Stack Test Report # 1

AP-42 Section 9.12.1
Reference 5
Report Sect. 4
Reference 11

309 pp.

Clean Air Engineering

Note: This is a reference cited in *AP 42, Compilation of Air Pollutant Emission Factors, Volume I Stationary Point and Area Sources.* AP42 is located on the EPA web site at www.epa.gov/ttn/chief/ap42/

The file name refers to the reference number, the AP42 chapter and section. The file name "ref02_c01s02.pdf" would mean the reference is from AP42 chapter 1 section 2. The reference may be from a previous version of the section and no longer cited. The primary source should always be checked.

REPORT ON COMPLIANCE TESTING

Performed for:
COORS BREWING COMPANY
GOLDEN, COLORADO

CAE Project No: 6265-1
November 25, 1992

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SUMMARY

INTRODUCTION

Clean Air Engineering was contracted by Coors Brewing Company to determine the levels of total hydrocarbon emissions at their facility located in Golden, Colorado for compliance purposes.

The testing took place at the Can Filler Room Vent on June 23, 1992; Bottle and Can CO_2 Bowl Vent on June 24; Bottle Filler Room Vent on June 25; Keg Line No. 3 - Filler Exhaust on June 25; Crushed Can Conveyor System on June 26; Whirlpool Vent 7 on July 2; Wort Cooler on July 2; TRUB Vessels on July 7; Golden Beer Loadout on July 11 and 13; and the Yeast Drying Plant on July 16 and 20. Coordinating the field testing were:

F. Varani - Coors Brewing Company
M. Hynes - Clean Air Engineering

SUMMARY OF TEST RESULTS

The test conditions and results of analysis are presented in Tables 1 through 10 on pages 1-2 through 1-11.

To the best of our knowledge, the data presented in this report are accurate and complete.

Respectfully submitted,

CLEAN AIR ENGINEERING

Michael Pierce
Manager, Denver Region

David Perkins
Manager, Technical Communications

TABLE 1 - Summary of Test Results

EPA Method 25A
Can Filler Room Vent

Run No.	1	2	3	Average
Date (1992)	June 23	June 23	June 23	
Start Time (approx.)	2:00 PM	3:30 PM	5:00 PM	
Stop Time (approx.)	3:00 PM	4:30 PM	6:00 PM	
Gas Conditions				
Temperature (° F)	75	78	76	76
Moisture (volume %)	1.7	0.8	0.8	1.1
O_2 (dry volume %)	20.7	20.9	20.9	20.8
CO_2 (dry volume %)	0.2	0.3	0.3	0.3
Volumetric Flow Rate				
acfm	32,060	33,660	33,160	32,960
dscfm	25,410	26,780	26,460	26,220
For Solvent Corrected:				
Total Hydrocarbons				
lb/hr (as ethanol)	24.9	26.6	22.0	24.5
ton/yr (as ethanol)	109.1	116.4	96.4	107.3
For Non-Solvent Corrected:				
Total Hydrocarbons				
ppm, dry (as propane)	61	61	51	58
lb/hr (as propane)	10.6	11.3	9.32	10.4
ton/yr (as propane)	46.2	49.3	40.8	45.4

TABLE 3 - Summary of Test Results

EPA Method 25A
Bottle Filler Room Vent

Run No.	1	2	3	Average
Date (1992)	June 25	June 25	June 25	
Start Time (approx.)	9:03 AM	10:33 AM	11:57 AM	
Stop Time (approx.)	10:05 AM	11:37 AM	1:01 PM	
Gas Conditions				
Temperature (° F)	73	75	75	74
Moisture (volume %)	1.0	0.7	0.8	0.8
O_2 (dry volume %)	20.0	20.0	20.4	20.1
CO_2 (dry volume %)	0.8	0.8	0.9	0.8
Volumetric Flow Rate				
acfm	25,270	24,870	25,520	25,220
dscfm	20,290	19,960	20,450	20,230
For Solvent Corrected:				
Total Hydrocarbons				
lb/hr (as ethanol)	13.1	15.2	14.5	14.3
ton/yr (as ethanol)	57.4	66.6	63.7	62.6
For Non-Solvent Corrected:				
Total Hydrocarbons				
ppm, dry (as propane)	40	47	44	44
lb/hr (as propane)	5.55	6.44	6.16	6.05
ton/yr (as propane)	24.3	28.2	27.0	26.5

TABLE 2 - Summary of Test Results

EPA Method 25A
Bottle and Can Filler Bowl CO_2 Vent

Run No.	1	2	3	Average
Date (1992)	June 24	June 24	June 24	
Start Time (approx.)	10:04 AM	11:22 AM	1:58 PM	
Stop Time (approx.)	11:05 AM	12:23 PM	2:59 PM	
Gas Conditions				
Temperature (° F)	83	85	84	84
Moisture (volume %)	1.3	0.9	1.6	1.3
O_2 (dry volume %)	16.3	15.6	16.4	16.1
CO_2 (dry volume %)	24.6	26.7	22.2	24.5
Volumetric Flow Rate				
acfm	1,710	1,685	1,638	1,678
dscfm	1,331	1,311	1,268	1,303
For Solvent Corrected:				
Total Hydrocarbons				
lb/hr (as ethanol)	0.848	0.725	0.579	0.717
ton/yr (as ethanol)	3.71	3.18	2.54	3.14
For Non-Solvent Corrected:				
Total Hydrocarbons				
ppm, dry (as propane)	39	34	28	34
lb/hr (as propane)	0.359	0.307	0.245	0.304
ton/yr (as propane)	1.57	1.35	1.07	1.33

TABLE 4 - Summary of Test Results

EPA Method 25A
Keg line No. 3 - Filler Exhaust

Run No.	1	2	3	Average
Date (1992)	June 25	June 25	June 25	
Start Time (approx.)	7:04 PM	8:15 PM	9:38 PM	
Stop Time (approx.)	8:05 PM	9:17 PM	10:39 PM	
Gas Conditions				
Temperature (° F)	77	71	72	73
Moisture (volume %)	0.7	1.1	0.8	0.9
O_2 (dry volume %)1	20.3	20.3	20.3	20.3
CO_2 (dry volume %)1	3.8	3.8	3.8	3.8
Volumetric Flow Rate				
acfm	47	48	43	46
dscfm	37	38	34	36
For Solvent Corrected:				
Total Hydrocarbons				
lb/hr (as ethanol)	0.084	0.170	0.115	0.123
ton/yr (as ethanol)	0.367	0.744	0.503	0.538
For Non-Solvent Corrected:				
Total Hydrocarbons				
ppm, dry (as propane)	140	277	209	209
lb/hr (as propane)	0.036	0.072	0.049	0.052
ton/yr (as propane)	0.156	0.315	0.213	0.228

1 The average of two Orsat analysis were used for Runs 1, 2 and 3.

TABLE 5 - Summary of Test Results

EPA Method 25A
Crushed Can Conveyor System

Run No.	1	2	3	Average
Date (1992)	June 26	June 26	June 26	
Start Time (approx.)	12:30 PM	2:00 PM	3:10 PM	
Stop Time (approx.)	1:30 PM	3:00 PM	4:10 PM	
Gas Conditions[1]				
Temperature (° F)	91	85	86	87
Moisture (volume %)	0.8	1.2	0.5	0.8
O_2 (dry volume %)	20.6	20.6	20.6	20.6
CO_2 (dry volume %)	0.2	0.2	0.2	0.2
Volumetric Flow Rate[1]				
acfm	7,503	8,341	7,405	7,750
dscfm	5,888	6,578	5,881	6,116
For Solvent Corrected:				
Total Hydrocarbons				
lb/hr (as ethanol)	5.02	7.58	7.24	6.61
ton/yr (as ethanol)	22.0	33.2	31.7	29.0
For Non-Solvent Corrected:				
Total Hydrocarbons				
ppm, dry (as propane)	53	71	76	67
lb/hr (as propane)	2.13	3.21	3.07	2.80
ton/yr (as propane)	9.31	14.1	13.4	12.3

1 Gas Conditions and Velometric Flow Rate obtained from Conveying Air 1 Duct.

TABLE 6 - Summary of Test Results

EPA Method 25A
Whirlpool Vent 7

Run No.	Batch 1 Quiescent and Drain	Batch 1 Fill	Batch 2 Quiescent and Drain	Batch 2 Fill	Average
Date (1992)	July 2	July 2	July 2	July 2	
Start Time (approx.)	11:55 AM	12:20 PM	1:13 PM	4:20 PM	
Stop Time (approx.)	12:20 PM	12:40 PM	2:17 PM	4:40 PM	
Gas Conditions					
Temperature (° F)	114	111	117	132	114
Moisture (volume %)	9.8	11.0	12.3	11.0	11.0
O_2 (dry volume %)	20.9	20.9	20.9	20.9	20.9
CO_2 (dry volume %)	0.0	0.0	0.0	0.0	0.0
Volumetric Flow Rate					
acfm	2,070	2,114	1,803	2,845	1,996
dscfm	1,396	1,413	1,175	1,833	1,328
For Non-Solvent Corrected:					
Total Hydrocarbons					
ppm, dry (as propane)	1.18	9.23	3.82	5.57	4.74
lb/hr (as propane)	0.0112	0.0894	0.0308	0.0699	0.0438
		Batch 1		Batch 2	
Total lb/batch		0.0485		0.0746	0.0616

TABLE 7 - Summary of Test Results

EPA Method 25A
Wort Cooler

Run No.[1]	1	2	3	Average
Date (1992)	July 2	July 2	July 2	
Start Time (approx.)	2:28 PM	5:26 PM	6:35 PM	
Stop Time (approx.)	3:28 PM	6:26 PM	7:35 PM	
Gas Conditions				
Temperature (° F)	100	96	101	99
Moisture (volume %)	2.4	2.0	2.4	2.3
O_2 (dry volume %)	20.9	20.9	20.9	20.9
CO_2 (dry volume %)	0.0	0.0	0.0	0.0
Volumetric Flow Rate				
acfm	5,042	4,807	5,302	5,050
dscfm	3,764	3,631	3,955	3,783
For Non-Solvent Corrected:				
Total Hydrocarbons				
ppm, dry (as propane)	1	2	2	2
lb/hr (as propane)	0.018	0.057	0.068	0.047
ton/yr (as propane)	0.077	0.249	0.297	0.208

1 See Comments on Page 4-1.

TABLE 8 - Summary of Test Results

EPA Method 25A
TRUB Vessels

Run No.	1	2	3	Average
Date (1992)	July 7	July 7	July 7	
Start Time (approx.)	1:50 PM	3:50 PM	5:15 PM	
Stop Time (approx.)	1:53 PM	3:58 PM	5:20 PM	
Gas Conditions				
Temperature (° F)	N/A	N/A	N/A	N/A
Moisture (volume %)	15.2	5.4	6.0	8.9
O_2 (dry volume %)	21.0	20.6	20.7	20.8
CO_2 (dry volume %)	0.7	0.2	0.2	0.4
Volumetric Flow Rate				
acfm	N/A	N/A	N/A	N/A
dscfm	N/A	N/A	N/A	N/A
For Non-Solvent Corrected:				
Total Hydrocarbons				
lb/batch1	0.0076	0.0063	0.0071	0.0070

1 See Comments on page 4-1.

TABLE 9 - Summary of Test Results

EPA Method 25A
Golden Beer Loadout

Run No.	1	2	3	Average
Date (1992)	July 16	July 16	July 20	
Start Time (approx.)	11:56 AM	1:19 PM	9:05 AM	
Stop Time (approx.)	12:56 PM	2:23 PM	10:08 AM	
Gas Conditions				
Temperature (° F)	116	118	111	115
Moisture (volume %)	22.7	23.4	22.7	22.9
O_2 (dry volume %)	19.9	19.8	18.6	19.4
CO_2 (dry volume %)	4.7	5.3	10.0	6.7
Volumetric Flow Rate				
acfm	7	7	9	8
dscfm	5	5	6	5
For Solvent Corrected:				
Total Hydrocarbons				
lb/hr (as ethanol)	2.97	2.72	3.19	2.96
ton/yr (as ethanol)	13.0	11.9	14.0	13.0
For Non-Solvent Corrected:				
Total Hydrocarbons				
ppm, dry (as propane)	36,701	33,636	32,871	34,403
lb/hr (as propane)	1.26	1.15	1.35	1.25
ton/yr (as propane)	5.51	5.05	5.92	5.49

TABLE 10 - Summary of Test Results

EPA Method 25A
Yeast Drying Plant

Run No.	1	2 [1]	3	Average
Date (1992)	July 16	July 16	July 20	
Start Time (approx.)	11:56 AM	1:19 PM	9:05 AM	
Stop Time (approx.)	12:56 PM	2:23 PM	10:08 AM	
Gas Conditions				
Temperature (° F)	116	118	111	115
Moisture (volume %)	22.7	23.4	22.7	22.9
O_2 (dry volume %)	19.9	19.8	18.6	19.4
CO_2 (dry volume %)	4.7	5.3	10.0	6.7
Volumetric Flow Rate				
acfm	7	7	9	8
dscfm	5	5	6	5
For Solvent Corrected:				
Total Hydrocarbons				
lb/hr (as ethanol)	2.97	2.72	3.19	2.96
ton/yr (as ethanol)	13.0	11.9	14.0	13.0
For Non-Solvent Corrected:				
Total Hydrocarbons				
ppm, dry (as propane)	36,701	33,636	32,871	34,403
lb/hr (as propane)	1.26	1.15	1.35	1.25
ton/yr (as propane)	5.51	5.05	5.92	5.49

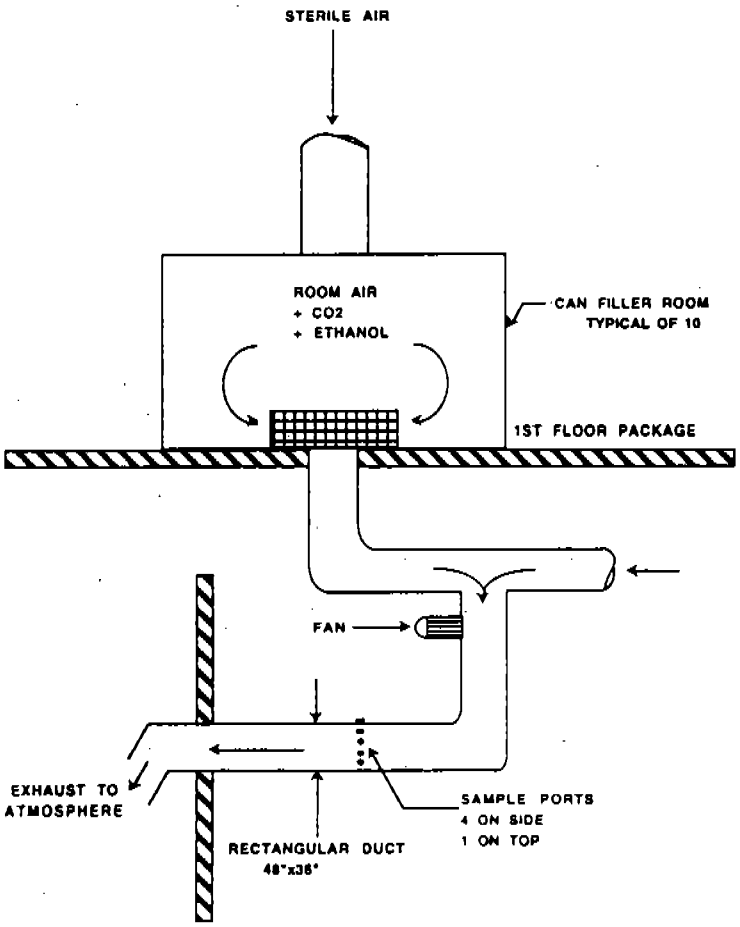
[1] During Run 2, the plant recirculated yeast.

DESCRIPTION OF INSTALLATION

To keep beer from becoming contaminated during the bottling process, carbon dioxide is pumped into the cans/bottles before they are filled. Clean air is brought in from the outside and sent to the bottling areas. Exhaust ducts carry out the excess air which is laiden with alcohol from the beer.

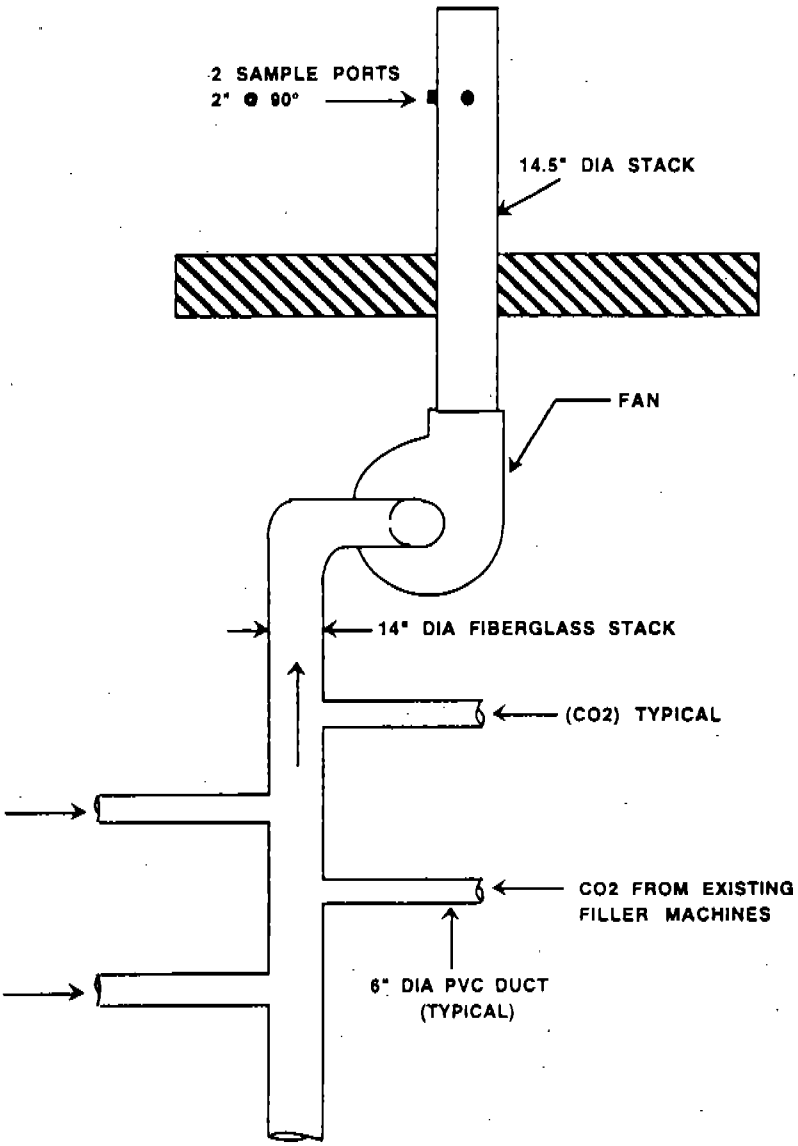
The testing took place at the Can Filler Room Vent on June 23, 1992; Bottle and Can CO_2 Bowl Vent on June 24; and the Bottle Filler Room Vent on June 25, 1992.

A schematic of the Can Filler Room Vent is shown below. A schematic of the Bottle and Can CO_2 Bowl Vent and the Bottle Filler Room Vent are found on pages 2-2 and 2-3, respectively.



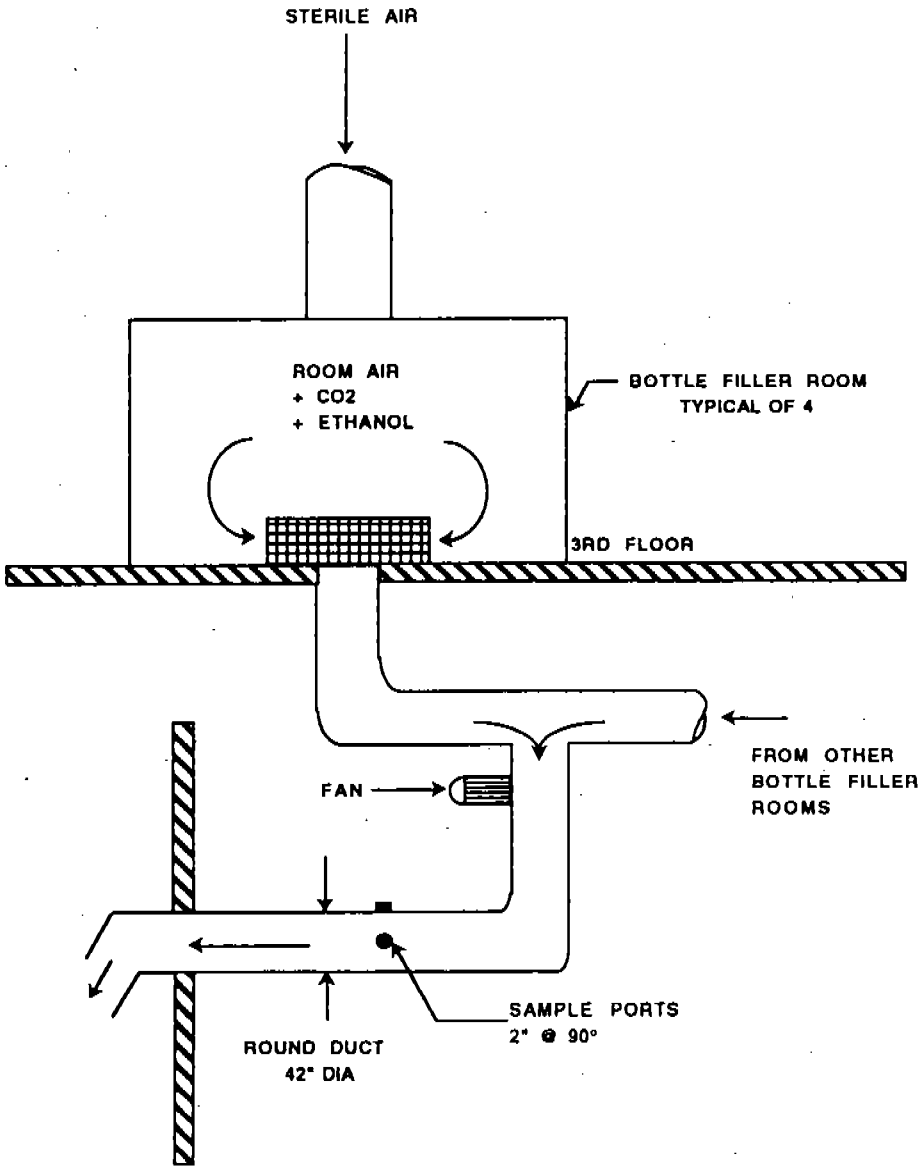
DESCRIPTION OF INSTALLATION

A schematic of the Bottle and Can CO_2 Bowl Vent is shown below.



DESCRIPTION OF INSTALLATION

A schematic the Bottle Filler Room Vent is shown below.

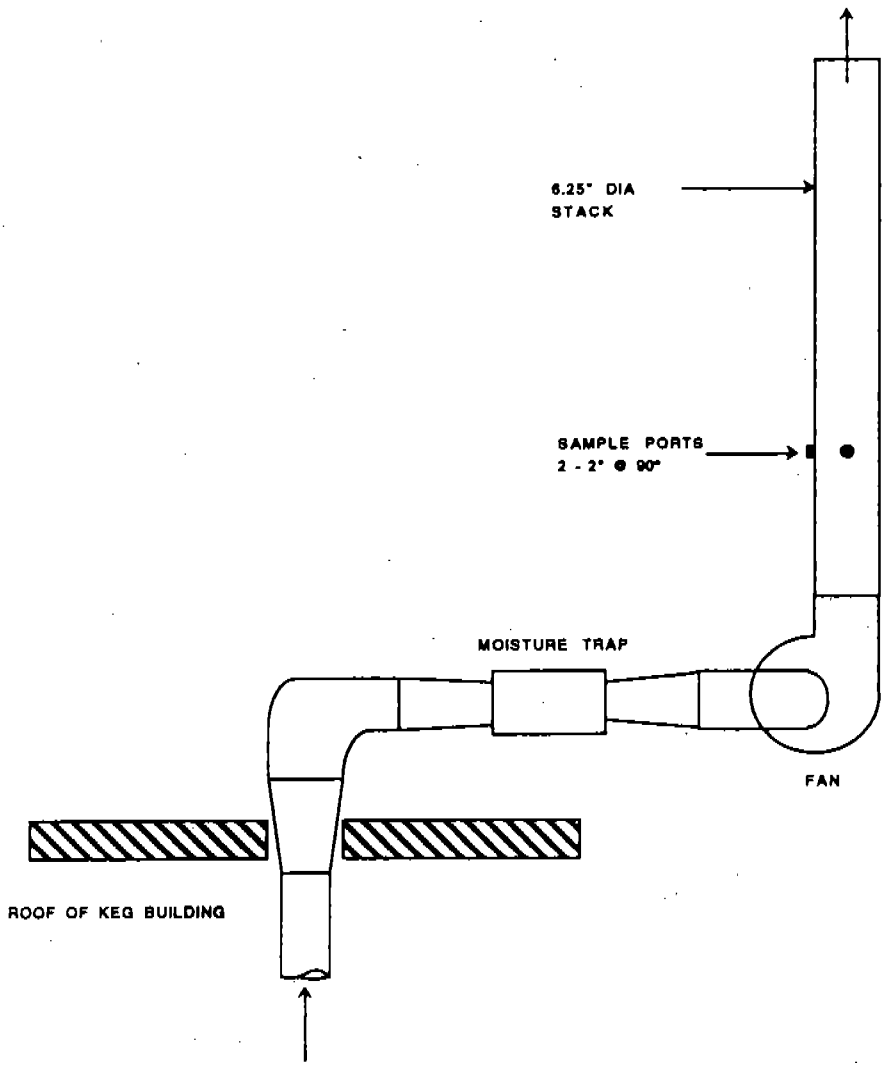


DESCRIPTION OF INSTALLATION

Kegs are filled with carbon dioxide prior to being filled with beer. As the kegs are filled, the carbon dioxide is vented out and the ethanol in the beer is released into the carbon dioxide.

The testing took place at the Keg Line No. 3 - Filler Exhaust on June 25, 1992.

A schematic of the Keg Line No. 3 - Filler Exhaust is shown below.

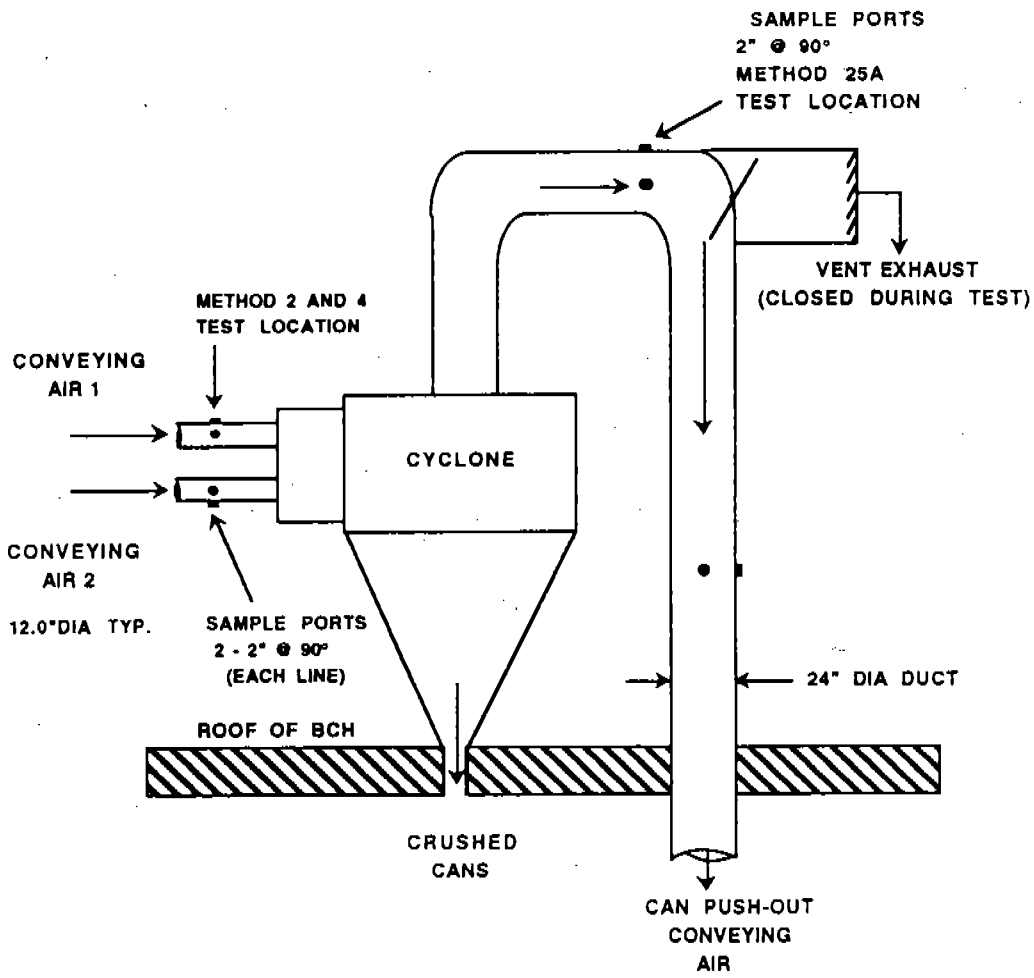


DESCRIPTION OF INSTALLATION

Cans damaged during the filling process are recycled. The damaged cans are sent to a cyclone with air conveyors, where the damaged cans are removed from the airstream and fall into a storage bin. Many of the cans have been filled with beer before they are crushed. Ethanol from the beer is released as the cans are conveyed to the cyclone.

The testing took place at the Crushed Can Conveyor System on June 26, 1992.

A schematic of the Crushed Can Conveyor System is shown below.

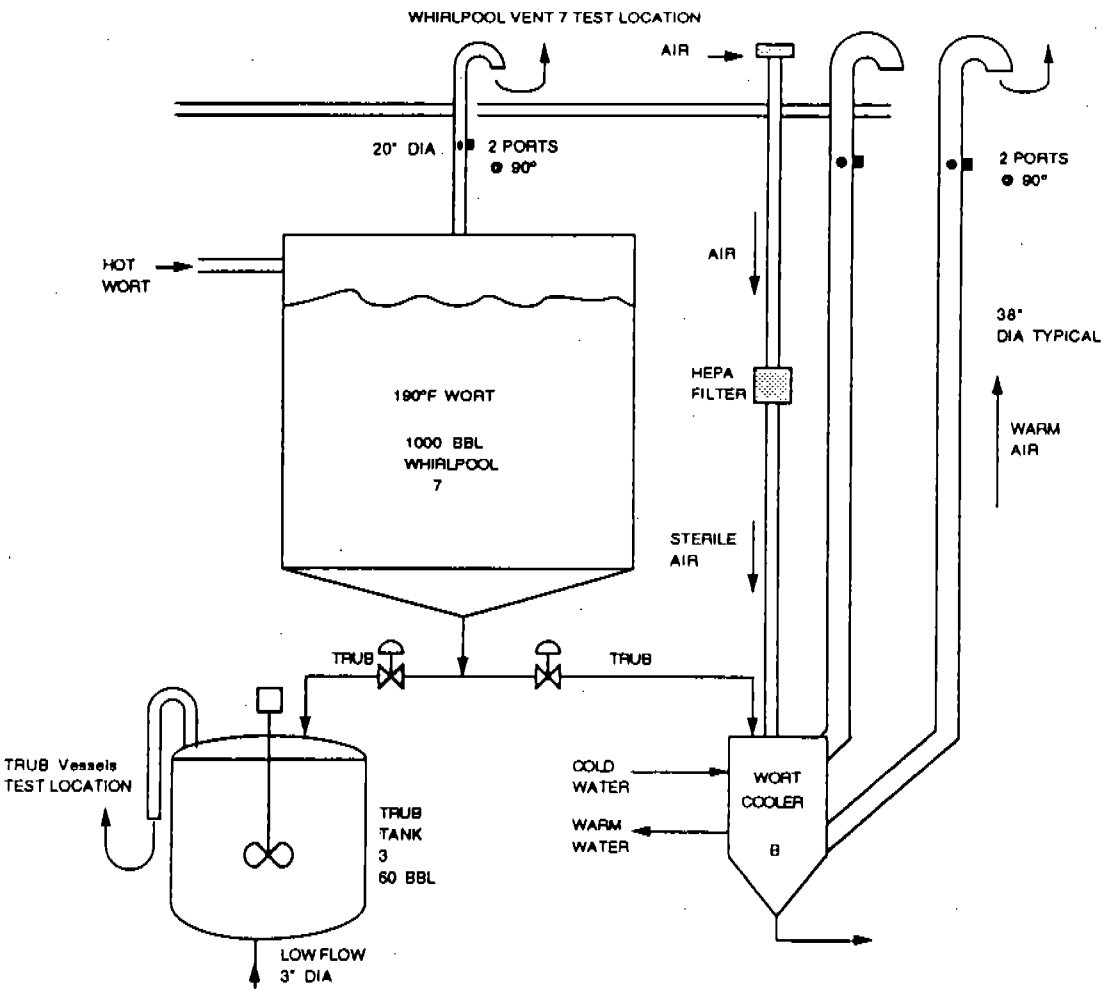


DESCRIPTION OF INSTALLATION

Wort is unfermented beer which may contain hydrocarbons. Hot wort was sent to the Whirlpool where TRUB (the unwanted byproducts in the wort) was separated out. TRUB was sent to the TRUB tank and the cleaned wort was sent to the wort cooler tank.

The testing took place at theWhirlpool Vent 7 on July 2; Wort Cooler on July 2; and the TRUB Vessels on July 7, 1992.

A schematic of the Whirlpool Vent 7, Wort Cooler and TRUB Vessels is shown below.

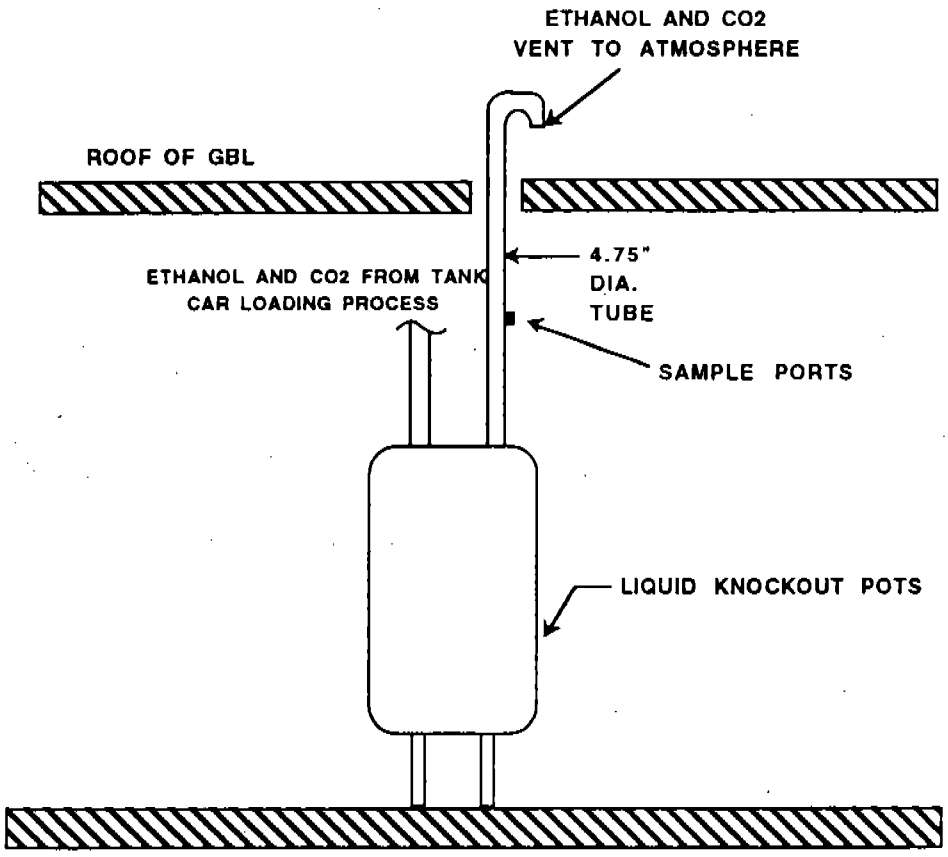


DESCRIPTION OF INSTALLATION

Beer after the brewing process comes out as a concentrate (water and carbon dioxide was added to make the final product). The concentrate was sent to the cooled storage tanks in cellar 24. There are different storage tank lines for the variety of beer produced (Coors, Coors Lite, etc.). When a set of tanks in a line are filled, it is considered a single fill. The beer from the storage tanks is sent to the Golden Beer Loadout (GBL) where it is loaded into insulated rail tankcars.

The testing took place at the Golden Beer Loadout on July 11 and 13, 1992.

A schematic of the Golden Beer Loadout is shown below.

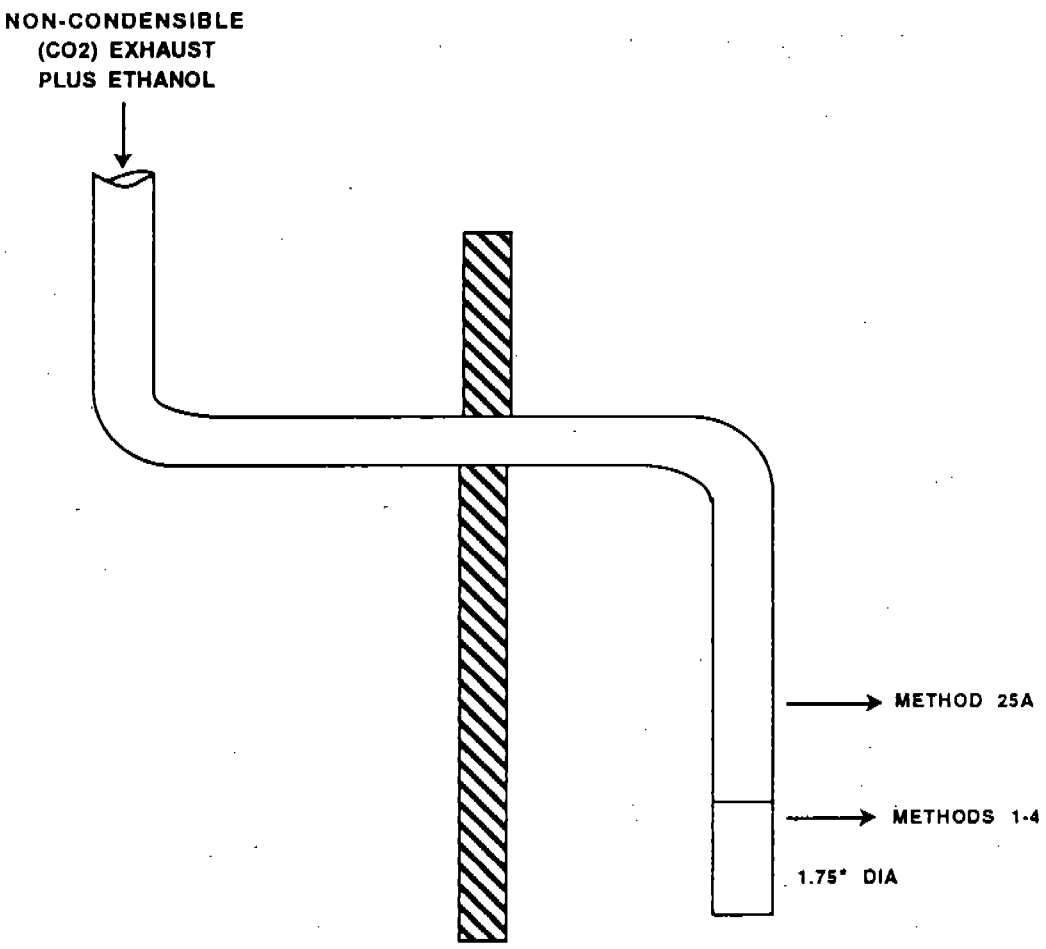


DESCRIPTION OF INSTALLATION

Used yeast from the yeast press was sent to the Yeast Drying Plant (YDP). The yeast was dried and high concentrations of ethanol were released. Vents from the drying plants carry the excess steam and alcohol to a floor drain.

