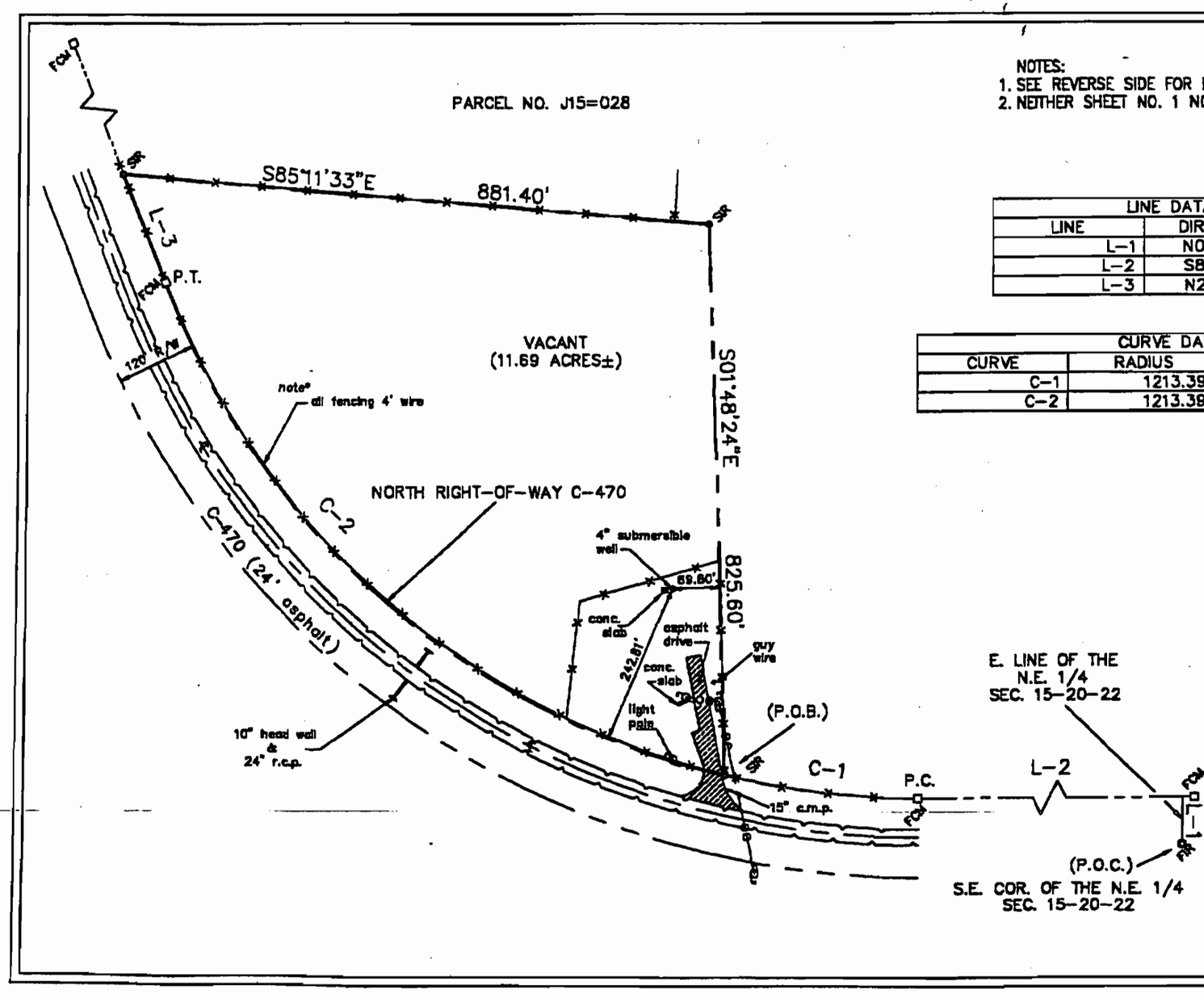
BEST AVAILABLE COPY

ACCI Plant #10 Site Location Map





3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS 250 ft Scale: 1 : 6,400 Detail: 15-0 Datum: WGS84



NOTES:
1. SEE REVERSE SIDE FOR LEGEND OF SYMBOLS AND ABBREVIATIONS.
2. NEITHER SHEET NO. 1 NOR SHEET NO. 2 IS VALID WITHOUT THE OTHER.

N

SCALE: 1"=200'

LINE DATA TABLE (m)		
LINE	DIRECTION	DISTANCE
L-1	N00°02'04"W	71.49'
L-2	S89°50'39"W	1138.31'
L-3	N21°23'30"W	173.66'

CURVE DATA TABLE (m)			
CURVE	RADIUS	LENGTH	DELTA
C-1	1213.39'	293.78'	13°52'20"
C-2	1213.39'	1162.41'	54°53'18"

PLAT OF SURVEY

BEST SURVEYING, INC.
14070 S.W. 30th. TERRACE ROAD, OCALA FL. 34473
TELEPHONE (352) 245-3019

SEC. 15 TWP. 20 S., RNG. 22 E., MARION CO. FL.	
DRAWN & CHECKED: WtB	DATE: 04-05-01
DRAWING NAME: COLUMBIA	FILE NO. 01-014
FIELD BOOK 3 , PG. 64	SHEET 1 OF 2
SURVEY	DATE
BOUNDARY	04-04-01
FOUNDATION	
FINAL, HOUSE & LOT	
REVISION 1	
REVISION 2	

FOR:
ANDERSON COLUMBIA CO., INC.

BEST AVAILABLE COPY

INVOICE	DATE	JOB ID	DESCRIPTION	CHECK #	AMOUNT
04/11/01	4/11/2001	010	PERMIT PT#10		250.00

CHECK NO. 24247 ANDERSON COLUMBIA CO., INC $250.00

THIS CHECK IS VOID WITHOUT A BLUE & PURPLE BACKGROUND AND AN ARTIFICIAL FINGERPRINT & CERTIFICATION SEAL WATERMARK ON THE BACK - HOLD AT ANGLE TO VIEW

ANDERSON COLUMBIA CO., INC
2 GUERDON ROAD
P.O. BOX 1829
LAKE CITY, FL 32056

[redacted]

FIRST UNION NATIONAL BANK [redacted]
255 WATER STREET
JACKSONVILLE, FL 32331-0010

CHECK NO. [redacted]

**********TWO HUNDRED FIFTY DOLLARS AND NO CENTS

CHECK DATE	AMOUNT
4/11/2001	$*******250.00

Pay to the order of: FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Authorized Signature

SIGNATURE HAS A COLORED BACKGROUND - BORDER CONTAINS MICROPRINTING.

[redacted]

SEE ENDORSEMENT AREA ON BACK FOR U.S. PATENT 5538290:5575508:5641183

SOURCE TEST REPORT

PARTICULATE AND VISIBLE EMISSIONS

FROM

ANDERSON COLUMBIA COMPANY, INC.
ASPHALT PLANT # 10
6599 COUNTY ROAD 218
MAXVILLE, FLORIDA 32234

DRUM MIX DRYER BAGHOUSE

APRIL 17, 2000

FDEP PERMIT NUMBER
7770017-002-AO

PREPARED FOR

ANDERSON COLUMBIA COMPANY, INC.
2 GUERDON ROAD
LAKE CITY, FLORIDA 32056

PREPARED BY

ASTECH ENVIRONMENTAL SERVICES
13170-58 ATLANTIC BLVD. SUITE 131
JACKSONVILLE, FLORIDA 32225
(904) 221-7174

Donnie Leeper

DONNIE LEEPER

Table Of Contents

	Page Number
1.0 Introduction	1
2.0 Summary And Discussion Of Results	2
3.0 Process Description and Operation	3
4.0 Sampling Point Location	4
5.0 Field And Analytical Procedures	6
Appendices	
Appendix A - Complete Emission Data	
Appendix B - Field Data Sheets	
Appendix C - Laboratory Analysis	
Appendix D - Calibration Data	
Appendix E - Production Data	
Appendix F - Sample Chain of Custody	
Appendix G - Visible Emissions	
Appendix H - Project Participants	

1.0 INTRODUCTION

On April 17, 2000 Astech Environmental Services conducted particulate and visible emissions testing at Anderson Columbia Company, Inc.'s asphalt plant located in Maxville, Florida.

Testing was conducted to satisfy conditions in the Florida Department of Environmental Protection (FDEP) Permit Number 7770017-002-AO.

Mr. Mort Benjamin of the FDEP observed the end of run 1 of the particulate testing.

Astech Environmental Services would like to thank Mr. Daryl Ormond and the operating personnel of Anderson Columbia Company in the successful completion of this project.

I hereby certify to the best of my knowledge that all information contained in this report is true and correct.

Donnie Leeper

Donnie Leeper

2.0 SUMMARY AND DISCUSSION OF RESULTS

The Anderson Columbia Company, Inc.'s asphalt plant # 10 was found to be operating in compliance for both particulate and visible emissions standards during the testing period.

Particulate emissions averaged 0.0060 grains per dry standard cubic foot (gr/SCF) of stack gas sampled and 1.30 pounds per hour (lbs/Hr). The allowable emission rate is 0.04 gr/SCF and 10.32 lbs/HR.

Complete Emissions Data, Field Data Sheets, and Laboratory Analysis can be found in Appendices A, B, and C respectively.

Visible emissions averaged 0.0 percent opacity for the highest six minutes of the testing periods. This is within the 20 percent opacity limit. Our field data sheets and observers certification can be found in Appendix G.

3.0 PROCESS DESCRIPTION AND OPERATION

Anderson Columbia Company, Inc.'s Plant Number 10, is an "ASTEC" brand hot mix asphalt plant.

The plant consists of an aggregate feed system and a rotary dryer for drying, heating, and mixing the aggregate and milled material with the asphaltic concrete.