The testing took place at theYeast Drying Plant on July 16 and 20, 1992.

A schematic of the Yeast Drying Plant is shown below.



SUMMARY OF PROCEDURES

SAMPLING PROCEDURES

The sampling followed procedures as detailed in U.S. Environmental Protection Agency (EPA) Methods 1, 1A, 2, 3, 4 and 25A. These methods are titled:

- Method 1 — "Sample and Velocity Traverses for Stationary Sources;"
- Method 1A - "Sample and Velocity Traverses for Stationary Sources with Small Stacks or Ducts;"
- Method 2 — "Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube);"
- Method 3 — "Gas Analysis for the Determination of Dry Molecular Weight;"
- Method 4 — "Determination of Moisture Content in Stack Gases;"
- Method 25A - "Determination of Total Gaseous Organic Concentrations using a Flame Ionization Analyzer (FIA)."

These methods appear in detail in Title 40 of the Code of Federal Regulations (CFR), Part 60, Appendix A.

Clean Air Engineering also adhered to the following EPA Methods and ASTM procedures:

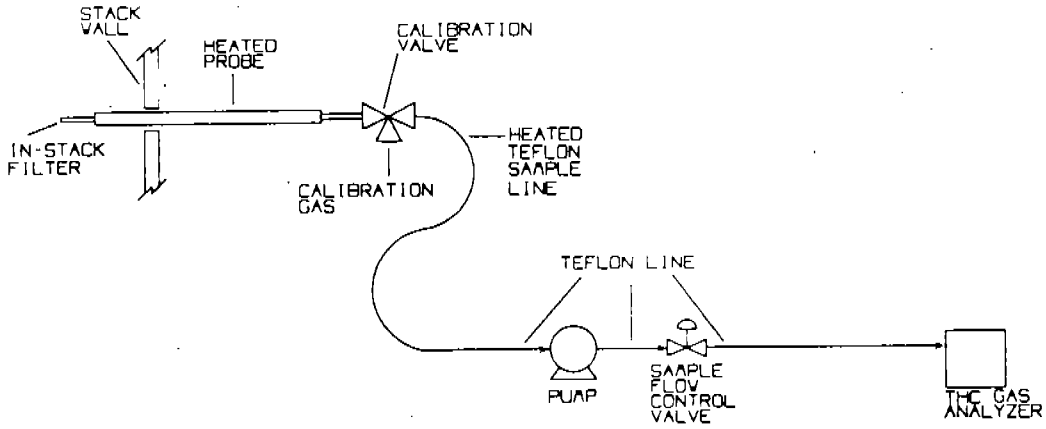
- EPA 600/9-76-005 – 1976 Quality Assurance Handbook for Pollution Measurement Systems, Vol. I. Principles;
- EPA 600/4-77-027b – 1979 Quality Assurance Handbook for Pollution Measurement Systems, Vol. III.

The sampling apparatus is shown in Figure 1 on page 3-3. All equipment was calibrated at the Clean Air Engineering laboratory prior to shipment to the job site.

For moisture determination at each location, a single point was sampled in one port for various time intervals. For total hydrocarbon testing, a single point was sampled from the center of the testing locations for vareous time intervals. The sampling locations are shown in Figures 2 through 16 on page 3-2 through 3-16.

Figure 1

The EPA Method 25A sampling apparatus is shown.



The Solvent Calibration Sampling apparatus is shown.

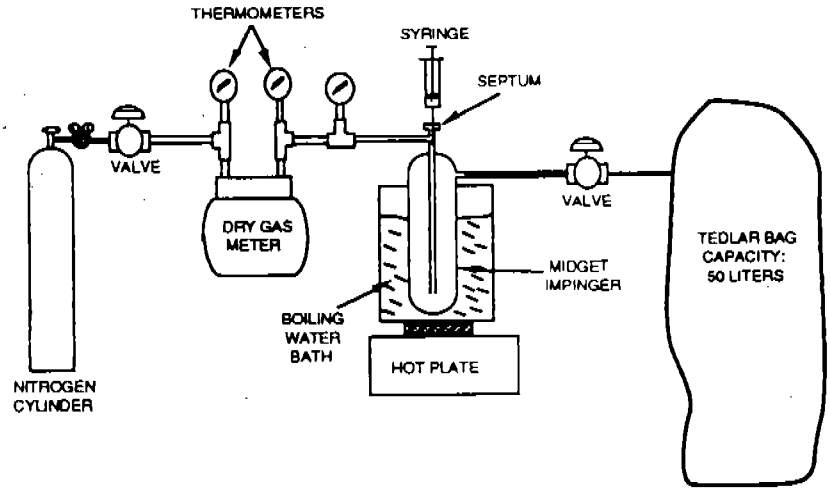
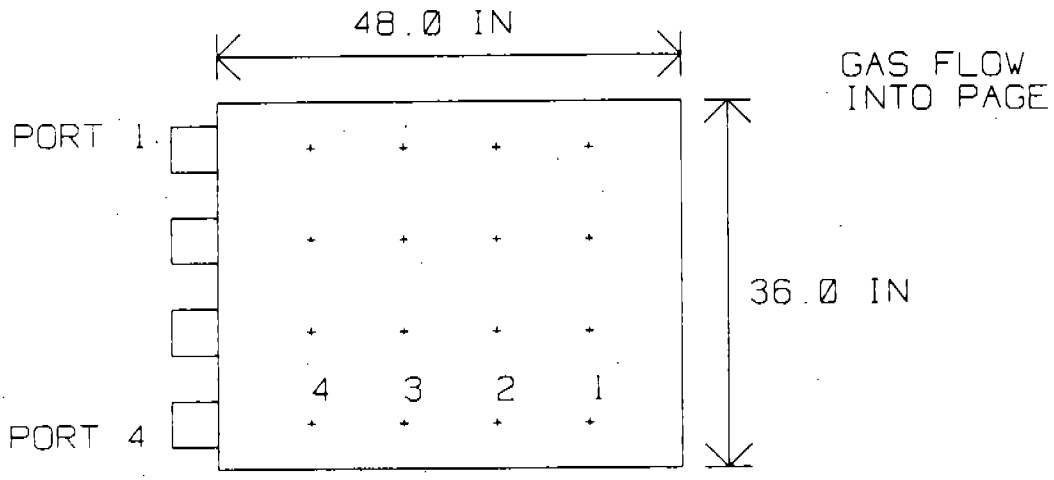


Figure 2

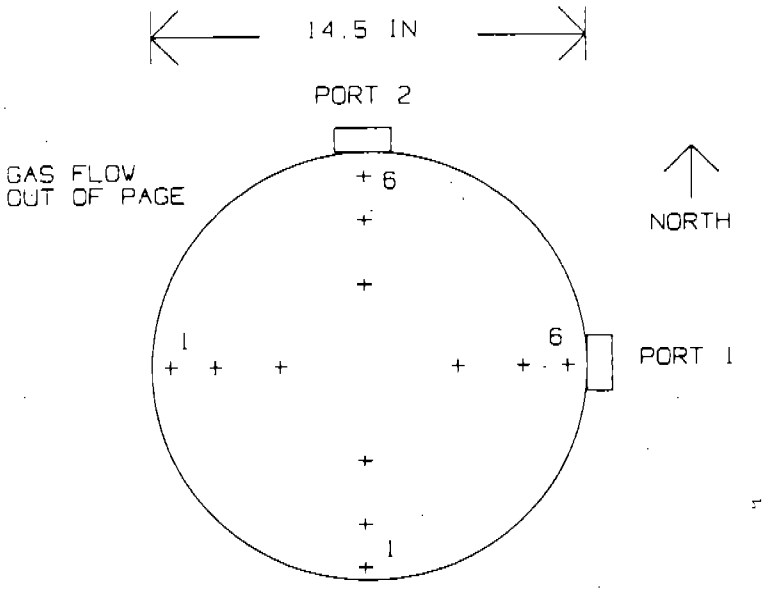
The cross section of the Can Filler Room Vent shows traverse point locations.



TRAVERSE POINT	PORT TO POINT DISTANCE (IN)
1	42.0
2	30.0
3	18.0
4	6.0

Figure 3

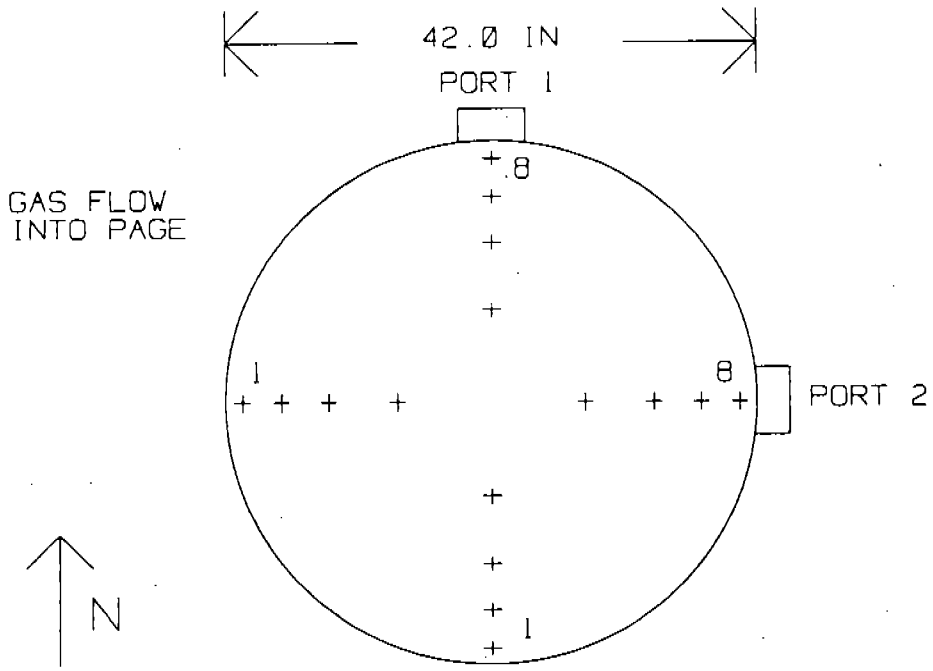
The cross section of the Bottle and Can CO_2 Bowl Vent shows traverse point locations.



TRAVERSE POINT	PORT TO POINT DISTANCE (IN)
1	13.9
2	12.4
3	10.2
4	4.3
5	2.1
6	0.6

Figure 4

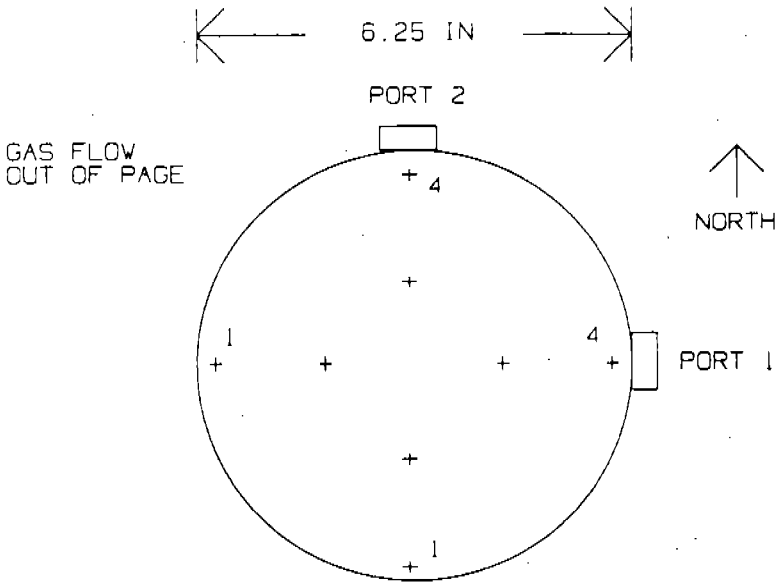
The cross section of the Bottle Filler Room Vent shows sampling point locations.



TRAVERSE POINT	PORT TO POINT DISTANCE (IN)
1	40.7
2	37.6
3	33.9
4	28.4
5	13.6
6	8.1
7	4.4
8	1.3

Figure 5

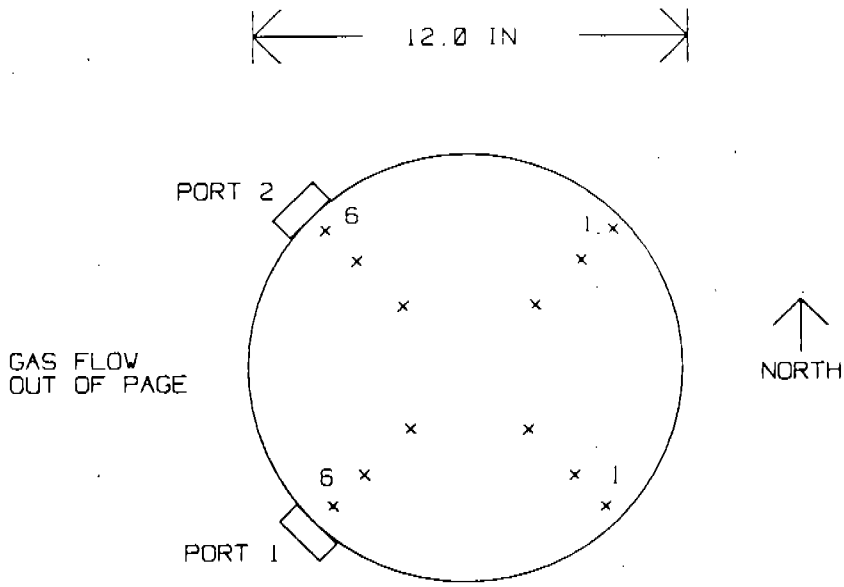
The cross section of the Keg Line No. 3-Filler Exhaust shows traverse point locations.



TRAVERSE POINT	PORT TO POINT DISTANCE (IN)
1	5.75
2	4.69
3	1.56
4	0.50

Figure 6

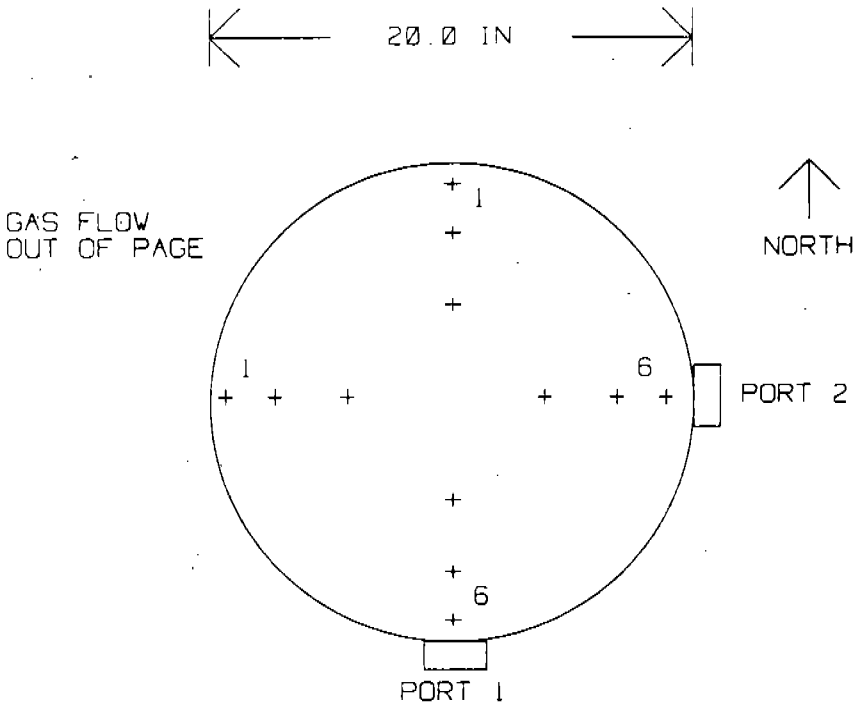
The cross section of the Crushed Can Conveyor System shows traverse point locations.
One of two identical locations.



TRAVERSE POINT	PORT TO POINT DISTANCE (IN)
1	11.5
2	10.2
3	8.4
4	3.6
5	1.8
6	0.5

Figure 7

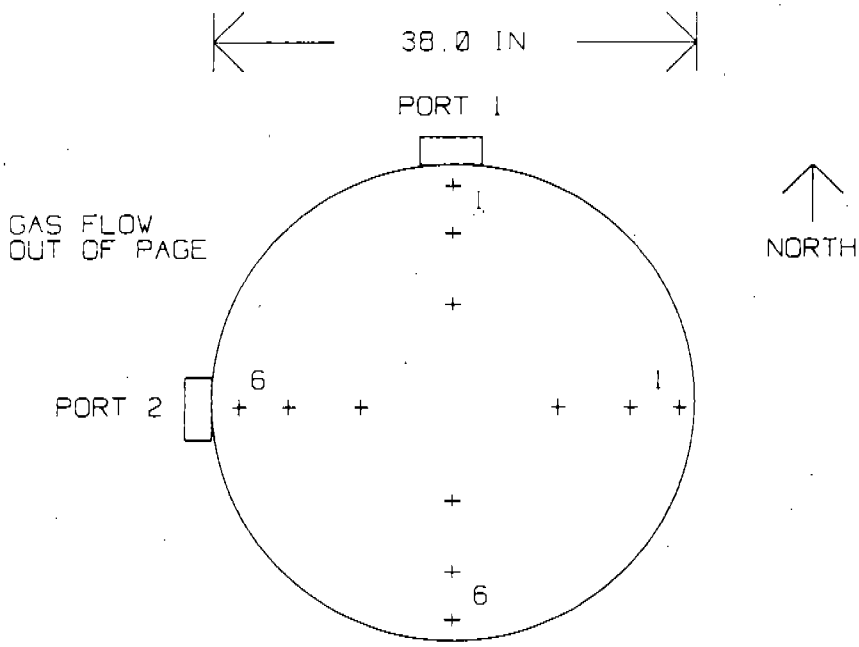
The cross section of the Whirlpool Vent 7 shows traverse point locations.



TRAVERSE POINT	PORT TO POINT DISTANCE (IN)
1	19.1
2	17.1
3	14.1
4	5.9
5	2.9
6	0.9

Figure 8

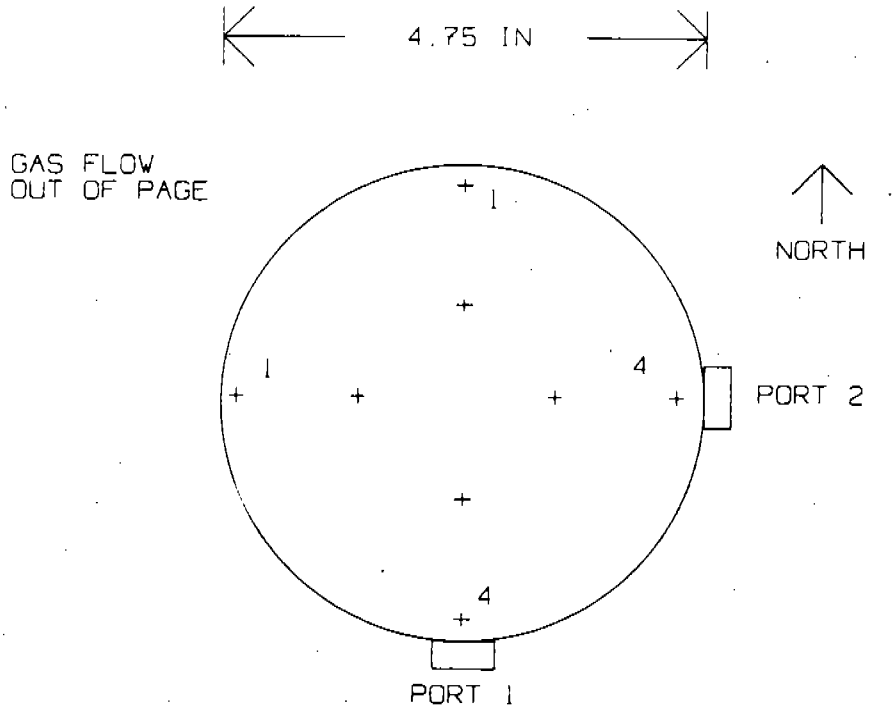
The cross section of the Wort Cooler shows traverse point locations.
One of two identical locations.



TRAVERSE POINT	PORT TO POINT DISTANCE (IN)
1	36.3
2	32.5
3	26.8
4	11.2
5	5.5
6	1.7

Figure 9

The cross section of the Golden Beer Loadout shows traverse point locations.



TRAVERSE POINT	PORT TO POINT DISTANCE (IN)
1	4.4
2	3.6
3	1.2
4	0.3

SUMMARY OF PROCEDURES (Continued)

ANALYTICAL PROCEDURES

Continuous Emissions Monitoring

Total Hydrocarbons

The total hydrocarbons emission rate was determined using procedures detailed in EPA Method 25A. A sample was extracted continuously from the flue gas stream, and a portion was conveyed to a flame ionization analyzer.

Before and after each run, the monitor was zeroed and calibrated with a certified calibration gas. These calibrations were used to correct the raw data for zero and calibration drift occurring during the test runs.

Solvent Calibration

Referenced were EPA Method 18 "Measurement of Gaseous Organic Compound Emissions by Gas Chromatography"; Section 6.2, "Calibration Standards"; Subsection 6.2.2, "Preparation of Standards from Volatile Materials"; Subsection 6.2.2.2, "Liquid Injection Technique."

Apparatus

The apparatus consisted of a 50 liter Tedlar bag connected to the outlet of a midget impinger where the solvent was volatilized. The inlet of the impinger was connected to the outlet of a dry gas meter which received nitrogen gas from a gas cylinder. On the top of the midget impinger was a septum for introducing the solvent with the use of a syringe.

System Preparation

Before each solvent run, the Tedlar bag was evacuated and purged with zero air to remove any contaminates. This was repeated until no VOC's were detected. The Tedlar bag was then evacuated and attached to the outlet of the midget impinger.

SUMMARY OF PROCEDURES (Continued)

ANALYTICAL PROCEDURES (Continued)

Sampling

The hot bath was brought to a boil and the initial dry gas meter reading was taken. The flow rate from the nitrogen take was adjusted to completely fill the Tedlar bag in approximately 15 minutes. The meter pressure and temperature was recorded along with the barometric pressure.

A 10, 100 and 1,000 microliter syringe was used to inject the solvent sample into the midget impinger. The solvent will be injected into the impinger below the inlet air stream.

When the bag was completely filled the pump was stopped, the bag removed and the final volume recorded. The bag was set aside for one hour or massaged to insure adequate mixing of the gas.

The solvent density was found by accurately measuring a known volume on an analytical balance to the nearest 1.0 milligram. The results were calculated in terms of g/ml.

Analysis

The Tedlar bag was analyzed using the same hydrocarbon analyzer as was used in the field. The response of the analyzer was read as ppm propane.

QUALITY CONTROL PROCEDURES

Quality control procedures for all aspects of field sampling; sample preservation and holding time; reagent quality; analytical method; analyst training and safety; and instrument cleaning, calibration and safety were followed. These procedures are generally consistent with EPA guidelines documented in "Quality Assurance Manuals for Air Pollution Measurement Systems," Vol 3, "Stationary Source Specific Methods" (EPA-600/4-77-027b).

COMMENTS

The measured gas stream moisture content for Run 2 at the Whirpool Vent 7, for Run 1 at the Golden Beer Loadout, and for Runs 1, 2 and 3 at the Yeast Drying Plant were above the saturation limit. A comparison of the moisture values calculated using the actual data and the saturated data follows. The saturated moisture values were used to perform all calculations.

Location	Saturated Moisture (%H_2O Vapor, volume basis)	Measured Value (%H_2O Vapor, volume basis)	Percent Difference
Whirlpool Vent 7			
Run No. 2	12.0	12.3	2.4
Golden Beer Loadout			
Run No. 1	2.3	12.2	81.1
Yeast Drying Plant			
Run No. 1	12.6	22.7	44.5
2	13.3	23.4	43.2
3	10.9	22.7	52.0

Free moisture droplets in the gas stream account for moisture measurements which are over the gas saturation limit. Substitution of saturated moisture content is recommended in the EPA guidelines documented in "Quality Assurance Manuals for Air Pollution Measurement Systems," Vol 3, "Stationary Source Specific Methods" (EPA-600/4-77-027b), Section 3.3.6.5.

Velocities of the ducts were measured using a hot wire anomometer.

The Wort Cooler has two stacks. The velocity of the flow was measured in one stack. The flow rate of the one stack measured was doubled to reflect the total flow of the location.

COMMENTS

When the TRUB was sent to the TRUB tank from the Whirlpool, it was sent as a batch. Flow in the TRUB tank was produced only while the tank was being filled with a batch. Because the flow was intermittent, it was not possible to measure using normal procedures. Coors Brewing Company personnel measured the amount of TRUB sent to the tank. This information can be found in the Process Data Section of the Appendix. The displaced volume of the tank was calculated. From this information and the analysis of the Flame Ionization Detector (FID), the lb/batch of total hydrocarbons was determined.

No other deviations from standard U.S. EPA testing procedures were noted.

APPENDIX

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NOMENCLATURE

Nomenclature

A	-	absorbance
A_n	-	cross sectional area of nozzle (ft^2)
A_s	-	cross sectional area of stack (ft^2)
B_{wo}	-	proportion of water vapor in the gas stream by volume
B_{ws}	-	proportion of water vapor in the gas stream by volume at saturated conditions
C_p	-	pitot tube coefficient (dimensionless)
D_f	-	dilution factor
F_d	-	ratio of dry gas generated to gross calories (dscf/MBtu)
F_c	-	ratio of gas generated
GCV	-	gross calorific value of fuel (Btu/lb)
$\overline{DH}$	-	average pressure drop across meter box orifice (in. H_2O)
$\overline{\sqrt{DP}}$	-	average square roots of velocity heads of stack gas ($\sqrt{\text{in. } H_2O}$)
DH@	-	meter orifice calibration coefficient (in. H_2O)
%I	-	percent of isokinetic sampling (acceptable: $90 \leq \%I \leq 110\%$)
K_p	-	pitot tube constant: 85.49 (ft/sec) $\dfrac{\sqrt{(\text{lb/lb-mole})(\text{in. Hg})}}{\sqrt{(^\circ R)(\text{in. } H_2O)}}$
K_c	-	spectrophotometer calibration factor
M_d	-	dry molecular weight of stack gas (lb/lb-mole)
M_s	-	molecular weight of stack gas, wet basis (lb/lb-mole)
M_n	-	total amount of particulate matter collected (gm)
N	-	normality of titrant (meq/ml)
P_b	-	barometric pressure (in. Hg)
P_f	-	final absolute pressure of flask (in. Hg)
P_i	-	initial absolute pressure of flask (in. Hg)
P_s	-	absolute stack gas pressure (in. Hg)
Q_a	-	volumetric flow rate, actual conditions
Q_{std}	-	volumetric flow rate, standard conditions, dry basis
std	-	standard conditions, 29.92 in. Hg, 68 ° F
T_f	-	final absolute temperature of flask (° R)
T_i	-	initial temperature of flask (° R)
T_m	-	average dry gas meter temperature (° F)

T_s	-	average stack temperature (° F)
T_{std}	-	absolute temperature, standard conditions (528 ° R)
Θ	-	total sampling time (min)
V_a	-	volume of aliquot (ml)
V_f	-	volume of flask (ml)
V_{lc}	-	total volume of liquid collected in impingers and silica gel (ml)
V_m	-	volume of gas sample through the dry gas meter at meter conditions (ft^3)
V_{mstd}	-	volume of gas sample through the dry gas meter, standard conditions (ft^3)
V_{sc}	-	volume of flask sample, standard conditions (ml)
V_{soln}	-	total volume of solution (ml)
V_t	-	volume of titrant used to titrate aliquot (ml)
V_{tb}	-	volume of titrant used to titrate blank (ml)
V_{wstd}	-	volume of water collected, standard conditions (ft^3)
V_s	-	stack gas velocity (ft/sec)
Y_d	-	gas meter correction factor (dimensionless)

Nomenclature

CAL GAS	actual concentration of the upscale calibration gas
CAL I	initial system calibration bias check response for the upscale calibration gas, ppm
CAL F	final system calibration bias check response for the upscale calibration gas, ppm
ZERO I	initial system calibration bias check response for the zero gas, ppm
ZERO F	final system calibration bias check response for the zero gas, ppm
ppm	measured concentration as parts per million in the gas stream
ppm (drift calibrated)	concentration calibrated for drift as per Eq. 6C-1 of EPA Method 6C
DRE	destruction removal efficiency

SAMPLE CALCULATIONS

COORS BREWING COMPANY
CAE Project No : 6265 - 1

SAMPLE CALCULATIONS - Run 1, Golden Beer Loadout

(Note : results are taken from computer analysis)

1. Volume of water collected

$$V_{wstd} = (0.04707\ ft^3/ml)\ (V_{lc})$$
$$= (0.04707)\ (40.0)$$
$$= 1.88\ wscf$$

2. Volume of gas metered, standard conditions

$$V_{mstd} = \frac{(17.64\ ^\circ R/in.\ Hg)\ (V_m)\left[P_b + \frac{\Delta H}{13.6}\right]}{(460 + T_m)}(Y_d)$$
$$= \frac{(17.64)\ (16.95)\left[24.38 + \frac{1.0}{13.6}\right]}{(460 + 81)}(1.0078)$$
$$= 13.62\ dscf$$

3. Moisture content (actual)

$$B_{wo} = \frac{V_{wstd}}{V_{mstd} + V_{wstd}}$$
$$= \frac{1.88}{13.62 + 1.88}$$
$$= 0.1215$$
$$= 12.2\ \%$$

Saturated moisture value

$$B_{wo} = \frac{\text{saturated vapor pressure}}{P_s}$$
$$= \frac{0.5601}{24.38}$$
$$= 0.0229$$
$$= 2.3\%$$

If B_{wo} (saturated) < B_{wo} (measured), then use B_{wo} (saturated)

4. Molecular weight of dry gas stream

$$M_d = 0.44(\%CO_2) + 0.32(\%O_2) + 0.28(\%CO + \%N_2)$$
$$= 0.44(96.0) + 0.32(1.0) + 0.28(3.0)$$
$$= 43.40$$

5. Molecular weight of stack gas

$$M_s = M_d\ (1 - B_{wo}) + 18(B_{wo})$$
$$= 43.40\ (1 - 0.0229) + 18(0.0229)$$
$$= 42.82$$

6. Stack pressure (in. Hg)

$$P_s = P_b + \left(\frac{\text{STATIC P}}{13.6}\right)$$
$$= 24.38 + \left(\frac{0.04}{13.6}\right)$$
$$= 24.38$$

SAMPLE CALCULATIONS (Continued)

7. Velocity of stack gas

$$V_s = K_p C_p \overline{(DP)}^{\frac{1}{2}} \frac{[\overline{T_s} + 460]^{\frac{1}{2}}}{[(M_s)(P_s)]^{\frac{1}{2}}}$$

$$= 85.49\ (0.84)\ (0.406)\ \frac{[64 + 460]^{\frac{1}{2}}}{[(42.82)\ (24.38)]^{\frac{1}{2}}}$$

$$= 20.66 \text{ ft/sec}$$

8. Total flow of stack gas, Run 3

$$Q_a = (60)\ (A_s)\ (V_s)$$
$$= (60)\ (0.123)\ (30.92)$$
$$= 228 \text{ acfm}$$

$$Q_{std} = \frac{Q_a\ P_s\ (17.64\ ^\circ R/\text{in. Hg})\ (1 - B_{wo})}{\overline{T_s} + 460}$$

$$= \frac{(228)\ (24.40)\ (17.64)\ (1 - 0.0188)}{59 + 460}$$

$$= 186 \text{ dscfm}$$

SAMPLE CALCULATIONS (Continued)

9. Total Hydrocarbons (as propane)

$$ppm_{wet,\ drift\ calibrated} = \left(C_{avg} - C_o\right)\frac{C_{ma}}{(C_m - C_o)}$$
$$= (223 - 0)\frac{250}{(253 - 0)}$$
$$= 220$$

C_{avg} = Average gas concentration indicated by gas analyzer, wet basis, ppm.
C_o = Average of initial and final system calibration bias check responses for the zero gas, ppm.
C_m = Average of initial and final system calibration bias check responses for the upscale calibration gas, ppm.
C_{ma} = Actual concentration of the upscale calibration gas, ppm.

$$ppm_{dry} = \frac{ppm_{wet,\ drift\ calibrated}}{1 - B_{wo}}$$
$$= \frac{220}{1 - 0.1215}$$
$$= 251$$

$$lb/dscf = \frac{(ppm_{dry})(MW)}{385.3 \times 10^{-6}}$$
$$= \frac{(251)(44)}{385.3 \times 10^{-6}}$$
$$= 2.86 \times 10^{-5}$$

$$lb/hr = (lb/dscf)(dscfm)(60)$$
$$= (2.86 \times 10^{-5})(186)(60)$$
$$= 0.32$$

$$lb/hr,\ Ethanol = (lb/hr)(Ethanol\ Correction\ Factor)$$
$$= (0.32)(2.36)$$
$$= 0.754$$

$$ton/yr,\ Ethanol = \frac{(lb/hr,\ Ethanol)(24\frac{hr}{day})(365\frac{days}{yr})}{2,000\frac{ton}{lb}}$$

$$= \frac{(0.754)(24)(365)}{2,000}$$
$$= 3.30$$

SAMPLE CALCULATIONS (Continued)

10. TRUB Vessels, Run 1

$$\text{cu. ft/batch} = \frac{(\text{Barrels})(31.25\frac{\text{gal}}{\text{barrel}})}{7.48\frac{\text{gal}}{\text{ft}^3}}$$

$$= \frac{(27.05)(31.25)}{7.48}$$

$$= 113.0$$

$$\text{lb/batch} = (\text{lb/dscf})(\text{cu. ft/batch})$$

$$= (6.70\text{x}10^{-5})(113.0)$$

$$= 0.0076$$

11. Solvent Calibration (trial 1)

$$\text{lb/dscf}_{\text{Ethanol}} = \frac{(\text{grams}_{\text{Ethanol}})(28.31\frac{\text{liters}}{\text{ft}3})}{(\text{liters})(453.59\frac{\text{g}}{\text{lb}})}$$

$$= \frac{(0.0013)(28.31)}{(15)(453.59)}$$

$$= 5.41\text{x}10^{-6}$$

$$\text{RF(1)} = \frac{(\text{lb/dscf}_{\text{Ethanol}})(385.3\text{x}10^{6})}{(\text{ppm}_{\text{FID}})(\text{MW})}$$

$$= \frac{(5.41\text{x}10^{-6})(385.3\text{x}10^{6})}{(20.5)(44)}$$

$$= 2.31$$

PARAMETERS

COORS BREWING COMPANY
Project No. 6265
Can Filler Room Vent

Moisture and Velocity Parameters

Run No.	1	2	3
Date (1992)	June 23	June 23	June 23
Start Time (approx.)	2:20 PM	4:00 PM	5:17 PM
Stop Time (approx.)	3:05 PM	4:45 PM	6:02 PM
%CO2	0.2	0.3	0.3
%O2	20.7	20.9	20.9
Pb	24.43	24.43	24.43
STATIC P	0.2	0.2	0.2
Cp	0.84	0.84	0.84
As	12.0	12.0	12.0
Vlc	8.7	4.1	4.2
Vm	30.25	31.08	31.85
DH	1.0	1.0	1.0
Yd	1.0112	1.0112	1.0112
Tm	85	103	105
CALCULATED RESULTS			
Vwstd	0.41	0.19	0.20
Vmstd	24.26	24.13	24.64
Bwo	0.0166	0.0079	0.0080
AVG VEL ROOT	0.710	0.745	0.735
AVG TEMP	75	78	76
Md	28.86	28.88	28.88
Ms	28.68	28.80	28.80
Ps	24.44	24.44	24.44
Vs	44.53	46.75	46.06
Qa (acfm)	32,060	33,660	33,160
Qstd (dscfm)	25,410	26,780	26,460

COORS BREWING COMPANY
CAE Project No: 6265
Can Filler Room Vents

Total Hydrocarbons Concentration
(ppm as propane)

Run No.	**1**	**2**	**3**
Date (1992)	June 23	June 23	June 23
Start Time (approx)	2:00 PM	3:30 PM	5:00 PM
Stop Time (approx)	3:00 PM	4:30 PM	6:00 PM
dscfm	25,410	26,780	26,460
Bwo	0.0166	0.0079	0.0080
Ethanol Correction Factor	2.36	2.36	2.36
ZERO I	-7	-17	-20
CAL I	252	231	229
ZERO F	-17	-20	-24
CAL F	231	229	217
ppm	48	42	28
CAL GAS	250	250	250
ppm, wet (drift calibrated)	60	61	51
ppm, dry	61	61	51
lb/dscf	6.92E-06	7.01E-06	5.87E-06
lb/hr	10.6	11.3	9.32
ton/yr	46.2	49.3	40.8
lb/hr, as Ethanol	**24.9**	**26.6**	**22.0**
ton/yr, as Ethanol	**109.1**	**116.4**	**96.4**

COORS BREWING COMPANY
Project No. 6265
Bottle and Can CO2 Bowl Vent

Moisture and Velocity Parameters

Run No.	1	2	3
Date (1992)	June 24	June 24	June 24
Start Time (approx.)	10:21 AM	12:00 PM	2:00 PM
Stop Time (approx.)	11:06 AM	12:45 PM	2:45 PM
%CO2	24.6	26.7	22.2
%O2	16.3	15.6	16.4
Pb	24.28	24.28	24.28
STATIC P	-0.2	-0.2	-0.2
Cp	0.84	0.84	0.84
As	1.147	1.147	1.147
Vlc	6.0	4.2	7.6
Vm	27.01	27.65	27.81
DH	1.0	1.0	1.0
Yd	1.0078	1.0078	1.0078
Tm	86	97	92
CALCULATED RESULTS			
Vwstd	0.28	0.20	0.36
Vmstd	21.42	21.49	21.81
Bwo	0.0130	0.0091	0.0161
AVG VEL ROOT	0.416	0.412	0.396
AVG TEMP	83	85	84
Md	32.59	32.90	32.21
Ms	32.40	32.76	31.98
Ps	24.27	24.27	24.27
Vs	24.85	24.48	23.80
Qa (acfm)	1,710	1,685	1,638
Qstd (dscfm)	1,331	1,311	1,268

COORS BREWING COMPANY
CAE Project No: 6265
Bottle and Can CO2 Bowl Vent

Total Hydrocarbons Concentration
(ppm as propane)

Run No.	**1**	**2**	**3**
Date (1992)	June 24	June 24	June 24
Start Time (approx)	10:04 AM	11:22 AM	1:58 PM
Stop Time (approx)	11:05 AM	12:23 PM	2:59 PM
dscfm	1,331	1,311	1,268
Bwo	0.0130	0.0091	0.0161
Ethanol Correction Factor	2.36	2.36	2.36
ZERO I	1	-2	-5
CAL I	248	246	241
ZERO F	-2	-5	-15
CAL F	246	241	243
ppm	38	30	18
CAL GAS	250	250	250
ppm, wet (drift calibrated)	39	34	28
ppm, dry	39	34	28
lb/dscf	4.50E-06	3.91E-06	3.22E-06
lb/hr	0.359	0.307	0.245
ton/yr	1.57	1.35	1.07
lb/hr, as Ethanol	**0.848**	**0.725**	**0.579**
ton/yr, as Ethanol	**3.71**	**3.18**	**2.54**

COORS BREWING COMPANY
CAE Project No: 6265
Bottle Filler Room Vent

Total Hydrocarbons Concentration
(ppm as propane)

Run No.	**1**	**2**	**3**
Date (1992)	June 25	June 25	June 25
Start Time (approx)	9:03 AM	10:33 AM	11:57 AM
Stop Time (approx)	10:05 AM	11:37 AM	1:01 PM
dscfm	20,290	19,960	20,450
Bwo	0.0100	0.0073	0.0076
Ethanol Correction Factor	2.36	2.36	2.36
ZERO I	0	0	0
CAL I	245	248	244
ZERO F	0	0	0
CAL F	248	244	237
ppm	39	46	42
CAL GAS	250	250	250
ppm, wet (drift calibrated)	40	47	44
ppm, dry	40	47	44
lb/dscf	4.56E-06	5.38E-06	5.02E-06
lb/hr	5.55	6.44	6.16
ton/yr	24.3	28.2	27.0
lb/hr, as Ethanol	**13.1**	**15.2**	**14.5**
ton/yr, as Ethanol	**57.4**	**66.6**	**63.7**

COORS BREWING COMPANY
Project No. 6265
Keg Line No. 3 - Filler Exhaust

Moisture and Velocity Parameters

Run No.	1	2	3
Date (1992)	June 25	June 25	June 25
Start Time (approx.)	7:00 PM	8:20 PM	9:36 PM
Stop Time (approx.)	7:50 PM	9:05 PM	10:21 PM
%CO2*	3.8	3.8	3.8
%O2*	20.3	20.3	20.3
Pb	24.31	24.31	24.31
STATIC P	0.0	0.0	0.0
Cp	N/A	N/A	N/A
As	0.213	0.213	0.213
Vlc	3.7	4.8	3.5
Vm	31.17	26.16	26.35
DH	1.0	1.0	1.0
Yd	1.0112	1.0112	1.0112
Tm	104	101	98

CALCULATED RESULTS

Vwstd	0.17	0.23	0.16
Vmstd	24.04	20.28	20.54
Bwo	0.0072	0.0110	0.0080
AVG TEMP	77	71	72
Md	29.42	29.42	29.42
Ms	29.34	29.29	29.33
Ps	24.31	24.31	24.31
Vs**	3.65	3.74	3.34
Qa (acfm)	47	48	43
Qstd (dscfm)	37	38	34

* The average of two Orsat analysis were used for runs 1, 2 and 3.
** Velocity of the duct was measured using a hot wire anomometer.