Particulate emissions result from dust that is carried from the rotary dryer by combustion gases. These gases pass through the baghouse dust collector where the particulate matter is removed before the gases are exhausted to the atmosphere. The material removed in the baghouse is returned to the dryer to be utilized in the product.

The dryer was fired with # 3 fuel oil with a sulfur content of 0.4 percent. 1.80 gallons per ton of product was consumed.

A pressure drop of 4.0 inches of water was maintained during the testing period, and the average inlet temperature was 230 degrees Fahrenheit.

Production averaged 252.31 tons per hour (TPH) of Type 12.5 MM recycled asphalt. A production summary is provided in Appendix E.

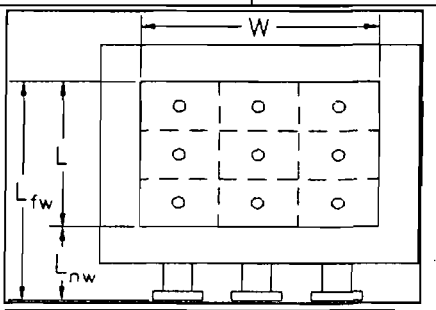
4.0 SAMPLING POINT LOCATION

The following page is a schematic of the tested stack, and the sampling points used for the particulate sampling.

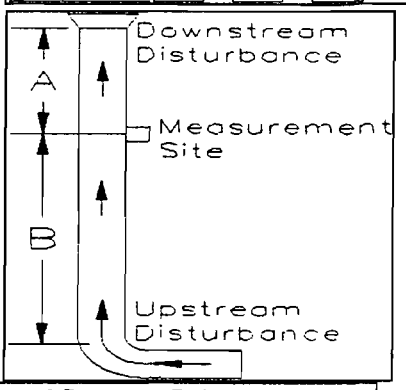
METHOD 1 - SAMPLE AND VELOCITY TRAVERSES FOR RECTANGULAR SOURCES

Plant Name	Anderson Columbia Company, Inc. (Plant 10)	Date	4/17/00
Sampling Location	Drum Mix Dryer	Project #	41700
Operator	Leeper	# of Ports Available	6
Stack Type	Rectangular	# of Ports Used	6
Stack Size	Large	Port Inside Diameter	3

Rectangular Stacks or Ducts			
Length to Far Wall of Stack	(L_{fw})	33.00	in
Length to Near Wall of Stack	(L_{nw})	3.00	in
Length of Stack (=L_{fw} - L_{nw})	(L)	30.00	in
Width of Stack	(W)	48.00	in
Equivalent Stack Diam(=2LW/(L+\	(D_e)	36.92	in
Area of Stack (=LW/C_{units})	(A_s)	10.00	ft^2



Distance from Port to Disturbances			
Distance Upstream	(B)	72.00	in
Diameters Upstream (=B/D_e)	(B_D)	1.95	diameters
Distance Downstream	(A)	12.00	in
Diameters Downstream (=A/D_e)	(A_D)	0.33	diameters



Number of Traverse Points Required			
Diameters to Flow Disturbance		Minimum Number of[1] Traverse Points	
Up Stream	Down Stream	Particulate Points	Velocity Points
2.00-4.99	0.50-1.24	25	16
5.00-5.99	1.25-1.49	20	16
6.00-6.99	1.50-1.74	16	12
7.00-7.99	1.75-1.99	12	12
>= 8.00	>=2.00	9 or 12[2]	9 or 12[2]
Upstream Spec		25	16
Downstream Spec		25	16
Traverse Pts Require		25	16

[1] Check Minimum Number of Points for the Upstream and Downstream conditions, then use the largest.

[2] 9 for Rectangular Stacks 12 to 24 inches
12 for All Stacks over 24 inches

Number of Traverse Points Used			
6	Ports by	4	Across
24	Pts Used	24	Required
☐	Particulate	☐	Velocity

Traverse Point Locations			
Traverse Point Number	Fraction of Stack Dimension	Distance from Inside Wall	Distance Including Nipple Length
		in	in
1	0.125	3 6/8	6 6/8
2	0.375	11 2/8	14 2/8
3	0.625	18 6/8	21 6/8
4	0.875	26 2/8	29 2/8
5			
6			
7			
8			
9			
10			
11			
12			

LOCATION OF TRAVERSE POINTS IN STACKS

The following two tables give the location of traverse points across the stack as a fraction of the stack dimension from the inside wall, as a function of the number of traverse points across the stack.

Location of Traverse Points in Circular Stacks						
Traverse Point Number	(Fraction of Stack Dimension from Inside Wall to Traverse Point)					
	Number of Traverse Points Across the Stack					
	2	4	6	8	10	12
1	.146	.067	.044	.032	.026	.021
2	.854	.250	.146	.105	.082	.067
3		.750	.296	.194	.146	.118
4		.933	.704	.323	.226	.177
5			.854	.677	.342	.250
6			.956	.806	.658	.356
7				.895	.774	.644
8				.968	.854	.750
9					.918	.823
10					.974	.882
11						.933
12						.979

Location of Traverse Points in Rectangular Stacks											
Traverse Point Number	(Fraction of Stack Dimension from Inside Wall to Traverse Point)										
	Number of Traverse Points Across the Stack										
	2	3	4	5	6	7	8	9	10	11	12
1	.250	.167	.125	.100	.083	.071	.063	.056	.050	.045	.042
2	.750	.500	.375	.300	.250	.214	.188	.167	.150	.136	.125
3		.833	.625	.500	.417	.357	.313	.278	.250	.227	.208
4			.875	.700	.583	.500	.438	.389	.350	.318	.292
5				.900	.750	.643	.563	.500	.450	.409	.375
6					.917	.786	.688	.611	.550	.500	.458
7						.929	.813	.722	.650	.591	.542
8							.938	.833	.750	.682	.625
9								.944	.850	.773	.708
10									.950	.864	.792
11										.955	.875
12											.958

V. FIELD AND ANALYTICAL PROCEDURES

SAMPLING

The sampling apparatus consisted of the following:

1.) NOZZLE: Stainless steel with a sharp, tapered leading edge.

2.) PROBE: Stainless steel sheath with a 5/8 inch O.D. stainless steel insert wrapped with asbestos covered nichrome wire. Rheostat controlled and capable of maintaining a minimum temperature of 250 Degrees F.

3.) PITOT: Type "S" attached to probe.

4.) FILTER HOLDER: Pyrex glass with fritted-glass filter support.

5.) IMPINGERS: Four impingers connected in series with glass ball joint fittings. The first, third and fourth impingers are the modified Greenburg-Smith design. The second impinger is the Greenburg-Smith design with a standard tip.

6.) FILTER/IMPINGER BOX: Aluminum module with heating system for maintaining the filter holder at a minimum temperature of 225 Degrees F for particulate sampling and an area for the impingers to be placed in an ice bath.

7.) CONTROL BOX: Module containing vacuum gauge, leak-free pump, thermometers capable of measuring temperature to within +/- 5 Degrees F, dry gas meter with a minimum of two percent accuracy, valves and related equipment as required to maintain an isokinetic sampling rate and to determine sample volume.

8.) BAROMETER: Aneroid-type to measure atmospheric pressure to +/- 0.1 inch Hg.

Prior to leaving the laboratory, glass fiber filters (type MSA 1106 BH) had been numbered for identification, desiccated for at least 24 hours, and preweighed to the nearest 0.1 mg. Silica gel (indicating type, 616 mesh) had also been preweighed to approximately 200 g after drying at 175 Degrees F for two hours.

The sample train was prepared in the following manner:

To each of the first and second impingers, 100 ml of distilled water was added. The third impinger was empty to act as a moisture trap, and the preweighed silica gel was added to the fourth impinger. A numbered and preweighed filter had previously been installed in the Pyrex glass filter holder using tweezers or clean disposable gloves, the holder assembled and the ends plugged to prevent entrance of extraneous matter. After assembling the train with the probe as shown in the schematic, the system was leak checked by plugging the inlet to the probe nozzle and pulling a 15 inch Hg vacuum. A leakage rate not in excess of 0.02 cfm was considered acceptable.

The inside dimensions of each stack were measured and recorded. The number of sampling points and the location of these points on a traverse were determined by the guidelines set forth in the *Federal Register*, Vol. 36, No. 247, Sec. 60.85, Method 1. These points were then marked on the probe for easy visibility.

A preliminary traverse was conducted to determine the range of velocity head and the pressure of the stack. A wet-bulb and a dry-bulb temperature were taken to determine stack temperature and moisture. From this data, the correct nozzle size and the nomograph correction factor were determined,

The probe was attached and the heater was adjusted to provide a gas temperature of approximately 250 Degrees F. The filter heating system was turned on (during particulate sampling) and crusted ice was placed around the inpingers. After suitable warm-up period, the nozzle was placed on the first traverse point with the tip pointing directly into the gas stream. The pump was started immediately and the flow was adjusted to isokinetic conditions. After the required time interval had elapsed, the probe was repositioned to the next traverse point and isokinetic sampling was reestablished. This was done for each point on the traverse until the run was completed. Readings were taken at least every five minutes or when significant changes in stack conditions necessitated additional adjustments in flow rate. At the conclusion of each run, the pump was turned off and the final readings were recorded. A final leak check of the system was performed as previously described. Pitot lines were also leak checked by blowing through each leg alternately to an indicated velocity head of at least three inches (as H2O) and sealing off the opening. A stable reading maintained for at least fifteen seconds indicated a satisfactory leak check.

PARTICULATE SAMPLE RECOVERY

Care was exercised in moving the collection train to the sample recovery area to minimize the loss of collected sample or the gain of extraneous particulate matter. The volume of water in the first three impingers was measured and recorded on the

field data sheet. The probe, nozzle, and all sample-exposed surfaces were washed with reagent grade acetone and put into a clean sample bottle marked "prefilter". A brush was used to loosen any adhering particulate matter and subsequent washings were put into the "prefilter" container. Silicone grease was wiped from the ground glass joints of the filter holder and the ends sealed for transport to the laboratory. The silica gel was removed from the fourth impinger and transferred to its original container. A sample of the acetone used in washing the probe was saved for a blank laboratory analysis. "Prefilter" and "blank" containers were clearly marked for identification and also liquid level marked on each to determine if leakage occurs during transport to the laboratory. All containers are sealed and stored for transport.

PARTICULATE ANALYTICAL PROCEDURES

The filter holder was opened and the filter transferred to a clean, tared glass weighing dish using forceps or clean disposable gloves. Any loose particulate matter was transferred using a stainless steel spatula. The filter was placed in a desiccate for at least 24 hours, reweighed and this process continued until constant weight was maintained. The original weight of the filter was deducted and the weight gain recorded to the nearest 0.1 mg.

The liquid level of the "prefilter" solution was noted and the volume measured. This solution was transferred to a clean, tared beaker. After all joints of the filter holder were wiped free of silicone grease, the inside of the front half was cleaned by rubbing with a nylon brush and rinsing with water until no visible particulate remained and a final rinse of holder and brush made. All these washings are measured and added to the "prefilter" solution. This solution is evaporated to dryness below the boiling point of the liquid, the container and contents desiccated for 24 hours and weighed to constant weight. After subtracting tare weights, the weight gain was recorded to the nearest 0.1 mg.

APPENDIX A

COMPLETE EMISSIONS DATA

METHOD 5 - DETERMINATION OF PARTICULATE EMISSIONS - RESULTS

Plant Name	Anderson Columbia Company, Inc. (Plant 10)	Date	4/17/00
Sampling Location	Drum Mix Dryer	Project #	41700
Operator	Leeper	Stack Type	Rectangular

Historical Data						
Run Number		1	2	3	Average	
Run Start Time		1023	1144	1255		hh:mm
Run Stop Time		1128	1248	1401		hh:mm
Meter Calibration Factor	(Y)	0.988	0.988	0.988		
Pitot Tube Coefficient	(C_p)	0.840	0.840	0.840		
Actual Nozzle Diameter	(D_{na})	0.225	0.225	0.225		in
Stack Test Data						
Initial Meter Volume	$(V_m)_i$	917.160	961.068	6.114		ft^3
Final Meter Volume	$(V_m)_f$	960.842	1005.835	51.960		ft^3
Total Meter Volume	(V_m)	43.682	44.767	45.846	44.765	ft^3
Total Sampling Time	(Θ)	60.0	60.0	60.0	60.0	min
Average Meter Temperature	$(t_m)_{avg}$	84.9	92.0	93.9	90.3	°F
Average Stack Temperature	$(t_s)_{avg}$	210.5	218.4	220.9	216.6	°F
Barometric Pressure	(P_b)	29.85	29.85	29.85	29.85	in Hg
Stack Static Pressure	(P_{static})	0.40	0.40	0.40	0.40	in H_2O
Absolute Stack Pressure	(P_s)	29.88	29.88	29.88	29.88	in Hg
Average Orifice Pressure Drop	$(\Delta H)_{avg}$	1.90	1.93	2.00	1.94	in H_2O
Absolute Meter Pressure	(P_m)	29.99	29.99	30.00	29.99	in Hg
Avg Square Root Pitot Pressure	$(\Delta p^{1/2})_{avg}$	1.11	1.11	1.13	1.12	$(in\ H_2O)^{1/2}$
Moisture Content Data						
Impingers 1-3 Water Volume Gai	(V_n)	360.0	330.0	345.0	345.0	ml
Impinger 4 Silica Gel Weight Gai	(W_n)	10.4	11.6	9.9	10.6	g
Total Water Volume Collected	(V_{lc})	370.4	341.6	354.9	355.7	ml
Standard Water Vapor Volume	$(V_w)_{std}$	17.436	16.080	16.706	16.741	scf
Standard Meter Volume	$(V_m)_{std}$	41.901	42.391	43.275	42.522	dscf
Calculated Stack Moisture	$(B_{ws(calc)})$	29.4	27.5	27.9	28.2	%
Saturated Stack Moisture	$(B_{ws(svp)})$	97.24	100.0	100.0	99.1	%
Reported Stack Moisture Conter	(B_{ws})	29.4	27.5	27.9	28.2	%
Gas Analysis Data						
Carbon Dioxide Percentage	($\%CO_2$)	3.0	3.0	3.0	3.0	%
Oxygen Percentage	($\%O_2$)	17.0	17.0	17.0	17.0	%
Carbon Monoxide Percentage	(%CO)	0.0	0.0	0.0	0.0	%
Nitrogen Percentage	($\%N_2$)	80.0	80.0	80.0	80.0	%
Dry Gas Molecular Weight	(M_d)	29.16	29.16	29.16	29.16	lb/lb-mole
Wet Stack Gas Molecular Weigh	(M_s)	25.88	26.09	26.05	26.01	lb/lb-mole
Calculated Fuel Factor	(F_o)	1.300	1.300	1.300	1.300	
Fuel F-Factor	(F_d)	N/A	0	0	0	dscf/mmBtu
Percent Excess Air	(%EA)	412.6	412.6	412.6	412.6	%
Volumetric Flow Rate Data						
Average Stack Gas Velocity	(v_s)	74.15	74.69	76.19	75.01	ft/sec
Stack Cross-Sectional Area	(A_s)	10.00	10.00	10.00		ft^2
Actual Stack Flow Rate	(Q_a)	44489	44815	45716	45007	acfm
Dry Standard Stack Flow Rate	(Q_{sd})	24704	25254	25541	25167	dscfm
Percent of Isokinetic Rate	(I)	102.4	101.4	102.3	102.0	%
Emission Rate Data						
Mass of Particulate on Filter	(m_f)	10.3	11.4	11.2	11.0	mg
Mass of Particulate in Acetone	(m_a')	9.3	4.2	4.7	6.1	mg
Mass due to Acetone Blank	(W_a)	0.0	0.0	0.0	0.0	mg
Total Mass of Particulates	(m_n)	19.6	15.6	15.9	17.0	mg
Stack Particulate Concentration	(c_s)	0.000	0.000	0.000	0.000	g/dscf
	(c_s)	0.007	0.006	0.006	0.006	gr/dscf
Particulate Emission Rate	(E)	0.69	0.56	0.56	0.60	kg/hr
	(E)	1.5	1.2	1.2	1.3	lbs/hr

APPENDIX B

FIELD DATA SHEETS

ISOKINETIC SAMPLING DATA

Plant Name	Anderson Columbia Company, Inc. (Plant 10)	Date	4/17/00
Sampling Location	Drum Mix Dryer	Project #	41700
Operator	Leeper	Run #	1
# of Points Across	4	# of Ports Used	6

Ideal Nozzle Diameter and IsoKinetic Factor Setup			
Pitot Tube Coefficient	(C_p)	0.840	
Avg Stack Temp	(t_s)	235	°F
Avg Gas Meter Temp	(t_m)	80	°F
ΔH @ 0.75 SCFM	(ΔH@)	1.80	in H_2O
Avg Pitot Tube Diff. Pressure	(Δp_{avg})	1.00	in H_2O
Stack Moisture Content	(B_{ws})	20.0	%
Stack Dry Molecular Weight	(M_{ds})	29.16	lb/lb-mole
Estimated Orifice Flow Rate	(Q_m)	0.750	acfm
ΔP to ΔH Isokinetic Factor	(K)	1.48	

Sampling Equipment			
Meter #	MB-2		
Meter Calibration Facto	(Y)	0.988	
Nozzle #	N-2		
Actual Nozzle Diameter	(D_{na})	0.225	in
Ideal Nozzle Diameter	(D_{ni})	0.235	in
Probe # / Length	5-1	5.00	ft
Liner Material	SS		
Sample Case / Oven #	HB-1		
Impinger Case #	IC-1		

Pressures			
Barometric Pressure	(P_b)	29.85	in Hg
Stack Static Pressure	(P_{static})	0.40	in H_2O
Absolute Stack Pressure	(P_s)	29.88	in Hg
Absolute Meter Pressure	(P_m)	29.98	in Hg

ΔV_m		Leak Checks			
Pre	0	ft^3/min	@	15	in Hg
Mid		ft^3/min	@		in Hg
Post	0	ft^3/min	@	10	in Hg
ΔV_m <	0.020	ft^3/min	☑	Ok?	
Pitot OK?		☑	Orsat OK?		☐