COORS BREWING COMPANY
CAE Project No: 6265
Keg Line No. 3 - Filler Exhaust

Total Hydrocarbons Concentration
(ppm as propane)

Run No.	**1**	**2**	**3**
Date (1992)	June 25	June 25	June 25
Start Time (approx)	7:04 PM	8:15 PM	9:38 PM
Stop Time (approx)	8:05 PM	9:17 PM	10:39 PM
dscfm*	37	38	34
Bwo	0.0072	0.0110	0.0080
Ethanol Correction Factor	2.36	2.36	2.36
ZERO I	-2	0	2
CAL I	251	250	242
ZERO F	0	2	0
CAL F	250	242	252
ppm	139	269	205
CAL GAS	250	250	250
ppm, wet (drift calibrated)	139	273	207
ppm, dry	140	277	209
lb/dscf	1.60E-05	3.16E-05	2.39E-05
lb/hr	0.036	0.072	0.049
ton/yr	0.156	0.315	0.213
lb/hr, as Ethanol	**0.084**	**0.170**	**0.115**
ton/yr, as Ethanol	**0.367**	**0.744**	**0.503**

* dscfm was measured using a hot wire anomometer

COORS BREWING COMPANY
Project No. 6265
Crushed Can Conveyor System (Conveying Air 1)

Moisture and Velocity Parameters

Run No.	1	2	3
Date (1992)	June 26	June 26	June 26
Start Time (approx.)	12:36 PM	2:08 PM	3:17 PM
Stop Time (approx.)	1:21 PM	2:43 PM	4:02 PM
%CO2	0.2	0.2	0.2
%O2	20.6	20.6	20.6
Pb	24.31	24.31	24.24
STATIC P	4.2	4.2	4.2
Cp	0.84	0.84	0.84
As	0.785	0.785	0.785
Vlc	5.1	6.0	2.5
Vm	35.44	28.84	28.89
DH	1.67	1.0	1.0
Yd	1.0078	1.0078	1.0078
Tm	84	81	87
CALCULATED RESULTS			
Vwstd	0.24	0.28	0.12
Vmstd	28.30	23.11	22.83
Bwo	0.0084	0.0121	0.0051
AVG VEL ROOT 1	1.595	1.565	1.528
AVG TEMP 1	83	76	72
Md	28.86	28.86	28.86
Ms	28.76	28.72	28.80
Ps	24.62	24.62	24.55
Vs	100.34	97.89	95.16
Qa (acfm)	4,726	4,611	4,482
Qstd (dscfm)	3,746	3,689	3,630

Velocity and moisture data obtained from Conveying Air 1 Duct.

COORS BREWING COMPANY
Project No. 6265
Crushed Can Conveyor System (Conveying Air 2)

Moisture and Velocity Parameters

Run No.	1	2	3
Date (1992)	June 26	June 26	June 26
Start Time (approx.)	12:36 PM	2:08 PM	3:17 PM
Stop Time (approx.)	1:21 PM	2:43 PM	4:02 PM
%CO2	0.2	0.2	0.2
%O2	20.6	20.6	20.6
Pb	24.31	24.31	24.24
STATIC P	4.5	4.5	4.0
Cp	0.84	0.84	0.84
As	0.785	0.785	0.785
Vlc	5.1	6.0	2.5
Vm	35.44	28.84	28.89
DH	1.67	1.0	1.0
Yd	1.0078	1.0078	1.0078
Tm	84	81	87

CALCULATED RESULTS

Vwstd	0.24	0.28	0.12
Vmstd	28.30	23.11	22.83
Bwo	0.0084	0.0121	0.0051
AVG VEL ROOT 2	0.925	1.246	0.972
AVG TEMP 2	99	94	99
Md	28.86	28.86	28.86
Ms	28.76	28.72	28.80
Ps	24.64	24.64	24.53
Vs	58.97	79.19	62.07
Qa (acfm)	2,777	3,730	2,923
Qstd (dscfm)	2,143	2,889	2,252

Velocity and moisture data obtained from Conveying Air 2 Duct.

Combined Conveying Air 1 and 2

AVG TEMP	91	85	86
Qa (acfm)	7,503	8,341	7,405
Qstd (dscfm)	5,888	6,578	5,881

COORS BREWING COMPANY
CAE Project No: 6265
Crushed Can Conveyor System

Total Hydrocarbons Concentration
(ppm as propane)

Run No.	**1**	**2**	**3**
Date (1992)	June 26	June 26	June 26
Start Time (approx)	12:30 PM	2:00 PM	3:10 PM
Stop Time (approx)	1:30 PM	3:00 PM	4:10 PM
dscfm*	5,888	6,578	5,881
Bwo	0.0084	0.0121	0.0051
Ethanol Correction Factor	2.36	2.36	2.36
ZERO I	0	1	2
CAL I	550	552	549
ZERO F	1	2	2
CAL F	552	549	555
ppm	53	72	78
CAL GAS	550	550	550
ppm, wet (drift calibrated)	52	70	76
ppm, dry	53	71	76
lb/dscf	6.02E-06	8.14E-06	8.70E-06
lb/hr	2.13	3.21	3.07
ton/yr	9.31	14.1	13.4
lb/hr, as Ethanol	**5.02**	**7.58**	**7.24**
ton/yr, as Ethanol	**22.0**	**33.2**	**31.7**

* The dscfm is the sum of Conveying Air Ducts 1 and 2.

COORS BREWING COMPANY
Project No. 6265
Whirlpool Vent 7

Moisture and Velocity Parameters

	Batch 1 Quiescent and Drain	Batch 1 Fill	Batch 2 Quiescent and Drain	Batch 2 Fill
Moisture Run No.*	1	2	2	3
Date (1992)	July 2	July 2	July 2	July 2
Start Time (approx.)	11:52 AM	12:39 PM	12:39 PM	1:54 PM
Stop Time (approx.)	12:22 PM	1:09 PM	1:09 PM	2:24 PM
%CO2	0.0	0.0	0.0	0.0
%O2	20.9	20.9	20.9	20.9
Pb	24.30	24.30	24.30	24.30
STATIC P	0.0	0.0	0.0	0.0
Cp	N/A	N/A	N/A	N/A
As	2.182	2.182	2.182	2.182
Vlc	43.0	56.5	56.5	49.0
Vm	23.29	24.02	24.02	23.67
DH	1.7	1.7	1.7	1.6
Yd	1.0078	1.0078	1.0078	1.0078
Tm	80	87	87	91
saturated moisture value	2.911	2.672	3.169	4.772
CALCULATED RESULTS				
Vwstd	2.02	2.66	2.66	2.31
Vmstd	18.73	19.05	19.05	18.65
Bwo (saturated)**	0.1198	0.1100	0.1304	0.1964
Bwo (actual)	0.0975	0.1225	0.1225	0.1101
AVG TEMP	114	111	117	132
Md	28.84	28.84	28.84	28.84
Ms	27.78	27.64	27.51	27.64
Ps	24.30	24.30	24.30	24.30
Vs***	15.81	16.15	13.77	21.73
Qa (acfm)	2,070	2,114	1,803	2,845
Qstd (dscfm)	1,396	1,413	1,175	1,833

* Moisture determination Run 2 was used for both Batch 1 Fill and Batch 2 Quiescient and Drain.
** Run 2 Batch 1 Fill was saturated. The saturated Bwo was used in all calculations.
*** Velocity of the duct was measured using a hot wire anomometer.

COORS BREWING COMPANY
CAE Project No: 6265
Whirlpool Vent 7

Total Hydrocarbons Concentration
(ppm as propane)

Run No.	Batch 1 Quiescent and Drain	Batch 1 Fill	Batch 2 Quiescent and Drain	Batch 2 Fill
Date (1992)	July 2	July 2	July 2	
Start Time (approx)	11:55 AM	12:20 PM	1:13 PM	4:20 PM
Stop Time (approx)	12:20 PM	12:40 PM	2:17 PM	4:40 PM
dscfm*	1,396	1,413	1,175	1,833
Bwo**	0.0975	0.1100	0.1225	0.1101
ZERO I	0	0	2	-1
CAL I	54.5	54.5	57	53.5
ZERO F	2	2	0	0
CAL F	57	57	55.5	56
ppm	2.05	9.10	3.35	4.98
CAL GAS	55.52	55.52	55.52	55.52
ppm, wet (drift calibrated)	1.06	8.22	3.36	4.96
ppm, dry	1.18	9.23	3.82	5.57
lb/dscf	1.34E-07	1.05E-06	4.37E-07	6.36E-07
lb/hr***	0.0112	0.0894	0.0308	0.0699
ton/yr***	0.0492	0.391	0.135	0.306

	Batch 1	Batch 2
Total lb/batch	0.0485	0.0746

* dscfm was measured using a hot wire anomometer
** The actual Bwo was used for Run 2.
*** Ethanol not present because grain not fermented.

COORS BREWING COMPANY
Project No. 6265
Wort Cooler

Moisture and Velocity Parameters

Run No.	1	2	3
Date (1992)	July 2	July 2	July 2
Start Time (approx.)	2:35 PM	5:06 PM	6:30 PM
Stop Time (approx.)	3:05 PM	5:36 PM	7:00 PM
%CO2	0.0	0.0	0.0
%O2	20.9	20.9	20.9
Pb	24.30	24.30	24.30
STATIC P	0.0	0.0	0.0
As	7.88	7.88	7.88
Vlc	10.0	8.5	11.0
Vm	23.94	24.10	26.32
DH	1.6	1.7	1.6
Yd	1.0078	1.0078	1.0078
Tm	92	81	78
CALCULATED RESULTS			
Vwstd	0.47	0.40	0.52
Vmstd	18.84	19.33	21.22
Bwo	0.0244	0.0203	0.0238
AVG TEMP	100	96	101
Md	28.84	28.84	28.84
Ms	28.57	28.62	28.58
Ps	24.30	24.30	24.30
Vs*	5.33	5.08	5.61
Qa (acfm)	2,521	2,403	2,651
Qstd (dscfm)	1,882	1,815	1,977
Qa (acfm)**	5,042	4,807	5,302
Qstd (dscfm)**	3,764	3,631	3,955

* Velocity of the duct was measured using a hot wire anomometer.
** Wort Cooler has two stacks. Flows are doubled to reflect this.

COORS BREWING COMPANY
CAE Project No: 6265
Wort Cooler

Total Hydrocarbons Concentration
(ppm as propane)

Run No.	**1**	**2**	**3**
Date (1992)	July 2	July 2	July 2
Start Time (approx)	2:28 PM	5:26 PM	6:35 PM
Stop Time (approx)	3:28 PM	6:26 PM	7:35 PM
dscfm*	3,764	3,631	3,955
Bwo	0.0244	0.0203	0.0238
ZERO I	0	0	-1
CAL I	55.5	55.5	55
ZERO F	-1	-1	-1
CAL F	53.5	55	54.5
ppm	1	1	1
CAL GAS	55.52	55.52	55.52
ppm, wet (drift calibrated)	1	2	2
ppm, dry	1	2	2
lb/dscf	7.81E-08	2.61E-07	2.85E-07
lb/hr**	0.018	0.057	0.068
ton/yr**	0.077	0.249	0.297

* Wort Cooler has two stacks. Flows are doubled to reflect this.
dscfm was measured using a hot wire anomometer
** Ethanol not present because grain not fermented.

COORS BREWING COMPANY
Project No. 6265
TRUB Vessels

Moisture and Velocity Parameters

Run No.	1	2	3
Date (1992)	July 7	July 7	July 7
Start Time (approx.)	1:30 PM	3:00 PM	4:20 PM
Stop Time (approx.)	2:15 PM	3:45 PM	5:20 PM
%CO2	0.7	0.2	0.2
%O2	21.0	20.6	20.7
Pb	24.49	24.49	24.49
STATIC P	0.00	0.00	0.00
Vlc	85.3	26.7	40.0
Vm	28.57	28.60	38.15
DH	1.0	1.0	1.0
Yd	1.0078	1.0078	1.0078
Tm	96	102	103
CALCULATED RESULTS			
Vwstd	4.02	1.26	1.88
Vmstd	22.44	22.22	29.59
Bwo	0.1518	0.0535	0.0598
Md	28.95	28.86	28.86
Ms	27.29	28.27	28.21
Ps	24.49	24.49	24.49

COORS BREWING COMPANY
Project No. 6265
TRUB Vessels

Total Hydrocarbons Concentration
(ppm as propane)

Run No.*	**1**	**2**	**3**
Date (1992)	July 7	July 7	July 7
Start Time (approx)	1:50 PM	3:50 PM	5:15 PM
Stop Time (approx)	1:53 PM	3:58 PM	5:20 PM
Barrels**	27.05	26.50	29.23
Bwo	0.1518	0.0535	0.0598
ZERO I	3	0	-2
CAL I	556	540	548
ZERO F	0	-2	-3
CAL F	540	548	548
ppm	498	468	480
CAL GAS	547.8	547.8	547.8
ppm, wet (drift calibrated)	498	471	480
ppm, dry	587	498	510
lb/dscf	6.70E-05	5.69E-05	5.83E-05
cu. ft/batch	113.0	110.7	122.1
lb/batch* **	**0.0076**	**0.0063**	**0.0071**

* Concentrations of THC were taken only when the vessels were filling.
** The number of barrels was obtained from client data.
*** Ethanol not present because grain not fermented.

COORS BREWING COMPANY
Project No. 6265
Golden Beer Loadout

Moisture and Velocity Parameters

Run No.*	1	3	4
Date (1992)	July 11	July 13	July 13
Start Time (approx.)	9:18 AM	11:37 AM	4:48 PM
Stop Time (approx.)	9:52 AM	12:17 PM	5:13 PM
%CO2	96.0	98.5	99.5
%O2	1.0	0.5	0.0
Pb	24.38	24.40	24.40
STATIC P	0.04	0.05	0.05
Cp	0.84	1.0	1.0
As	0.123	0.123	0.123
Vlc	40.0	6.8	7.1
Vm	16.95	20.49	23.00
DH	1.0	1.0	1.0
Yd	1.0078	1.0078	1.0078
Tm	81	75	81
saturated moisture value	0.5601	0.504	0.5601
CALCULATED RESULTS			
Vwstd	1.88	0.32	0.33
Vmstd	13.62	16.66	18.50
Bwo (saturated)**	0.0229	0.0229	0.0229
Bwo (actual)	0.1215	0.0188	0.0177
AVG VEL ROOT	0.406	0.516	0.520
AVG TEMP	64	59	64
Md	43.40	43.78	43.92
Ms	42.82	43.29	43.46
Ps	24.38	24.40	24.40
Vs	20.66	30.92	31.26
Qa (acfm)***	230	228	231
Qstd (dscfm)***	186	186	186

* Run 2 was not included in the results due to process problems.
** Run 1 had saturated moistures. The saturated Bwo was used in all calculations.
*** Runs 3 and 4 were averaged to obtain acfm and dscfm for Run 1.

COORS BREWING COMPANY
CAE Project No: 6265
Golden Beer Loadout

Total Hydrocarbons Concentration
(ppm as propane)

Run No.*	**1**	**3**	**4**
Date (1992)	July 11	July 13	July 13
Start Time (approx)	9:10 AM	11:20 AM	4:23 PM
Stop Time (approx)	10:20 AM	12:14 PM	5:17 PM
dscfm**	186	186	186
Bwo***	0.1215	0.0188	0.0177
Ethanol Correction Factor	2.36	2.36	2.36
ZERO I	0	0	1
CAL I	253	252	253
ZERO F	0	1	0
CAL F	253	253	245
ppm	223	243	248
CAL GAS	250	250	250
ppm, wet (drift calibrated)	220	240	249
ppm, dry	251	245	253
lb/dscf	2.86E-05	2.80E-05	2.89E-05
lb/hr	0.320	0.311	0.323
ton/yr	1.40	1.36	1.42
lb/hr, as Ethanol	**0.754**	**0.735**	**0.763**
ton/yr, as Ethanol	**3.30**	**3.22**	**3.34**

* Run 2 was not included in the results due to process problems.
** The dscfm from Runs 2 and 3 were averaged to obtain the dscfm for Run 1.
*** The actual Bwo was used for Run 1.

COORS BREWING COMPANY
Project No. 6265
Yeast Drying Plant

Moisture and Velocity Parameters

Run No.	1	2	3
Date (1992)	July16	July16	July20
Start Time (approx.)	12:02 PM	1:19 PM	9:07 AM
Stop Time (approx.)	1:02 PM	2:20 PM	9:52 AM
%CO2	4.7	5.3	10.0
%O2	19.9	19.8	18.6
Pb	24.46	24.46	24.51
STATIC P	0.0	0.0	0.0
As	0.0167	0.0167	0.0167
Vlc	141.1	145.2	142.2
Vm	27.76	27.88	27.49
DH	1.0	1.0	1.0
Yd	1.0078	1.0078	1.0078
Tm	76	82	68
saturated moisture value	3.081	3.259	2.672
CALCULATED RESULTS			
Vwstd	6.64	6.83	6.69
Vmstd	22.59	22.44	22.75
Bwo (saturated)*	0.1260	0.1332	0.1090
Bwo (actual)	0.2272	0.2335	0.2273
AVG TEMP	116	118	111
Md	29.55	29.64	30.34
Ms	28.09	28.09	29.00
Ps	24.46	24.46	24.51
Vs**	7.34	7.29	8.99
Qa (acfm)	7	7	9
Qstd (dscfm)	5	5	6

* Runs 1, 2 and 3 had saturated moistures. The saturated Bwo was used in all calc
** Velocity of the duct was measured using a hot wire anomometer.

COORS BREWING COMPANY
CAE Project No: 6265
Yeast Drying Plant

Total Hydrocarbons Concentration
(ppm as propane)

Run No.	**1**	**2***	**3**
Date (1992)	July 16	July 16	July 20
Start Time (approx)	11:56 AM	1:19 PM	9:05 AM
Stop Time (approx)	12:56 PM	2:23 PM	10:08 AM
dscfm**	5	5	6
Bwo***	0.2272	0.2335	0.2273
Ethanol Correction Factor	2.36	2.36	2.36
ZERO I	83	118	33
CAL I	32,851	33,920	34,130
ZERO F	118	102	37
CAL F	33,920	33,571	34,031
ppm	27,899	25,646	25,498
CAL GAS	33,960	33,960	33,960
ppm, wet (drift calibrated)	28,362	25,782	25,399
ppm, dry	36,701	33,636	32,871
lb/dscf	4.19E-03	3.84E-03	3.75E-03
lb/hr	1.26	1.15	1.35
ton/yr	5.51	5.05	5.92
lb/hr, as Ethanol	**2.97**	**2.72**	**3.19**
ton/yr, as Ethanol	**13.0**	**11.9**	**14.0**

* During Run 2, the plant recirculated yeast.
** dscfm was measured using a hot wire anomometer
*** The actual Bwo was used for Runs 1, 2 and 3.

CALIBRATION DATA

[redacted]

Date: 04-17-89 Operator: C. T. Fulton

Meter Box No: NAPP D-1	Meter Box ΔH@: 1.777	Meter Box Yd 1.0040	Barometric Press.: 25.07

				Standard Meter Gas Volume ft³			Meter Box Gas Volume ft³			Std. Meter Temperature °F			Meter Box Temperature °F					
C	ΔH	ΔP	Yds	Initial	Final	Vds Net	Initial	Final	Vd Net	In	Out	Tds Avg	In	Out	Td Avg	Time θ	Yd	ΔH@
.3558	.50	-3.0	1.0000	0.000	10.127	10127	941.186	952.250	10.584	68	64	66	105	78	91.5	24.0	.9929	.781
.3558	.50	-3.0	1.0000	10.127	20.285	10.158	952.270	962.883	10.613	68	64	66	106	78	92	24.0	.9941	.769
.6077	1.5	-6.0	1.0000	0.000	10.842	10.842	965.215	976.365	11.15	68	64	66	110	80	95	15.0	1.0035	.810
.6089	1.5	-6.0	1.0000	10.842	21.705	10.863	976.365	987.533	11.168	68	64	66	107.5	80	93.75	15.0	1.0016	.807
.8718	3.0	-11.2	1.0000	0.000	10.369	10369	990.045	1000.403	10.358	68	64	66	115	80.5	97.75	10.0	1.0177	.750
.8740	3.0	-11.2	1.0000	10.369	20.765	10396	1000.403	1010.785	10.382	68	64	66	111	80.5	95.75	10.0	1.0143	.747

Nomenclature

Pb	Barometric Pressure
C	Flow Rate (cfm)
ΔH	Orifice Pressure Differential ("H_2O)
ΔP	Inlet Pressure Differential ("H_2O)
Vd	Volume Dry Gas Meter (ft³)
Vds	Volume Dry Standard (ft³)
Yd	Meter Correction Factor (unitless)
Yds	Standard Meter Correction Factor (unitless)
ΔH@	Orifice Pressure Differential that gave 0.75 cfm of air at 70° F and 29.92 "Hg ("H_2O)

Calculations

$$Yd = (Yds)\left[\frac{Vds}{Vd}\right]\left[\frac{Td + 460}{Tds + 460}\right]\left[\frac{Pb + \Delta P/13.6}{Pb + \Delta H/13.6}\right]$$

$$\Delta H@ = \frac{0.0317\,\Delta H}{Pb\,(Td + 460)}\left[\frac{(Tds + 460)\,\theta}{(Vds)\,(Yds)}\right]^2$$

$$Q = \frac{17.64\,(Vds)\,(Pb)}{(Tds + 460)\,\theta}$$

DATE: 9-9-92

METER BOX Yd: 1.0100

METER BOX NUMBER: d-4

CLIENT/OWNER: Coors

JOB#: ~~6665~~ 6317

METER BOX VACUUM: 0

Dp	Q	dH	dP	Yds	WET TEST VOLUME INITIAL	WET TEST VOLUME FINAL	METER Vds	DRY GAS METER VOLUME INITIAL	DRY GAS METER VOLUME FINAL	NET Vd	WET TEST METER TEMPERATURES IN	WET TEST METER TEMPERATURES OUT	Tds	DRY GAS METER TEMPERATURES IN	DRY GAS METER TEMPERATURES OUT	Td	TIME	Vd	[illegible]
25.130	0.6044	1.50	-12.5	1.00	0.000	10.005	10.005	803.56000	813.220	9.660	82.0	82.0	82.0	94.0	89	91.5	13.54	1.0100	[illegible]
25.130	0.6040	1.50	-12.1	1.00	0.000	10.005	10.005	815.22000	822.910	9.690	82.0	72.0	82.0	95.0	89	92.0	13.53	1.0099	[illegible]
25.130	0.6047	1.50	-12.5	1.00	0.000	10.000	10.004	822.91000	832.610	9.700	82.0	72.0	82.0	95.0	91	93.0	13.53	1.0099	[illegible]

FILE: 6253

Date: 7-17-91 Operator: Jonathan Dallinger

Meter Box No.: x	Meter Box ΔH@: 1.761	Meter Box Yd: .9919	Barometric Pressure: 24.84

				Standard Meter Gas Volume ft³			Meter Box Gas Volume ft³			Std. Meter Temperature °F			Meter Box Temperature °F					
Q	ΔH	ΔP	Yds	Initial	Final	Vds Net	Initial	Final	Vds Net	In	Out	Tds Avg	In	Out	Tds Avg	Time θ	Yd	ΔH@
.85	3.0	-15.6	1.000	0	10.011	10.011	516.525	520.763	10.235	66	66	66	123	105	114	9.75	.9997	1.761
.85	3.0	-15.6	1.000	0	10.010	10.010	531.622	541.791	10.169	66	66	66	120.5	103	111.5	9.75	1.6022	1.768
.55	1.8	-10	1.000	0	10.000	10.000	541.791	552.347	10.556	66	66	66	119	102	110.5	14.14	.9927	1.856
.55	1.8	-10	1.000	0	10.000	10.000	552.347	562.507	10.658	66	66	66	119	102	110.5	14.11	.9925	1.848
.35	.5	-4.7	1.000	0	5.000	5.000	520.763	526.202	5.439	66	66	66	117	104	110.5	11.82	.9917	1.729
.35	.5	-4.7	1.000	0	5.000	5.000	526.202	531.622	5.420	66	66	66	114	103	109.5	11.79	.9925	1.725

Nomenclature

Pb	Barometric Pressure
Q	Flow Rate (cfm)
ΔH	Orifice Pressure Differential ("H_2O)
ΔP	Inlet Pressure Differential ("H_2O)
Vd	Volume Dry Gas Meter (ft^3)
Vds	Volume Dry Standard (ft^3)
Yd	Meter Correction Factor (unitless)
Yds	Standard Meter Correction Factor (unitless)
ΔH@	Orifice Pressure Differential that gave 0.75 cfm of air at 70°F and 29.92 "Hg ("H_2O)

Calculations

$$Yd = (Yds)\left[\frac{Vds}{Vd}\right]\left[\frac{Td + 460}{Tds + 460}\right]\left[\frac{Pb + \Delta P/13.6}{Pb + \Delta H/13.6}\right]$$

$$\Delta H@ = \frac{0.0317\,\Delta H}{Pb(Td + 460)}\left[\frac{(Tds + 460)\theta^2}{(Vds)(Yds)}\right]$$

$$Q = \frac{17.64\,(Vds)(Pb)}{(Tds + 460)\theta}$$

Vacuum Gauge Calibration

Standard (Hg)	Vacuum Gauge
6	5
10	10
14	15
20	20
22	[illegible]

Thermometer Calibration

Standard	Inlet	Outlet
80	80	80
100	100	100
120	120	115
140	140	137

POST TEST CALIBRATION CHECK

Client/Owner: COORS

Project Number: 6265

Operator: Rich Halvorson

Date: 8-28-92

Meter Box No.: X	Meter Box Vaccuum: 4	Meter Box Yd: .9867	Barometric Press.: 25.54

				Standard Meter Gas Volume ft^3			Meter Box Gas Volume ft^3			Std. Meter Temperature °F			Meter Box Temperature °F					
Q	ΔH	ΔP	Yds	Initial	Final	Vds Net	Initial	Final	Vd Net	In	Out	Tds Avg	In	Out	Td Avg	Time θ	Yd	ΔH@
.63	1.67	-80	1.00	0.0	10.00	10.00	669.19	679.42	10.23	76	76	76	104	86	95	1320	.9846	1.67
.63	1.67	-80	1.00	0.0	10.00	10.00	679.42	689.76	10.34	76	76	76	114	96	102	1323	.9864	1.6
.63	1.67	-80	1.00	0.0	10.00	10.00	689.76	700.18	10.42	76	76	76	122	108	108	1327	.9882	1.6

Nomenclature

Pb	Barometric Pressure
Q	Flow Rate (cfm)
ΔH	Orifice Pressure Differential ("H_2O)
ΔP	Inlet Pressure Differential ("H_2O)
Vd	Volume Dry Gas Meter (ft^3)
Vds	Volume Dry Standard (ft^3)
Yd	Meter Correction Factor (unitless)
Yds	Standard Meter Correction Factor (unitless)
ΔH@	Orifice Pressure Differential that gave 0.75 cfm of air at 70° F and 29.92 "Hg ("H_2O)

Calculations

$$Yd = (Yds)\left[\frac{Vds}{Vd}\right]\left[\frac{Td + 460}{Tds + 460}\right]\left[\frac{Pb + \Delta P/13.6}{Pb + \Delta H/13.6}\right]$$

$$\Delta H@ = \frac{0.0317\,\Delta H}{Pb\,(Td + 460)}\left[\frac{(Tds + 460)\,\theta}{(Vds)\,(Yds)}\right]^2$$

$$Q = \frac{17.64\,(Vds)\,(Pb)}{(Tds + 460)\,\theta}$$

METER BOX FULL TEST CALIBRATION

$\overline{Yd}$: 1.0070 $\overline{dH@}$: 1.6764

Qp	Q	dH	dP	Vds	WET TEST METER VOLUME INITIAL	FINAL	Vds	DRY GAS METER VOLUME INITIAL	FINAL	WET TEST METER Vd	WET TEST METER TEMPERATURES IN	OUT	Tds	DRY GAS METER TEMPERATURES IN	OUT	Td	TIME	Yd	dH@
24.040	0.9017	3.00	-12.9	1.00	0.000	10.000	10.000	323.64000	333.250	9.602	74.0	74.0	74.0	90.5	81	85.5	9.10	1.0142	[illegible]
24.040	0.8936	3.00	-12.9	1.00	0.000	10.000	10.000	333.25000	342.889	9.639	74.0	74.0	74.0	92.0	82	86.0	9.13	1.0136	[illegible]
24.040	0.6200	1.50	-7.1	1.00	0.000	10.000	10.000	352.94300	362.870	9.935	74.0	74.0	74.0	88.5	84	86.0	10.05	1.0031	[illegible]
24.040	0.6317	1.50	-7.1	1.00	0.000	10.000	10.000	362.07000	372.000	9.930	74.0	74.0	74.0	90.0	84	87.0	12.99	1.0054	[illegible]
24.040	0.3623	0.50	-3.1	1.00	0.000	5.000	5.000	342.08900	347.907	5.010	74.0	74.0	74.0	87.0	83	85.0	11.20	1.0063	[illegible]
24.040	0.3657	0.50	-3.1	1.00	0.000	5.000	5.000	347.90700	352.943	5.036	74.0	74.0	74.0	88.0	84	86.0	11.22	1.0044	[illegible]

VACUUM GAUGE CALIBRATION

STD (Hg)	VAC GAUGE
5.0	5.000
10.0	10.000
15.0	15.000
20.0	20.000
22.0	23.000

THERMOMETER CALIBRATION

STANDARD	INLET	OUTLET
80	80.000	80.000
100	100	100
120	119	120
140	140	138
160	160	159
180		

DATE: 15 May 92 OPERATOR: Jonathan Dellinger METER BOX NO.: D-5 CLIENT/OWNER Colorado Incineration JOB: 6191

DATE: 8/25/92 METER BOX Yd: 0.9921

METER BOX NUMBER: D-5 OPERATOR: JEFFERY MOLINARO CLIENT/OWNER: COORS BREWING JOB#: [illegible]

METER BOX VACUUM: 15

Bp	Q	dH	dP	Yds	WET TEST VOLUME INITIAL	WET TEST VOLUME FINAL	METER Vds	DRY GAS VOLUME INITIAL	DRY GAS VOLUME FINAL	METER NET Vd	WET TEST TEMPERATURES IN	WET TEST TEMPERATURES OUT	METER Tds	DRY GAS TEMPERATURES IN	DRY GAS TEMPERATURES OUT	METER Td	TIME	Vd	[illegible]
25.090	0.5108	1.00	-4.9	1.00	0.000	10.009	10.009	578.900	589.025	10.125	72.0	72.0	72.0	85.0	81.00	83.0	16.30	[illegible]	[illegible]
25.090	0.5118	1.00	-4.9	1.00	0.000	10.008	10.008	609.500	619.622	10.122	72.0	72.0	72.0	85.0	81.50	83.6	16.27	[illegible]	[illegible]
25.090	0.4989	1.00	-4.9	1.00	0.000	10.000	10.000	595.200	605.315	10.115	72.0	72.0	72.0	85.0	81.00	83.0	16.68	[illegible]	[illegible]

FILE: PTC6255 METHOD 5 AT SPENT GRAIN OUTLET

Scott Specialty Gases

Scott Environmental Technology, Inc.

1290 COMBERMERE STREET, TROY, MICHIGAN 48084 (313) 589-2950

Shipped From : Scott Michigan

Our Project # : 527476

Your P.O. # : 3114-71500

Expiration Date : 2-27-93

Cylinder Number : ALM-023262

Cylinder Pressure 1900 psig

Customer :
C A E INSTRUMENT RENTAL
246 WOODWORX LANE
PALATINE, IL. 60067

CERTIFICATE OF ANALYSIS - EPA PROTOCOL GASES
PERFORMED ACCORDING TO SECTION 3.0.4

Certified Per Traceability Protocol # 1

Procedure # G1

File # PO-1125

Certified Accuracy 1 % NBS Traceable

ANALYZED CYLINDER		REFERENCE STD			INSTRUMENTATION		
COMPONENT	CERTIFIED CONC.	SRM # (CRM #)	CYLINDER NUMBER	CONC.	INSTR/MODEL/SERIAL #	LAST CALIBRATION DATE	ANALYTICAL PRINCIPLE
PROPANE	24.49 PPM	2643	CAL-2522	98.54 PPM	BECKMAN 400	8-27-91	FLAME IONIZATION DETECTOR
		GMIS#	XA4113	48.40 PPM			

BALANCE GAS : NITROGEN

ANALYSIS DATE : 8-27-91

ZERO GAS (mV)	TEST GAS (mV)	RESULTS PPM	REFERENCE GAS CONC.	(mV)	RESULTS PPM
0.00	25.30	24.49	98.54 PPM	100.00	98.54
0.00	25.30	24.49		100.00	98.54
0.00	25.30	24.49		100.00	98.54

CALCULATED RESULTS 24.49
24.49
24.49

AVERAGE : 24.49 PPM

CALIBRATION CURVE 2 nd DEGREE

SRM # (CRM #)	CONC. PPM	SPLIT PT (%)	DVM (mV)	FITTED VALUE	PERCENT ERROR
2643	98.54	100	100.00	98.54	-0.00
	48.40	49	49.90	48.52	0.24
	25.80	26	26.60	25.75	-0.20
	10.36	11	10.50	10.20	-1.57
	0.00	0	0.00	0.00	0.00
		0		0.0000	0.00
		0		0.00	0.00
GMIS	10.36	LOW	10.50	10.20	-1.57
2643	98.54		100.00	98.54	-0.00

1 GMIS - GAS MANUFACTURER'S INTERNAL STANDARD

Analyst

The only liability of this Company for gas which fails to comply with this analysis shall be replacement thereof, if approved by Company without extra cost.

Approved

Scott Specialty Gases

Scott Environmental Technology, Inc.