Traverse Point #	Sampling Time (Θ)	Clock Time	Dry Gas Meter Reading (V_m)	Velocity Head (Δp)	Desired Orifice ΔH (ΔH)	Actual Orifice ΔH (ΔH)	Stack Temp (t_s)	Meter Inlet Temp (t_{mi})	Meter Outlet Temp (t_{mo})	Filter Temp	Impinger Exit Temp	Pump Vacuum
	min	hh:mm:ss	ft^3	in H_2O	in H_2O	in H_2O	°F	°F	°F	°F	°F	in Hg
A-1	0.0	1023	917.160	1.20	1.78	1.80	210	76	74	244	65	2.0
A-2	2.5		918.920	1.30	1.93	1.90	210	80	75	260	56	2.0
A-3	5.0		920.780	1.20	1.78	1.80	209	83	75	258	54	2.0
A-4	7.5		922.620	1.20	1.78	1.80	206	84	76	258	55	2.0
B-1	10.0		924.430	0.92	1.37	1.40	208	83	77	260	60	2.0
B-2	12.5		926.020	1.10	1.63	1.60	208	86	77	258	57	2.0
B-3	15.0		927.700	1.50	2.23	2.20	209	88	78	260	56	3.0
B-4	17.5		929.680	1.50	2.23	2.20	207	89	79	260	58	3.0
C-1	20.0		931.680	0.80	1.19	1.20	207	88	79	260	63	1.0
C-2	22.5		933.140	0.60	0.89	0.89	207	89	80	259	57	1.0
C-3	25.0		934.420	1.10	1.63	1.60	209	90	80	259	57	2.0
C-4	27.5		936.110	1.80	2.67	2.70	209	91	81	260	57	5.0
D-1	30.0		938.360	0.55	0.82	0.82	208	88	81	259	61	1.0
D-2	32.5		939.520	0.55	0.82	0.82	209	89	82	259	58	1.0
D-3	35.0		940.710	1.50	2.23	2.20	211	92	82	260	54	5.0
D-4	37.5		942.690	1.50	2.23	2.20	211	93	82	259	53	5.0
E-1	40.0		944.750	0.50	0.74	0.74	211	90	83	259	58	1.0
E-2	42.5		945.890	0.88	1.31	1.30	213	91	83	257	54	2.0
E-3	45.0		947.440	1.50	2.23	2.20	215	94	84	259	54	5.0
E-4	47.5		949.520	2.30	3.41	3.40	214	96	84	259	54	6.0
F-1	50.0		951.990	0.95	1.41	1.40	213	92	85	259	60	2.0
F-2	52.5		953.560	1.80	2.67	2.70	215	94	85	257	55	5.0
F-3	55.0		955.760	2.30	3.41	3.40	217	96	86	259	56	6.0
F-4	57.5		958.400	2.30	3.41	3.40	217	98	87	258	56	6.0
Last Pt	60.0	1128	960.842									
Final Value	60.0		960.842						Maximum Vacuum			6.0
Average Values				1.29		1.90	211	89	81	258	57	
								85				

ISOKINETIC SAMPLING DATA

Plant Name	Anderson Columbia Company, Inc. (Plant 10)	Date	4/17/00
Sampling Location	Drum Mix Dryer	Project #	41700
Operator	Leeper	Run #	2
# of Points Across	4	# of Ports Used	6

Ideal Nozzle Diameter and IsoKinetic Factor Setup			
Pitot Tube Coefficient	(C_p)	0.840	
Avg Stack Temp	(t_s)	235	°F
Avg Gas Meter Temp	(t_m)	80	°F
ΔH @ 0.75 SCFM	(ΔH@)	1.80	in H_2O
Avg Pitot Tube Diff. Pressure	(Δp_{avg})	1.00	in H_2O
Stack Moisture Content	(B_{ws})	20.0	%
Stack Dry Molecular Weight	(M_{ds})	29.16	lb/lb-mole
Estimated Orifice Flow Rate	(Q_m)	0.750	acfm
ΔP to ΔH Isokinetic Factor	(K)	1.48	

Sampling Equipment			
Meter #	MB-2		
Meter Calibration Facto	(Y)	0.988	
Nozzle #	N-2		
Actual Nozzle Diameter	(D_{na})	0.225	in
Ideal Nozzle Diameter	(D_{ni})	0.235	in
Probe # / Length	5-1	5.00	ft
Liner Material	SS		
Sample Case / Oven #	HB-1		
Impinger Case #	IC-1		

Pressures			
Barometric Pressure	(P_b)	29.85	in Hg
Stack Static Pressure	(P_{stabc})	0.40	in H_2O
Absolute Stack Pressure	(P_s)	29.88	in Hg
Absolute Meter Pressure	(P_m)	29.98	in Hg

ΔV_m		Leak Checks			
Pre	0	ft^3/min	@	15	in Hg
Mid		ft^3/min	@		in Hg
Post	0	ft^3/min	@	10	in Hg
ΔV_m <	0.020	ft^3/min	Y	Ok?	
Pitot OK?		☑	Orsat OK?		☐

Traverse Point #	Sampling Time (Θ)	Clock Time	Dry Gas Meter Reading (V_m)	Velocity Head (Δp)	Desired Orifice ΔH (ΔH)	Actual Orifice ΔH (ΔH)	Stack Temp (t_s)	Meter Inlet Temp (t_{mi})	Meter Outlet Temp (t_{mo})	Filter Temp	Impinger Exit Temp	Pump Vacuum
	min	hh:mm:ss	ft^3	in H_2O	in H_2O	in H_2O	°F	°F	°F	°F	°F	in Hg
A-1	0.0	1144	961.068	1.10	1.63	1.60	218	89	86	255	68	2.0
A-2	2.5		962.750	1.10	1.63	1.60	219	93	87	255	61	2.0
A-3	5.0		964.450	1.20	1.78	1.80	219	95	87	254	59	3.0
A-4	7.5		966.310	1.00	1.48	1.50	218	95	87	257	58	2.0
B-1	10.0		968.000	1.00	1.48	1.50	218	93	87	256	62	2.0
B-2	12.5		969.700	1.10	1.63	1.60	218	96	87	257	59	2.0
B-3	15.0		971.380	1.40	2.08	2.10	219	97	88	258	59	4.0
B-4	17.5		973.400	1.70	2.52	2.50	219	97	88	258	53	4.0
C-1	20.0		975.590	0.80	1.19	1.20	217	93	88	258	58	2.0
C-2	22.5		977.110	0.80	1.19	1.20	219	97	88	256	54	2.0
C-3	25.0		978.550	1.20	1.78	1.80	219	97	88	259	49	3.0
C-4	27.5		980.360	1.80	2.67	2.70	218	98	88	255	48	5.0
D-1	30.0		982.560	0.50	0.74	0.74	217	93	89	259	56	1.0
D-2	32.5		983.720	0.70	1.04	1.00	219	96	89	257	53	1.0
D-3	35.0		985.090	1.30	1.93	1.90	220	96	89	258	50	4.0
D-4	37.5		987.030	1.80	2.67	2.70	219	97	89	261	50	5.0
E-1	40.0		989.540	0.45	0.67	0.67	217	95	89	254	58	1.0
E-2	42.5		990.540	0.92	1.37	1.40	218	96	89	256	55	2.0
E-3	45.0		992.150	1.80	2.67	2.70	219	98	90	256	54	5.0
E-4	47.5		994.330	1.80	2.67	2.70	218	97	90	255	53	5.0
F-1	50.0		996.610	1.00	1.48	1.50	217	97	90	249	56	3.0
F-2	52.5		998.400	1.70	2.52	2.50	218	95	90	255	56	5.0
F-3	55.0		1000.510	2.50	3.71	3.70	219	96	90	256	54	7.0
F-4	57.5		1003.200	2.50	3.71	3.70	219	97	90	255	56	7.0
Last Pt	60.0	1248	1005.835									
Final Value	60.0		1005.835						Maximum Vacuum			7.0
Average Values				1.30		1.93	218	96	88	256	56	
								92				

ISOKINETIC SAMPLING DATA

Plant Name	Anderson Columbia Company, Inc. (Plant 10)	Date	4/17/00
Sampling Location	Drum Mix Dryer	Project #	41700
Operator	Leeper	Run #	3
# of Points Across	4	# of Ports Used	6

Ideal Nozzle Diameter and IsoKinetic Factor Setup			
Pitot Tube Coefficient	(C_p)	0.840	
Avg Stack Temp	(t_s)	235	°F
Avg Gas Meter Temp	(t_m)	80	°F
ΔH @ 0.75 SCFM	(ΔH@)	1.80	in H_2O
Avg Pitot Tube Diff. Pressure	(Δp_{avg})	1.00	in H_2O
Stack Moisture Content	(B_{ws})	20.0	%
Stack Dry Molecular Weight	(M_{ds})	29.16	lb/lb-mole
Estimated Orifice Flow Rate	(Q_m)	0.750	acfm
ΔP to ΔH Isokinetic Factor	(K)	1.48	

Sampling Equipment			
Meter #	MB-2		
Meter Calibration Facto	(Y)	0.988	
Nozzle #	N-2		
Actual Nozzle Diameter	(D_{na})	0.225	in
Ideal Nozzle Diameter	(D_{ni})	0.248	in
Probe # / Length	5-1	5.00	ft
Liner Material	SS		
Sample Case / Oven #	HB-1		
Impinger Case #	IC-1		

Pressures			
Barometric Pressure	(P_b)	29.85	in Hg
Stack Static Pressure	(P_{static})	0.40	in H_2O
Absolute Stack Pressure	(P_s)	29.88	in Hg
Absolute Meter Pressure	(P_m)	29.98	in Hg

ΔV_m		Leak Checks			
Pre	0	ft^3/min	@	15	in Hg
Mid		ft^3/min	@		in Hg
Post	0	ft^3/min	@	10	in Hg
ΔV_m <	0.020	ft^3/min	Y	Ok?	
Pitot OK?		☑	Orsat OK?		☐

Traverse Point #	Sampling Time (Θ)	Clock Time	Dry Gas Meter Reading (V_m)	Velocity Head (Δp)	Desired Orifice ΔH (ΔH)	Actual Orifice ΔH (ΔH)	Stack Temp (t_s)	Meter Inlet Temp (t_{mi})	Meter Outlet Temp (t_{mo})	Filter Temp	Impinger Exit Temp	Pump Vacuum
	min	hh:mm:ss	ft^3	in H_2O	in H_2O	in H_2O	°F	°F	°F	°F	°F	in Hg
A-1	0.0	1255	6.114	1.00	1.48	1.50	220	92	90	258	67	1.0
A-2	2.5		7.900	1.20	1.78	1.80	220	96	90	255	55	2.0
A-3	5.0		9.650	1.20	1.78	1.80	220	97	91	259	54	2.0
A-4	7.5		11.410	1.20	1.78	1.80	219	98	91	258	55	2.0
B-1	10.0		13.240	1.00	1.48	1.50	222	95	91	258	56	2.0
B-2	12.5		14.940	1.20	1.78	1.80	223	99	91	259	52	2.0
B-3	15.0		16.820	1.40	2.08	2.10	223	99	90	261	54	3.0
B-4	17.5		18.770	1.90	2.82	2.80	221	99	91	260	54	5.0
C-1	20.0		21.110	0.75	1.11	1.10	222	96	91	259	58	1.0
C-2	22.5		22.580	0.75	1.11	1.10	221	96	91	259	55	1.0
C-3	25.0		24.020	1.20	1.78	1.80	220	96	91	259	54	3.0
C-4	27.5		25.890	1.70	2.52	2.50	219	98	91	260	54	4.0
D-1	30.0		28.050	0.60	0.89	0.89	218	95	91	258	60	1.0
D-2	32.5		29.340	0.70	1.04	1.00	219	96	91	259	56	1.0
D-3	35.0		30.710	1.50	2.23	2.20	220	96	91	259	55	5.0
D-4	37.5		32.810	2.00	2.97	3.00	220	97	91	259	56	5.0
E-1	40.0		35.190	0.55	0.82	0.82	220	94	92	261	61	1.0
E-2	42.5		36.420	0.88	1.31	1.30	222	96	92	259	58	2.0
E-3	45.0		38.010	1.80	2.67	2.70	223	97	91	258	57	5.0
E-4	47.5		40.250	2.00	2.97	3.00	222	97	91	259	58	6.0
F-1	50.0		42.660	1.00	1.48	1.50	220	94	92	261	61	3.0
F-2	52.5		44.410	1.70	2.52	2.50	223	96	92	258	58	5.0
F-3	55.0		46.620	2.50	3.71	3.70	224	99	92	258	58	8.0
F-4	57.5		49.300	2.50	3.71	3.70	221	100	92	259	60	8.0
Last Pt	60.0	1401	51.960									
Final Value	60.0		51.960						Maximum Vacuum			8.0
Average Values				1.34		2.00	221	97	91	259	57	
								94				

APPENDIX C

LABORATORY ANALYSIS

METHOD 5 - SAMPLE RECOVERY AND INTEGRITY DATA SHEET

Plant Name	Anderson Columbia Company, Inc. (Plant 10)	**Date**	4/17/00
Sampling Location	Drum Mix Dryer	**Project #**	41700
Operator	Leeper	**Acetone Lot Number**	

Run History Data				
Run Number	1	2	3	
Run Start Time	1023	1144	1255	(hh:mm)
Run Stop Time	1128	1248	1401	(hh:mm)
Train Prepared By	D.L	D.L	D.L	
Train Recovered By	D.L	D.L	D.L	
Recovery Date	4/17/00	4/17/00	4/17/00	(mm/dd/yy)
Relinquished By	D.L	D.L	D.L	
Received By	D.L	D.L	D.L	
Relinquished Date	4/17/00	4/17/00	4/17/00	(mm/dd/yy)
Relinquished Time	1405	1405	1405	(hh:mm)

Equipment Identification Numbers			
Filter	1	2	3
Acetone Wash	WD-1	WD-2	WD-3
Silica Gel	S-1	S-2	S-3
Impinger Case	IC-1	IC-1	IC-1
Sample Box	HB-1	HB-1	HB-1
Oven	Lab-1	Lab-1	Lab-1

Moisture Content Data					
Impingers 1, 2, and 3 - Water Volume					
Final Volume	(V_f)	560.0	530.0	545.0	ml
Initial Volume	(V_i)	200.0	200.0	200.0	ml
Net Volume	(V_n)	360.0	330.0	345.0	ml
Comments					
Impinger 4 - Silica Gel Weight					
Final Weight	(W_f)	210.4	211.6	209.9	g
Initial Weight	(W_i)	200.0	200.0	200.0	g
Net Weight	(W_n)	10.4	11.6	9.9	g
Comments					
Total Water Collected					
Total Volume	(V_{lc})	370.4	341.6	354.9	g

Formulas Used		
$V_n = V_f - V_i$	$W_n = W_f - W_i$	$V_{lc} = V_n + W_n/\rho_w$ where ρ_w = .9982 g/ml

METHOD 5 - SAMPLE ANALYTICAL DATA SHEET

Plant Name	Anderson Columbia Company, Inc. (Plant 10)	Date	4/17/00
Sampling Location	Drum Mix Dryer	Project #	41700
Operator	Leeper	Acetone Lot Number	

Analytical Data

Placed in Desiccator					Run Number		1	
		Number	Date	Time	Run Start Time		1023	
Filter		1	04/18/00	0730	Leakage Evident?		☐	
Acetone Wash Beaker		WD-129	04/18/00	0730	Estimated Volume		100.00	
		Filter	Acetone	Date	Time	Humidity	Temp	Cal Audit
		g	g	mm/dd/yy	hh:mm	%RH	°F	g
Measurement 1	$(m_{1f}),(m_{1a})$	0.3569	2.5490	04/19/00	0800		68	1.0000
Measurement 2	$(m_{2f}),(m_{2a})$	0.3569	2.5490	04/19/00	1300		69	1.0000
Measurement 3	$(m_{3f}),(m_{3a})$	0.3569	2.5490	04/20/00	0830		69	1.0000
Measurement 4	$(m_{4f}),(m_{4a})$	0.3569	2.5490	04/20/00	1215		70	1.0000

Results					Acetone Wash			
Final Weight	$(m_{ff}),(m_{fa}')$	0.3569	2.5490	g	Bottle Wt with Wash	(m_{bw})	64.0000	g
Tare Weight	$(m_{tf}),(m_{ta}')$	0.3466	2.5397	g	Additional Rinse Wt	(m_{ar})	0.0000	g
Weight Gain	$(m_f),(m_a')$	10.3	9.3	mg	Bottle Tare Weight	(m_{tb})	45.0000	g
Blank Adjustment	(W_a)		0.0	mg	Net Wash Weight	(m_{nw})	19.0000	g
Total Particulates	(m_n)		19.6	mg	Blank Concentration	(C_a)	0.0005	mg/g

Analytical Data

Placed in Desiccator					Run Number		2	
		Number	Date	Time	Run Start Time		1144	
Filter		2	04/18/00	0730	Leakage Evident?		☐	
Acetone Wash Beaker		WD-131	04/18/00	0730	Estimated Volume		100.00	
		Filter	Acetone	Date	Time	Humidity	Temp	Cal Audit
		g	g	mm/dd/yy	hh:mm	%RH	°F	g
Measurement 1	$(m_{1f}),(m_{1a})$	0.3577	2.4743	04/19/00	0800		68	1.0000
Measurement 2	$(m_{2f}),(m_{2a})$	0.3577	2.4743	04/19/00	1300		69	1.0000
Measurement 3	$(m_{3f}),(m_{3a})$	0.3577	2.4743	04/20/00	0830		69	1.0000
Measurement 4	$(m_{4f}),(m_{4a})$	0.3577	2.4743	04/20/00	1215		70	1.0000

Results					Acetone Wash			
Final Weight	$(m_{ff}),(m_{fa}')$	0.3577	2.4743	g	Bottle Wt with Wash	(m_{bw})	61.0000	g
Tare Weight	$(m_{tf}),(m_{ta}')$	0.3463	2.4701	g	Additional Rinse Wt	(m_{ar})	0.0000	g
Weight Gain	$(m_f),(m_a')$	11.4	4.2	mg	Bottle Tare Weight	(m_{tb})	43.0000	g
Blank Adjustment	(W_a)		0.0	mg	Net Wash Weight	(m_{nw})	18.0000	g
Total Particulates	(m_n)		15.6	mg	Blank Concentration	(C_a)	0.0005	mg/g

Analytical Data

Placed in Desiccator					Run Number		3	
		Number	Date	Time	Run Start Time		1255	
Filter		3	04/18/00	0730	Leakage Evident?		☐	
Acetone Wash Beaker		WD-130	04/18/00	0730	Estimated Volume		100.00	
		Filter	Acetone	Date	Time	Humidity	Temp	Cal Audit
		g	g	mm/dd/yy	hh:mm	%RH	°F	g
Measurement 1	$(m_{1f}),(m_{1a})$	0.3550	2.4882	04/19/00	0800		68	1.0000
Measurement 2	$(m_{2f}),(m_{2a})$	0.3550	2.4882	04/19/00	1300		69	1.0000
Measurement 3	$(m_{3f}),(m_{3a})$	0.3550	2.4882	04/20/00	0830		69	1.0000
Measurement 4	$(m_{4f}),(m_{4a})$	0.3550	2.4882	04/20/00	1215		70	1.0000

Results					Acetone Wash			
Final Weight	$(m_{ff}),(m_{fa}')$	0.3550	2.4882	g	Bottle Wt with Wash	(m_{bw})	64.0000	g
Tare Weight	$(m_{tf}),(m_{ta}')$	0.3438	2.4835	g	Additional Rinse Wt	(m_{ar})	0.0000	g
Weight Gain	$(m_f),(m_a')$	11.2	4.7	mg	Bottle Tare Weight	(m_{tb})	43.0000	g
Blank Adjustment	(W_a)		0.0	mg	Net Wash Weight	(m_{nw})	21.0000	g
Total Particulates	(m_n)		15.9	mg	Blank Concentration	(C_a)	0.0005	mg/g

Formulas Used

m_{ff} = average of last two filter measurements

m_{fa}' = average of last two acetone measurements

$m_f = m_{ff} - m_{tf}$

$m_a' = m_{fa}' - m_{ta}'$

$W_a = C_a m_{nw}$

$m_{nw} = m_{bw} + m_{ar} - m_{tb}$

$m_n = m_f + m_a' - W_a$

TexPar Energy, Inc.