1290 COMBERMERE STREET, TROY, MICHIGAN 48084 (313) 589-2950

Shipped From : Scott Michigan

Our Project # : 530469

Your P.O. # : 3750-715

Expiration Date : 6-3-93

Cylinder Number : ALM-010255

Cylinder Pressure 1900 psig

Customer :
C A E INSTRUMENT RENTAL
246 WOODWORK LANE
PALATINE, IL. 60067

**** CERTIFICATE OF ANALYSIS - EPA PROTOCOL GASES ****
PERFORMED ACCORDING TO SECTION 3.0.4

Certified Per Traceability Protocol # 1

Procedure # G1

File # PO-1733

Certified Accuracy 1 % NBS Traceable

ANALYZED CYLINDER

COMPONENT	CERTIFIED CONC.
PROPANE	55.52 PPM

BALANCE GAS : NITROGEN

REFERENCE STD

SRM # (CRM #)	CYLINDER NUMBER	CONC.
2643	CAL-2522	98.54 PPM
GMIS#	XA4113	48.40 PPM

INSTRUMENTATION

INSTR/MODEL/SERIAL #	LAST CALIBRATION DATE	ANALYTICAL PRINCIPLE
BECKMAN 400	10-25-91	FLAME IONIZATION DETECTOR

ANALYSIS

DATE : 12-3-91

ZERO GAS (mV)	TEST GAS (mV)	RESULTS PPM	REFERENCE GAS CONC.	(mV)	RESULTS PPM
0.00	57.00	55.52	98.54 PPM	100.00	98.54
0.00	57.00	55.52		100.00	98.54
0.00	57.00	55.52		100.00	98.54

CALCULATED RESULTS 55.52
55.52
55.52

AVERAGE : 55.52 PPM

CALIBRATION CURVE 2 nd DEGREE

SRM # (CRM #)	CONC. PPM	SPLIT PT (%)	DVM (mV)	FITTED VALUE	PERCENT ERROR
2643	98.54	100	100.00	98.54	-0.00
	48.40	49	49.90	48.52	0.24
	25.80	26	26.60	25.75	-0.20
	10.36	11	10.50	10.20	-1.57
	0.00	0	0.00	0.00	0.00
		0		0.0000	0.00
		0		0.00	0.00
GMIS	10.36	LOW	10.50	10.20	-1.57
2643	98.54		100.00	98.54	-0.00

The only liability of this Company for gas which fails to comply with this analysis shall be replacement thereof by the Company without extra cost.

[redacted] En[redacted]me[redacted]ech[redacted]y. [redacted]

1290 COMBERMERE STREET, TROY, MICHIGAN 48084 (313) 589-2950

Our Project # : 527476

Your P.O. # : 3114-71500

Expiration Date : 2-27-93

Cylinder Number : ALM-023224

Cylinder Pressure 1900 psig

Customer :
C & E INSTRUMENT RENTAL
246 WOODWORK LANE
PALATINE, IL. 60067

* * * * CERTIFICATE OF ANALYSIS - EPA PROTOCOL GASES * * * *
PERFORMED ACCORDING TO SECTION 3.0.4

Certified Per Traceability Procedure # 61
Protocol # 1

File # PO-1135

Certified Accuracy 1 % NBS Traceable

ANALYZED CYLINDER		REFERENCE STD			INSTRUMENTATION		
COMPONENT	CERTIFIED CONC.	SRM # (CRM #)	CYLINDER NUMBER	CONC.	INSTR/MODEL/SERIAL #	LAST CALIBRATION DATE	ANALYTICAL PRINCIPLE
PROPANE	85.52 PPM	2643	CAL-2522	98.54 PPM	BECKMAN	8-27-91	FLAME IONIZATION DETECTOR
		GMIS#	1A4113	48.40 PPM	400		

BALANCE GAS : NITROGEN

ANALYSIS DATE : 8-27-91

ZERO GAS (mV)	TEST GAS (mV)	RESULTS PPM	REFERENCE GAS CONC.	(mV)	RESULTS PPM
0.00	87.10	85.52	98.54 PPM	100.00	98.54
0.00	87.10	85.52		100.00	98.54
0.00	87.10	85.52		100.00	98.54

CALCULATED RESULTS	85.52
	85.52
	85.52
	85.52 PPM

CALIBRATION CURVE 2 nd DEGREE

SRM # (CRM #)	CONC. PPM	SPLIT PT (%)	DVM (mV)	FITTED VALUE	PERCENT ERROR
2643	98.54	100	100.00	98.54	-0.00
	48.40	47	49.90	48.52	0.24
	25.80	25	26.60	25.75	-0.20
	10.36	11	10.50	10.20	-1.57
	0.00	0	0.00	0.00	0.00
		0		0.0000	0.00
		0		0.00	0.00
GMIS	10.36	LOW	10.50	10.20	-1.57
2643	98.54		100.00	98.54	-0.00

GAS MANUFACTURER'S INTERNAL STANDARD

The sole liability of this Company for gas which fails to comply with this analysis shall be replacement thereof by the Company without extra cost.

Analyst : [signature] Approved by : [signature]

[redacted] 7150 [redacted]

1280 COMBERMERE STREET, TROY, MICHIGAN [redacted] 34

Expiration Date : 2-27-93

Cylinder Number : ALM-023245

Cylinder Pressure 1900 psig

Customer :
C A E INSTRUMENT RENTAL
246 WOODWORK LANE
PALATINE, IL. 60067

CERTIFICATE OF ANALYSIS - EA PROTOCOL GASES
PERFORMED ACCORDING TO SECTION 3.0.4

Certified Pen Traceability
Protocol # 1

Procedure # G

Fine # FI-183

Certified Accuracy 1 % FBS Traceable

ANALYZED CYLINDER		REFERENCE GAS			INSTRUMENTATION		
COMPONENT	CERTIFIED CONC.	SRM # (CRM #)	CYLINDER NUMBER	CONC.	INSTR/MODEL/SERIAL #	VERTICAL/LOAD DATE	ANALYTICAL PRINCIPLE
PROPANE	251.4 PPM	2645A	FF-2816	498.5 PPM	BECKMAN	1-1-91	PHOTOIONIZATION DETECTOR
		2643	A-1236	189.2 PPM	40C		
					1002059		

BALANCE GAS : NITROGEN

ANALYSIS

DATE 8-27-91

ZERO GAS (mV)	TEST GAS (mV)	RESULTS PPM	REFERENCE GAS CONC.	REFERENCE GAS (mV)	RESULTS PPM
0.00	50.50	251.4	498.5 PPM	100.00	498.5
0.00	50.50	251.4		100.00	498.5
0.00	50.50	251.4		100.00	498.5

CALCULATED RESULTS 251.4
251.4
251.4

AVERAGE : 251.4 PPM

CALIBRATION CURVE 1 st DEGREE

SRM # (CRM #)	CONC. PPM	SPLIT PT (%)	DVM (mV)	FITTED VALUE	PERCENT ERROR
2645A	498.5	100	100.00	498.5	-0.00
	189.2	38	38.20	189.9	0.40
	100.0	20	20.30	100.6	0.58
2643	98.54	20	19.90	98.58	0.04
	0.0000	0	0.00	0.0000	0.00
		0		0.0000	0.00
		0		0.00	0.00
2643	98.54	20	19.90	98.58	0.04
2645A	498.5	100	100.00	498.5	-0.00

1 EMIS - GAS MANUFACTURER'S INTERNAL STANDARD - this Company Standard which has to comply with this analysis will be replacement thereof and Company without [illegible]

CLEAN AIR ENGINEERING

10/28/92 17:11

1290 COMBERMERE STREET, TROY, MICHIGAN 48084 (313) 589-2950

Pro[redacted]

Your P.O. # : 3114-11500

Expiration Date : 2-27-93

Cylinder Number ALM-023246

Cylinder Pressure 1900 psig

ustomer :
C A E INSTRUMENT RENTAL
246 WOODWORK LANE
PALATINE, IL. 60067

**** CERTIFICATE OF ANALYSIS - EPA PROTOCOL GASES ****
PERFORMED ACCORDING TO SECTION 3.0.4

Certified Per Traceability Protocol # 1

Procedure # G1

File # PD-1154

Certified Accuracy 1 % NBS Traceable

COMPONENT	CERTIFIED CONC	REFERENCE STD: SRM # (CRM #)	CYLINDER NUMBER	CONC.	GAS ANALYZER: MAKE/MODEL/SERIAL #	LAST CALIBRATION DATE	ANALYTICAL PRINCIPLE
PROPANE	850.2 PPM	2646	AAL-18432	973.2 PPM	BECKMAN/400/1002059	6-20-91	FLAME IONIZATION DETECTOR
		6(IS)	XA-4258	279.7 PPM			

BALANCE GAS : NITROGEN

ANALYSIS DATE : 8-27-91

ZERO GAS (mV)	TEST GAS (mV)	RESULTS PPM	REFERENCE GAS CONC.	REFERENCE GAS (mV)	RESULTS PPM
0.00	84.20	851.8	973.3 PPM	96.40	975.1
0.00	84.20	851.8		96.40	975.1
0.00	84.20	851.8		96.40	975.1

CALCULATED RESULTS 850.2
850.2
850.2

AVERAGE : 850.2 PPM

CALIBRATION CURVE 1 st DEGREE

SRM # (CRM #)	CONC. PPM	SPLIT PT (%)	DVM (mV)	FITTED VALUE	PERCEN ERROR
	1012	100	100.00	1012	0.00
2646	973.2	96	96.40	975.1	0.2
	799.8	79	79.10	800.3	0.0
	279.7	28	27.60	279.7	0.0
	189.2	19	18.60	188.7	-0.2
	0.0000	0	-0.01	0.0000	0.0
		0		0.00	0.0
	189.2	LOW	18.60	188.7	-0.[illegible]
2646	973.2	HIGH	96.40	975	0.[illegible]

The only liability of this Company for gas which fails to comply with this analysis shall be replacement thereof by the Company without extra cost.

Analyst : [signature] Approved by : [signature] Shapiro

* GMIS - GAS MANUFACTURER'S INTERNAL STANDARD

ANALYTICAL REPORT – cont'd

C A E INSTRUMENT RENTAL

Date: 6/2/92
Our Project No.: 0537496
Your P.O. No.: 5446-71500

Cyl. No. _____ Analytical Accuracy ±1% AMG

Component	Concentration
PROPANE	848.0PPM
NITROGEN	BALANCE
K013320,K003637	
ACUBLEND MASTER GAS	

Cyl. No. _____ Analytical Accuracy ±1%AMG

Component	Concentration
PROPANE	84.49PPM
NITROGEN	BALANCE
ALM023663,ALM008666,ALM005045	
ACUBLEND MASTER GAS	

Cyl. No. _____ Analytical Accuracy ±1%AMG

Component	Concentration
PROPANE	547.8PPM
NITROGEN	BALANCE
ALM023210,ALM010029,ALM008898	
ACUBLEND MASTER GAS	

Cyl. No. _____ Analytical Accuracy ±1%AMG

Component	Concentration
PROPANE	848.0PPM
NITROGEN	BALANCE
AAL2517,AAL12337,ALM010242	
ACUBLEND MASTER GAS	

Cyl. No. _____ Analytical Accuracy _____

Component	Concentration

Cyl. No. _____ Analytical Accuracy _____

Component	Concentration

Analyst _____

Approved By _____

SCOTT ENVIRONMENTAL TECHNOLOGY, INC.

NATIONAL SPECIALTY GASES
Post Office Box 12013
Research Triangle Park, NC 27709
Telephone (919) 544-3772

NATIONAL SPECIALTY GASES

CERTIFICATE OF ANALYSIS-EPA PROTOCOL MIXTURES

REFERENCE # 89 11148 CYLINDER #CC38971 CYLINDER PRESSURE 2000 psig

EXPIRATION DATE 9/7/92 BATCH # _____ LAST ANAL. DATE 3/7/91

CUSTOMER: CLEAN AIR ENGINEERING P.O.#: 1679-SEL

METHOD: EPA PROTOCOL # 2.0.7 G-1

STANDARD

SRM 2647A

CYL. # FF-26944

CONC. 2446 PPM

INSTRUMENT

COMPONENT BECKMAN THC

MODEL 400

SERIAL# 1003002

LAST CAL 1/2/91

COMPONENT C3H8

MEAN CONC. 2462 PPM

REPLICATE CONC.

DATE 3/7/91 DATE

2476 PPM

2458 PPM

2452 PPM

COMPONENT

REPLICATE CONC.

MEAN CONC. _____

DATE _____ DATE

COMPONENT

REPLICATE CONC.

MEAN CONC. _____ DATE _____ DATE

BALANCE GAS NITROGEN

THIS REPORT STATES ACCURATELY THE RESULTS OF THE INVESTIGATION MADE UPON THE MATERIALS SUBMITTED TO THE ANALYTICAL LABORATORY. EVERY EFFORT HAS BEEN MADE TO DETERMINE OBJECTIVELY THE INFORMATION REQUESTED; HOWEVER, IN

NATIONAL SPECIALTY GASES
Office Box [illegible]
[illegible] Triangle Park, NC [illegible]
Telephone (919) [illegible]

NATIONAL SPECIALTY GASES

CERTIFICATE OF ANALYSIS-EPA PROTOCOL MIXTURES

REFERENCE # [illegible] CYLINDER # CC-92763 CYLINDER PRESSURE 2000 psig

EXPIRATION DATE 7/3/92 BATCH # _____ LAST ANAL. DATE 1/3/91

CUSTOMER: CLEAN AIR P.O.# _____
METHOD: EPA PROTOCOL # 2.0.7 G-1

STANDARD
NUM 1685B

CLM786

CONC. 250 PPM

INSTRUMENT
COMPONENT BECKMAN CHEMILUMENSCENT

MODEL 951A

SERIAL# 0100532

LAST CAL 10/2/90

COMPONENT NO

REPLICATE CONC.

MEAN CONC. 223 PPM	DATE 12/26/90	DATE 1/3/91
	224 PPM	221 PPM
	224 PPM	221 PPM
	225 PPM	223 PPM

COMPONENT ___

REPLICATE CONC.

MEAN CONC DATE ___ DATE

COMPONENT _____

REPLICATE CONC.

MEAN CONC. ___ DATE ___ DATE

BALANCE GAS NITROGEN

THIS REPORT STATES ACCURATELY THE RESULTS OF THE INVESTIGATION MADE UPON MATERIALS SUBMITTED TO THE ANALYTICAL LABORATORY. EVERY EFFORT HAS BEEN MADE TO DETERMINE OBJECTIVELY THE INFORMATION REQUESTED: HOWEVER, IN CONNECTION WITH ITS RENDERING OF THIS REPORT, THERE SHALL BE NO LIABILITY IN EXCESS OF ITS ESTABLISHED CHARGE FOR THE SERVICE. ANY USE OF THIS REPORT OR THE INFORMATION CONTAINED HEREIN SHALL BE AT THE SOLE RISK OF THE USER.

NATIONAL SPECIALTY GASES
Post Office Box 12013
Research Triangle Park, NC 27709
Telephone (919) 544-3772

NATIONAL SPECIALTY GASES

REPLICATE DATA COMPONENT NO

12/26/90	1/3/91
Z 0 R 405.5 C 363.5	Z 0 R 417.5 C 369
R 406.5 Z 0 C 364.5	R 419 Z 0 C 371
Z 0 C 365 R 406	Z 0 C 375 R 420.5

REPLICATE DATA COMPONENT

Z R C	Z R C
R Z C	R Z C
Z C R	Z C R

REPLICATE DATA COMPONENT

Z R C	Z R C
R Z C	R Z C
Z C R	Z C R

Z=ZERO C=CANDIDATE R=REFERENCE

ANALYST

CERTIFICATION

REV. 1/89

COORS BREWING COMPANY
CAE Project No: 6265-1
Solvent Calibration Data
September 30, 1992

Trial	Ethanol in grams	lb/dscf Ethanol	FID ppm	RF(1)
1	0.0013	5.41E-06	20.5	2.31
2	0.0045	1.87E-05	72	2.28
3	0.0115	4.78E-05	173	2.42
4	0.0116	4.83E-05	172.5	2.45
5	0.0203	8.45E-05	298.5	2.48
6	0.0452	1.88E-04	728	2.26
7	0.1146	4.77E-04	1839	2.27
8	0.1234	5.13E-04	1,989.6	2.26
9	0.1951	8.12E-04	2969	2.39
10	0.7986	3.32E-03	11,613.0	2.51
Average				2.36

Note: RF(1) is a response factor based on lb/dscf

All samples are for 15 minutes with a flow rate of 1 liter/minute

FIELD DATA

Location: BTL LINE Run: R-1

Page 1 of 1

Moisture Determination Field Data Sheet

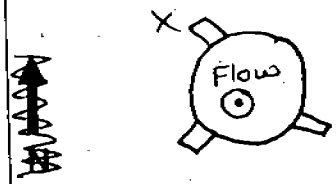
Client COORS	Project Number 6265
Plant GOLDEN CO	Unit BOTTLE LINE
Date 6-25 92	Inlet/Outlet/Stack
Meter Operator J. MOLINARO	
Probe Operator M. HYNES	

Ambient Temp. (°F) 73	Bar. Press. (in. Hg) 24.46
Assumed Moisture (%)	

Heater Box Setting NA	Probe Heater Setting NA
Probe Length 2'	Probe Number NA
Probe Material SS	

Sample Box Number KNOCK OUTS	
Pyrometer Number F58	
Meter Box Number X	
Meter ΔH@ 1.6056	Meter Y_d 1.0112

Schematic of Testing Location



IGS Bag ID Number R-1 BOTTLE LINE	
% O_2 20	% CO_2 .8
H_2O (ml) 0	Silica Gel (gm) 5.3
Total V_{lc} 5.3	

First point all the way IN OUT	Method 4	
Area (ft²) 9.621	Port Len. (in.) 1½	Gas Flow IN OUT
Filter Material NA		

Leak Rate Before: 0	cc/m cf/m @	15	"Hg
Leak Rate After: 0	cc/m cf/m @	4	"Hg

Start Time: 920 AM / PM	Stop Time: 1005 AM / PM

Traverse Point Number	Min/pt 5 / Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 958.40 / Gas Sample Volume V_m Circle one: (L) (ft³)	Gas Sample Temperature at Dry Gas Meter: Inlet $T_{m\ in}$ (°F)	Outlet $T_{m\ out}$ (°F)	Probe Temp. T_p (°F)			Notes
X	5	0	NA	42	1.0	961.85	92	78	NA			B_{wo} = 1.0
	10	0		42		965.36	98	80				DGM = 20286
	15	0		42		968.84	100	82				
	20	0		42		972.34	102	84				
	25	0		46		975.88	108	86				
	30	0		46		979.34	110	90				
	35	0		48		982.81	112	92				
	40	0		48		986.27	112	93				
	45	0		48		989.72	114	94				
Average						31.32	96					
Total							1727					

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Location: Bottleline Run: R2

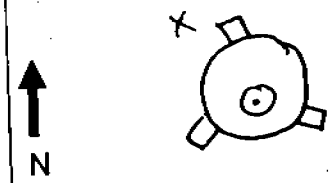
Moisture Determination Field Data Sheet

Client COORS	Project Number 6265
Plant Golden Co	Unit Bottleline
Date 6 25 92	Inlet/Outlet/Stack
Meter Operator J. Molinaro	
Probe Operator "	

Sample Box Number KNOCKOUTS	
Pyrometer Number N/A	
Meter Box Number X	
Meter ΔH@ 1.6056	Meter Y_d 1.0112

Leak Rate Before:	0	cc/m cf/m @	15	"Hg
Leak Rate After:		cc/m cf/m @		"Hg

Schematic of Testing Location



First point all the way IN OUT	Method 4	
Area (ft²) 9.621	Port Len. (in.) 1½	Gas Flow IN OUT
Filter Material NA		

Ambient Temp. (°F) 76	Bar. Press. (in. Hg) 24.46
Assumed Moisture (%)	

Heater Box Setting NA	Probe Heater Setting NA
Probe Length 3'	Probe Number NA
Probe Material SS	

IGS Bag ID Number R-2	
% O_2 ~~20~~ 20.0	% CO_2 ~~0~~ .8
H_2O (ml) 0	Silica Gel (gm) 3.8
Total V_{lc}	

Start Time: 10 42 AM/PM	Stop Time: 11 27 AM/PM

Traverse Point Number	Min/pt 5 / Clock Time	Pump Vacuum (in. Hg)	Stack Temp. Ts (°F)	Bath Temp. (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 991.04 / Gas Sample Volume V_m Circle one: (L) (ft³)	Gas Sample Temperature at Dry Gas Meter: Inlet $T_{m\,in}$ (°F)	Outlet $T_{m\,out}$ (°F)	Probe Temp. T_p (°F)			Notes
X	5	0	NA	38	1.0	994.52	108	98	NA			Bwo = 23%
	10	0		38		997.93	112	98				DxFM = 19.950
	15	0		40		001.37	114	100				
	20	0		44		004.85	118	100				
	25	0		44		008.30	118	100				
	30	0		44		011.92	118	102				
	35	0		44		1015.46	118	102				
	40	0		46		1019.03	120	102				
	45	0		46		1022.623	120	102				
Average						31.583	108.33					
Total							1450					

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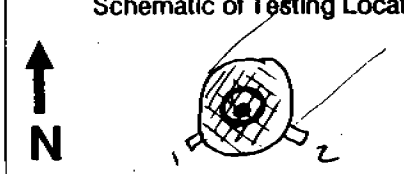
Location: Bottle Line Run: 5/6-25

Velocity Determination Field Data Sheet

Page _____ of _____

Client COORS	Project Number 6265
Plant GoldenCo	Unit Bottle Line
Date 6 25	Inlet/Outlet/Stack
Data Recorder JEFF MOLINARO	
Probe Operator MARTIN	

Schematic of Testing Location



First point all the way	IN	OUT
Area (ft²) 9.621	Port Len (in) 1½	Gas Flow IN OUT

Ambient Temp. (°F) 73	Bar. Press. (in. Hg) 24.46
IGS Bag ID Number	
% O_2	% CO_2
% Moisture:	Assumed/Measured
Start Time AM/PM	Stop Time AM/PM

Pyrometer Number 1.90		Pitot Cp .84	
Pitot Leak Check: ✓	Before	✓	After
Static Pressure (inches H_2O) (+/-) .6			

B-1 Traverse Point Number	Veocity Head ΔPs	Stack Temp (°F)		B-2 Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)		B-3 Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)		Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)		Notes
1-1	.54	73		1-1	.54	74		1-1	.54	73						
2	.55	73		2	.53	73		2	.53	73						
3	.53	73		3	.43	73		3	.44	73						
4	.45	73		4	.36	72		4	.44	73						
5	.41	73		5	.47	72		5	.51	73						
6	.47	73		6	.51	72		6	.52	73						
7	.52	73		7	.49	72		7	.54	73						
8	.49	73		8	.40	72		8	.44	73						
2-1	.45	73		2-1	.47	77		2-1	.52	73						
2	.44	73		2	.47	77		2	.44	78						
3	.45	73		3	.46	77		3	.46	78						
4	.5	73		4	.46	77		4	.51	78						
5	.5	73		5	.49	77		5	.50	78						
6	.58	72		6	.56	77		6	.60	78						
7	.6	72		7	.58	77		7	.6	78						
8	.42	72		8	.42	77		8	.45	78						
9																
Total	11.221				11.0363				11.326	1130						
Average	0.7016	73			.6898	74.75			.7079	~~78~~ 75.						

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Orsat Readings

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Client Coors	Project Number 6265
Plant Golden Co	Unit Bottle Line
Date 6-25-92	Fuel Type
Orsat ID	Leak Check? ✓

$F_o = \frac{20.9 - \%O_2}{\%CO_2}$

F_o = 1.083 to 1.230 (for bituminous coal)

Run Number	Location	Bag ID	Trial	Percent CO_2	Percent $CO_2 + O_2$	Percent O_2	F_o	Sample Time	Analysis Time	Analyst
R-1			1	.8	20.8	20		920-1005	10:30	JW
			2	.8	20.8	20				
Bottle Line Vent			3	.8	20.8	20				
			Avg.	.8	20.8	20				
R-2			1	.8	20.8	20		10:42	11:50	JW
			2	.8	20.8	20				
			3	.8	20.8	20				
			Avg.	.8	20.8	20				
R-3			1	.8	21.2	20.4		11:52	1300	MH
			2	.9	21.3	20.4				
			3	.9	21.3	20.4				
			Avg.	.9	21.3	20.4				
			1							
			2							
			3							
			Avg.							
			1							
			2							
			3							
			Avg.							
			1							
			2							
			3							
			Avg.							
			1							
			2							
			3							
			Avg.							
			1							
			2							
			3							
			Avg.							

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Location: Can Filler Line Run: 2

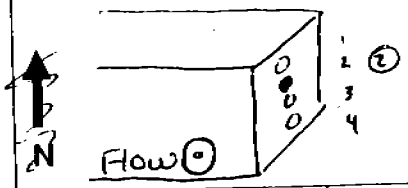
Moisture Determination Field Data Sheet

Client Coors	Project Number 6265
Plant Golden Co	Unit Can Filler Line
Date 6-23-92	Inlet/outlet/stack
Meter Operator	
Probe Operator	JEFF

Sample Box Number	R-2
Pyrometer Number	D03
Meter Box Number	X
Meter ΔH@ 1.6056	Meter Y_d 1.0112

Leak Rate Before:	0	cc/m cf/m @	15	"Hg
Leak Rate After:	0	cc/m cf/m @	3	"Hg

Schematic of Testing Location



First point all the way IN OUT		Method 4
Area (ft^2) 12	Port Len. (in.) 1½"	Gas Flow IN OUT
Filter Material NA		

Ambient Temp. (°F) 76	Bar. Press. (in. Hg) 24.43
Assumed Moisture (%)	

Heater Box Setting NA	Probe Heater Setting NA
Probe Length 3'	Probe Number 65-SS-3 M
Probe Material SS	

IGS Bag ID Number R-1 Filler Line	
% O_2 20.9 kw	% CO_2 0.3 kw
H_2O (ml) 0	Silica Gel (gm) 4.1
Total V_{lc}	

Start Time: 400 AM PM Stop Time: 445 AM PM

Traverse Point Number	Min/pt Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 892.055 / Gas Sample Volume V_m Circle one: (L) (ft^3)	Gas Sample Temperature at Dry Gas Meter: Inlet $T_{m\,in}$ (°F)	Outlet $T_{m\,out}$ (°F)	Probe Temp. T_p (°F)			Notes
2-1	5	0	NA	52	1.0	895.47	106	92	NA			Bwc = .08
	10	0		53		898.91	110	94				DOCFM-26756
	15	0		54		902.39	110	94				
	20	0		56		905.87	112	94				
	25	0		54		909.35	112	94				
	30	0		52		912.84	112	94				
	35	0		55		916.28	112	96				✓
	40	0		57		919.82	112	96				
	45	0		57		923.135	112	96				
Average						31.08	103					
Total												

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Location: Can Filler Inlet Run: 3

Moisture Determination Field Data Sheet

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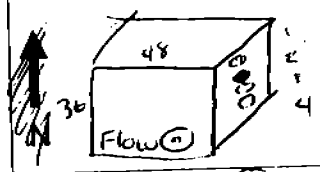
Client Coors	Project Number 6265
Plant Golden Co	Unit
Date 6-23-92	Inlet/outlet/stack
Meter Operator	Jeff
Probe Operator	

Ambient Temp. (°F) 77	Bar. Press. (in. Hg) 24.43
Assumed Moisture (%)	

Heater Box Setting NA	Probe Heater Setting
Probe Length 3'	Probe Number CS-MSS-C3
Probe Material SS	

Sample Box Number —	
Pyrometer Number DO-3	
Meter Box Number X	
Meter ΔH@ 1.6056	Meter Y_d 1.0112

Schematic of Testing Location



First point all the way IN OUT	Method 4	
Area (ft²) 12	Port Len. (in.) 1½	Gas Flow IN OUT
Filter Material		

IGS Bag ID Number R-3 Can Fillerline	
% O_2 20.9 KW	% CO_2 0.5 KW
H_2O (ml) 0	Silica Gel (gm) 4.2
Total V_{lc}	

Leak Rate Before: 0 cc/m cf/m @ 15 "Hg	
Leak Rate After: 0 cc/m cf/m @ 4 "Hg	

Start Time: 517 AM PM Stop Time: 602 AM PM

Traverse Point Number	Min/pt 5 / Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 823.30 / Gas Sample Volume V_m Circle one: (L) (ft³)	Gas Sample Temperature at Dry Gas Meter: Inlet $T_{m\,in}$ (°F)	Outlet $T_{m\,out}$ (°F)	Probe Temp. T_p (°F)			Notes
2-1	5	0	NA	52	1.0	926.90	104	94	NA			Bwo = .08
	10	0		46		930.35	112	96				DSCFM = 26445
	15	0		46		933.845	112	96				
	20	0		46		937.33	114	96				
	25	0		46		940.86	114	98				
	30	0		46		944.30	114	98				
	35	0		46		947.98	114	98				
	40	0		46		951.55	114	98				
	45	0		47		955.15	116	98				
Average						31.85	105					
Total												

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Location: _____ Run: 1

Velocity Determination Field Data Sheet

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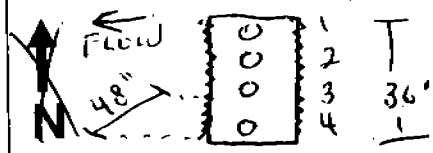
Client Coors	Project Number 6265
Plant Golden Co	Unit CAN LINE
Date 6-23	Inlet/Outlet/Stack
Data Recorder MARTIN HYNES	
Probe Operator JEFF MOLINARO	

Schematic of Testing Location



First point all the way IN OUT

Ambient Temp. (°F) 76"	Bar. Press. (in. Hg) 24.43
IGS Bag ID Number	
% O_2	% CO_2
% Moisture:	Assumed/Measured
Start Time AM/PM	Stop Time AM/PM

Pyrometer Number	Pitot Cp .84
Pitot Leak Check: ✓ Before	✓ After
Static Pressure (inches H_2O) (+/-) .2"	

Area (ft^2) 48x36	Port Len (in)	Gas Flow IN OUT
12 Ft^2	1 1/4"	

1405 R-1

Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)
1-1	.62	75
2	.38	75
3	.28	75
4	.21	75
2-1	.68	75
2	.75	75
3	.70	75
4	.44	75
3-1	.76	75
2	.68	75
3	.56	75
4	.47	75
4-1	.45	75
2	.52	75
3	.51	75
4	.29	75
Total	11.357	
Average	0.710	75

R-2

Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)
1-1	.80	79
2	.60	79
3	.39	79
4	.21	79
2-1	.71	79
2	.72	79
3	.68	78
4	.45	78
3-1	.65	77
2	.66	77
3	.64	77
4	.52	77
4-1	.66	76
2	.58	76
3	.56	76
4	.27 ~~.36~~	76
Total	11.920	
Average	0.745	78

R-3

Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)
1-1	.8	77
2	.5	77
3	.35	76
4	.20	76
2-1	.75	76
2	.74	76
3	.68	76
4	.43	76
3-1	.68	76
2	.68	76
3	.63	76
4	.51	76
4-1	.65	76
2	.55	76
3	.46	76
4	.28	76
Total	11.759	
Average	0.735	76

Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)	Notes

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Orsat Readings

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Client COORS BREWING	Project Number 6265
Plant GOLDEN, CO	Unit CAN LINE
Date 23 JUNE 92	Fuel Type NA
Orsat ID	Leak Check? O.K

$$F_o = \frac{20.9 - \%O_2}{\%CO_2}$$

F_o = 1.083 to 1.230 (for bituminous coal)

Run Number	Location	Bag ID	Trial	Percent CO_2	Percent $CO_2 + O_2$	Percent O_2	F_o	Sample Time	Analysis Time	Analyst
R-1	CAN LINE	R-1	1	.2	21.0	20.8		1400	1530	JM
			2	.2	20.8	20.6				
			3	.3	21.1	20.8				
			Avg.	.2	21.1	20.8 MM				
R-2	CAN LINE	R-2	1	.4	21.2	20.8		1530	1645	MH
			2	.2	21.0	20.8				
			3	.2	21.2	21.0				
			Avg.	.3		~~21.0~~	20.7	KW		
R-3	CAN LINE	R3	1	.2	21.0	20.8		1700	1805	MH
			2	.4	21.2	~~21.0~~	20.7	KW		
			3	.2	21.2	21.0				
			Avg.	.3		~~21.0~~	20.9	KW		
			1							
			2							
			3							
			Avg.							
			1							
			2							
			3							
			Avg.							
			1							
			2							
			3							
			Avg.							
			1							
			2							
			3							
			Avg.							
			1							
			2							
			3							
			Avg.							

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CAE

Location: Bowl Vent Run: 1

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Moisture Determination Field Data Sheet

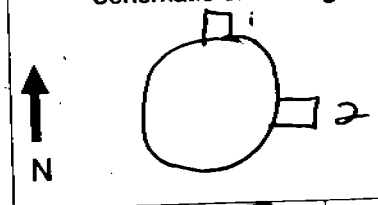
Client Coors	Project Number 6265
Plant Golden Co	Unit Bowl Vent
Date 6-24-92	Inlet/outlet/stack
Meter Operator Jeff	
Probe Operator	

Ambient Temp. (°F) 82	Bar. Press. (in. Hg) 24.28
Assumed Moisture (%)	

Heater Box Setting NA	Probe Heater Setting NA
Probe Length 3'	Probe Number —
Probe Material SS	

Sample Box Number R-1	
Pyrometer Number D-5	
Meter Box Number D-5	
Meter ΔH@ 1.676	Meter Y_d 1.0078

Schematic of Testing Location



First point all the way IN OUT	Method 4	
Area (ft^2) 1.147	Port Len. (in.) 1½	Gas Flow IN OUT
Filter Material NA		

IGS Bag ID Number	
% O_2 16.3	% CO_2 2.6
H_2O (ml) 0	Silica Gel (gm) 6
Total V_{lc} 6	

Leak Rate Before: 0 cc/m cf/m @ 15 "Hg	
Leak Rate After: 0 cc/m cf/m @ 4 "Hg	

Start Time: ~~1016~~ 1021 AM / PM	Stop Time: 1106 AM / PM

Traverse Point Number	Min/pt Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume ~~591.485~~ 593.373 Gas Sample Volume V_m Circle one: (L) (ft^3)	Gas Sample Temperature at Dry Gas Meter: Inlet $T_{m\,in}$ (°F)	Outlet $T_{m\,out}$ (°F)	Probe Temp. T_p (°F)			Notes
	5	2	NA	40	1.0	596.36	82	80	NA			B_{wo} = 13%
	10	2		40		599.35	83	80				DX FM = 1317
	15	2		42		602.32	87	81				
	20	2		42		605.28	88	81				
	25	2		42		608.50	90	83				
	30	2		44		611.27	92	84				
	35	2		46		614.30	93	85				
	40	2		48		617.33	94	86				
	45	2		48		620.38	96	87				
Average						27.007	86					
Total												

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Location: Bowl Vent Run: 2

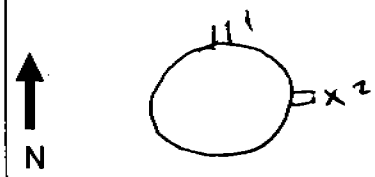
Moisture Determination Field Data Sheet

Client COORS BREWING	Project Number 6265
Plant Golden, Co.	Unit Bowl Vent
Date 24 June 92	Inlet/outlet/stack
Meter Operator J. Molinard	
Probe Operator	

Sample Box Number ~~D-5~~ Knock-Outs	
Pyrometer Number D-5	
Meter Box Number D-5	
Meter ΔH@ 1.676	Meter Y_d 1.0078

Leak Rate Before:	0	cc/m cfm @	15	"Hg
Leak Rate After:	0	cc/m cfm @	4	"Hg

Schematic of Testing Location



First point all the way IN OUT	Method 4	
Area (ft^2) 1.147	Port Len. (in.) 1½	Gas Flow IN OUT
Filter Material NA		

Ambient Temp. (°F) 82	Bar. Press. (in. Hg) 24.28
Assumed Moisture (%) 1.5	

Heater Box Setting NA	Probe Heater Setting NA
Probe Length 3'	Probe Number NA
Probe Material S.S.	

IGS Bag ID Number R-2	
% O_2 15.6	% CO_2 26.1
H_2O (ml) 0	Silica Gel (gm) 4.2
Total V_{lc} 4.2	

Start Time: 12:00 AM / PM	Stop Time: 1245 AM PM

Traverse Point Number	Min/pt 5/pt Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 620.70 Gas Sample Volume V_m Circle one: (L) (ft^3)	Gas Sample Temperature at Dry Gas Meter: Inlet $T_{m\,in}$ (°F)	Outlet $T_{m\,out}$ (°F)	Probe Temp. T_p (°F)			Notes
2-	5	2.0	NA	34	1.0	623.76	96	95	NA			
	10	2.0		36		626.79	97	94				
	15	2.0		40		629.84	98	95				
	20	2.0		46		632.91	99	95				
	25	2.0		48		636.99	99	95				
	30	2.0		48		639.05	99	95				
	35	2.0		50		642.20	100	95				
	40	2.0		50		645.21	100	95				
	45	2.0		52		648.35	100	95				
Average		2.0	NA				96.778					
Total						27.65						

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Location: Bowl Vent Run: 3

Moisture Determination Field Data Sheet

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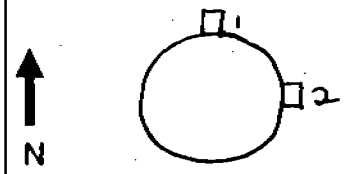
Client Coors	Project Number 6265
Plant Golden CO	Unit Bowl Vent
Date 6 24 92	Inlet/outlet/Stack
Meter Operator Jeff	
Probe Operator Jeff	

Sample Box Number Knock outs	
Pyrometer Number Netech D5	
Meter Box Number D5	
Meter ΔH@ 1.676	Meter Y_d 1.0078

Leak Rate Before:	0	cc/m cfm@	15	"Hg
Leak Rate After:	0	cc/m cfm@	4	"Hg

Schematic of Testing Location



First point all the way IN OUT	Method 4	
Area (ft²) 1.147	Port Len. (in.) 1½"	Gas Flow IN OUT
Filter Material NA		

Ambient Temp. (°F) 76	Bar. Press. (in. Hg) 24.28
Assumed Moisture (%)	

Heater Box Setting NA	Probe Heater Setting NA
Probe Length 3'	Probe Number 65-SS-03
Probe Material SS	

IGS Bag ID Number R-3 Bowl Vent	
% O_2 16.4	% CO_2 22.2
H_2O (ml) 0	Silica Gel (gm) 7.6
Total V_{lc} 7.6	

Start Time: 2:00 AM PM Stop Time: 2:45 AM PM

Traverse Point Number	Min/pt 5'/pt Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 649.00 Gas Sample Volume V_m Circle one: (L) (ft³)	Gas Sample Temperature at Dry Gas Meter Inlet $T_{m\,in}$ (°F)	Outlet $T_{m\,out}$ (°F)	Probe Temp. T_p (°F)			Notes
2-1	5	20	NA	34	1.0	652.07	93	92	NA			B_{wo} = 1.6%
	10	2.0		38		655.16	94	92				DCFM = 1247
	15	2.0		44		658.27	95	91				
	20	2.0		46		661.36	95	91				
	25	2.0		46		664.44	95	91				
	30	2.0		46		667.54	95	90				
	35	2.0		46		670.64	94	91				
	40	2.0		48		673.72	93	89				
	45	20		48		676.805	93	89				
Average						27.805	847	816				
Total							92					

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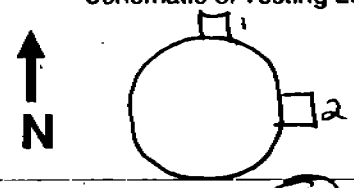
Location: Bowl vent Run: _____

Velocity Determination Field Data Sheet

Page 1 of 1

Client Coors	Project Number 6265
Plant Golden CO	Unit Bow vent
Date 6-24-92	Inlet/Outlet/Stack
Data Recorder Jeff	
Probe Operator MARTY	

Schematic of Testing Location



First point all the way IN OUT

Area (ft²)	Port Len (in)	Gas Flow IN OUT
1.147	1 1/2"	

Ambient Temp. (°F) 82	Bar. Press. (in. Hg) 24.28
IGS Bag ID Number R-1 Bowl vent	
% O_2	% CO_2
% Moisture:	Assumed/Measured
Start Time 1010 AM/PM	Stop Time 10:16 AM/PM

Pyrometer Number D-5	Pitot Cp .84		
Pitot Leak Check: ✓	Before	After	
Static Pressure (inches H_2O) (+/-)	~~+.2~~ -.02		

Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)		Traverse Point Number (R-2)	Velocity Head ΔPs	Stack Temp (°F)		Traverse Point Number (R-3)	Velocity Head ΔPs	Stack Temp (°F)		Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)		Notes
2-1	.16	83		~~[illegible]~~	.16	85	2-1	2-1	.16	84						
2	.16	83		2	.16	85		2	.16	84						
3	.16	83		3	.16	85		3	.16	84						
4	.21	83		4	.18	85		4	.16	84						
5	.21	83		5	.20	85		5	.16	84						
6	.20	83		6	.19	85		6	.16	84						
1-1	.18	83		1-1	.18	85		1-1	.19	84						
2	.18	83		2	.18	85		2	.19	84						
3	.18	83		3	.17	85		3	.18	84						
4	.17	83		4	.17	85		4	.13	84						
5	.15	83		5	.15	85		5	.12	84						
6	.13	83		6	.13	85		6	.12	84						
Total	4.9967				4.940				4.7494							
Average	.4164	83			.4117	85			.3958	84						

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Orsat Readings

Page _____ of _____

Client COORS	Project Number 6265
Plant GOLDEN, CO	Unit
Date 6/29/92	Fuel Type
Orsat ID	Leak Check? YES

$F_o = \frac{20.9 - \%O_2}{\%CO_2}$

F_o = 1.083 to 1.230 (for bituminous coal)

Run Number	Location	Bag ID	Trial	Percent CO_2	Percent $CO_2 + O_2$	Percent O_2	F_o	Sample Time	Analysis Time	Analyst
	KEGLINE 3:25	KEGLINE 3:25	1	6.6	26.2	19.6				
			2	6.9	26.7	19.8				
			3	6.7	26.4	19.7				
			Avg.	6.7		19.7	KW			
R1	BOWL VENT 12:30	BOWL VENT 12:30	1	24.8	~~16.39~~	16.3				
			2	24.5	~~16.39~~	16.3		O_2 TELEDYNE #1208		
			3	24.5		16.3		CALIB w/ 0% O_2 = .02%		
			Avg.	24.6		16.3	KW			
	KEGLINE 3:40	KEGLINE 3:40	1	.8	21.8	21.0				
			2	.8	21.7	20.9				
			3	.8	21.8	21.0				
			Avg.	.8		21.0	KW			
R2	BOWL 4:45	BOWL 4:45	1	26.6		15.4				
			2	26.8		15.75		O_2 TELEDYNE #1208		
			3	26.7		15.6		0% O_2 = .02%		
			Avg.	26.7		15.6	KW			
R3	BOWL VENT	BOWL VENT	1	22.2		16.6				
			2	22.2		16.3		O_2 TELEDYNE #1208		
			3	22.2		16.3		0% O_2 = .02%		
			Avg.	22.2		16.4	KW			
			1							
			2							
			3							
			Avg.							
			1							
			2							
			3							
			Avg.							
			1							
			2							
			3							
			Avg.							

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Location: Keg VENT Run: K-1

Moisture Determination Field Data Sheet

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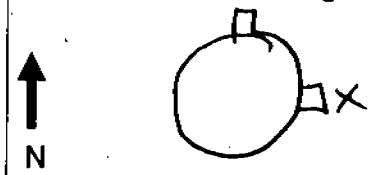
Client Coors	Project Number 6265
Plant Golden CO	Unit Keg Line Vent
Date 6 25 92	Inlet/outlet/stack
Meter Operator	J. Molinaro
Probe Operator	J Molinaro

Ambient Temp. (°F) 76	Bar. Press. (in. Hg) 24.31
Assumed Moisture (%)	

Sample Box Number	NA / Knockouts
Pyrometer Number	N/A
Meter Box Number	X RAC
Meter ΔH@ 1.6056	Meter Y_d 1.0112

Heater Box Setting NA	Probe Heater Setting NA
Probe Length 2'	Probe Number NA
Probe Material SS	

Schematic of Testing Location



IGS Bag ID Number R-1 Keg	
% O_2	% CO_2
H_2O (ml) 0	Silica Gel (gm) 3.7
Total V_{lc} 3.7	

First point all the way IN OUT	Method 4	
Area (ft²) .213	Port Len. (in.) ~~1~~ .75"	Gas Flow IN (OUT)
Filter Material NA		

Leak Rate Before: 0 cc/m cf/m @ 15 "Hg	
Leak Rate After: 0 cc/m cf/m @ 5 "Hg	

Start Time: 7:00 AM (PM) Stop Time: 7:50 AM (PM)

Traverse Point Number	Min/pt 5 Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 1057.605 Gas Sample Volume V_m Circle one: (L) (ft³)	Gas Sample Temperature at Dry Gas Meter Inlet $T_{m\ in}$ (°F)	Outlet $T_{m\ out}$ (°F)	Probe Temp. T_p (°F)			Notes
X	5	0	NA	34	1.0	1060.83	108	96	NA			H_2O .007
	10	0	✓	40	✓	1063.72	110	96	✓			37.0 DSCFM
	15	0	✓	40	✓	1066.90	110	96	✓			
	20	0	✓	38	✓	1070.07	110	96	✓			
	25	0	✓	38	✓	1073.08	112	96	✓			
	30	0	✓	38	✓	1076.31	112	96	✓			
	35	0	✓	38	✓	1079.39	~~114~~ 112	96	✓			
	40	0	✓	38	✓	1082.59	112	96	✓			
	45	0	✓	38	✓	1085.64	112	96	✓			
	50	0	✓	38	✓	1088.77	112	96	✓			
Average							103.5					
Total						31.165	2070					

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Location: Kegline Run: R2

Moisture Determination Field Data Sheet

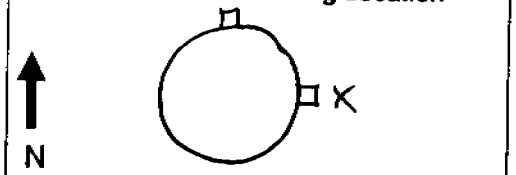
Page ____ of ____

Client: Coors	Project Number: ~~6208~~ 6265
Plant: Golden Co	Unit: Kegline
Date: 6-25-92	Inlet/outlet/stack
Meter Operator: J. Molinaro	
Probe Operator: J. Molinaro	

Sample Box Number	K/O
Pyrometer Number	NA
Meter Box Number	X-RAC
Meter ΔH@ 1.6056	Meter Y_d 1.0112

Leak Rate Before:	0	cc/m cf/m @	15	"Hg
Leak Rate After:	0	cc/m cf/m @	4	"Hg

Schematic of Testing Location



First point all the way (IN) OUT	Method 4	
Area (ft^2) .213	Port Len. (in.) .75	Gas Flow IN (OUT)
Filter Material: NA		

Ambient Temp. (°F) 68	Bar. Press. (in. Hg) 24.31
Assumed Moisture (%)	

Heater Box Setting: NA	Probe Heater Setting: NA
Probe Length: —	Probe Number: NA
Probe Material: SS	

IGS Bag ID Number: R-2 Kegline	
% O_2	% CO_2
H_2O (ml): 0	Silica Gel (gm): 4.8
Total V_{lc}: 4.8	

Start Time: 820 AM (PM) Stop Time: 905 AM (PM)

Traverse Point Number	Min/pt / Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 1089.0 / Gas Sample Volume V_m Circle one: (L) (ft^3)	Gas Sample Temperature at Dry Gas Meter: Inlet $T_{m\,in}$ (°F)	Outlet $T_{m\,out}$ (°F)	Probe Temp. T_p (°F)			Notes
X	5	0	NA	36	1.0	1092.01	108	92	NA			Bwo = 1.1%
	10	0		36		1095.01	108	92				DSCFM = 38.2
	15	0		38		1098.05	110	92				
	20	0		38		1100.91	110	92				
	25	0		38		1103.73	110	92				
	30	0		38		1106.62	110	94				
	35	0		40		109.45	110	94				
	40	0		40		1112.30	110	94				
	45	0		40		1115.16	110	94				
						~~26~~						
Average							101.22					
Total						26.16	1822					

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Location: Keg Line Run: R-3

Moisture Determination Field Data Sheet

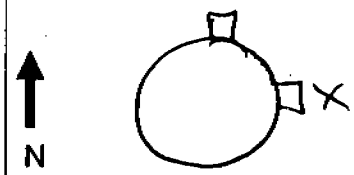
Page ____ of ____

Client Coors	Project Number 6265
Plant Golden Co	Unit Keg Line
Date 6-25 92	Inlet/outlet/stack
Meter Operator	J. Molinaro
Probe Operator	J. Molinaro

Sample Box Number	K/O
Pyrometer Number	Aulometer
Meter Box Number	X TAC
Meter ΔH@ 1.6056	Meter Y_d 1.0112

Leak Rate Before:	0	cc/m cf/m @	15	"Hg
Leak Rate After:	0	cc/m cf/m @	4	"Hg

Schematic of Testing Location



First point all the way IN OUT		Method 4
Area (ft^2) .213	Port Len. (in.) .75"	Gas Flow IN OUT
Filter Material NA		

Ambient Temp. (°F) 68	Bar. Press. (in. Hg) 24.31
Assumed Moisture (%) 10%	

Heater Box Setting NA	Probe Heater Setting NA
Probe Length 5'	Probe Number NA
Probe Material SS	

IGS Bag ID Number R-3 Keg Line	
% O_2	% CO_2
H_2O (ml) 1	Silica Gel (gm) 2.5
Total V_{lc} 3.5	

Start Time: 936 AM PM Stop Time: 1021 AM PM

Traverse Point Number	Min/pt 5 / Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 116.0 / Gas Sample Volume V_m Circle one: (L) (ft^3)	Gas Sample Temperature at Dry Gas Meter: Inlet $T_{m\,in}$ (°F)	Outlet $T_{m\,out}$ (°F)	Probe Temp. T_p (°F)			Notes
X	5	0	NA	40	1.0	118.94	96	90	NA			B_{ws} = .0008
	10	0		40		121.88	104	90				Dry FM = 34.1
	15	0		42		124.85	106	90				
	20	0		44		127.77	106	90				
	25	0		46		130.69	108	90				
	30	0		48		133.61	108	90				
	35	0		48		136.52	108	90				
	40	0		48		139.43	108	90				
	45	0		48		142.345	108	90				
Average							91.89					
Total						26.345		1762				

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Location: MFG Filler Run: _____

Velocity Determination Field Data Sheet

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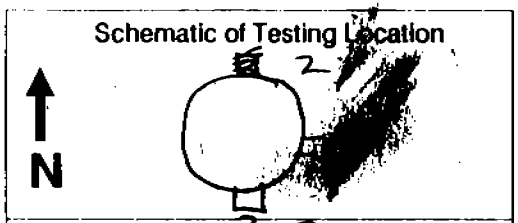
Client Coors	Project Number 6272
Plant Goldenco	Unit
Date 6 25	Inlet/Outlet/Stack
Data Recorder JeFF	
Probe Operator JeFF	

Schematic of Testing Location



First point all the way (IN) OUT

Area (ft²) .213	Port Len (in) .75	Gas Flow IN (OUT)

Ambient Temp. (°F) 63	Bar. Press. (in. Hg) 24.32
IGS Bag ID Number	
% O_2	% CO_2
% Moisture:	Assumed/Measured
Start Time 545 AM/(PM)	Stop Time 6:00 AM/(PM)

Pyrometer Number ANNOMATEC	Pitot Cp NA		
Pitot Leak Check: NA	Before NA	After	
Static Pressure (inches H_2O) (+/-) 0.0			

R2 FPM

Traverse Point Number	~~Velocity Head~~ ΔPs	Stack Temp (°F)	STACK TEMP
1-1	164	~~65~~	77
2	293	~~67~~	77
2-1	347		77
2	71		77
Total	876		
Average	219		77

R-2 FPM

Traverse Point Number	~~Velocity Head~~ ΔPs	Stack Temp (°F)	
1-1	194	73	
2	186	71	
3	235	71	
4	280	71	
2-1	387	71	
2	297	71	
3	119	70	
4	98	70	
Total	1796		
Average	224.5	71	

FPM

Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)	
1-1	197	73	
2	178	73	
3	248	73	
4	205	73	
2-1	346	72	
2	272	72	
3	84	71	
4	71	71	
Total	1601		
Average	200	72	

Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)		Notes

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Location: Conveyor Run: R-3

Velocity Determination Field Data Sheet

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Client COORS	Project Number 6265
Plant Golden Co	Unit
Date 6-26-92	Inlet/Outlet/Stack
Data Recorder J. Molinaro	
Probe Operator Steve K	

Schematic of Testing Location

N

4
3
2
1

First point all the way IN OUT

Area (ft²)	Port Len (in)	Gas Flow IN OUT
.785	1½	

Ambient Temp. (°F) 81	Bar. Press. (in. Hg) 24.24
IGS Bag ID Number R-3 Cauconvey	
% O_2	% CO_2
% Moisture:	Assumed/Measured
Start Time AM/PM	Stop Time 4:00 AM/PM

Pyrometer Number D-5	Pitot Cp .84
Pitot Leak Check: ✓ Before	After
Static Pressure (inches H_2O) (+/-) A 4.2 / 4.0 B	

R3

Traverse Point Number	Veoclty Head ΔPs	Stack Temp (°F)		Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)		Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)		Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)		Notes
1-1	2.5	72		4-2	.90	99										
2	2.6	77		3	1.0	99										
3	2.4	72		4	1.2	99										
4	2.7	72		5	1.2	99										
5	2.2	72		6	.9	99										
6	1.9	72														
2-1	2.0	72														
2	2.4	72		Tot B	18.33		1846									
3	2.9	72		Ave B	1.527	~~72~~	72									
4	2.5	72														
5	1.9	72														
6	1.7	72		Tot A	12.57											
3-1	.83	99		Ave A	1.047	99	[illegible]									
2	.95	99					1.55									
3	1.1	99														
4	1.0	99		Ave A+B	1.287	86										
5	.77	99														
6	.65	99														
4-1	.91	99														
Total																
Average																

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Orsat Readings

Page _____ of _____

Client COORS	Project Number 6265
Plant GOLDEN CO	Unit CAN CONVEYOR
Date 6-26-92	Fuel Type
Orsat ID	Leak Check? YES

$F_o = \frac{20.9 - \%O_2}{\%CO_2}$

F_o = 1.083 to 1.230 (for bituminous coal)

Run Number	Location	Bag ID	Trial	Percent CO_2	Percent $CO_2 + O_2$	Percent O_2	F_o	Sample Time	Analysis Time	Analyst
R-1	CAN CONV DUCT B	R-1	1	.2	20.8	20.6		12:30-	2:00	SM
			2	.2	20.8	20.6				
			3	.2	20.8	20.6				
			Avg.	.2	20.8	20.6				
R2	CON CONV DUCT B	R-2	1	.2	20.8	20.6		2:08-243	6:30	SM
			2	.2	20.8	20.6				
			3	.2	20.8	20.6				
			Avg.	.2	20.8	20.6				
R-3	CONVAY DUCT A	R-3	1	.2	20.8	20.6		3:17-4:02	6:45	SM
			2	.2	20.8	20.6				
			3	.2	20.8	20.6				
			Avg.	.2	20.8	20.6				
R-3	CAN CONV OUTLET	R-4	1	.2	20.8	20.6		4:50-5:20	7:PM	SM
			2	.2	20.8	20.6				
			3	.2	20.8	20.6				
			Avg.	.2	20.8	20.6				
			1							
			2							
			3							
			Avg.							
			1							
			2							
			3							
			Avg.							
			1							
			2							
			3							
			Avg.							
			1							
			2							
			3							
			Avg.							

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Location: Can Conveyor Run: R-1

Moisture Determination Field Data Sheet

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Client Coors	Project Number 6265
Plant Golden Co	Unit Can Conv
Date 6 26 92	Inlet/outlet/stack
Meter Operator	J Molinaro
Probe Operator	J Molinaro

Sample Box Number	K/O
Pyrometer Number	D-5
Meter Box Number	D-5
Meter ΔH@ 1.676	Meter Y_d 1.0078

Leak Rate Before:	0	cc/m cf/m @	15	"Hg
Leak Rate After:	0	cc/m cf/m @	6	"Hg

Schematic of Testing Location

First point all the way IN OUT	Method 4	
Area (ft^2) .785	Port Len. (in.) 1½	Gas Flow IN OUT
Filter Material NA		

Ambient Temp. (°F) 89	Bar. Press. (in. Hg) 24.31
Assumed Moisture (%)	

Heater Box Setting NA	Probe Heater Setting NA
Probe Length 2'	Probe Number NA
Probe Material SS	

IGS Bag ID Number R-1 Can Conveyor	
% O_2 20.6	% CO_2 0.2
H_2O (ml) 2	Silica Gel (gm) 3.1
Total V_{lc} 5.1	

Start Time: 12:36 AM PM	Stop Time: 121 AM PM

Traverse Point Number	Min/pt / Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 677.20 / Gas Sample Volume V_m Circle one: (L) (ft^3)	Gas Sample Temperature at Dry Gas Meter: Inlet $T_{m\,in}$ (°F)	Outlet $T_{m\,out}$ (°F)	Probe Temp. T_p (°F)			Notes
	5	3	NA	46	1.67	681.05	84	82	NA			Bwo = .008
	10	3	NA	46		684.95	86	82				DGFM: 2937
	15	3		48		688.91	86	82				5874
	20	3		48		692.95	86	82				
	25	3		48		696.77	86	82				
	30	3		48		700.71	86	81				
	35	3		50		704.69	86	81				
	40	3		50		708.64	87	81				
	45	3		50		712.635	87	81				
Average							83.78					
Total						35.435	1508					

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Location: Can Convey Run: K-2

Moisture Determination Field Data Sheet

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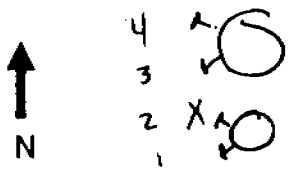
Client Coors	Project Number 6265
Plant Golden Co	Unit Can Convey
Date 6-26-92	Inlet/outlet/stack
Meter Operator J. Molinaro	
Probe Operator J. Molinaro	

Ambient Temp. (°F) 72°	Bar. Press. (in. Hg) 24.31
Assumed Moisture (%) 7	

Heater Box Setting NA	Probe Heater Setting NA
Probe Length 2'	Probe Number NA
Probe Material SS	

Sample Box Number K/O	
Pyrometer Number NUTECH	
Meter Box Number D-5	
Meter ΔH@ 1.676	Meter Y_d 1.0078

Schematic of Testing Location



First point all the way ~~IN OUT~~	Method 4
Area (ft²) .785	Port Len. (in.) 1½"
Gas Flow IN OUT	
Filter Material NA	

IGS Bag ID Number R-2 Can Conveyor	
% O_2 20.6	% CO_2 0.2
H_2O (ml) 3ml	Silica Gel (gm) 3
Total V_{lc} 6	

Leak Rate Before: 0 cc/m cf/m @ 15 "Hg	
Leak Rate After: 0 cc/m cf/m @ 8 "Hg	

Start Time: 208 AM / PM	Stop Time: 243 AM PM

Traverse Point Number	Min/pt 5/pt Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 713.30 Gas Sample Volume V_m Circle one: (L) (ft³)	Gas Sample Temperature at Dry Gas Meter Inlet $T_{m\,in}$ (°F)	Outlet $T_{m\,out}$ (°F)	Probe Temp. T_p (°F)			Notes
B-2-X	5	2.0	NA	50	1.0	716.59	77	77	NA			B_{wo} = 0.012
	10	2.0		50		719.83	80	77				DSCFM = ~~3286~~
	15	2.0		50		723.06	83	78				6572
	20	2.0		48		726.28	83	78				
	25	2.0		48		729.45	85	78				
	30	2.0		48		732.64	85	78				
	35	2.0		46		736.05	86	79				
	40	2.0		48		738.94	86	79				
	45	2.0		48		742.14	86	79				
Average							80.778					
Total						28.84	1454					

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Location: REANCRUSH Run: K-3

Moisture Determination Field Data Sheet

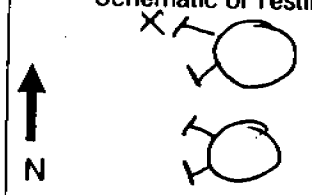
Page _____ of _____

Client COORS	Project Number 6265
Plant Golden Co	Unit CAN CRUSH'R
Date 6-26-92	Inlet/outlet/stack
Meter Operator	J. MOLINARO
Probe Operator	J. MOLINARO

Sample Box Number	K/O
Pyrometer Number	D-5 NUTECH
Meter Box Number	D-5
Meter ΔH@ 1.676	Meter Y_d 1.0078

Leak Rate Before:	0	cc/m cf/m @	15	"Hg
Leak Rate After:	0	cc/m cf/m @	0	"Hg

Schematic of Testing Location



First point all the way IN OUT	Method 4	
Area (ft^2) .785	Port Len. (in.) 1 1/2	Gas Flow IN OUT
Filter Material NA		

Ambient Temp. (°F) 81	Bar. Press. (in. Hg) 24.24
Assumed Moisture (%)	

Heater Box Setting NA	Probe Heater Setting NA
Probe Length 1'	Probe Number NA
Probe Material SS	

IGS Bag ID Number R-3 CAN CRUSHER	
% O_2 20.6	% CO_2 0.2
H_2O (ml) 0	Silica Gel (gm) 2.5
Total V_{lc} 2.5	

Start Time: 317 AM (PM) Stop Time: 402 AM / PM

Traverse Point Number	Min/pt 5 Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 742.90 Gas Sample Volume V_m Circle one: (L) (ft^3)	Gas Sample Temperature at Dry Gas Meter Inlet $T_{m\,in}$ (°F)	Outlet $T_{m\,out}$ (°F)	Probe Temp. T_p (°F)			Notes
X	5	2.	NA	48	1.0	746.09	85	81	NA			B_{ws} = .005
	10	2.0		46		749.29	89	82				Dpcfm: 6.036
	15	2.0		46		752.48	89	82				
	20	2.0		46		755.66	90	83				
	25	2.0		42		758.99	91	83				
	30	2.0		44			91	84				
	35	2.0		44		765.27	92	85				
	40	2.0		44		768.59	92	85				
	45	2.0		44		771.79	92	85				
Average						28.89	(87)					
Total												

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Location: Conveyor Run: K4

Moisture Determination Field Data Sheet

Client: Coors	Project Number
Plant: Golden	Unit
Date: 6-26-92	Inlet/Outlet/Stack: OUTLET
Meter Operator: J. Molinaro	
Probe Operator: J. Molinaro	

Sample Box Number: K/O	
Pyrometer Number: D5	
Meter Box Number: D-5	
Meter ΔH@: 1.676	Meter Y_d: 1.0018

Leak Rate Before:	0	cc/m cf/m @	15	"Hg
Leak Rate After:	0	cc/m cf/m @	9	"Hg

Schematic of Testing Location

First point all the way IN OUT	Method 4	
Area (ft^2)	Port Len. (in.) 1½	Gas Flow IN OUT
Filter Material: NA		

Ambient Temp. (°F): 72	Bar. Press. (in. Hg): 24.24
Assumed Moisture (%)	

Heater Box Setting: NA	Probe Heater Setting: NA
Probe Length: 2'	Probe Number: NA
Probe Material: SS	

IGS Bag ID Number: R-4 -	
% O_2: 20.6	% CO_2: 0.2
H_2O (ml): 4	Silica Gel (gm): 3.8
Total V_{lc}: 7.8	

Start Time: 4:50 AM / PM Stop Time: 5:20 AM / PM

Traverse Point Number	Min/pt 5 Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 773.49 Gas Sample Volume V_m Circle one: (L) (ft³)	Gas Sample Temperature at Dry Gas Meter Inlet $T_{m\,in}$ (°F)	Outlet $T_{m\,out}$ (°F)	Probe Temp. T_p (°F)			Notes
X	5	5	NA	40	1.8	777.53	86	84	NA			
	10	5		40		781.62	87	84				
	15	5		44		785.70	88	84				
	20	5		46		789.77	91	84				
	25	5		46		793.85	90	83				
	30	5		46		797.92	89	83				
Average							86.03					
Total						24.43	1033					

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Location: Can Conveyor Run: R1

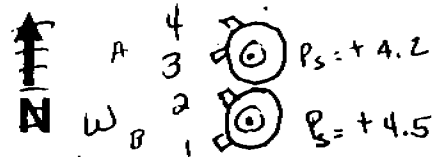
Velocity Determination Field Data Sheet

Page 1 of 1

Client Coors	Project Number 6265
Plant Golden CO	Unit Can Crush
Date 6 26 92	Inlet/Outlet/Stack
Data Recorder J. Molinaro	
Probe Operator J. Molinaro	

Pyrometer Number D-5	Pitot Cp .84
Pitot Leak Check: ✓ Before	After
Static Pressure (inches H_2O) (+/-)	

Schematic of Testing Location



First point all the way IN OUT

Area (ft^2)	Port Len (in)	Gas Flow IN OUT
.785	1 1/2	

Ambient Temp. (°F) 91	Bar. Press. (in. Hg) 24.24
IGS Bag ID Number CC-	
% O_2	% CO_2
% Molature:	Assumed/Measured
Start Time AM/PM	Stop Time 121 AM/PM

R-1

Traverse Point Number	Veocity Head ΔPs	Stack Temp (°F)		Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)	
1-1	2.5	83		4-2	.89	98	
2	2.7	83		4-3	.96	99	
3	3.1	84		4-4	.92	100	
4	2.8	84		4-5	.83	100	
5	2.1	84		4-6	.70	100	
6	1.8	84					
2-1	2.4	83					
2	2.7	83		~~Total A~~	19.14	1000	Total B
3	2.9	84		~~Ave A~~	1.595	83.3	Ave B
4	3.0	83					3746
5	2.4	82					[illegible]
6	2.3	83		~~Tot B~~	11.099	1184	Total A
3-1	.85	96		~~Ave B~~	.9249	98.67	Ave A
2	.94	98					
3	1.0	99					
4	1.0	99		Av A+B	1.260	91	
5	.87	99					
6	.58	99					
4-1	.78	97					
Total							
Average							

R2

Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)		Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)		Notes
1-1	2.4	76		4-2	1.7	95		
2	2.5	73		3	1.8	95		
3	2.9	74		4	1.6	95		
4	3.0	75		5	1.4	95		
5	2.5	76		6	1.2	95		
6	2.1	77						
2-1	2.4	77						
2	2.7	78		Tot B	18.78			
3	2.9	78		Ave B	1.565	76.3	[illegible]	
4	2.6	77						
5	1.9	77						
6	1.7	77		Tot A	14.95			
3-1	1.5	92		Ave A	1.246	94.4	2708	
2	1.7	93					6621	
3	1.7	93						
4	1.8	95		Ave A+B	1.406	85		
5	1.4	95						
6	1.3	95						
4-1	1.6	95						

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Location: Whirlpool 7 Run: R-1

Moisture Determination Field Data Sheet

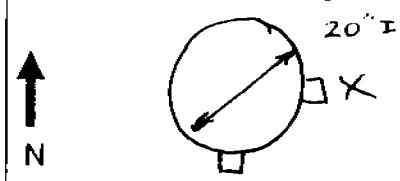
Page 1 of 1

Client Coors	Project Number 6265
Plant Golden Co	Unit Whirlpool vent
Date 7-2-92	Inlet/outlet/stack 7
Meter Operator J. Molinaro	
Probe Operator J. Molinaro	

Sample Box Number	K/O
Pyrometer Number	D-5
Meter Box Number	D-5
Meter ΔH@ 1.676	Meter Y_d 1.0078

Leak Rate Before:	0	cc/m cf/m @ 15	"Hg
Leak Rate After:	0	cc/m cf/m @ 6	"Hg

Schematic of Testing Location



First point all the way IN OUT	Method 4	
Area (ft^2) 2.182	Port Len. (in.) 0	Gas Flow IN OUT
Filter Material NA		

Ambient Temp. (°F) 70	Bar. Press. (in. Hg) 24.3
Assumed Moisture (%) SATURATED	

Heater Box Setting NA	Probe Heater Setting NA
Probe Length NA	Probe Number NA
Probe Material NA	

IGS Bag ID Number R-1-WhirlPool	
% O_2 20.9	% CO_2 0
H_2O (ml) 36	Silica Gel (gm) 7
Total V_{lc} 43	

Start Time: 11:52 AM PM Stop Time: 12:22 AM PM

Traverse Point Number	Min/pt 5 / Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O) 1.676	Initial Volume 798.60 / Gas Sample Volume V_m Circle one: (L) (ft³)	Gas Sample Temperature at Dry Gas Meter: Inlet $T_{m\ in}$ (°F)	Outlet $T_{m\ out}$ (°F)	Probe Temp. T_p (°F)			Notes
1	5	2	NA	50	~~1.0~~	802.33	77	77	NA			v = 18.773
	10	2		50		806.14	77	76				H_2O% = 9.76
	15	2		52		809.99	80	77				
	20	2		54		813.87	84	78				
	25	2		52		817.90	85	79				
	30	2		50		821.885	86	80				
	35											
	40											
	45											
Average			114									
Total						23.285	90					

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Location: Whirlpool Vent 7 Run: R-2

Moisture Determination Field Data Sheet

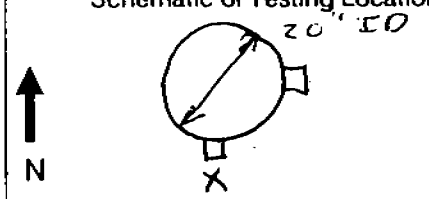
Page 1 of 1

Client Coors	Project Number 6265
Plant Golden Co	Unit Whirlpool
Date 7-2-92	Inlet/outlet/stack
Meter Operator J. Molinaro	
Probe Operator J. Molinaro	

Sample Box Number	K/O
Pyrometer Number	D5
Meter Box Number	D3
Meter ΔH@ 1.676	Meter Y_d 1.0078

Leak Rate Before:	0	cc/m cf/m @	15	"Hg
Leak Rate After:	0	cc/m cf/m @	5	"Hg

Schematic of Testing Location



First point all the way IN OUT	Method 4	
Area (ft^2) 2.182	Port Len. (in.) 0	Gas Flow IN (OUT)
Filter Material N/A		

Ambient Temp. (°F) 71	Bar. Press. (in. Hg) 24.3
Assumed Moisture (%)	

Heater Box Setting NA	Probe Heater Setting NA
Probe Length NA	Probe Number NA
Probe Material SS	

IGS Bag ID Number R-2 Whirlpool #7	
% O_2 20.9	% CO_2 0
H_2O (ml) 52	Silica Gel (gm) 4.5
Total V_{lc} 56.5	

Start Time: 12:39 AM / (PM)	Stop Time: 1:09 AM / (PM)

Traverse Point Number	Min/pt 5 Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 822.50 Gas Sample Volume V_m Circle one: (L) (ft^3)	Gas Sample Temperature at Dry Gas Meter Inlet $T_{m\ in}$ (°F)	Outlet $T_{m\ out}$ (°F)	Probe Temp. T_p (°F)			Notes
2-1	5	2	NA	40	1.676	826.65	87	83	NA			B_{wo} = 12.2%
	10	✓	✓	40	✓	830.58	88	84	✓			
	15	✓	✓	38	✓	834.51	90	84	✓			
	20	✓	✓	42	✓	838.52	91	85	✓			
	25	✓	✓	44	✓	842.40	92	85	✓			
	30	✓	✓	46	✓	846.52	93	86	✓			
Average							87.33					
Total						24.02	1048					

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Location: whirlpool vent Run: 3

Moisture Determination Field Data Sheet

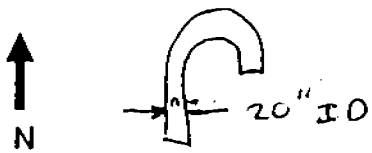
Page 1 of 1

Client COOVS	Project Number 6265
Plant Goldyn	Unit
Date 7/2/92	Inlet/outlet/stack
Meter Operator RH	
Probe Operator	

Sample Box Number	K/O
Pyrometer Number	D-5
Meter Box Number	D-5
Meter ΔH@	1.0078 1.67 Meter Y_d 1.0078

Leak Rate Before:	0	cc/m cf/m @	15	"Hg
Leak Rate After:	0	cc/m cf/m @	4	"Hg

Schematic of Testing Location



First point all the way IN OUT	Method 4	
Area (ft^2) 2.182	Port Len. (in.) 0	Gas Flow IN OUT
Filter Material NA		

Ambient Temp. (°F) 79	Bar. Press. (in. Hg) 24.3
Assumed Moisture (%) 10%	

Heater Box Setting —	Probe Heater Setting —
Probe Length 6"	Probe Number —
Probe Material SS	

IGS Bag ID Number R-3	
% O_2 20.7	% CO_2 0
H_2O (ml) 41	Silica Gel (gm) 8
Total V_{lc} 49	

Start Time: 1 54 AM PM Stop Time: 2 24 AM PM

Traverse Point Number	Min/pt Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 846.60 Gas Sample Volume V_m Circle one: (L) (ft^3)	Gas Sample Temperature at Dry Gas Meter Inlet $T_{m\,in}$ (°F)	Outlet $T_{m\,out}$ (°F)	Probe Temp. T_p (°F)			Notes
	10	2	NA	38	1.6	854.29	88	85				Bwc 11.0%
	20	↓		40		862.65	97	87				
	30	↓		40		870.27	97	89				
Average						23.67	90.83					
Total							545					

moisture

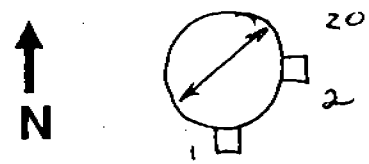
Location: Whirlpool #7 Run: R-1

Velocity Determination Field Data Sheet

Page 1 of 1

Client Coors	Project Number 6265
Plant Golden Co	Unit Whirlpool vent
Date 7-2-92	Inlet/Outlet/Stack 7
Data Recorder J. Molinaro	
Probe Operator R. Halverson	

Schematic of Testing Location



First point all the way (IN) OUT

Area (ft²)	Port Len (in)	Gas Flow IN (OUT)
2.182	0	

Ambient Temp. (°F) 66	Bar. Press. (in. Hg) 24.24
IGS Bag ID Number	
% O_2	% CO_2
% Moisture:	Assumed/Measured
Start Time 11:00 (AM)/PM	Stop Time 11:20 (AM)/PM

Pyrometer Number velocu Calc	Pitot Cp NA
Pitot Leak Check: NA Before	NA After
Static Pressure (inches H_2O) (+/-) 0	

Traverse Point Number	Velocity Head ΔPs (FPM R-1)	Stack Temp (°F)		Traverse Point Number	Velocity Head ΔPs (FPM)	Stack Temp (°F)	TIME R2 GS 12:35	Traverse Point Number	Velocity Head ΔPs (FPM)	Stack Temp (°F)	1259 12:55	Traverse Point Number	Velocity Head ΔPs (Fill R3 474)	Stack Temp (°F)		Notes
1-1	946	113		1-1	552	108		1-1	796	117		1-1	497	112		
2	992	114			640	108		2	940	118		2	620	114		
3	968	114			637	108		3	943	118		3	616	114		
4	922	113			634	108		4	945	118		4	611	114		
5	922	113			631	108		5	794	117		5	634	131		Steam start
6	818	113			612	108	12:37	6	744	117		6	664	154		
2-1	1021	114		2-1	1622	114	12:25	2-1	661	117	12:55	2-1	1836	142		
2	949	114			1960	114		2	778	117		2	1957	142		
3	982	114			1705	114		3	854	117		3	2168	142		
4	949	114			1278	113		4	856	117		4	1826	140		
5	946	114			738	113		5	827	117		5	1783	139		
6	907	114			598	113	12:32	6	777	117	1259	6	1282	140		
Total	11382				11627	1329			9915				15644	1584		
Average	949	114			968.92	111			926.3	117			1304	132		

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Location: Wort Cooler Run: 1

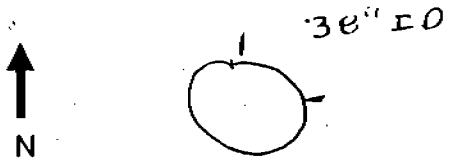
Moisture Determination Field Data Sheet

Client Coors	Project Number 6285
Plant Golden	Unit WORT COOLER B
Date 7-2	Inlet/outlet/stack
Meter Operator RH	
Probe Operator RH	

Sample Box Number K/10	
Pyrometer Number 0.6	
Meter Box Number 0.5	
Meter ΔH@ 1.670	Meter Y_d 1.0078

Leak Rate Before:	.000	cc/m cf/m @ 5	"Hg
Leak Rate After:	0	cc/m cf/m @ 4	"Hg

Schematic of Testing Location



First point all the way IN OUT	Method 4	
Area (ft^2) 7.96	Port Len. (in.) 0	Gas Flow IN OUT
Filter Material NA		

Ambient Temp. (°F) 86	Bar. Press. (in. Hg) 24.3
Assumed Moisture (%) 2%	

Heater Box Setting —	Probe Heater Setting —
Probe Length 6"	Probe Number
Probe Material SS	

IGS Bag ID Number R-1 WORT Cooler	
% O_2 20.9	% CO_2 0
H_2O (ml) 2	Silica Gel (gm) 8
Total V_{lc} 10	

Start Time: 2:35 AM / PM Stop Time: 3:05 AM PM

Traverse Point Number	Min/pt / Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 870.46 / Gas Sample Volume V_m Circle one: (L) (ft^3)	Gas Sample Temperature at Dry Gas Meter: Inlet $T_{m\ in}$ (°F)	Outlet $T_{m\ out}$ (°F)	Probe Temp. T_p (°F)			Notes
	10	4		38	1.6	878.27	90	88				Bmo 24%
	20	↓		38		886.31	96	89				
	30	↓		40	↓	894.40	97	90				
Average							91.67					
Total						23.94	550					

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Orsat Readings

Page _____ of _____

Client Coors	Project Number 6265
Plant Golden Co	Unit
Date 7-2-92	Fuel Type
Orsat ID C5-0	Leak Check? ✓

$$F_o = \frac{20.9 - \%O_2}{\%CO_2}$$

F_o = 1.083 to 1.230 (for bituminous coal)

Run Number	Location	Bag ID	Trial	Percent CO_2	Percent $CO_2 + O_2$	Percent O_2	F_o	Sample Time	Analysis Time	Analyst
R.1	Whirlpool	R-2	1	0	20.9	20.9		11:52-	12:35	RH
			2	0	20.9					
			3	0	20.9					
			Avg.	0	20.9					
R3	Whirlpool	R-2	1	0	20.9	20.9		1:39-1:09	1:15	RH
			2	0	20.9					
			3	0	20.9					
			Avg.	0	20.9					
R3	Whirlpool	R-3	1	0	20.9	20.9		1:54-2:24	2:24.	JM-
			2	0	21.0	21.0				
			3	0	20.9	20.9				
			Avg.	0	20.9	20.9				
R-1	COOLER	R-1	1	0	20.9					
			2	0	20.9					
			3	0	20.9					
			Avg.	0	20.9	20.9				
R-2	COOLER	R-2	1	0	20.9					
			2	0	20.9					
			3	0	20.9					
			Avg.	0	20.9	20.9				
R-3	COOLER	R-3	1	0	20.9					
			2	0	20.9					
			3	0	20.9					
			Avg.	0	20.9	20.9				
			1							
			2							
			3							
			Avg.							
			1							
			2							
			3							
			Avg.							