ENERGY MARKETERS

Laboratory Analysis Report
E. P. A. ID#: GAD033590514

Date: 4/14/00

Client: Anderson, Maxville, Fla.

Sample #: 040057

Terminal: Bainbridge, Ga.

Tank #: 12

Product: #3 Fuel Oil

Test:	Results:	Method:
API @ 60F:	28.7	ASTM D 287
Water %:	.8	ASTM D 95
Viscosity:	88.3	ASTM D 445 (SUS @ 100F)
Ash %:	.13	ASTM D 482
Sulfur %:	.4	ASTM D 2622 (X-Ray)

TexPar Energy, inc. assures this product meets the criteria set by 40 CFR 279.11 pertaining to metals, flash point, and total halogens for on spec. burner fuel.

This document must be retained at the plant for three (3) years.

268 Industrial Blvd. • Bainbridge, GA 31717 • Phone 888-246-0670 • (912) 246-4341 • Fax (912) 246-4474

APPENDIX D

CALIBRATIONS DATA

APEX INSTRUMENTS
EPA Method 5
522 Series Meter Box Calibration
Pre-Test Orifice Method
English Meter Box Units, English K' Factor

Filename A:\522ORPR5.WK1
Revised: 7/25/95 Version: 2.2

CONVERSION FACTORS

1 mm Hg =	0.13330	kPa
1 cm =	0.39370	inch
1 mm =	0.03937	inch
1 cu ft =	28.32	liters

Model #
Serial #

Date: ------> 8/21/97
Barometric Pressure ------> 29.88 (in. Hg)
Theoretical Critical Vacuum --> 14.09 (in. Hg)

!!!!!!!!
IMPORTANT For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above
IMPORTANT The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in Hg)*(min)).
!!!!!!!!

DRY GAS METER READINGS									CRITICAL ORIFICE READINGS						Average Temperatures		
dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Initial Temps. Inlet (deg F)	Initial Temps. Outlet (deg F)	Final Temps Inlet (deg F)	Final Temps Outlet (deg F)	Orifice Serial# (number)	K' Orifice Coefficient (see above)	Actual Vacuum (in Hg)	Ambient Temperature Initial (deg F)	Ambient Temperature Final (deg F)	Ambient Temperature Average (deg F)	DGM Outlet (deg R)	DGM Overall (deg R)	Ambient Temp (deg R)
0.30	19.39	706.821	713.083	6.262	93.0	91.0	91.0	91.0	40	0.236	21.0	81.0	81.0	81.0	551.0	551.5	541.0
0.70	22.07	713.802	724.248	10.446	90.0	90.0	91.0	90.0	48	0.353	18.0	81.0	81.0	81.0	550.0	550.3	541.0
1.10	16.56	731.617	741.900	10.283	88.0	88.0	89.0	88.0	55	0.456	20.0	79.0	79.0	79.0	548.0	548.3	539.0
2.00	19.27	802.609	818.102	15.493	98.0	90.0	98.0	90.0	63	0.590	20.0	79.0	79.0	79.0	550.0	553.5	539.0
3.70	14.46	784.032	800.032	16.000	99.0	89.0	103.0	91.0	73	0.816	17.0	79.0	79.0	79.0	550.0	555.5	539.0

RESULTS

DRY GAS METER		ORIFICE			DRY GAS METER		ORIFICE		
VOLUME CORRECTED Vm(std) (cu ft)	VOLUME CORRECTED Vm(std) (liters)	VOLUME CORRECTED Vor(std) (cu ft)	VOLUME CORRECTED Vor(std) (liters)	VOLUME NOMINAL Vor (cu ft)	CALIBRATION FACTOR Y Value (number)	CALIBRATION FACTOR Y Variation (number)	CALIBRATION FACTOR dH@ Value (in H2O)	CALIBRATION FACTOR dH@ Value (mm H2O)	CALIBRATION FACTOR dH@ Variation (in H2O)
5.989	169.6	5.886	166.7	6.041	0.983	-0.005	1.752	44.51	-0.048
10.023	283.9	9.994	283.0	10.258	0.997	0.009	1.841	46.76	0.041
9.913	280.7	9.717	275.2	9.936	0.980	-0.007	1.729	43.92	-0.071
14.826	419.9	14.638	414.5	14.968	0.987	0.000	1.869	47.46	0.069
15.320	433.9	15.182	430.0	15.526	0.991	0.003	1.810	45.97	0.010
		Average Y ---->			0.988		1.800	45.73	<---- Average dH@

Note For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2

SIGNED: [signature] Date: 8-21-97

Best Available Copy

ORIFICE CALIBRATION SPREADSHEET - APEX INSTRUMENTS
ENGLISH REFERENCE METER UNITS

DATE:	7/30/97	CALIBRATION METER S/N:	707179	LEAK CHECK:	OK
MODEL:	FT40-73	METER CONSTANT, Yc:	1.0008	FILENAME:	F:\DATAFILE\CALIBRAT\CAL_MENU.DBK\OR
OPERATOR:	VHJ	BAROMETRIC PRESSURE:	29.8 (in. Hg)	REVISED:	6/8/95

RUN NUMBER	ORIFICE IDENT.	AMBIENT TEMP. (deg. F)	ACTUAL VACUUM (in. Hg)	THEORETICAL CRITICAL VACUUM (in. Hg)	DRY GAS METER READINGS INITIAL (cu. ft.)	FINAL (cu. ft.)	NET (cu. ft.)	DRY GAS METER AVG. TEMP. INITIAL (deg. F)	FINAL (deg. F)	AVG. (deg. F)	METER DELTA H (in. H2O)	TEST DURATION (minutes)	K FACTOR VALUE	ENGLISH K FACTOR VARIATION (percent)
1	40	80	25.0	14.1	0.000	16.180	16.180	79	80	80	0.30	52.0	0.2368	0.2
2	40	80	25.0	14.1	16.180	21.461	5.281	80	80	80	0.30	17.0	0.2362	-0.1
3	40	78	25.0	14.1	21.461	30.170	8.709	80	80	80	0.30	28.0	0.2360	-0.1
AVG.												AVG.	0.2363	
1	48	78	24.0	14.1	0.000	6.498	6.498	79	79	79	0.67	14.0	0.3532	0.2
2	48	77	24.0	14.1	6.498	16.219	9.721	79	79	79	0.67	21.0	0.3519	-0.2
3	48	76	24.0	14.1	16.219	25.027	8.808	79	78	79	0.67	19.0	0.3524	0.0
AVG.												AVG.	0.3525	
1	55	76	23.0	14.1	0.000	13.182	13.182	78	78	78	1.10	22.0	0.4564	0.1
2	55	76	23.0	14.1	13.182	25.767	12.585	78	78	78	1.10	21.0	0.4565	0.1
3	55	75	23.0	14.1	25.767	45.189	19.422	78	78	78	1.10	32.5	0.4548	-0.2
AVG.												AVG	0.4559	
1	63	75	21.0	14.1	0.000	10.076	10.076	78	79	79	2.00	13.0	0.5906	0.1
2	63	75	21.0	14.1	10.076	16.667	6.591	79	80	80	2.00	8.5	0.5898	-0.1
3	63	75	21.0	14.1	16.667	24.432	7.765	80	80	80	2.00	10.0	0.5901	0.0
AVG.												AVG	0.5902	
1	73	75	19.0	14.1	0.000	7.529	7.529	80	81	81	3.70	7.0	0.8200	0.5
2	73	75	19.0	14.1	7.529	24.691	17.162	81	84	83	3.70	16.0	0.8147	-0.1
3	73	75	19.0	14.1	24.691	31.665	6.974	84	84	84	3.70	6.5	0.8127	-0.4
AVG.												AVG	0.8158	

I certify that orifice set number FT40-73 was tested in accordance with the US EPA Method 5 standards.
See the Code of Federal Regulations, title 40, part 60, Appendix A, Method 5, Item 7.2.

Signature [signature] Date 7-30-97

A
E
S

Air Report - Method Five Equipment Calibrations

NOZZLE CALIBRATION

Facility	Anderson Columbia Company, Inc.	Date	4-24-00
Location	Maxville, Florida (Plant 10)		
Source Name	Drum Mix Dryer	Analyst	Leeper

Calibration Data

All Astech Environmental Services, pitot tubes are made to comply with specifications as presented in the Thursday, August 18, 1977 Federal Register (Vol. 42, No. 160). A pitot tube correction factor of 0.84 has been assigned.

Our thermometers, pyrometers and thermocouples are calibrated against a standard mercury thermometer in a hot oven in our laboratory. (Data on following page.)

Our field barometer is checked before every test against that of our laboratory mercury barometer.

All probe nozzles are calibrated each test run to assure isokinetic sampling.

Nozzle Diameter in Inches: 0.225

				Mean
Run 1	0.225	0.225	0.225	0.225
Run 2	0.225	0.225	0.225	0.225
Run 3	0.225	0.225	0.225	0.225

A
E
S

Air Report - Method Five Equipment Calibrations

THERMOCOUPLE CALIBRATIONS

Facility	Anderson Columbia Company, Inc.	Date	4-24-00
Location	Maxville, Florida		
Source Name	Drum Mix Dryer (Plant 10)	Analyst	Leyer

Calibration Data

Ambient Temperature: 75

Reference: Mercury in glass: X

Thermocouple Number: A5-1

Other: ____

Barometric Pressure: 0

Reference Point Number	Source(a) (specify)	Reference Thermometer Temperature	Thermocouple Temperature	Temperature Difference(b)
1	Ice Bath	32	32	0
2	Inter-mediate	75	75	0
3	Boiling Water	212	211	0.14881
4	Hot Oil	350	350	0

a Type of calibration system used

b $\left[\frac{(\text{REF. TEMP.} + 460) - (\text{THERMOCOUPLE TEMP.} + 460)}{\text{ref. temp} + 460}\right] \times 100 <= 1.5\%$

A
E
S

Air Report - Method Five Equipment Calibrations

PITOT CALIBRATIONS

Facility: Anderson Columbia Company, Inc. (Plant 10)		Date: 4-24-00
Location Maxville, Florida	Analyst:	Leeper
Source Name: Drum Mix Dryer		

Calibration Data

Type S Pitot Tube Specifications And Alignment

Pitot Tube Number A5-1

Baseline Coefficient, Cp 0.84

Pitot Tube Dimensions (Fig. 2-2 and 2-3)

Pa	0.501	Dt	0.375	Ws	0.0
Pb	0.501	Zs	0.01		
a1	0	B1	1		
a2	0	B2	0		

Pitot Tube - Sample Probe Type Buttonhook

(Figure 2 - 6, 2 - 7, 2 - 8 and attached form)

X	0.501
Dn	0.225
Zp	2.0"
Wp	----------
Y	2.0"

Subscript s: Type S Pitot Tube Dimension Reference.
Subscript p: Sample Probe-Pitot Tube Dimension Reference.

Figure References refer to 40 CFR Ch. 1, Part 60, Appendix A, Method 2.

APPENDIX E

PRODUCTION DATA

239.15

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

Best Available Copy

SOLD TO:

Apr-17-2000

10:25

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM.	SJ1	19.36

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS (1)	31.36	28.45
TARE (RM)	12.00	10.89
NET	19.36	17.56
ACCUM TOTAL	58.83	53.37
TOTAL LOADS	3	

152

RECEIVED BY

WEIGHMASTER:

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

SOLD TO:

Apr-17-2000

10:31

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM.	581	21.14

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS (1)	34.34	31.13
TARE (RM)	13.20	11.97
NET	21.14	19.18
ACCUM TOTAL	79.97	72.55
TOTAL LOADS	4	

154

RECEIVED BY

WEIGHMASTER:

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

Best Available Copy

SOLD TO:

Apr-17-2000

10:51

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	01	18.41

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	30.41	27.59
TARE(RM)	12.00	10.89
NET	18.41	16.70
ACCUM TOTAL	137.49	124.73
TOTAL LOADS	7	

RECEIVED BY

WEIGHMASTER: _____

Thank You

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

OLD TO:

Apr-17-2000

10:58

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	L17	19.91

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
ROSS(1)	32.63	29.60
ARE(RM)	12.72	11.54
T	19.91	18.06
CCUM TOTAL	157.40	142.79
TAL LOADS	8	

RECEIVED BY

IGHMASTER: _____

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

Best Available Copy

SOLD TO:

Apr-17-2000

10:38

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	SJ3	18.65

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

150

	TONS	TONNES
GROSS(1)	31.15	28.26
TARE(RM)	12.50	11.34
NET	18.65	16.92
ACCUM TOTAL	98.62	89.47
TOTAL LOADS	5	

WEIGHMASTER: _____

RECEIVED BY

APR-20-2000 TUE 10:16 AM ANDERSON COLUMBIA CO. INC

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

SOLD TO:

Apr-17-2000

10:43

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	SJ8	20.46

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	32.46	29.45
TARE(RM)	12.00	10.89
NET	20.46	18.56
ACCUM TOTAL	119.08	108.03
TOTAL LOADS	6	

RECEIVED BY

WEIGHMASTER: _____

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

Best Available Copy

SOLD TO:

Apr-17-2000

11:03

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	440	20.98

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	33.96	30.83
TARE(RM)	13.00	11.79
NET	20.98	19.03
ACCUM TOTAL	178.38	161.82
TOTAL LOADS	9	

RECEIVED BY

WEIGHMASTER: _____

Thank You

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

SOLD TO:

Apr-17-2000

11:09

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	SJ6	20.96

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	32.96	29.90
TARE(RM)	12.00	10.89
NET	20.96	19.01
ACCUM TOTAL	199.34	180.84
TOTAL LOADS	10	

152

Thank You

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

Best Available Copy

SOLD TO:

Apr-17-2000

11:15

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	SJ7	20.21

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	32.21	29.22
TARE(RM)	12.00	10.89
NET	20.21	18.33
ACCUM TOTAL	219.55	199.17
TOTAL LOADS	11	

RECEIVED BY

WEIGHMASTER:

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

Apr-17-2000

11:20

209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	SJ1	19.06

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	31.06	28.18
TARE(RM)	12.00	10.89
NET	19.06	17.29
ACCUM TOTAL	238.61	216.46
TOTAL LOADS	12	

RECEIVED BY

WEIGHMASTER:

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

Best Available Copy

LD TO:

Apr-17-2000

11:23

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	581	21.76

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
ROSS(1)	34.96	31.72
ARE(RM)	13.20	11.97
ET	21.76	19.74
CCUM TOTAL	260.37	236.20
OTAL LOADS	13	

RECEIVED BY

EIGHMASTER:

APR-25 2000 TUE 10:21 AM ANDERSON COLUMBIA CO. INC FAX NO. 1 904 755 5450 P. 02/21

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

SOLD TO:

Apr-17-2000

11:30

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	SJ3	18.25

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	30.75	27.90
TARE(RM)	12.50	11.34
NET	18.25	16.56
ACCUM TOTAL	278.62	252.76
TOTAL LOADS	14	

RECEIVED BY

WEIGHMASTER:

257.45

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

Best Available Copy

SOLD TO:

Apr-17-2000

11:39

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	SJ8	20.95

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

154

	TONS	TONNES
GROSS(1)	32.95	29.89
TARE(RM)	12.00	10.89
NET	20.95	19.01
ACCUM TOTAL	299.57	271.76
TOTAL LOADS	15	

RECEIVED BY

WEIGHMASTER:

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

SOLD TO:

Apr-17-2000

11:47

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	545	17.91

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	30.91	28.04
TARE(RM)	13.00	11.79
NET	17.91	16.25
ACCUM TOTAL	317.48	288.01
TOTAL LOADS	16	

RECEIVED BY

WEIGHMASTER:

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

Best Available Copy

LD TO:

Apr-17-2000

11:50

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	L17	20.29

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
ROSS(1)	33.01	29.95
ARE(RM)	12.72	11.54
T	20.29	18.41
CCUM TOTAL	337.77	306.42
TAL LOADS	17	

RECEIVED BY

IGHMASTER:

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

TO:

Apr-17-2000

11:54

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	SJ6	20.48

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
ROSS(1)	32.48	29.47
RE(RM)	12.00	10.89
T	20.48	18.58
CUM TOTAL	358.25	325.00
TAL LOADS	18	

RECEIVED BY

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

Best Available Copy

TO:
Apr-17-2000
12:01

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	440	21.39

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
ROSS(1)	34.39	31.20
RE(RM)	13.00	11.79
	21.39	19.40
UM TOTAL	379.64	344.40
AL LOADS	19	

IGHMASTER:

RECEIVED BY

Thank You

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

O:
Apr-17-2000
12:08

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

CCOUNT	MIX	TRUCK	TONS
29111	12.5MM	01	18.79

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

155

	TONS	TONNES
99(1)	30.79	27.93
RE(RM)	12.00	10.89
T	18.79	17.05
UM TOTAL	398.43	361.45
TAL LOADS	20	

RECEIVED BY

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

Best Available Copy

SOLD TO:

Apr-17-2000

12:15

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	SJ7	19.55

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	31.55	28.62
TARE(RM)	12.00	10.89
NET	19.55	17.74
ACCUM TOTAL	417.96	379.18
TOTAL LOADS	21	

RECEIVED BY

Thank You

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

SOLD TO:

Apr-17-2000

12:19

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	SJ1	19.96

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	31.96	28.99
TARE(RM)	12.00	10.89
NET	19.96	18.11
ACCUM TOTAL	437.96	397.29
TOTAL LOADS	22	

RECEIVED BY

WEIGHMASTER:

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

Best Available Copy

SOLD TO:

Apr-17-2000

12:25

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	581	21.78

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	34.98	31.73
TARE(RM)	13.20	11.97
NET	21.78	19.76
ACCUM TOTAL	459.72	417.05
TOTAL LOADS	23	

WEIGHMASTER:

RECEIVED BY

Thank You

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

SOLD TO:

Apr-17-2000

12:31

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	SJ3	19.31

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	31.81	28.86
TARE(RM)	12.50	11.34
NET	19.31	17.52
ACCUM TOTAL	479.03	434.57
TOTAL LOADS	24	

RECEIVED BY

Thank You

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

Best Available Copy

SOLD TO:

Apr-17-2000

12:37

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	530	20.85

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	31.65	28.71
TARE(RM)	10.80	9.80
NET	20.85	18.91
ACCUM TOTAL	499.88	453.48
TOTAL LOADS	25	

15558

WEIGHMASTER:

RECEIVED BY

Thank You

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

SOLD TO:

Apr-17-2000

12:43

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	545	19.29

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	32.29	29.29
TARE(RM)	13.00	11.79
NET	19.29	17.50
ACCUM TOTAL	519.17	470.98
TOTAL LOADS	26	

WEIGHMASTER:

RECEIVED BY

ANDERSON COLUMBIA CO., INC.

Best Available Copy

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

SOLD TO.

Apr-17-2000

12:49

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	SJ8	18.90

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	30.90	28.03
TARE(RM)	12.00	10.89
NET	18.90	17.15
ACCUM TOTAL	538.07	488.13
TOTAL LOADS	27	

WEIGHMASTER:

RECEIVED BY

Thank You

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

Best Available Copy

258.33

SOLD TO.