CAE P3 ver 1.0
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Location: TR vessels 3 Run: R-1

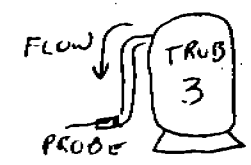
Moisture Determination Field Data Sheet

Client: Coors	Project Number: 6265
Plant: Golden Co	Unit: TRUB 3
Date: 7-7-92	Inlet/Outlet/Stack: Vessel
Meter Operator: J. Molinaro	
Probe Operator: J. Molinaro	

Sample Box Number	K/O
Pyrometer Number	K/O
Meter Box Number	D-5
Meter ΔH@ 1.676	Meter Y_d 1.0078

Leak Rate Before:	0	cc/m cf/m @	15	"Hg
Leak Rate After:	0	cc/m cf/m @	7	"Hg

Schematic of Testing Location



FLOW BY FLUID DISPLACMENT IN TRUB TANK

First point all the way IN OUT	Method 4	
Area (ft^2): NA	Port Len. (in.): NA	Gas Flow IN OUT
Filter Material: NA		

Ambient Temp. (°F) 85	Bar. Press. (in. Hg) 24.49
Assumed Moisture (%)	
Heater Box Setting: NA	Probe Heater Setting: NA
Probe Length: NA	Probe Number: NA
Probe Material: SS	
IGS Bag ID Number: R-1 TRUB VESSEL	
% O_2: 21.0	% CO_2: .7
H_2O (ml): 80.0	Silica Gel (gm): 5.3
Total V_{lc}: 85.3	
Start Time: 1330 AM / PM	Stop Time: 1415 AM / PM

Traverse Point Number	Min/pt 5 Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 945.200 Gas Sample Volume V_m Circle one: (L) (ft^3)	Gas Sample Temperature at Dry Gas Meter Inlet $T_{m\,in}$ (°F)	Outlet $T_{m\,out}$ (°F)	Probe Temp. T_p (°F)			Notes
1	5	4	NA	48	1.0	948.06	93	93	NA			Bwo = 15.2%
	10	5		49		950.98	94	93				
	15	5		50		954.12	96	93				
	20	5		51		957.33	98	94				
	25	6		53		960.64	99	94				
	30	6		54		963.89	100	95				
	35	5		55		967.20	101	95				
	40	5		56		970.46	102	96				
	45	5		56		973.770	103	96				
Average						28.57	96					
Total					1.0							

TRUB

Location: TRU TANK 3 Run: R-2

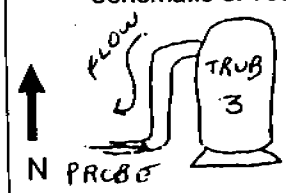
Moisture Determination Field Data Sheet

Client COORS	Project Number 6265
Plant GOLDEN, CO.	Unit TRUB 3
Date 7 JULY 92	Inlet/Outlet/stack
Meter Operator M HYNES	
Probe Operator M HYNES	

Sample Box Number	KNOCK-OUTS
Pyrometer Number	D-5
Meter Box Number	D-5
Meter ΔH@ 1.676	Meter Yd 1.0078

Leak Rate Before:	0	cc/m cf/m @	15	"Hg
Leak Rate After:	0	cc/m cf/m @	7	"Hg

Schematic of Testing Location



First point all the way IN OUT	Method 4	
Area (ft²)	Port Len. (in.) NA	Gas Flow IN OUT
Filter Material NA		

Ambient Temp. (°F) 90	Bar. Press. (in. Hg) 24.49
Assumed Moisture (%)	

Heater Box Setting NA	Probe Heater Setting NA
Probe Length 2'	Probe Number NA
Probe Material S.S.	

IGS Bag ID Number R-2 TRUB 3	
% O_2 20.6	% CO_2 .2
H_2O (ml) 22.0	Silica Gel (gm) 4.7
Total V_{lc} 26.7	

Start Time: 1500 AM / PM	Stop Time: 1545 AM / PM

Traverse Point Number	Min/pt 5 Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 974.900 / Gas Sample Volume V_m Circle one: (L) (ft³)	Gas Sample Temperature at Dry Gas Meter: Inlet $T_{m\ in}$ (°F)	Outlet $T_{m\ out}$ (°F)	Probe Temp. T_p (°F)			Notes
1	5	4	NA	52	1.0	978.00	99	98	NA			Bwo 5%
	10	4		53		981.18	101	98				
	15	4		55		984.40	102	98				
	20	4		56		987.62	104	99				
	25	4		57		990.88	105	100				
	30	4		58		994.02	106	100				
	35	4		58		997.13	106	100				
	40	4		59		1000.31	106	100				
	45	5		59		1003.500	107	101				
Average						28.600	102					
Total					1.0							

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Location: TR. TANK 3 Run: 3

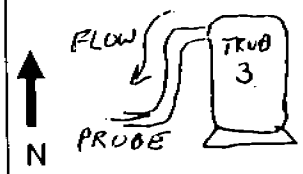
Moisture Determination Field Data Sheet

Client COORS BREWING	Project Number 6265
Plant GOLDEN, CO.	Unit TRUB 3
Date 7 JULY 92	Inlet/Outlet/Stack
Meter Operator M HYNES	
Probe Operator M HYNES	

Sample Box Number KNOCK-OUTS	
Pyrometer Number D-5	
Meter Box Number D-5	
Meter ΔH@ 1.678	Meter Y_d 1.0078

Leak Rate Before:	0	cc/m cf/m @	15	"Hg
Leak Rate After:		cc/m cf/m @		"Hg

Schematic of Testing Location



First point all the way IN OUT	Method 4	
Area (ft^2)	Port Len. (in.) NA	Gas Flow IN OUT
Filter Material NA		

Ambient Temp. (°F) 90	Bar. Press. (in. Hg) 24.49
Assumed Moisture (%)	

Heater Box Setting NA	Probe Heater Setting NA
Probe Length 2'	Probe Number NA
Probe Material S.S.	

IGS Bag ID Number R3 TRUB 3	
% O_2 ~~20.6~~ 20.7	% CO_2 .2
H_2O (ml) 35.0	Silica Gel (gm) 50
Total V_{lc} 40.0	

Start Time: 1620 AM / PM	Stop Time: 1720 AM / PM

Traverse Point Number	Min/pt 5 / Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 4.700 / Gas Sample Volume V_m Circle one: (L) (ft^3)	Gas Sample Temperature at Dry Gas Meter: Inlet $T_{m\ in}$ (°F)	Outlet $T_{m\ out}$ (°F)	Probe Temp. T_p (°F)			Notes
1	5	4	NA	48	1.0	8.00	99	99	NA			Bwo= 6.0%
	10	4		51		11.18	101	99				
	15	4		52		14.45	102	100				
	20	4		53		17.72	104	100				
	25	4		53		20.92	105	100				
	30	4		53		24.13	106	100				
	35	4		53		27.37	106	101				
	40	4		53		30.54	107	101				
	45	4		53		33.67	107	101				
	50	4		53		36.86	107	101				
	55	4		53		40.03	108	102				
	60	4		53		42.847	108	102				
Average						38.147	103					
Total					1.0							

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Location: GOOD BEER LINE Run: R-1

Moisture Determination Field Data Sheet

Page 1 of 1

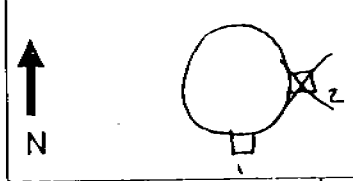
Client Coors	Project Number 6265
Plant Golden Co	Unit
Date 7/11/92	Inlet/outlet/stack
Meter Operator J. Molinaro G. Pavlovics	
Probe Operator J. Molinaro G. Pavlovics	

Ambient Temp. (°F) 68	Bar. Press. (in. Hg) 24.38
Assumed Moisture (%) 3%	

Sample Box Number K/O	
Pyrometer Number D-5	
Meter Box Number D-5	
Meter ΔH@ 1.676	Meter Y_d 1.0078

Leak Rate Before: 0.00 cc/m cfm @ 15 "Hg	
Leak Rate After: .01 cc/m cfm @ 10" "Hg	

Schematic of Testing Location



First point all the way IN OUT	Method 4	
Area (ft²) d = 4.75 0.12 ft	Port Len. (in.) 5/8	Gas Flow IN OUT
Filter Material NA		

Heater Box Setting NA	Probe Heater Setting NA
Probe Length 2'	Probe Number NA
Probe Material SS	

IGS Bag ID Number R-1 6BL	
% O_2 .35%	% CO_2
H_2O (ml) 350	Silica Gel (gm) 5.0
Total V_{lc} 40.0	

Start Time: 9:18 AM / PM	Stop Time: 9:57 AM / PM

Traverse Point Number	Min/pt 5 Clock Time	Pump Vacuum (in. Hg)	Stack Temp. Ts (°F)	Bath Temp. (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 43.80 44.09 Gas Sample Volume V_m Circle one: (L) (ft³)	Gas Sample Temperature at Dry Gas Meter Inlet $T_{m\,in}$ (°F)	Outlet $T_{m\,out}$ (°F)	Probe Temp. T_p (°F)			Notes
	5	3	NA	65	1.0	46.75	77	73	NA			Bwo = 12.2%
	10	3		66		49.25	82	74				
	15	3		61		51.74	84	76				
	20	3		59		54.22 *	86	78				* STOPPED FOR RAIN
	25	3		57		56.74	88	79				
	30	3		56		59.31	90	81				
	~~35~~ 34	3		56		61.47	90	81				
	~~40~~											
	~~45~~											
			T=65°									
Average			@9:34	60	1.0	16.945	81.3					
Total												

V_{mSTD} 13.609 12% BWO (7)

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OUT Run: 4

Moisture Determination Field Data Sheet

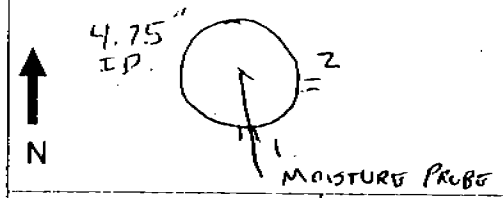
BREWING-	Project Number 6265
CO.	Unit G.B.L
92	Inlet/outlet/stack
HYNES	

KNOCK-OUTS	
D-5	
D-5	
76	Meter Y_d 1.0078

0 cc/m cf/m @ 15 "Hg

0 cc/m cf/m @ 7 "Hg

Schematic of Testing Location



First point all the way IN OUT	Method 4	
Area (ft^2) 0.123	Port Len. (in.) 5/8	Gas Flow IN (OUT)
Filter Material NA		

Pump Vacuum (in Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 107.400 Gas Sample Volume V_m Circle one: (L) (ft^3)	Gas Sample Temperature at Dry Gas Meter Inlet $T_{m\ in}$ (°F)	Outlet $T_{m\ out}$ (°F)
5	65	46	1.0	110.16	78	77
4	65	46	1.0	112.80	79	77
4	65	46	1.0	115.30	81	78
4	65	46	1.0	117.82	83	78
4	63	46	1.0	120.35	85	78
4	63	46	1.0	122.87	86	79
4	63	46	1.0	125.47	87	79
4	64	46	1.0	127.87	88	80
4	65	46	1.0	130.400	90	81
					(81)	
			1.0	23.000		

Location: LOADOUT Run: 3

Moisture Determination Field Data Sheet

Page 1 of 1

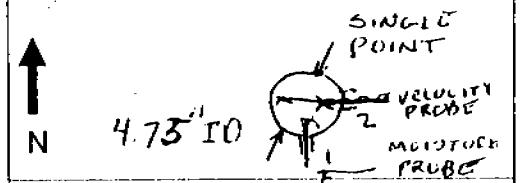
Client COORS BREWING	Project Number 6265
Plant GOLDEN, CO.	Unit G.B.L
Date 13 JULY 92	Inlet/outlet/stack
Meter Operator M. HYNES	
Probe Operator M. HYNES	

Sample Box Number KNOCK-OUTS	
Pyrometer Number D-5	
Meter Box Number D-5	
Meter ΔH@ 1.676	Meter Y_d 1.0078

Leak Rate Before: 0.0 cc/m cf/m @ 15 "Hg

Leak Rate After: 0.0 cc/m cf/m @ 7 "Hg

Schematic of Testing Location



First point all the way IN OUT	Method 4	
Area (ft^2) 0.123	Port Len. (in.) 5/8	Gas Flow IN (OUT)
Filter Material NA		

Ambient Temp. (°F) 68	Bar. Press. (in. Hg) 24.40
Assumed Moisture (%)	

Heater Box Setting NA	Probe Heater Setting NA
Probe Length 1'	Probe Number NA
Probe Material S.S.	

IGS Bag ID Number R-3 GBL	
% O_2	% CO_2
H_2O (ml) 2.0	Silica Gel (gm) 4.8
Total V_{lc} 6.8	

Start Time: 11 37 AM / PM Stop Time: 12 17 AM / PM

Traverse Point Number	Min/pt 5 Clock Time	Pump Vacuum (in. Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 85.200 Gas Sample Volume V_m Circle one: (L) (ft^3)	Gas Sample Temperature at Dry Gas Meter Inlet $T_{m\ in}$ (°F)	Outlet $T_{m\ out}$ (°F)	Probe Temp. T_p (°F)			Notes
1	5	5	60	58	1.0	87.99	71	70	NA			Bwo = 1.9%
	10	5	57	48	1.0	90.59	73	70				
	15	4	57	48	1.0	93.20	74	71				
	20	4	59	48	1.0	95.51	77	71				
	25	4	60	48	1.0	97.95	79	72				
	30	4	60	48	1.0	100.45	81	73				
	35	4	60	48	1.0	102.98	82	73				
	40	4	60	48	1.0	105.690	82	73				~~STOP AT TEN~~ START AT
	45	4	60	48	1.0							
Average							(74.5)					
Total					1.0	(20.490)						

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Location: LOADOUT Run: 4

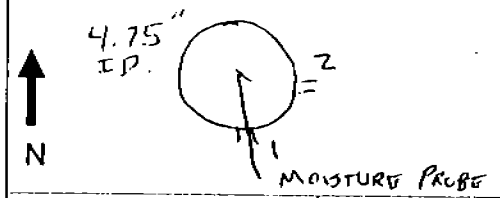
Moisture Determination Field Data Sheet

Client COORS BREWING	Project Number 6265
Plant GOLDEN, CO.	Unit G.B.L
Date 13 JULY 92	Inlet/outlet/stack
Meter Operator M. HYNES	
Probe Operator	

Sample Box Number	KNOCK-OUTS
Pyrometer Number	D-5
Meter Box Number	D-5
Meter ΔH@ 1.676	Meter Y_d 1.0078

Leak Rate Before:	0	cc/m cf/m @	15	"Hg
Leak Rate After:	0	cc/m cf/m @	7	"Hg

Schematic of Testing Location



First point all the way IN OUT	Method 4	
Area (ft^2) 0.123	Port Len. (in.) 5/8	Gas Flow IN OUT
Filter Material NA		

Ambient Temp. (°F) 75	Bar. Press. (in. Hg) 24.40
Assumed Moisture (%) 2	

Heater Box Setting NA	Probe Heater Setting NA
Probe Length 1'	Probe Number NA
Probe Material S.S.	

IGS Bag ID Number R-4 G.B.L.	
% O_2	% CO_2
H_2O (ml) 2.0	Silica Gel (gm) 5.1
Total V_{lc} 7.1	

Start Time: 1628 AM / PM	Stop Time: 1713 AM / PM

Traverse Point Number	Min/pt 5 / Clock Time	Pump Vacuum (in Hg)	Stack Temp, Ts (°F)	Bath Temp, (°F)	Orifice Setting ΔH (in. H_2O)	Initial Volume 107.400 / Gas Sample Volume V_m Circle one: (L) (ft^3)	Gas Sample Temperature at Dry Gas Meter: Inlet $T_{m\,in}$ (°F)	Outlet $T_{m\,out}$ (°F)	Probe Temp. T_p (°F)			Notes
1	5	5	65	46	1.0	110.16	78	77	NA			B_{wo} = 1.8%
	10	4	65	46	1.0	112.80	79	77				
	15	4	65	46	1.0	115.30	81	78				
	20	4	65	46	1.0	117.82	83	78				
	25	4	63	46	1.0	120.35	85	78				
	30	4	63	46	1.0	122.87	86	79				
	35	4	63	46	1.0	125.47	87	79				
	40	4	64	46	1.0	127.87	88	80				
	45	4	65	46	1.0	130.400	90	81				
Average							(81)					
Total					1.0	23.000						

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Location: Golden Beer Line Run: _____

Velocity Determination Field Data Sheet

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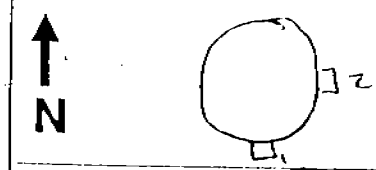
Client Coors	Project Number 62.65
Plant Golden Co	Unit Golden Beer Line
Date 7-10-92	Inlet/Outlet/Stack
Data Recorder J. Molinaro	
Probe Operator J. Molinaro	

Pyrometer Number Velocity Cal	Pitot Cp .84
Pilot Leak Check: ✓ Before	✓ After
Static Pressure (inches H_2O) (+/-) .04	

Schematic of Testing Location



First point all the way	IN	OUT
Area (ft²) 0.12	Port Len (in) 5/8"	Gas Flow IN OUT

Ambient Temp. (°F) 69	Bar. Press. (in. Hg) ~~24.49~~ 24.38
IGS Bag ID Number R-1 →	
% O_2	% CO_2
% Moisture:	Assumed/Measured
Start Time 9:40 AM/PM	Stop Time 9:47A AM/PM

R-1 940-947 R-2a 307P-311P ~~R-3~~ R-2a 334P-339P

Traverse Point Number	Veocity Head ΔPs	Stack Temp (°F)		Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)		Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)		Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)		Notes
1-1	.17	66		1-1	.14	75		1-1	.76	75						
2	.17	65		2	.14	75		2	.75	73						
3	.15	64		3	.10	75		3	.68	73						
4	.14	64		4	.11	75		4	.70	73						
2-1	.19	64		2-1	.24	75		2-1	.73	73						
2	.19	63		2	.24	75		2	.74	73						
3	.16	63		3	.27	75		3	.69	73						
4	.15	63		4	.28	75		4	.69	73						
	√ΔP .406	64														
Total					0.428				6.775							
Average					0.428	75			0.847	73						

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Dscfm = 136

.638 = 221 Dscfm

CAE

Location: Gol - 1 L. 2 LOAD OUT Run: 3

Velocity Determination Field Data Sheet

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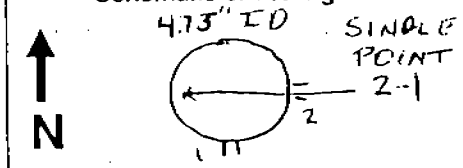
Client COORS BREWING	Project Number 6265
Plant GOLDEN, CO.	Unit GBL
Date 13 JULY 92	Inlet/Outlet/Stack
Data Recorder M. HYNES	
Probe Operator M. HYNES	

Pyrometer Number D-5	Pitot Cp 1.0
Pitot Leak Check: ✓ Before ✓ After	
Static Pressure (inches H_2O) (+/-) +0.05	

Schematic of Testing Location



First point all the way IN OUT

Area (ft^2)	Port Len (in)	Gas Flow IN OUT
0.123	5/8"	

Ambient Temp. (°F) 67°F	Bar. Press. (in. Hg) 24.40
IGS Bag ID Number	
% O_2	% CO_2
% Moisture: 1.9%	Assumed/Measured
Start Time 11:20:30 AM/PM	Stop Time 12:14:30 AM/PM

VELOCITY ΔP AT 1 MIN INTERVAL, SINGLE POINT (2-1) DURING TANK FILLING

Traverse Point Number	Veocity Head ΔPs (R-3)	Stack Temp (°F)		Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F) (R-3)		Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F) (R-3)		Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)		Notes
2-1	.015	60	11.20.30	2-1	.27	1139.30	60	2-1	0.20	60	1158.30					(FLOW STARTS
	0.11	60	1121.30		.27	1140"	60		0.20	60	1159"					AT 1170.30)
	0.34	60	1122.30		.27	1141"	60		0.20	60	1200"					
	0.46	60	1123.30		2.40	1142"	58		0.19	60	1201"					DSCFM:
	0.41	60	1124"		2.05	1143"	58		0.19	60	1202"					187
	0.33	60	1125"		1.00	1144"	57		0.19	60	1203"					
	0.27	59	1126"		0.54	1145"	57		0.19	60	1204"					
	0.24	59	1127"		0.31	1146"	57		0.19	60	1205"					
	0.23	60	1128"		0.21	1147"	57		0.19	60	1206"					
	0.24	60	1129"		0.18	1148"	58		0.08	60	1207"					
	0.25	60	1130"		0.19	1149"	58		0.00	60	1208"					
	0.26	60	1131"		0.20	1150"	58		0.29	60	1209"					
	0.27	60	1132"		0.21	1151"	58		0.28	60	1210"					
	0.27	60	1133"		0.21	1152"	59		0.25	61	1211"					
	0.27	60	1134"		0.20	1153"	59		0.09	61	1212"					
	0.27	60	1135"		0.20	1154"	59		0.03	61	1213"					
	0.27	60	1136"		0.20	1155"	59		0.00	61	1214"					
	0.27	60	1137"		0.20	1156"	59				1215"					
	0.27	60	1138"		0.20	1157"	59				1216"					
Total	9.5564	1138			11.7497		1110		6.2807	1024						
Average									0.5109	59.5						

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Location: EAST

Client	COORS BREWING
Plant	GOLDEN CO
Date	7-16-92
Meter Operator	J. Mo
Probe Operator	J. Mo

Sample Box Number	K
Pyrometer Number	AN
Meter Box Number	D-5
Meter ΔH@	1.676

Leak Rate Before:	0 cc
Leak Rate After:	cc/

Traverse Point Number	Min/pt 5 Clock Time	Pump Vacuum (in. Hg)
	5	3
	10	3
	15	3
	20	3
	25	3
	30	3
	35	3
	40	3
	45	3
Average		
Total		

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Run: 2 TEA

Location: PLANT

Client	COOR BREWING
Plant	GOLDEN
Date	16 JULY 92
Meter Operator	M. HYNES
Probe Operator	M. HYNES

Sample Box Number	KNOCK
Pyrometer Number	D5
Meter Box Number	D5
Meter ΔH@	1.676

Leak Rate Before:	0 cc/m
Leak Rate After:	0 cc/m

Traverse Point Number	Min/pt 5 Clock Time	Pump Vacuum (in. Hg)
1	5	4
	10	4
	15	4
	20	4
	25	4
	30	3
	35	3
	40	3
	45	3
Average		
Total		

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Location: LOADOUT Run: 4

Velocity Determination Field Data Sheet

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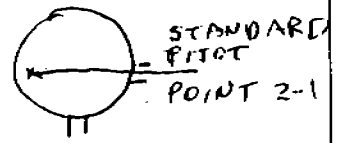
Client	COORS BREWING
Plant	GOLDEN, CO.
Date	13 JULY 92
Data Recorder	M. HYNES
Probe Operator	M. HYNES
Project Number	6265
Unit	G B L
Inlet/Outlet/Stack	

Pyrometer Number	D-5
Pitot Cp	1.0
Pitot Leak Check:	✓ Before ✓ After
Static Pressure (inches H_2O) (+/-)	±0.05

Schematic of Testing Location



First point all the way IN OUT

Area (ft²)	Port Len (in)	Gas Flow IN OUT
0.123	5/8	OUT

Ambient Temp. (°F) 72	Bar. Press. (in. Hg) 24.40
IGS Bag ID Number R-4	G.B.L.
% O_2	% CO_2
% Moisture:	Assumed/Measured
Start Time 162400 AM/PM	Stop Time 1718 AM/PM

Traverse Point Number	Veocity Head ΔPs	Stack Temp (°F)		Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)		Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)		Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)		Notes
2-1	~~0.00~~	~~72~~	162400	2-1	0.26	65	1643	2-1	0.19	64	1702					FLOW
	0.06	68	1625		0.26	65	1644		0.19	64	1703					DECEIVE 1[illegible]
	0.24	66	1626		0.27	65	1645		0.19	64	1704					
	0.40	64	1627		2.10	65	1646		0.19	64	1705					
	0.42	64	1628		2.10	63	1647		0.19	64	1706					
	0.36	64	1629		1.45	62	1648		0.19	64	1707					
	0.30	64	1630		0.67	61	1649		0.19	64	1708					
	0.25	65	1631		0.34	62	1650		0.19	64	1709					
	0.24	65	1632		0.22	62	1651		0.19	64	1710					
	0.23	66	1633		0.18	62	1652		0.13	65	1711					
	0.24	65	1634		0.19	62	1653		0.01	65	1712					
	0.25	65	1635		0.20	62	1654		0.24	65	1713					
	0.26	65	1636		0.21	63	1655		0.29	65	1714					
	0.27	65	1637		0.21	63	1656		0.26	65	1715					
	0.26	65	1638		0.20	63	1657		0.11	65	1716					
	0.26	65	1639		0.20	63	1658		0.03	65	1717					
	0.26	65	1640		0.19	63	1659		~~0.00~~	~~66~~	1718					
	0.26	65	1641		0.19	64	1700									
	0.26	65	1642		0.19	64	1701									
Total	9.2015	1171			11.9385	1136			6.4267	1031						
Average									0.5210	63						

D:\vpforms\velocity

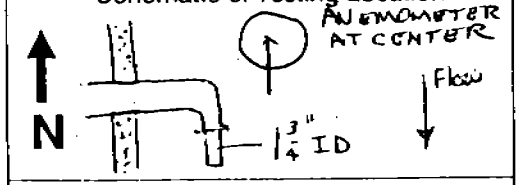
Location: YEAST DRYING PLNT Run: _____

Velocity Determination Field Data Sheet

Page 1 of 1

Client COORS BREWING	Project Number 6265
Plant Golden Co	Unit YDP
Date 7-16-92	Inlet/Outlet (Stack)
Data Recorder J. MOLINARO	
Probe Operator J. MOLINARO	

Schematic of Testing Location



First point all the way IN OUT

Area (ft²)	Port Len (in)	Gas Flow
0.016 m² 2.405 ft²	1/4"	IN (OUT)

Ambient Temp. (°F) 68	Bar. Press. (in. Hg) 24.46
IGS Bag ID Number	
% O_2	% CO_2
% Moisture:	Assumed/Measured
Start Time AM/PM	Stop Time AM/PM

Pyrometer Number ANEMOMETER	Pitot Cp NA		
Pitot Leak Check: NA	Before NA	After	
Static Pressure (inches H_2O) (+/-) 0.0			

START 1202 RUN 1 START 1320 RUN 2 START 0905 20 JULY R-3

Traverse Point Number	Veocity Head ΔPs	Stack Temp (°F)	TIME MIN	Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)	TIME MIN	Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)	TIME MIN	Traverse Point Number	Velocity Head ΔPs	Stack Temp (°F)		Notes
1	445	116	5	1	414	116	5	1	484	109	5					
1	455	116	10		423	116	10		527	109	10					
	500	116	15		435	117	15		555	110	15					
	456	116	20		443	118	20		542	110	20					
	453	116	25		462	119	25		526	110	25					
	421	115	30		438	119	30		522	109	30					
	422	115	35		442	119	35		524	111	35					
	432	116	40		438	119	40		543	111	40					
	432	116	45		435	118	45		567	111	45					
	444	116	50		442	118	50		563	112	50					
	408	116	55		435	119	55		563	113	55					
	416	115	60		445	119	60		553	113	60					
STOP	1302			STOP	1420			STOP	1005							
								BAR.	24.51							
Total																
Average	411	116			438	118			539	111						

D:\vpforms\velocity

[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	-14 Zero	0
[illegible]	[illegible]	0
00:00:11:59.988	-1 I cal	0
00:00:11:14.987	-5 Pre 1	0
00:00:11:44.987	-13	0
00:00:12:59.986	-9 -7	0
00:00:12:29.986	-9	0
00:00:12:44.986	-13	0
00:00:12:59.985	-16	0
00:00:13:14.985	-12	0
00:00:13:29.985	-10	0
00:00:13:44.985	-13	0
00:00:13:59.984	38	0
00:00:14:14.984	801	0
00:00:14:29.984	853	0
00:00:14:44.983	853	0
00:00:14:59.983	853	0
00:00:15:14.983	849	0
00:00:15:29.983	849	0
00:00:15:44.982	855	0
00:00:15:59.982	851	0
00:00:16:14.982	849	0
00:00:16:29.982	858	0
00:00:16:59.981	849	0
00:00:17:14.981	855	0
00:00:17:29.980	853	0
00:00:17:44.980	822	0
00:00:17:59.980	63	0
00:00:18:14.980	434	0
00:00:18:29.979	577	0
00:00:18:44.979	555	0
00:00:19:14.979	541	0
00:00:19:29.978	539	0
00:00:19:44.978	544	0
00:00:19:59.978	544	0
00:00:20:14.978	539	0
00:00:20:29.977	537	0
00:00:20:59.977	541	0
00:00:21:14.976	536	0
00:00:21:29.976	536	0
00:00:21:44.976	541	0
00:00:21:59.97[illegible]	[illegible]	0
00:00:22:14.97[illegible]	[illegible]	0
00:00:22:59.97[illegible]	[illegible]	0
00:00:23:14.9[illegible]	[illegible]	0
00:00:23:44.97[illegible]	[illegible]	0 I cal [illegible]
00:00:23:59.973	[illegible]	0
"13:54:40,57"		
		~~CAL~~ IA BIAS CHECK
00:00:00:14.999	239	0
00:00:00:29.999	237	0
00:00:00:44.999	240	0
00:00:00:59.998	241	0
00:00:01:14.998	236	0
00:00:01:29.998	235	0
00:00:01:44.998	238	0
00:00:01:59.997	239	0
00:00:02:14.997	91	0
00:00:02:29.997	-18	0
00:00:02:44.997	-15	0
00:00:02:59.996	-16	0
00:00:03:14.996	-22	0
[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
00:00:05:14.994	-19	0
00:00:05:29.994	-20	0

Run 1

"CBC CAN LINE"
" "
" 6-23-1992"
"14:04:36.23"

00:00:03:59.999	9	0
00:00:04:59.999	10	0
00:00:05:59.999	10	0
00:00:06:59.999	10	0
00:00:07:59.999	10	0
00:00:08:59.999	10	0
00:00:10:59.999	9	0
00:00:11:59.999	9	0
00:00:12:59.998	9	0
00:00:13:59.998	9	0

POWER WENT OUT
NO DATA SAVED
USB STIP CHART
CAL 2

"COORS BREWING C09"
" "
"15:08:46.18"
" 6-23-1992"
"TIME" "THC1" "THC2"
"SEC" "PPM" "PPM"

00:00:00:00.000	0	0
00:00:00:14.999	-11	0
00:00:00:29.999	-15	0
00:00:00:44.999	-14	0
00:00:00:59.998	-9	0
00:00:01:14.998	-10	0
00:00:01:29.998	-14	0
00:00:01:44.998	-18	0
00:00:01:59.997	-18	0
00:00:02:14.997	-15	0
00:00:02:29.997	-11	0
00:00:02:44.997	-12	0
00:00:02:59.996	-14	0
00:00:03:14.996	[illegible]	0
00:00:03:29.996	[illegible]	0
00:00:03:44.995	[illegible]	0
00:00:03:59.995	[illegible]	0
00:00:04:14.995	12	0
00:00:04:29.995	56	0
00:00:04:44.994	238	0
00:00:04:59.994	237	0
00:00:05:14.994	234	0
00:00:05:29.994	231	0
00:00:05:44.993	232	0
00:00:05:59.993	236	0
00:00:06:14.993	237	0
00:00:06:29.992	235	0
00:00:06:44.992	234	0
00:00:06:59.992	231	0
00:00:07:14.992	231	0
00:00:07:29.991	231	0
00:00:07:44.991	230	0

250 CAL CHK.

[illegible]

[illegible]
[illegible]
Time [illegible]

Run 2

" sec "	ppm"	" ppm"
00:00:00:00.000	21	0
00:00:00:59.999	32	0
00:00:01:59.999	32	0
00:00:02:59.999	66	0
00:00:03:59.999	60	0
00:00:04:59.999	58	0
00:00:05:59.999	54	0
00:00:06:59.999	56	0
00:00:07:59.999	53	0
00:00:08:59.999	58	0
00:00:09:59.999	54	0
00:00:10:59.999	51	0
00:00:11:59.999	55	0
00:00:12:59.998	49	0
00:00:13:59.998	47	0
00:00:14:59.998	52	0
00:00:15:59.998	52	0
00:00:16:59.998	49	0
00:00:17:59.998	51	0
00:00:18:59.998	53	0
00:00:19:59.998	48	0
00:00:20:59.998	47	0
00:00:21:59.998	45	0
00:00:22:59.998	44	0
00:00:23:59.998	42	0
00:00:24:59.997	46	0
00:00:25:59.997	47	0
00:00:26:59.997	44	0
00:00:27:59.997	46	0
00:00:28:59.997	47	0
00:00:29:59.997	44	0
00:00:30:59.997	46	0
00:00:31:59.997	45	0
00:00:32:59.997	44	0
00:00:33:59.997	43	0
00:00:34:59.997	44	0
00:00:35:59.997	45	0
00:00:36:59.997	39	0
00:00:37:59.996	42	0
00:00:38:59.996	36	0
00:00:39:59.996	38	0
00:00:40:59.996	37	0
00:00:41:59.996	33	0
00:00:42:59.996	37	0
00:00:43:59.996	33	0
00:00:44:59.996	35	0
00:00:45:59.996	31	0
00:00:46:59.996	31	0
00:00:47:59.996	35	0
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00:00:49:59.995	33	0
00:00:50:59.995	31	0
00:00:51:59.995	33	0
00:00:52:59.995	31	0
00:00:53:59.995	29	0
00:00:54:59.995	31	0
00:00:55:59.995	35	0
00:00:56:59.995	32	0
00:00:57:59.995	27	0

[illegible]
[illegible]
[illegible]
[illegible]
COFFEE BREWING
"CAN LINE
"16:42:10.17"
" 6-23-1992"

"TIME"	"THC1"	"THC2"
"SEC"	"PPM"	"PPM"
00:00:00:00.000	0	0
00:00:00:14.999	-7	0
00:00:00:29.999	-14	0
00:00:00:44.999	-17	0
00:00:00:59.998	-19	0
00:00:01:14.998	-19	0
00:00:01:29.998	-19	0
00:00:01:44.998	-14	0
00:00:01:59.997	-14	0
00:00:02:14.997	-15	0
00:00:02:29.997	-16	0
00:00:02:44.997	-20	0
00:00:02:59.996	-21	0
00:00:03:14.996	-22	0
00:00:03:29.996	46	0
00:00:03:44.995	222	0
00:00:03:59.995	229	0
00:00:04:14.995	230	0
00:00:04:29.995	229	0
00:00:04:44.994	228	0
00:00:04:59.994	226	0
00:00:05:14.994	223	0
00:00:05:29.994	223	0
00:00:05:44.993	222	0
00:00:05:59.993	222	0
00:00:06:14.993	222	0
00:00:06:29.992	224	0
00:00:06:44.992	227	0

"CBC CAN LINE"
" "
" 6-23-1992"
"17:00:09.57"

R-3

" Time"	"THC1"	" "
" sec"	" ppm"	" ppm"
00:00:00:00.000	-9	0
00:00:00:59.9[illegible]	[illegible]	0
00:00:01:59.9[illegible]	[illegible]	0
00:00:02:59.9[illegible]	[illegible]	0
00:00:03:59.9[illegible]	[illegible]	0
00:00:04:59.9[illegible]	[illegible]	0
00:00:05:59.999	26	0
00:00:06:59.999	22	0
00:00:07:59.999	26	0
00:00:08:59.999	25	0
00:00:09:59.999	28	0
00:00:10:59.999	27	0
00:00:11:59.999	27	0
00:00:12:59.998	28	0
00:00:13:59.998	32	0
00:00:14:59.998	23	0
00:00:15:59.998	22	0
00:00:16:59.998	18	0
00:00:17:59.998	15	0
00:00:18:59.998	17	0
00:00:19:59.998	[illegible]	0

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
00:00:27:59.997	27	0
00:00:28:59.997	26	0
00:00:29:59.997	30	0
00:00:30:59.997	31	0
00:00:31:59.997	30	0
00:00:32:59.997	28	0
00:00:33:59.997	32	0
00:00:34:59.997	32	0
00:00:35:59.997	31	0
00:00:36:59.997	28	0
00:00:37:59.996	30	0
00:00:38:59.996	27	0
00:00:39:59.996	32	0
00:00:40:59.996	25	0
00:00:41:59.996	30	0
00:00:42:59.996	30	0
00:00:43:59.996	28	0
00:00:44:59.996	27	0
00:00:45:59.996	27	0
00:00:46:59.996	30	0
00:00:47:59.996	26	0
00:00:48:59.995	30	0
00:00:49:59.995	29	0
00:00:50:59.995	27	0
00:00:51:59.995	34	0
00:00:52:59.995	31	0
00:00:53:59.995	31	0
00:00:54:59.995	30	0
00:00:55:59.995	32	0
00:00:56:59.995	34	0
00:00:57:59.995	34	0
00:00:58:59.995	26	0
00:00:59:59.995	24	0
00:01:00:59.994	26	0
00:01:01:59.994	29	0

"COORS BREWING"
"CAN LINE"
"18:05:28.28"
" 6-23-1992"

"TIME"	"THC1"	"T[illegible]
"SEC"	"PPM"	"PP[illegible]
00:00:00:00.000	[illegible]	0
00:00:00:14.999	[illegible]	0
00:00:00:29.999	[illegible]	0
00:00:00:44.999	-11	0
00:00:00:59.998	-11	0
00:00:01:14.998	-13	0
00:00:01:29.998	-19	0
00:00:01:44.998	-21	0
00:00:01:59.997	-16	0
00:00:02:14.997	-15	0
00:00:02:29.997	-16	0
00:00:02:44.997	-17	0
00:00:02:59.996	-19	0
00:00:03:14.996	-22	0
00:00:03:29.996	-23	0
00:00:03:44.995	-24	0
00:00:03:59.995	-24	0
00:00:04:14.995	-24	0

[illegible]	-13	
[illegible]	-11	
[illegible]	-12	
[illegible]	-15	
[illegible]	-11	
00:00:15:14.993	-15	0
00:00:15:29.992	-15	0
00:00:15:44.992	-20	0
00:00:15:59.992	-23	0
00:00:07:14.992	-24	0
00:00:07:29.991	-25	0
00:00:07:44.991	-24	0
00:00:07:59.991	-19	0
00:00:08:14.991	-17	0
00:00:08:29.990	33	0
00:00:08:44.990	216	0
00:00:08:59.990	216	0
00:00:09:14.989	214	0
00:00:09:29.989	217	0
00:00:09:44.989	222	0
00:00:09:59.989	222	0
00:00:10:14.988	217	0
00:00:10:29.988	215	0
00:00:10:44.988	214	0
00:00:10:59.988	219	0

0 CHECK

250 CHECK

"COORS BREWING"
"CAN LINE"
"18:20:36.31"
" 6-23-1992"

"TIME"	"THC1"	"THC2"
"SEC"	"PPM"	"PPM"
00:00:00:00.000	0	0
00:00:00:14.999	220	0
00:00:00:29.999	221	0
00:00:00:44.999	220	0
00:00:00:59.998	218	0
00:00:01:14.998	214	0
00:00:01:29.998	214	0
00:00:01:44.998	213	0
00:00:01:59.997	195	0
00:00:02:14.997	11	0
00:00:02:29.997	-19	0
00:00:02:44.997	-25	0
00:00:02:59.996	-26	0
00:00:03:14.996	-19	0
00:00:03:29.996	-20	0
00:00:03:44.995	[illegible]	0

250 BIAS CHECK

"COORS BREWING"
"BOWL VENT"
"09:37:09.56"
" 6-24-1993"

Pre CAL 1

"TIME"	"TH01"	"
"SEC"	"PPM"	"PPM"
00:00:00:00.000	0	0
00:00:00:14.999	-0	0
00:00:00:29.999	2	0
00:00:00:44.999	1	0
00:00:00:59.998	0	0
00:00:01:14.998	-2	0
00:00:01:29.998	-2	0
00:00:01:44.998	-3	0
00:00:01:59.997	-1	0
00:00:02:14.997	2	0
00:00:02:29.997	3	0
00:00:02:44.997	2	0
00:00:02:59.996	-1	0
00:00:03:14.996	-1	0
00:00:03:29.996	-2	0
00:00:03:44.995	-63	0
00:00:03:59.995	-108	0
00:00:04:14.995	-52	0
00:00:04:29.995	112	0
00:00:04:44.994	220	0
00:00:04:59.994	582	0
00:00:05:14.994	583	0
00:00:05:29.994	590	0
00:00:05:44.993	592	0
00:00:05:59.993	579	0
00:00:06:14.993	592	0
00:00:06:29.992	589	0
00:00:06:44.992	580	0
00:00:06:59.992	591	0
00:00:07:14.992	596	0
00:00:07:29.991	582	0
00:00:07:44.991	439	0
00:00:07:59.991	840	0
00:00:08:14.991	[illegible]	0
00:00:08:29.990	[illegible]	0
00:00:08:44.990	[illegible]	0
00:00:08:59.990	[illegible]	0
00:00:09:14.989	[illegible]	0
00:00:09:29.989	848	0
00:00:09:44.989	849	0
00:00:09:59.989	835	0
00:00:10:14.988	445	0
00:00:10:29.988	13	0
00:00:10:44.988	-2	0
00:00:10:59.988	-7	0
00:00:11:14.987	-10	0
00:00:11:29.987	-9	0
00:00:11:44.987	-4	0
00:00:11:59.986	-1	0
00:00:12:14.986	-1	0
00:00:12:29.986	-4	0
00:00:12:44.986	-2	0
00:00:12:59.985	0	0

851 CAL

[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
00:00:14:44.983	13	0
00:00:14:59.983	6	0
00:00:15:14.983	1	0
00:00:15:29.983	-25	0
00:00:15:44.982	534	0
00:00:15:59.982	543	0
00:00:16:14.982	548	0
00:00:16:29.982	550	0
00:00:16:44.981	551	0
00:00:16:59.981	548	0
00:00:17:14.981	542	0
00:00:17:29.980	295	0
00:00:17:44.980	239	0
00:00:17:59.980	250	0
00:00:18:14.980	250	0
00:00:18:29.979	247	0
00:00:18:44.979	245	0
00:00:18:59.979	246	0
00:00:19:14.979	244	0
00:00:19:29.978	185	0
00:00:19:44.978	10	0
00:00:19:59.978	3	0
00:00:20:14.978	-2	0
00:00:20:29.977	-4	0
00:00:20:44.977	-5	0
00:00:20:59.977	21	0
00:00:21:14.976	237	0
00:00:21:29.976	247	0
00:00:21:44.976	249	0
00:00:21:59.976	250	0
00:00:22:14.975	250	0
00:00:22:29.975	250	0
00:00:22:44.975	117	0

547.8 CAL

250

0 BIAS

250 BIAS

"COORS BREWING "
"BOWL VENT"
" 6-24-1992"
"10:04:39.93"

RUN 1

" Time"	"THC1" "	"
" sec" "	ppm" "	ppm"
00:00:00:00.000	40	0
00:00:00:59.999	[illegible]	0
00:00:01:59.999	[illegible]	0
00:00:02:59.999	[illegible]	0
00:00:03:59.999	[illegible]	0
00:00:04:59.999	[illegible]	0
00:00:05:59.999	40	0
00:00:06:59.999	40	0
00:00:07:59.999	39	0
00:00:08:59.999	39	0
00:00:09:59.999	41	0
00:00:10:59.999	39	0
00:00:11:59.999	38	0
00:00:12:59.998	37	0
00:00:13:59.998	35	0
00:00:14:59.998	37	0
00:00:15:59.998	35	0
00:00:16:59.998	36	0
00:00:17:59.998	38	0
00:00:18:59.998	35	0
00:00:19:59.998	37	0

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
00:00:27:59.997	35	[illegible]
00:00:28:59.997	35	0
00:00:29:59.997	39	0
00:00:30:59.997	39	0
00:00:31:59.997	36	0
00:00:32:59.997	39	0
00:00:33:59.997	37	0
00:00:34:59.997	37	0
00:00:35:59.997	45	0
00:00:36:59.997	44	0
00:00:37:59.996	39	0
00:00:38:59.996	38	0
00:00:39:59.996	37	0
00:00:40:59.996	37	0
00:00:41:59.996	36	0
00:00:42:59.996	35	0
00:00:43:59.996	37	0
00:00:44:59.996	38	0
00:00:45:59.996	37	0
00:00:46:59.996	35	0
00:00:47:59.996	34	0
00:00:48:59.995	34	0
00:00:49:59.995	34	0
00:00:50:59.995	38	0
00:00:51:59.995	49	0
00:00:52:59.995	54	0
00:00:53:59.995	42	0
00:00:54:59.995	41	0
00:00:55:59.995	40	0
00:00:56:59.995	40	0
00:00:57:59.995	47	0
00:00:58:59.995	42	0
00:00:59:59.995	39	0
00:01:00:59.994	38	0

RUN 1

"COORS BREWING"
"BOWL VENT"
"11:10:08.26"
" 6-24-1992"

CAL 2

Post Cal 1

"TIME"	"THC1"	"
"SEC"	"PPM"	"PPM"
00:00:00:00.00[illegible]	0	0
00:00:00:14.9[illegible]	[illegible]	0
00:00:00:29.9[illegible]	[illegible]	0
00:00:00:44.9[illegible]	[illegible]	0
00:00:00:59.9[illegible]	[illegible]	0
00:00:01:14.99[illegible]	[illegible]	0
00:00:01:29.998	68	0
00:00:01:44.998	12	0
00:00:01:59.997	23	0
00:00:02:14.997	74	0
00:00:02:29.997	52	0
00:00:02:44.997	51	0
00:00:02:59.996	47	0
00:00:03:14.996	48	0
00:00:03:29.996	43	0
00:00:03:44.995	[illegible]	[illegible]
00:00:03:59.995	-1	0
00:00:04:14.995	-2	0
00:00:04:29.995	-3	0
00:00:04:44.994	-7	0
00:00:04:59.994	-8	0

D CHECK

[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
00:00:06:59.992	247	0
00:00:07:14.992	[illegible]	0
00:00:07:29.991	246	0
00:00:07:44.991	247	0
00:00:07:59.991	244	0
00:00:08:14.991	245	0
00:00:08:29.990	256	0
00:00:08:44.990	240	0
00:00:08:59.990	239	0
00:00:09:14.989	239	0

250 CHECK

"COORS BREWING"
"BOWL VENT"
"11:22:04.05"
" 6-24-1992"
"TIME" "THC1" " "
"SEC" "PPM" "PPM"

00:00:00:00.000	0	0
00:00:00:14.999	243	0
00:00:00:29.999	249	0
00:00:00:44.999	247	0
00:00:00:59.998	248	0

"COORS BREWING "
"BOWL VENT" "THC1" "
"SEC" "PPM" "PPM"

00:00:00:00.000	27	0
00:00:00:59.999	31	0
00:00:01:59.999	33	0
00:00:02:59.999	36	0
00:00:03:59.999	33	0
00:00:04:59.999	31	0
00:00:05:59.999	34	0
00:00:06:59.999	32	0
00:00:07:59.999	30	0
00:00:08:59.999	30	0
00:00:09:59.999	32	0
00:00:10:59.999	33	0
00:00:11:59.999	50	0
00:00:12:59.998	48	0
00:00:13:59.998	39	0
00:00:14:59.998	38	0
00:00:15:59.998	44	0
00:00:16:59.998	54	0
00:00:17:59.998	51	0
00:00:18:59.998	[illegible]	0
00:00:19:59.998	40	0
00:00:20:59.998	43	0
00:00:21:59.998	43	0
00:00:22:59.998	39	0
00:00:23:59.998	35	0
00:00:24:59.997	34	0
00:00:25:59.997	34	0
00:00:26:59.997	39	0
00:00:27:59.997	36	0
00:00:28:59.997	29	0
00:00:29:59.997	28	0
00:00:30:59.997	23	0
00:00:31:59.997	24	0
00:00:32:59.997	24	0
00:00:33:59.997	26	0
00:00:34:59.997	25	0

Run 2

Run 2

[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
00:00:43:59.996	23	0
00:00:44:59.996	23	
00:00:45:59.996	23	0
00:00:46:59.996	24	0
00:00:47:59.996	23	0
00:00:48:59.995	22	0
00:00:49:59.995	22	0
00:00:50:59.995	20	0
00:00:51:59.995	20	0
00:00:52:59.995	21	0
00:00:53:59.995	23	0
00:00:54:59.995	21	0
00:00:55:59.995	24	0
00:00:56:59.995	24	0
00:00:57:59.995	25	0
00:00:58:59.995	21	0
00:00:59:59.995	23	0
00:01:00:59.994	22	0

"COORS BREWING"
"BOWL VENT"
"13:04:00.00"
" 6-24-1992"
"TIME" "THC1" " " CAL 3 Post Col 2
"SEC" "PPM" "PPM"

00:00:00:00.000	0	0
00:00:00:14.999	-14	0
00:00:00:29.999	-12	0
00:00:00:44.998	-10	0
00:00:00:59.998	-10	0
00:00:01:14.998	-12	0
00:00:01:29.998	-13	0 CHECK
00:00:01:44.998	-13	0
00:00:01:59.997	-12	0
00:00:02:14.997	-9	0
00:00:02:29.997	-10	0
00:00:02:44.997	144	0
00:00:02:59.996	234	0
00:00:03:14.996	241	0
00:00:03:29.996	243	0
00:00:03:44.995	[illegible]	0 25 CAL CHECK
00:00:03:59.995	[illegible]	0
00:00:04:14.995	[illegible]	0
00:00:04:29.995	[illegible]	0
00:00:04:44.994	239	0
00:00:04:59.994	130	0
00:00:05:14.994	-2	0
00:00:05:29.994	-6	0
00:00:05:44.993	-6	0
00:00:05:59.993	-6	0

"COORS BREWING "
"BOWL VENT"
" 6-24-1992" R-3 Run 3
"13:58:48.99"
" Time" "THC1" " "
" sec" " ppm" " ppm"

00:00:00:00.000	21	0
00:00:00:59.999	23	0
00:00:01:59.999	20	0
00:00:02:59.999	20	0

[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
00:00:09:59.999	17	0
00:00:10:59.998	17	0
00:00:11:59.998	18	0
00:00:12:59.998	18	0
00:00:13:59.998	17	0
00:00:14:59.998	16	0
00:00:15:59.998	21	0
00:00:16:59.998	18	0
00:00:17:59.998	20	0
00:00:18:59.998	19	0
00:00:19:59.998	20	0
00:00:20:59.998	18	0
00:00:21:59.998	17	0
00:00:22:59.998	17	0
00:00:23:59.998	17	0
00:00:24:59.997	20	0
00:00:25:59.997	15	0
00:00:26:59.997	17	0
00:00:27:59.997	19	0
00:00:28:59.997	19	0
00:00:29:59.997	20	0
00:00:30:59.997	17	0
00:00:31:59.997	15	0
00:00:32:59.997	18	0
00:00:33:59.997	16	0
00:00:34:59.997	12	0
00:00:35:59.997	13	0
00:00:36:59.997	14	0
00:00:37:59.996	16	0
00:00:38:59.996	16	0
00:00:39:59.996	14	0
00:00:40:59.996	17	0
00:00:41:59.996	15	0
00:00:42:59.996	15	0
00:00:43:59.996	15	0
00:00:44:59.996	16	0
00:00:45:59.996	17	0
00:00:46:59.996	17	0
00:00:47:59.996	18	0
00:00:48:59.995	22	0
00:00:49:59.995	22	0
00:00:50:59.995	18	0
00:00:51:59.995	21	0
00:00:52:59.995	17	0
00:00:53:59.995	20	0
00:00:54:59.995	16	0
00:00:55:59.995	18	0
00:00:56:59.995	17	0
00:00:57:59.995	21	0
00:00:58:59.995	19	0
00:00:59:59.995	17	0
00:01:00:59.994	18	0

"COORS BREWING"
"BOWL VENT"
"15:03:05.20"
" 6-24-1992"

"TIME" "THC1" "	"	
"SEC" "PPM" "PPM'		
00:00:00:00.000	0	0
00:00:00:14.999	-19	0

CAL 4 Post Cal 3

[illegible]	[illegible]	CHECK
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
00:00:01:14.997	233	
00:00:01:29.997	236	
00:00:01:44.997	234	250 CHECK
00:00:01:59.996	234	0
00:00:02:14.996	235	0
00:00:02:29.996	236	0
00:00:02:44.995	235	0
00:00:02:59.995	183	0
00:00:03:14.995	0	0
00:00:03:29.995	-12	0
00:00:03:44.994	-17	0
00:00:03:59.994	-15	0
00:00:04:14.994	-18	0 BIAS
00:00:04:29.994	-17	0
00:00:04:44.993	-16	0
00:00:04:59.993	-16	0
00:00:05:14.993	125	0
00:00:05:29.992	234	0
00:00:05:44.992	239	0
00:00:05:59.992	241	250 0
00:00:06:14.992	242	BIAS
00:00:06:29.991	245	0
00:00:06:44.991	210	0
00:00:06:59.991	-3	0
00:00:07:14.991	-13	0
00:00:07:29.990	-16	0

CAL

"COORS BREWING"
"BOTTLE LINE"
"08:35:44.51"
" 8-25-1992"

"TIME"	"THC1"	"
"SEC"	"PPM"	"PPM"
00:00:00:00.000	0	0
00:00:00:14.999	1	0
00:00:00:29.999	1	0
00:00:00:44.999	1	0
00:00:00:59.998	1	0
00:00:01:14.998	1	0
00:00:01:29.998	1	0
00:00:01:44.998	1	0
00:00:01:59.997	1	0
00:00:02:14.997	1	0
00:00:02:29.997	1	0
00:00:02:44.997	1	0
00:00:02:59.996	0	0
00:00:03:14.996	-1	0
00:00:03:29.996	-1	0
00:00:03:44.995	278	0
00:00:03:59.995	841	0
00:00:04:14.995	849	0
00:00:04:29.995	845	0
00:00:04:44.994	846	0
00:00:04:59.994	856	0
00:00:05:14.994	853	0
00:00:05:29.994	847	0
00:00:05:44.993	844	0
00:00:05:59.993	852	0
00:00:06:14.993	850	0
00:00:06:29.992	842	0
00:00:06:44.992	846	0
00:00:06:59.992	551	0
00:00:07:14.992	45	0
00:00:07:29.991	425	0
00:00:07:44.991	531	0
00:00:07:59.99[illegible]	[illegible]	0
00:00:08:14.99[illegible]	[illegible]	0
00:00:08:29.99[illegible]	[illegible]	0
00:00:08:44.99[illegible]	[illegible]	0
00:00:08:59.990	[illegible]	0
00:00:09:14.989	551	0
00:00:09:29.989	545	0
00:00:09:44.989	542	0
00:00:09:59.989	336	0
00:00:10:14.988	232	0
00:00:10:29.988	420	0
00:00:10:44.988	275	0
00:00:10:59.988	259	0
00:00:11:14.987	259	0
00:00:11:29.987	261	0
00:00:11:44.987	225	0
00:00:11:59.986	238	0
00:00:12:14.986	148	0
00:00:12:29.986	349	0

0 CAL

851.03 CAL

547.3 CAL

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
00:00:14:29.984	181	0
00:00:14:44.983	170	[illegible]
00:00:14:59.983	94	0
00:00:15:14.983	25	0
00:00:15:29.983	11	0
00:00:15:44.982	135	0
00:00:15:59.982	241	0
00:00:16:14.982	239	0
00:00:16:29.982	242	0
00:00:16:44.981	248	0
00:00:16:59.981	245	0
00:00:17:14.981	242	0
00:00:17:29.980	247	0
00:00:17:44.980	248	0
00:00:17:59.980	171	0
00:00:18:14.980	38	0
00:00:18:29.979	247	0
00:00:18:44.979	217	0
00:00:18:59.979	17	0
00:00:19:14.979	1	0
00:00:19:29.978	1	0
00:00:19:44.978	-3	0
00:00:19:59.978	-6	0
00:00:20:14.978	-7	0
00:00:20:29.977	-2	0
00:00:20:44.977	1	0
00:00:20:59.977	9	0
00:00:21:14.976	235	0
00:00:21:29.976	248	0
00:00:21:44.976	245	0
00:00:21:59.976	241	0
00:00:22:14.975	245	0
00:00:22:29.975	244	0

250 CAL

0 BIAS

250 BIAS

"COORS BREWING "
"BOTTLE LINE"
" 6-25-1992"
"09:03:56.72"

Run 1

" Time"	"THC1" " ppm"	" ppm"
" sec"		
00:00:00:00.000	39	0
00:00:00:59.999	38	0
00:00:01:59.999	41	0
00:00:02:59.999	[illegible]	0
00:00:03:59.999	35	0
00:00:04:59.999	35	0
00:00:05:59.999	34	0
00:00:06:59.999	34	0
00:00:07:59.999	36	0
00:00:08:59.999	36	0
00:00:09:59.999	34	0
00:00:10:59.999	34	0
00:00:11:59.999	35	0
00:00:12:59.998	35	0
00:00:13:59.998	54	0
00:00:14:59.998	56	0
00:00:15:59.998	58	0
00:00:16:59.998	57	0
00:00:17:59.998	53	0
00:00:18:59.998	50	0
[illegible]	51	0

[illegible]	--	
[illegible]	--	
[illegible]	--	
[illegible]	-	
[illegible]	--	
[illegible]:59.997	-3	
[illegible]:59.997	-5	0
00:00:29:59.997	44	0
00:00:30:59.997	51	0
00:00:31:59.997	49	0
00:00:32:59.997	45	0
00:00:33:59.997	51	0
00:00:34:59.997	42	0
00:00:35:59.997	39	0
00:00:36:59.997	41	0
00:00:37:59.996	34	0
00:00:38:59.996	34	0
00:00:39:59.996	35	0
00:00:40:59.996	35	0
00:00:41:59.996	39	0
00:00:42:59.996	35	0
00:00:43:59.996	37	0
00:00:44:59.996	40	0
00:00:45:59.996	38	0
00:00:46:59.996	37	0
00:00:47:59.996	41	0
00:00:48:59.995	40	0
00:00:49:59.995	34	0
00:00:50:59.995	37	0
00:00:51:59.995	37	0
00:00:52:59.995	34	0
00:00:53:59.995	30	0
00:00:54:59.995	28	0
00:00:55:59.995	30	0
00:00:56:59.995	29	0
00:00:57:59.995	29	0
00:00:58:59.995	25	0
00:00:59:59.995	24	0
00:01:00:59.994	25	0
00:01:01:59.994	25	0

"COORS BREWING"
"BOTTLE LINE"
"10:09:34.17"
" 6-25-1992"
"TIME" "THC1" "[illegible]"
"SEC" "PPM" "PE[illegible]"

00:00:00:00.000	0	0	CAL 2
00:00:00:14.999	35	0	
00:00:00:29.999	3	0	
00:00:00:44.999	-2	0	
00:00:00:59.998	-3	0	
00:00:01:14.998	-6	0	
00:00:01:29.998	-3	0	
00:00:01:44.998	-7	0	
00:00:01:59.997	-9	0	
00:00:02:14.997	-4	0	
00:00:02:29.997	-11	0	0 CHECK
00:00:02:44.997	-6	0	
00:00:02:59.996	-12	0	
00:00:03:14.996	-6	0	
00:00:03:29.996	-12	0	
00:00:03:44.995	-6	0	
00:00:03:59.995	-12	0	

[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
00:00:05:59.993	169	0	
00:00:06:14.993	[illegible]	0	
00:00:06:29.992	221	0	
00:00:06:44.992	224	0	
00:00:06:59.992	221	0	~50 CHECK
00:00:07:14.992	225	0	
00:00:07:29.991	222	0	
00:00:07:44.991	222	0	
00:00:07:59.991	225	0	
00:00:08:14.991	222	0	
00:00:08:29.990	223	0	
00:00:08:44.990	224	0	
00:00:08:59.990	220	0	
00:00:09:14.989	231	0	
00:00:09:29.989	231	0	
00:00:09:44.989	232	0	
00:00:09:59.989	220	0	
00:00:10:14.988	215	0	
00:00:10:29.988	229	0	
00:00:10:44.988	234	0	
00:00:10:59.988	238	0	
00:00:11:14.987	257	0	
00:00:11:29.987	249	0	
00:00:11:44.987	259	0	
00:00:11:59.986	252	0	
00:00:12:14.986	243	0	
00:00:12:29.986	246	0	
00:00:12:44.986	254	0	
00:00:12:59.985	252	0	
00:00:13:14.985	250	0	~50 RECAL
00:00:13:29.985	254	0	
00:00:13:44.985	243	0	
00:00:13:59.984	256	0	
00:00:14:14.984	250	0	
00:00:14:29.984	255	0	
00:00:14:44.983	254	0	
00:00:14:59.983	249	0	
00:00:15:14.983	162	0	
00:00:15:29.983	-6	0	
00:00:15:44.982	6	0	
00:00:15:59.982	1	0	
00:00:16:14.982	0	0	
00:00:16:29.982	1	0	
00:00:16:44.981	-2	0	
00:00:16:59.981	2	0	
00:00:17:14.981	-3	0	RECAL
00:00:17:29.980	3	0	
00:00:17:44.980	-3	0	
00:00:17:59.980	2	0	
00:00:18:14.980	-3	0	
00:00:18:29.979	1	0	
00:00:18:44.979	-1	0	
00:00:18:59.979	-0	0	
00:00:19:14.979	1	0	
00:00:19:29.978	206	0	
00:00:19:44.978	268	0	
00:00:19:59.978	253	0	
00:00:20:14.978	248	0	
00:00:20:29.977	250	0	~50 RECAL
[illegible]	[illegible]	[illegible]	[illegible]

"TIRES BREAKING
"BITTLE LINE
" 6-25-1992"
"16:35:05.70"

RUN 2

" Time"	"THC1" " ppm"	" ppm"
00:00:00:00.000	47	0
00:00:00:59.999	43	0
00:00:01:59.999	50	0
00:00:02:59.999	51	0
00:00:03:59.999	51	0
00:00:04:59.999	56	0
00:00:05:59.999	54	0
00:00:06:59.999	58	0
00:00:07:59.999	58	0
00:00:08:59.999	52	0
00:00:09:59.999	49	0
00:00:10:59.999	43	0
00:00:11:59.999	37	0
00:00:12:59.998	36	0
00:00:13:59.998	35	0
00:00:14:59.998	34	0
00:00:15:59.998	34	0
00:00:16:59.998	32	0
00:00:17:59.998	40	0
00:00:18:59.998	45	0
00:00:19:59.998	45	0
00:00:20:59.998	46	0
00:00:21:59.998	54	0
00:00:22:59.998	62	0
00:00:23:59.998	67	0
00:00:24:59.997	64	0
00:00:25:59.997	65	0
00:00:26:59.997	57	0
00:00:27:59.997	55	0
00:00:28:59.997	51	0
00:00:29:59.997	52	0
00:00:30:59.997	51	0
00:00:31:59.997	50	0
00:00:32:59.997	50	0
00:00:33:59.997	48	0
00:00:34:59.997	45	0
00:00:35:59.997	41	0
00:00:36:59.997	[illegible]	0
00:00:37:59.996	[illegible]	0
00:00:38:59.996	47	0
00:00:39:59.996	51	0
00:00:40:59.996	53	0
00:00:41:59.996	51	0
00:00:42:59.996	52	0
00:00:43:59.996	49	0
00:00:44:59.996	50	0
00:00:45:59.996	49	0
00:00:46:59.996	46	0
00:00:47:59.996	46	0
00:00:48:59.995	44	0
00:00:49:59.995	42	0
00:00:50:59.995	45	0
00:00:51:59.995	40	0
00:00:52:59.995	37	0
00:00:53:59.995	34	0

[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
00:01:01:59.994	35	
00:01:02:59.994	37	
00:01:03:59.994	42	

"COORS BREWING"
"BOTTLE LINE"
"11:43:21.26"
" 6-25-1992"

"TIME"	"THC1" "	"
"SEC"	"PPM"	"PPM"
00:00:00:00.000	0	0
00:00:00:14.999	-1	0
00:00:00:29.999	-1	0
00:00:00:44.999	0	0
00:00:00:59.998	0	0
00:00:01:14.998	-0	0
00:00:01:29.998	0	0
00:00:01:44.998	0	0
00:00:01:59.997	1	0
00:00:02:14.997	0	0
00:00:02:29.997	-0	0
00:00:02:44.997	-0	0
00:00:02:59.996	0	0
00:00:03:14.996	3	0
00:00:03:29.996	5	0
00:00:03:44.995	174	0
00:00:03:59.995	241	0
00:00:04:14.995	243	0
00:00:04:29.995	241	0
00:00:04:44.994	234	0
00:00:04:59.994	234	0
00:00:05:14.994	234	0
00:00:05:29.994	237	0
00:00:05:44.993	241	0
00:00:05:59.993	243	0
00:00:06:14.993	244	0
00:00:06:29.992	245	0
00:00:06:44.992	242	0
00:00:06:59.992	239	0
00:00:07:14.992	235	0
00:00:07:29.991	235	0
00:00:07:44.99[illegible]	[illegible]	0
00:00:07:59.9[illegible]	[illegible]	0
00:00:08:14.9[illegible]	[illegible]	0
00:00:08:29.99[illegible]	[illegible]	0
00:00:08:44.990	[illegible]	0
00:00:08:59.990	237	0
00:00:09:14.989	239	0
00:00:09:29.989	241	0
00:00:09:44.989	243	0
00:00:09:59.989	243	0
00:00:10:14.988	244	0

0 CHECK

250 CHECK

"COORS BREWING "
"BOTTLE LINE"
" 6-25-1992"
"11:57:39.55"

RUN 3

"Time"	"THC1" "	"
"sec" "	ppm" "	ppm"
00:00:00:00.000	33	0
00:00:00:59.999	35	0
00:00:01:59.999	38	0

00:00:08:59.999	38	0
00:00:09:59.999	37	0
00:00:10:59.999	38	0
00:00:11:59.999	35	0
00:00:12:59.998	40	0
00:00:13:59.998	40	0
00:00:14:59.998	41	0
00:00:15:59.998	33	0
00:00:16:59.998	35	0
00:00:17:59.998	31	0
00:00:18:59.998	30	0
00:00:19:59.998	30	0
00:00:20:59.998	34	0
00:00:21:59.998	41	0
00:00:22:59.998	43	0
00:00:23:59.998	45	0
00:00:24:59.997	36	0
00:00:25:59.997	37	0
00:00:26:59.997	36	0
00:00:27:59.997	30	0
00:00:28:59.997	33	0
00:00:29:59.997	39	0
00:00:30:59.997	43	0
00:00:31:59.997	40	0
00:00:32:59.997	36	0
00:00:33:59.997	44	0
00:00:34:59.997	40	0
00:00:35:59.997	37	0
00:00:36:59.997	48	0
00:00:37:59.996	51	0
00:00:38:59.996	62	0
00:00:39:59.996	58	0
00:00:40:59.996	55	0
00:00:41:59.996	56	0
00:00:42:59.996	51	0
00:00:43:59.996	47	0
00:00:44:59.996	43	0
00:00:45:59.996	45	0
00:00:46:59.996	44	0
00:00:47:59.996	44	0
00:00:48:59.995	48	0
00:00:49:59.995	47	0
00:00:50:59.995	45	0
00:00:51:59.995	51	0
00:00:52:59.995	47	0
00:00:53:59.995	50	0
00:00:54:59.995	53	0
00:00:55:59.995	58	0
00:00:56:59.995	58	0
00:00:57:59.995	53	0
00:00:58:59.995	47	0
00:00:59:59.995	45	0
00:01:00:59.994	49	0
00:01:01:59.994	41	0
00:01:02:59.994	43	0
00:01:03:59.994	57	0

"COORS BREWING"
"BOTTLE LINE"
"13:05:50.40"

[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
00:00:01:58.998	2	0	
00:00:01:14.998	1	0	
00:00:01:29.998	-3	0	
00:00:01:44.998	-8	0	
00:00:01:59.997	-11	0	
00:00:02:14.997	-10	0	
00:00:02:29.997	-6	0	
00:00:02:44.997	-2	0	
00:00:02:59.996	-4	0	
00:00:03:14.996	-11	0	
00:00:03:29.996	-12	0	
00:00:03:44.995	-12	0	
00:00:03:59.995	-12	0	
00:00:04:14.995	-3	0	
00:00:04:29.995	-5	0	
00:00:04:44.994	-6	0	
00:00:04:59.994	-11	0	0 CHECK
00:00:05:14.994	-12	0	
00:00:05:29.994	-9	0	
00:00:05:44.993	-3	0	
00:00:05:59.993	0	0	
00:00:06:14.993	47	0	
00:00:06:29.992	235	0	
00:00:06:44.992	237	0	
00:00:06:59.992	231	0	
00:00:07:14.992	230	0	250 CHECK
00:00:07:29.991	232	0	
00:00:07:44.991	239	0	
00:00:07:59.991	240	0	
00:00:08:14.991	238	0	
00:00:08:29.990	232	0	
00:00:08:44.990	231	0	
00:00:08:59.990	240	0	
00:00:09:14.989	237	0	
00:00:09:29.989	231	0	
00:00:09:44.989	232	0	
00:00:09:59.989	239	0	
00:00:10:14.988	240	0	
00:00:10:29.988	106	0	
00:00:10:44.988	[illegible]	0	
00:00:10:59.988	[illegible]	0	
00:00:11:14.987	[illegible]	0	
00:00:11:29.987	[illegible]	0	0 BIAS
00:00:11:44.987	-7	0	
00:00:11:59.986	-14	0	
00:00:12:14.986	-13	0	
00:00:12:29.986	116	0	
00:00:12:44.986	238	0	
00:00:12:59.985	236	0	
00:00:13:14.985	230	0	250
00:00:13:29.985	230	0	BIAS
00:00:13:44.985	236	0	
00:00:13:59.984	236	0	CHECK
00:00:14:14.984	229	0	
00:00:14:29.984	236	0	
00:00:14:44.983	236	0	

[illegible]

Location 5

[illegible]

"COORS BREWING"
"KEG LINE"
"15:36:35.04"
" 6-25-1992"
"TIME" "THC1" "
"SEC" "PPM" "PPM"

C-1

Pre Cal 1

00:00:00:00.000	0	0
00:00:00:14.999	14	0
00:00:00:29.999	19	0
00:00:00:44.999	15	0
00:00:00:59.998	5	0
00:00:01:14.998	5	0
00:00:01:29.998	4	0
00:00:01:44.998	-0	0
00:00:01:59.997	-3	0
00:00:02:14.997	-6	0
00:00:02:29.997	-7	0
00:00:02:44.997	-5	0
00:00:02:59.996	180	0
00:00:03:14.996	841	0
00:00:03:29.996	865	0
00:00:03:44.995	859	0
00:00:03:59.995	856	0
00:00:04:14.995	859	0
00:00:04:29.995	859	0
00:00:04:44.994	844	0
00:00:04:59.994	841	0
00:00:05:14.994	840	0
00:00:05:29.994	853	0
00:00:05:44.993	857	0
00:00:05:59.993	859	0
00:00:06:14.993	859	0
00:00:06:29.992	854	0
00:00:06:44.992	852	0
00:00:06:59.992	[illegible]	0
00:00:07:14.992	[illegible]	0
00:00:07:29.991	[illegible]	0
00:00:07:44.991	[illegible]	0
00:00:07:59.991	853	0
00:00:08:14.991	853	0
00:00:08:29.990	338	0
00:00:08:44.990	263	0
00:00:08:59.990	525	0
00:00:09:14.989	552	0
00:00:09:29.989	553	0
00:00:09:44.989	551	0
00:00:09:59.989	552	0
00:00:10:14.988	553	0
00:00:10:29.988	552	0
00:00:10:44.988	554	0
00:00:10:59.988	554	0
00:00:11:14.987	557	0
00:00:11:29.987	555	0
[illegible]	554	0

85(1) CAL

547.8 CAL

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
00:00:13:29.985	248	[illegible]
00:00:13:44.985	250	[illegible]
00:00:13:59.984	253	[illegible]
00:00:14:14.984	253	0
00:00:14:29.984	255	0
00:00:14:44.983	245	0
00:00:14:59.983	244	0
00:00:15:14.983	240	0
00:00:15:29.983	234	0
00:00:15:44.982	94	0
00:00:15:59.982	-162	0
00:00:16:14.982	-146	0
00:00:16:29.982	-7	0
00:00:16:44.981	-10	0
00:00:16:59.981	-8	0
00:00:17:14.981	-2	0
00:00:17:29.980	-2	0
00:00:17:44.980	-3	0
00:00:17:59.980	0	0
00:00:18:14.980	484	0
00:00:18:29.979	536	0
00:00:18:44.979	537	0
00:00:18:59.979	539	0
00:00:19:14.979	546	0
00:00:19:29.978	402	0
00:00:19:44.978	188	0
00:00:19:59.978	251	0
00:00:20:14.978	251	0
00:00:20:29.977	251	0
00:00:20:44.977	249	0
00:00:20:59.977	226	0
00:00:21:14.978	130	0

"COORS BREWING "
"KEG LINE"
" 6-25-1992"
"19:01:23.52"

" Time"	"THC1" "	"
" sec" "	ppm" "	ppm"
00:00:00:00.000	5	0
00:00:00:59.999	10	0
00:00:01:59.999	[illegible]	0
00:00:02:59.999	[illegible]	0
00:00:03:59.999	[illegible]	0
00:00:04:59.999	152	0
00:00:05:59.999	157	0
00:00:06:59.999	133	0
00:00:07:59.999	121	0
00:00:08:59.999	127	0
00:00:09:59.999	118	0
00:00:10:59.999	109	0
00:00:11:59.999	105	0
00:00:12:59.998	107	0
00:00:13:59.998	101	0
00:00:14:59.998	98	0
00:00:15:59.998	101	0
00:00:16:59.998	99	0
00:00:17:59.998	100	0
00:00:18:59.998	96	0
00:00:19:59.998	100	0

2 CFC

0 BKG

5-17-8 BKG

250 BKG

Run 1

[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
00:00:27:59.997	86	0
00:00:28:59.997	87	0
00:00:29:59.997	85	0
00:00:30:59.997	97	0
00:00:31:59.997	96	0
00:00:32:59.997	102	0
00:00:33:59.997	102	0
00:00:34:59.997	107	0
00:00:35:59.997	104	0
00:00:36:59.997	102	0
00:00:37:59.996	108	0
00:00:38:59.996	104	0
00:00:39:59.996	107	0
00:00:40:59.996	104	0
00:00:41:59.996	101	0
00:00:42:59.996	100	0
00:00:43:59.996	103	0
00:00:44:59.996	104	0
00:00:45:59.996	99	0
00:00:46:59.996	101	0
00:00:47:59.996	99	0
00:00:48:59.995	100	0
00:00:49:59.995	100	0
00:00:50:59.995	100	0
00:00:51:59.995	95	0
00:00:52:59.995	98	0
00:00:53:59.995	94	0
00:00:54:59.995	125	0
00:00:55:59.995	284	0
00:00:56:59.995	520	0
00:00:57:59.995	363	0
00:00:58:59.995	209	0
00:00:59:59.995	299	0
00:01:00:59.994	416	0
00:01:01:59.994	480	0
00:01:02:59.994	364	0
00:01:03:59.994	231	0
"COORS BREWING"		
"KEG LINE"		
"20:08:08.41"	[illegible]	
" 6-25-1992"	[illegible]	
"TIME" "THC1"	[illegible]	
"SEC" "PPM"	[illegible]	
00:00:00:00.00[illegible]	[illegible]	0
00:00:00:14.999	158	0
00:00:00:29.999	263	0
00:00:00:44.999	268	0
00:00:00:59.998	257	0
00:00:01:14.998	254	0
00:00:01:29.998	255	0
00:00:01:44.998	254	0
00:00:01:59.997	252	0
00:00:02:14.997	247	0
00:00:02:29.997	245	0
00:00:02:44.997	241	0
00:00:02:59.996	243	0
00:00:03:14.996	169	0
00:00:03:29.996	165	0
00:00:03:44.995	523	0
[illegible]	[illegible]	[illegible]

Post Cal 1

Cal 2

0 check

250 check

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

"COORS BREWING"

"KEG LINE"

" 6-25-1992"

"20:15:50.77"

Row 2 (Run 2

" Time"	"THC1"	" "
" sec"	" ppm"	" ppm"
00:00:00:00.000	438	0
00:00:00:59.999	481	0
00:00:01:59.999	489	0
00:00:02:59.999	485	0
00:00:03:59.999	477	0
00:00:04:59.999	451	0
00:00:05:59.999	488	0
00:00:06:59.999	556	0
00:00:07:59.999	573	0
00:00:08:59.999	523	0
00:00:09:59.999	476	0
00:00:10:59.999	468	0
00:00:11:59.999	444	0
00:00:12:59.998	434	0
00:00:13:59.998	420	0
00:00:14:59.998	397	0
00:00:15:59.998	347	0
00:00:16:59.998	195	0
00:00:17:59.998	168	0
00:00:18:59.998	166	0
00:00:19:59.998	189	0
00:00:20:59.998	156	0
00:00:21:59.998	129	0
00:00:22:59.998	148	0
00:00:23:59.998	181	0
00:00:24:59.997	193	0
00:00:25:59.997	198	0
00:00:26:59.997	209	0
00:00:27:59.997	220	0
00:00:28:59.997	238	0
00:00:29:59.997	215	0
00:00:30:59.997	220	0
00:00:31:59.997	218	0
00:00:32:59.997	[illegible]	0
00:00:33:59.997	[illegible]	0
00:00:34:59.997	[illegible]	0
00:00:35:59.997	258	0
00:00:36:59.997	232	0
00:00:37:59.996	197	0
00:00:38:59.996	247	0
00:00:39:59.996	226	0
00:00:40:59.996	201	0
00:00:41:59.996	226	0
00:00:42:59.996	228	0
00:00:43:59.996	207	0
00:00:44:59.996	226	0
00:00:45:59.996	222	0
00:00:46:59.996	187	0
00:00:47:59.996	173	0
00:00:48:59.995	153	0
00:00:49:59.995	139	0

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
00:01:01:59.994	251	0
"COORS BREWING"		
"KEG LINE"		
"21:22:19.30"		
" 8-25-1992"		
"TIME" "THC1" "	"	
"SEC" "PPM" "PPM"		
00:00:00:00.000	0	0
00:00:00:14.999	11	0
00:00:00:29.999	7	0
00:00:00:44.999	5	0
00:00:00:59.998	-0	0
00:00:01:14.998	-4	0
00:00:01:29.998	1	0
00:00:01:44.998	3	0
00:00:01:59.997	2	0
00:00:02:14.997	-3	0
00:00:02:29.997	-5	0
00:00:02:44.997	-1	0
00:00:02:59.996	-0	0
00:00:03:14.996	48	0
00:00:03:29.996	230	0
00:00:03:44.995	236	0
00:00:03:59.995	243	0
00:00:04:14.995	243	0
00:00:04:29.995	239	0
00:00:04:44.994	234	0
00:00:04:59.994	238	0
00:00:05:14.994	239	0
00:00:05:29.994	243	0
00:00:05:44.993	242	0
00:00:05:59.993	238	0
00:00:06:14.993	235	0
00:00:06:29.992	233	0
00:00:06:44.992	236	0
00:00:06:59.992	241	0
00:00:07:14.99[illegible]	[illegible]	0
00:00:07:29.991	[illegible]	0
00:00:07:44.99[illegible]	[illegible]	0
00:00:07:59.99[illegible]	[illegible]	0
00:00:08:14.991	524	0
00:00:08:29.990	522	0
00:00:08:44.990	520	0
00:00:08:59.990	523	0
00:00:09:14.989	530	0
00:00:09:29.989	528	0
00:00:09:44.989	527	0
00:00:09:59.989	523	0
00:00:10:14.988	521	0
00:00:10:29.988	525	0
00:00:10:44.988	530	0
00:00:10:59.988	530	0
00:00:11:14.987	526	0
00:00:11:29.987	523	0
00:00:11:44.987	525	0

Cal 3

Post Cal 2

0 check

250 check

547 check

[illegible]

[illegible]

[illegible]

[illegible]

Run 3 Runs

Time sec	ppm	ppm
[illegible]	75	0
00:00:00:59.999	141	0
00:00:01:59.999	204	0
00:00:02:59.999	196	0
00:00:03:59.999	165	0
00:00:04:59.999	160	0
00:00:05:59.999	181	0
00:00:06:59.999	194	0
00:00:07:59.999	209	0
00:00:08:59.999	206	0
00:00:09:59.999	213	0
00:00:10:59.999	176	0
00:00:11:59.999	168	0
00:00:12:59.998	171	0
00:00:13:59.998	185	0
00:00:14:59.998	161	0
00:00:15:59.998	167	0
00:00:16:59.998	168	0
00:00:17:59.998	160	0
00:00:18:59.998	161	0
00:00:19:59.998	155	0
00:00:20:59.998	150	0
00:00:21:59.998	151	0
00:00:22:59.998	145	0
00:00:23:59.998	153	0
00:00:24:59.997	153	0
00:00:25:59.997	148	0
00:00:26:59.997	153	0
00:00:27:59.997	149	0
00:00:28:59.997	160	0
00:00:29:59.997	157	0
00:00:30:59.997	159	0
00:00:31:59.997	166	0
00:00:33:59.997	232	0
00:00:34:59.997	211	0
00:00:35:59.997	208	0
00:00:36:59.997	210	0
00:00:37:59.996	204	0
00:00:38:59.996	238	0
00:00:39:59.996	250	0
00:00:40:59.996	221	0
00:00:41:59.996	238	0
00:00:42:59.996	209	0
00:00:43:59.996	285	0
00:00:44:59.996	219	0
00:00:45:59.996	218	0
00:00:46:59.996	221	0
00:00:47:59.996	203	0
00:00:48:59.995	225	0
00:00:49:59.995	246	0
00:00:50:59.995	261	0
00:00:51:59.995	287	0
00:00:52:59.995	319	0
00:00:53:59.995	275	0
00:00:54:59.995	304	0
00:00:55:59.995	289	0
00:00:56:59.995	280	0
00:00:57:59.995	227	0
00:00:58:59.995	256	0
00:00:59:59.995	[illegible]	0

TIME	[illegible]	[illegible]
[illegible]	0	0
00:00:00:14.999	11	0
00:00:00:29.999	9	0
00:00:00:44.999	6	0
00:00:00:59.998	2	0
00:00:01:14.998	1	0
00:00:01:29.998	0	0
00:00:01:44.998	-2	0
00:00:01:59.997	-3	0
00:00:02:14.997	-5	0
00:00:02:29.997	-7	0
00:00:02:44.997	-7	0
00:00:02:59.996	-7	0
00:00:03:14.996	-7	0
00:00:03:29.996	-8	0
00:00:03:44.995	-7	0
00:00:03:59.995	203	0
00:00:04:14.995	250	0
00:00:04:29.995	252	0
00:00:04:44.994	253	0
00:00:04:59.994	253	0
00:00:05:14.994	253	0
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00:00:05:44.993	252	0
00:00:05:59.993	252	0
00:00:06:14.993	252	0
00:00:06:29.992	253	0
00:00:06:44.992	252	0
00:00:06:59.992	249	0
00:00:07:14.992	248	0
00:00:07:29.991	138	0
00:00:07:44.991	17	0
00:00:07:59.991	10	0
00:00:08:14.991	11	0
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00:00:08:44.990	3	0
00:00:08:59.990	-0	0
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00:00:09:29.989	-6	0
00:00:09:44.989	[illegible]	0
00:00:09:59.989	[illegible]	0
00:00:10:14.989	[illegible]	0
00:00:10:29.988	[illegible]	0
00:00:10:44.988	248	0
00:00:10:59.988	248	0
00:00:11:14.987	245	0
00:00:11:29.987	247	0
00:00:11:44.987	254	0
00:00:11:59.986	251	0

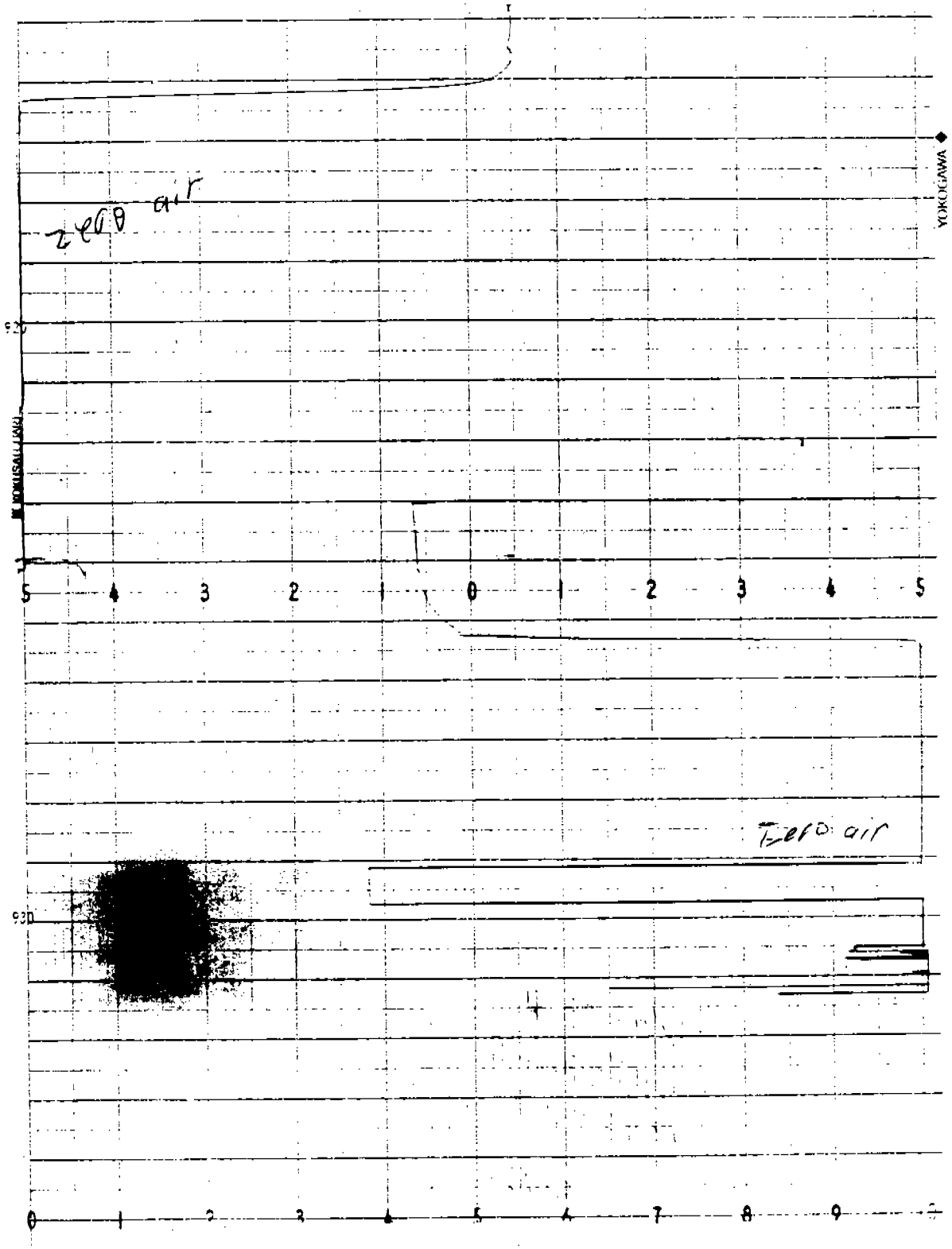
CHECK

LIGHT

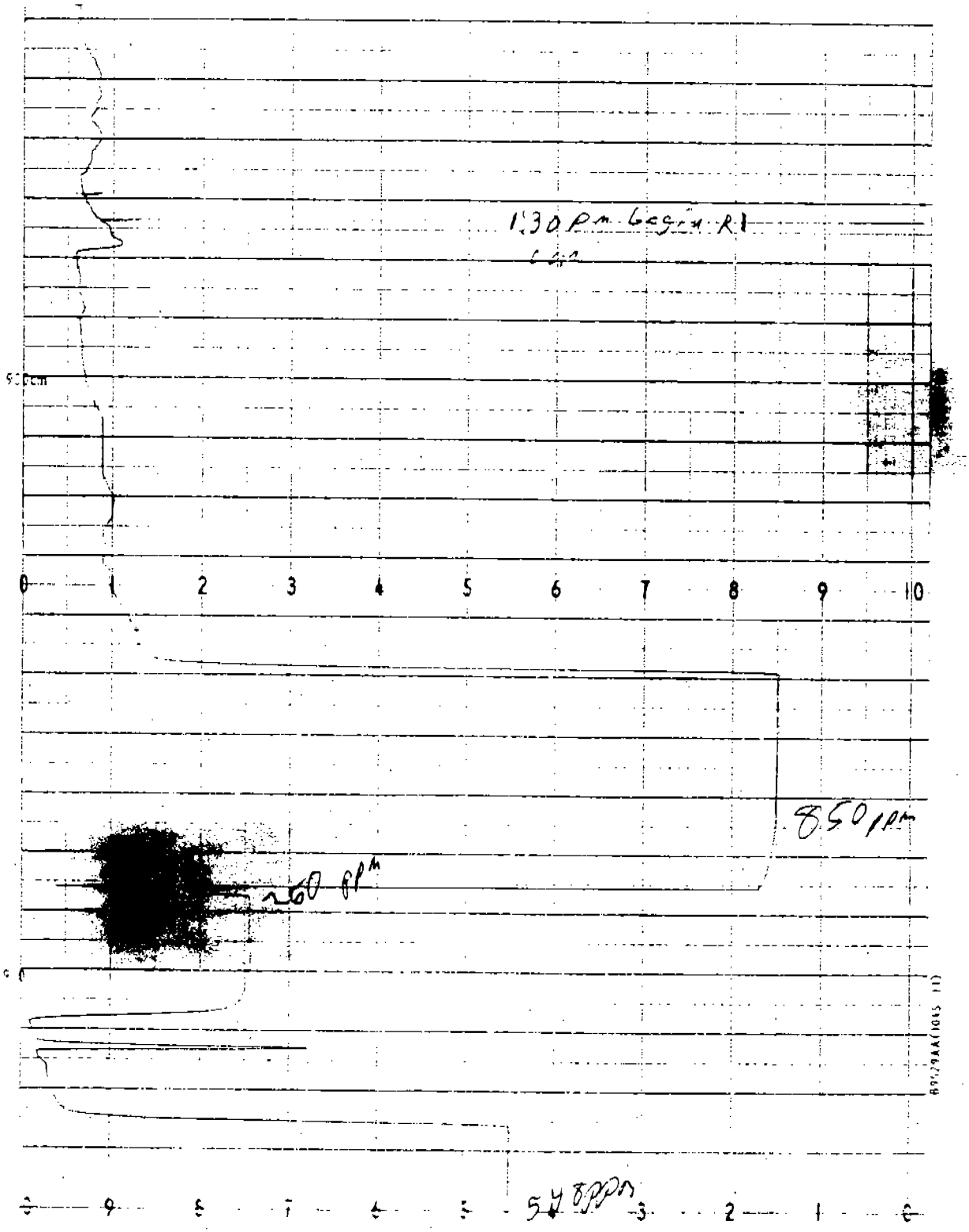
BIAS

250 BIAS CHECK

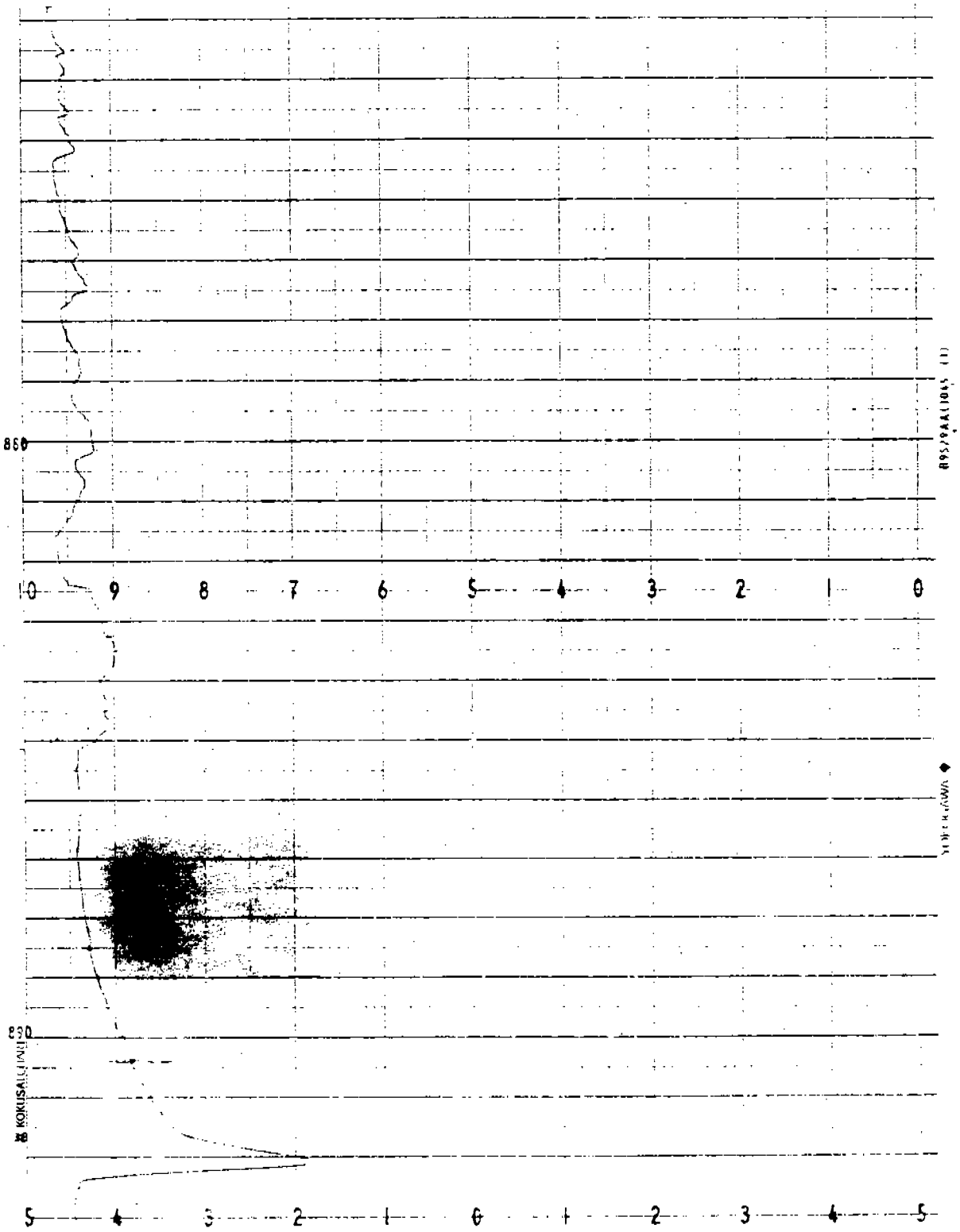
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
CRUSHED CAN CONVEYOR SYSTEM
June 26, 1992



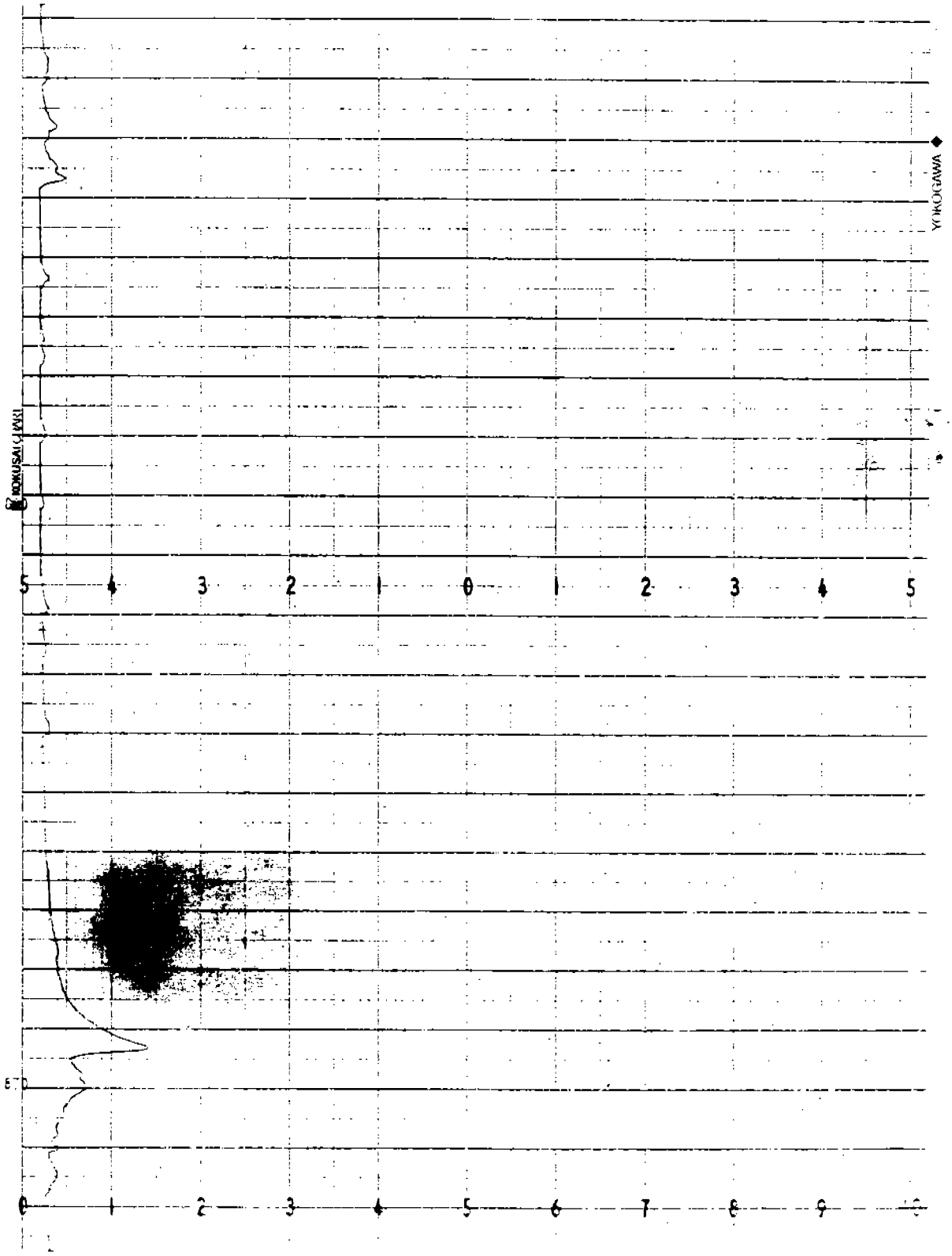
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
CRUSHED CAN CONVEYOR SYSTEM
June 26, 1992



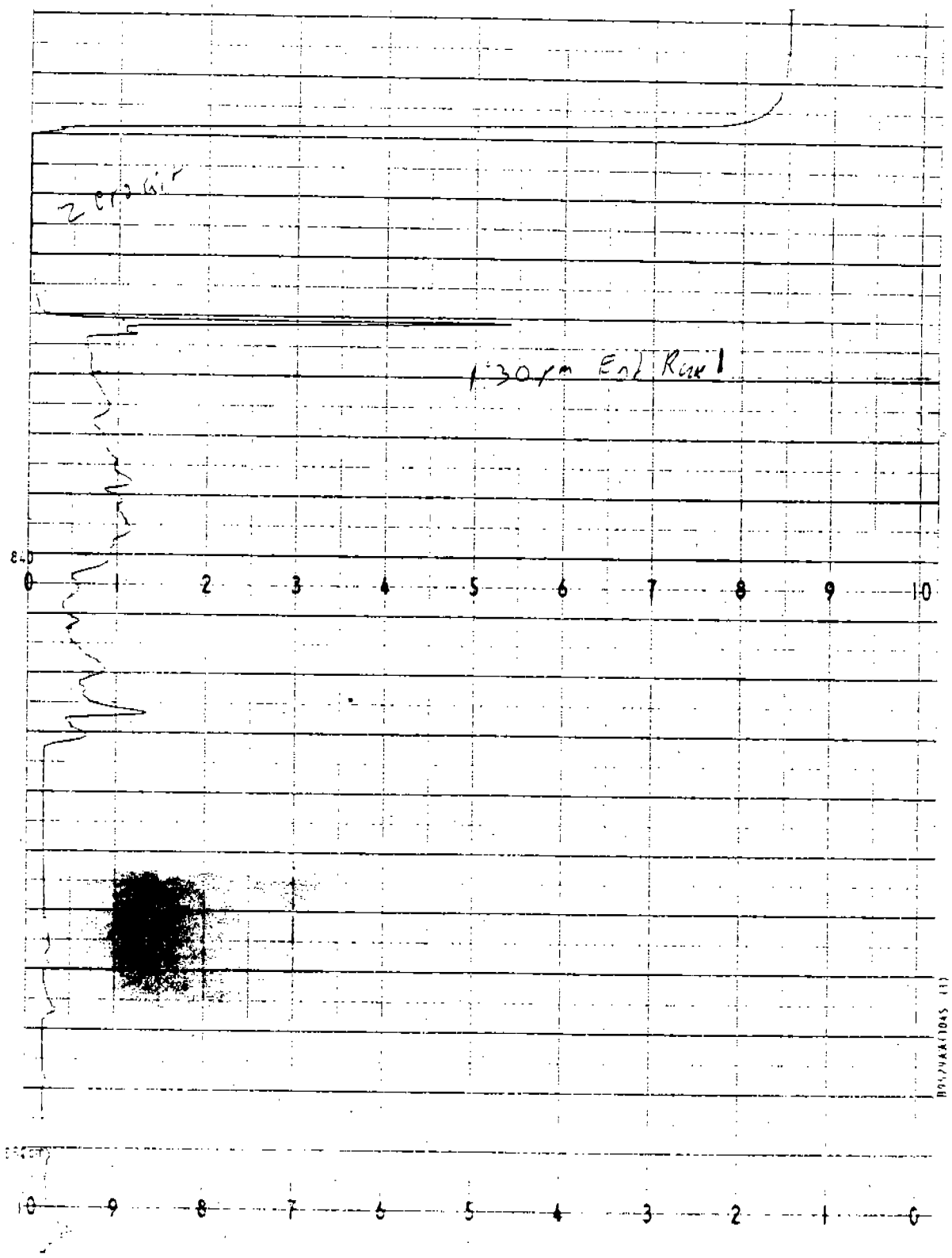
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
CRUSHED CAN CONVEYOR SYSTEM
June 26, 1992



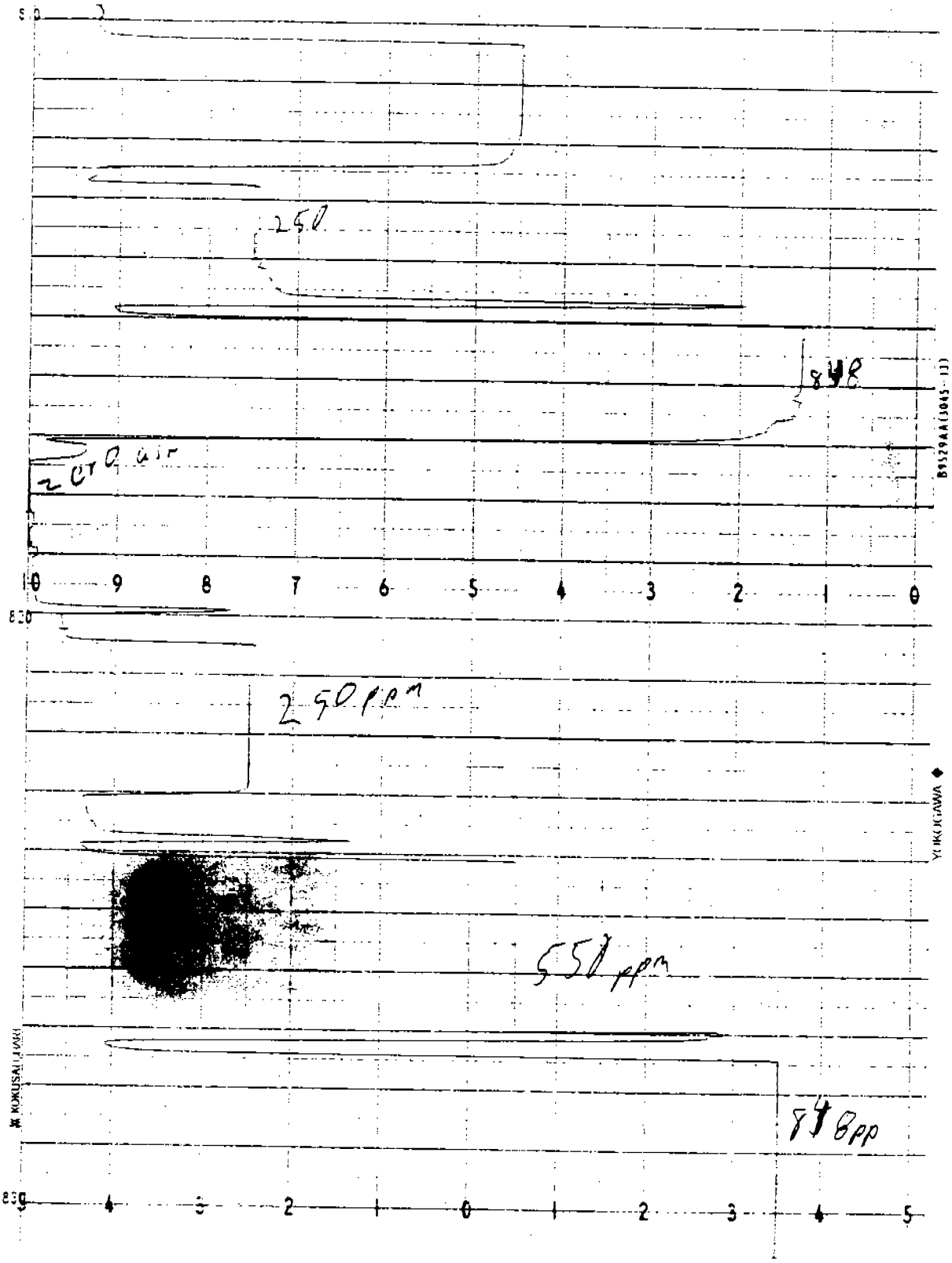
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
CRUSHED CAN CONVEYOR SYSTEM
June 26, 1992



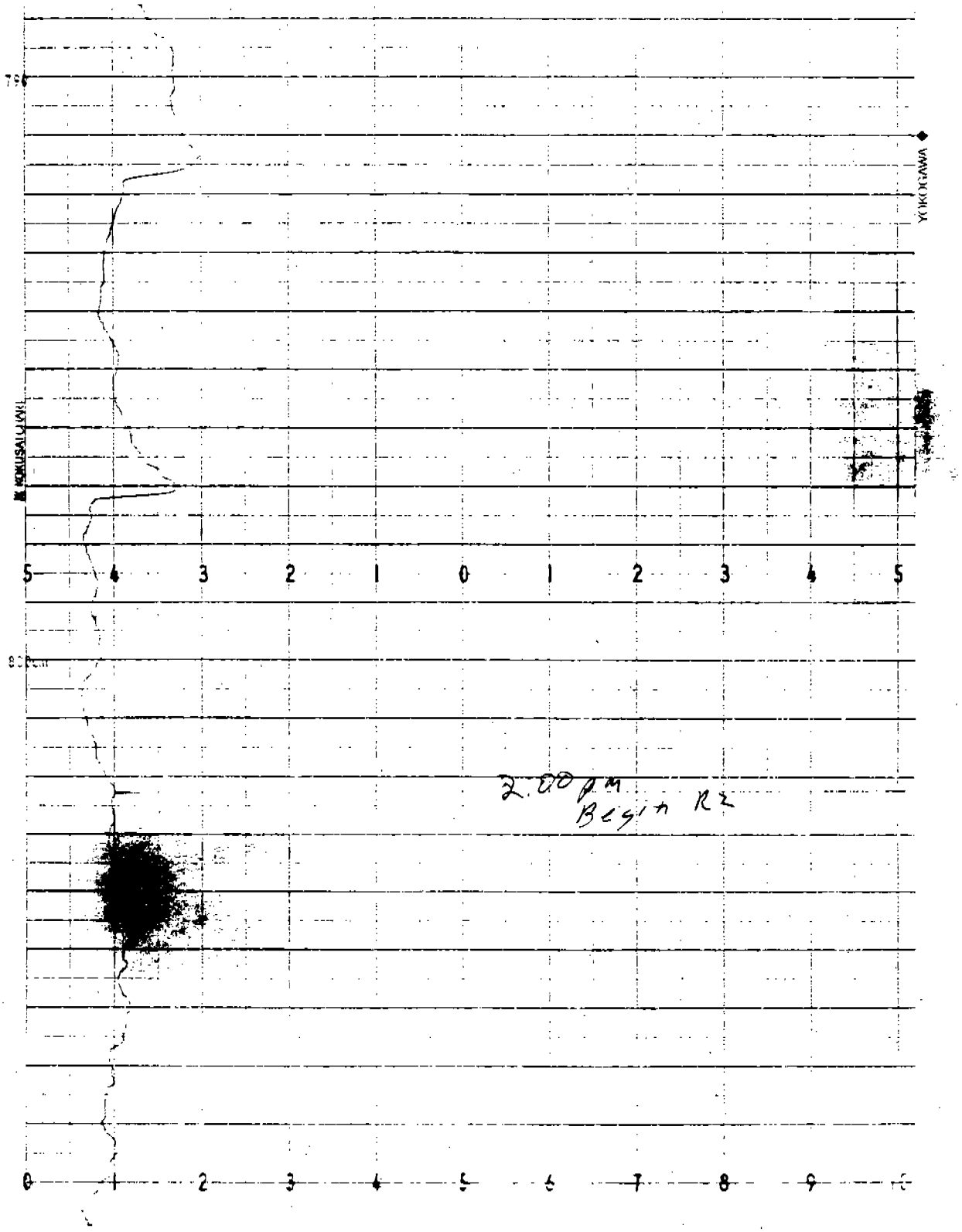
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
CRUSHED CAN CONVEYOR SYSTEM
June 26, 1992



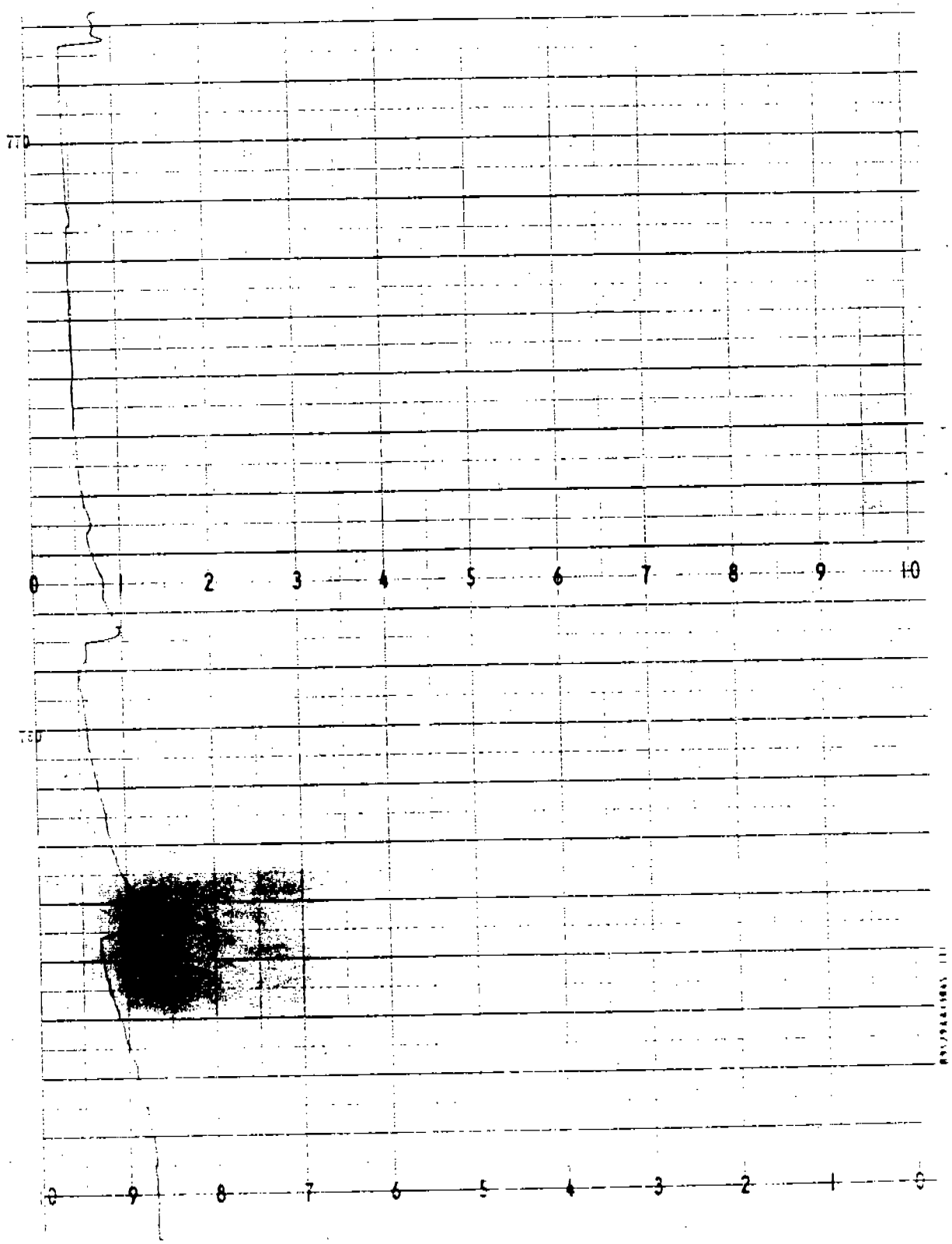
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
CRUSHED CAN CONVEYOR SYSTEM
June 26, 1992