Apr-17-2000

12:55

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	L17	19.83

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	32.55	29.53
TARE(RM)	12.72	11.54
NET	19.83	17.99
ACCUM TOTAL	557.90	506.12
TOTAL LOADS	28	

WEIGHMASTER:

RECEIVED BY

Thank You

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

SOLD TO:

Apr-17-2000

13:01

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	SJ6	20.95

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	32.95	29.89
TARE(RM)	12.00	10.89
NET	20.95	19.01
ACCUM TOTAL	578.85	525.12
TOTAL LOADS	29	

WEIGHMASTER:

RECEIVED BY

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

Best Available Copy

SOLD TO.

Apr-17-2000

13:07

149

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	01	19.22

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	31.22	28.32
TARE(RM)	12.00	10.89
NET	19.22	17.44
ACCUM TOTAL	598.07	542.56
TOTAL LOADS	30	

RECEIVED BY

WEIGHMASTER:

Thank You

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

SOLD TO:

Apr-17-2000

13:14

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	SJ1	19.41

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	31.41	28.49
TARE(RM)	12.00	10.89
NET	19.41	17.61
ACCUM TOTAL	617.48	560.17
TOTAL LOADS	31	

RECEIVED BY

WEIGHMASTER:

Thank You

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

Best Available Copy

SOLD TO:

Apr-17-2000

13:18

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	SJ7	19.07

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	31.07	28.19
TARE(RM)	12.00	10.89
NET	19.07	17.30
ACCUM TOTAL	636.55	577.47
TOTAL LOADS	32	

WEIGHMASTER:

RECEIVED BY

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

SOLD TO:

Apr-17-2000

13:24

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	440	20.77

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	33.77	30.64
TARE(RM)	13.00	11.79
NET	20.77	18.84
ACCUM TOTAL	657.32	596.31
TOTAL LOADS	33	

WEIGHMASTER:

RECEIVED BY

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

Best Available Copy

SOLD TO.

Apr-17-2000

13:34

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	581	20.86

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	34.06	30.90
TARE(RM)	13.20	11.97
NET	20.86	18.92
ACCUM TOTAL	678.18	615.23
TOTAL LOADS	34	

WEIGHMASTER:

RECEIVED BY

Thank You

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

SOLD TO:

Apr-17-2000

13:37

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	SJ3	19.56

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	32.06	29.08
TARE(RM)	12.50	11.34
NET	19.56	17.74
ACCUM TOTAL	697.74	632.98
TOTAL LOADS	35	

155

WEIGHMASTER:

RECEIVED BY

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

Best Available Copy

SOLD TO:

Apr-17-2000

13:44

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	SJ8	18.53

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	30.53	27.70
TARE(RM)	12.00	10.89
NET	18.53	16.81
ACCUM TOTAL	716.27	649.79
TOTAL LOADS	36	

WEIGHMASTER:

RECEIVED BY

Thank You

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

LD TO:

Apr-17-2000

13:50

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	SJ6	21.09

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	33.09	30.02
TARE(RM)	12.00	10.89
NET	21.09	19.13
ACCUM TOTAL	737.36	668.92
TOTAL LOADS	37	

WEIGHMASTER:

RECEIVED BY

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

Best Available Copy

LD TO:

Apr-17-2000

13:50

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	L17	20.21

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	32.93	29.87
TARE(RM)	12.72	11.54
NET	20.21	18.33
ACCUM TOTAL	777.57	705.40
TOTAL LOADS	39	

RECEIVED BY

WEIGHMASTER:

Thank You

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

SOLD TO:

Apr-17-2000

13:55

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	SJ1	20.00

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	32.00	29.03
TARE(RM)	12.00	10.89
NET	20.00	18.14
ACCUM TOTAL	757.36	687.06
TOTAL LOADS	38	

RECEIVED BY

WEIGHMASTER:

Best Available Copy

ANDERSON COLUMBIA CO., INC.

GUERDON RD
P.O. BOX 1829
LAKE CITY, FL 32056-1829
PH. (904) 752-7585

SOLD TO:

Apr-17-2000

13:56

US-301 SR-200(301)
209576-1-52-01
SP 00-0558A (TL-5)
PLANT#10

ACCOUNT	MIX	TRUCK	TONS
29111	12.5MM	01	18.83

PLANT#10
6599 CO. RD. 218
MAXVILLE FL. 32234

	TONS	TONNES
GROSS(1)	30.83	27.97
TARE(RM)	12.00	10.89
NET	18.83	17.08
ACCUM TOTAL	796.40	722.48
TOTAL LOADS	40	

150

WEIGHMASTER:

RECEIVED BY

Thank You

APPENDIX F

SAMPLE CHAIN OF CUSTODY

A
E
S

CHAIN OF CUSTODY RECORD

Facility & Location: Anderson Columbia Company, Inc. (Plant 10)

Station Location: Drum Mix Dryer 4-17-00

ASTECH ENVIRONMENTAL SERVICES
13170-58 ATLANTIC BLVD. SUITE 131
JACKSONVILLE , FL.
(904) 221-7174

Date	Com	Gr	Station Location	Run Number Or I.D.	No. Of Cont.	Sample Number	Remarks & Bottle Makeup / Parameters
4-17-00	x			1	1Ea		Filter/Prefilter
4-17-00	x			2	1Ea		Filter/Prefilter
4-17-00	x			3	1Ea		Filter/Prefilter
4-17-00		x		FB	1Ea		Field Blank

NOTES:

Relinquished By:	Date / Time:	Recieved By:	Date / Time:
D. Lacy	4-17-00 1600		
Relinquished By:	Date / Time:	Recieved By:	Date / Time:
Relinquished By:	Date / Time:	Recieved By:	Date / Time:
Relinquished By:	Date / Time:	Recieved For Laboratory By:	
		D. Lacy	

Remarks

Date / Time: 4-17-00 1600

Comman Carrier:

APPENDIX G

VISIBLE EMISSIONS

BEST AVAILABLE COPY

EPA

VISIBLE EMISSION OBSERVATION FORM 1

Form Number	Page 1 of 1
Continued on VEO Form Number	

Method Used (Circle One): (Method 9) 203A 203B Other: _____

Company Name	Andersen Columbia Co, Inc.
Facility Name	Plant 10
Street Address	6599 Highway 218
City	Maxville
State	FL
Zip	32234

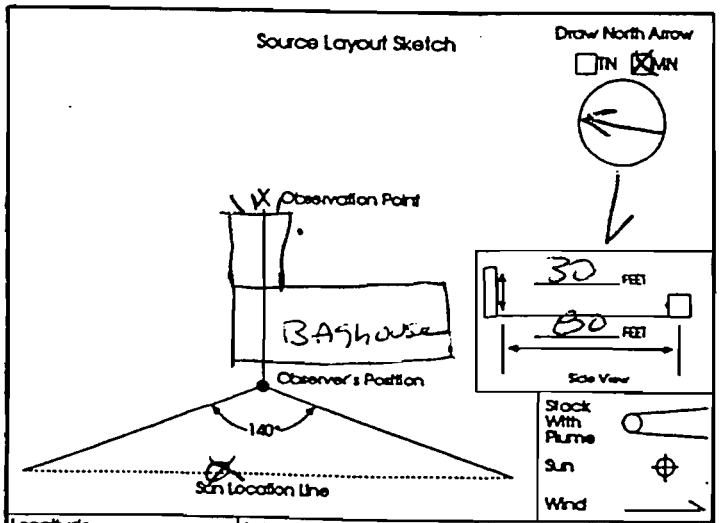
Process	Drum mix Dryer	Unit #	Operating Mode 252.31 TPH
Control Equipment	Baghouse		Operating Mode Continuous

Describe Emission Point: 30" X 48" rectangular stack — beige in color

	Start	End
Height of Emiss. Pt.	230'	Same
Height of Emiss. Pt. Rel. to Observer	230'	Same
Distance to Emiss. Pt.	250'	Same
Direction to Emiss. Pt. (Degrees)	84°	Same
Vertical Angle to Obs. Pt.	22°	Same
Direction to Obs. Pt. (Degrees)	84°	Same
Distance and Direction to Observation Point from Emission Point	See Above data	Same
Describe Emissions	Heatwaves	Same
Emission Color	Clear	Same
Describe Plume Background	Sky	Same
Background Color	Blue	Same
Sky Conditions	Partly cloudy	Same
Wind Speed	3-5	Same
Wind Direction	EAST	Same
Ambient Temp.	80°	80°
Wet Bulb Temp.		
RH Percent		

Water Droplet Plume: Attached ☐ Detached ☐ None ☒

Source Layout Sketch



Longitude	Latitude	Declination

Additional Information:

Observation Date	Time Zone	Start Time	End Time
4-17-00	EDST	1430	1500

Min \ Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	
12	0	0	0	0	
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	
18	0	0	0	0	
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

Observer's Name (Print)	Donnie Leeper
Observer's Signature	Donnie Leeper
Date	4-17-00
Organization	Astech Environmental Services
Certified By	E.T.A.
Date	12-8-99

BEST AVAILABLE COPY

VISIBLE EMISSIONS EVALUATOR

This is to certify that

Donnie Leeper

met the specifications of Federal Reference Method 9 and qualified as a visible emissions evaluator. Maximum deviation on white and black smoke did not exceed 7.5% opacity and no single error exceeding 15% opacity was incurred during the certification test conducted by Eastern Technical Associates of Raleigh, North Carolina. This certificate is valid for six months from date of issue.

274960	Jacksonville, Florida	December 8, 1999
Certificate Number	Location	Date of Issue

Thomas Hoke
President

Michael Langford
Director of Training

APPENDIX H

PROJECT PARTICIPANTS

PROJECT PARTICIPANTS

DONNIE LEEPER

FIELD TESTING
CALIBRATIONS
CALCULATIONS
LABORATORY ANALYSIS
REPORT PREPARATION

MELVIN PETIET

FIELD TESTING
VISIBLE EMISSIONS

DARYL ORMOND

ANDERSON COLUMBIA COMPANY, INC.

MORT BENJAMIN

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION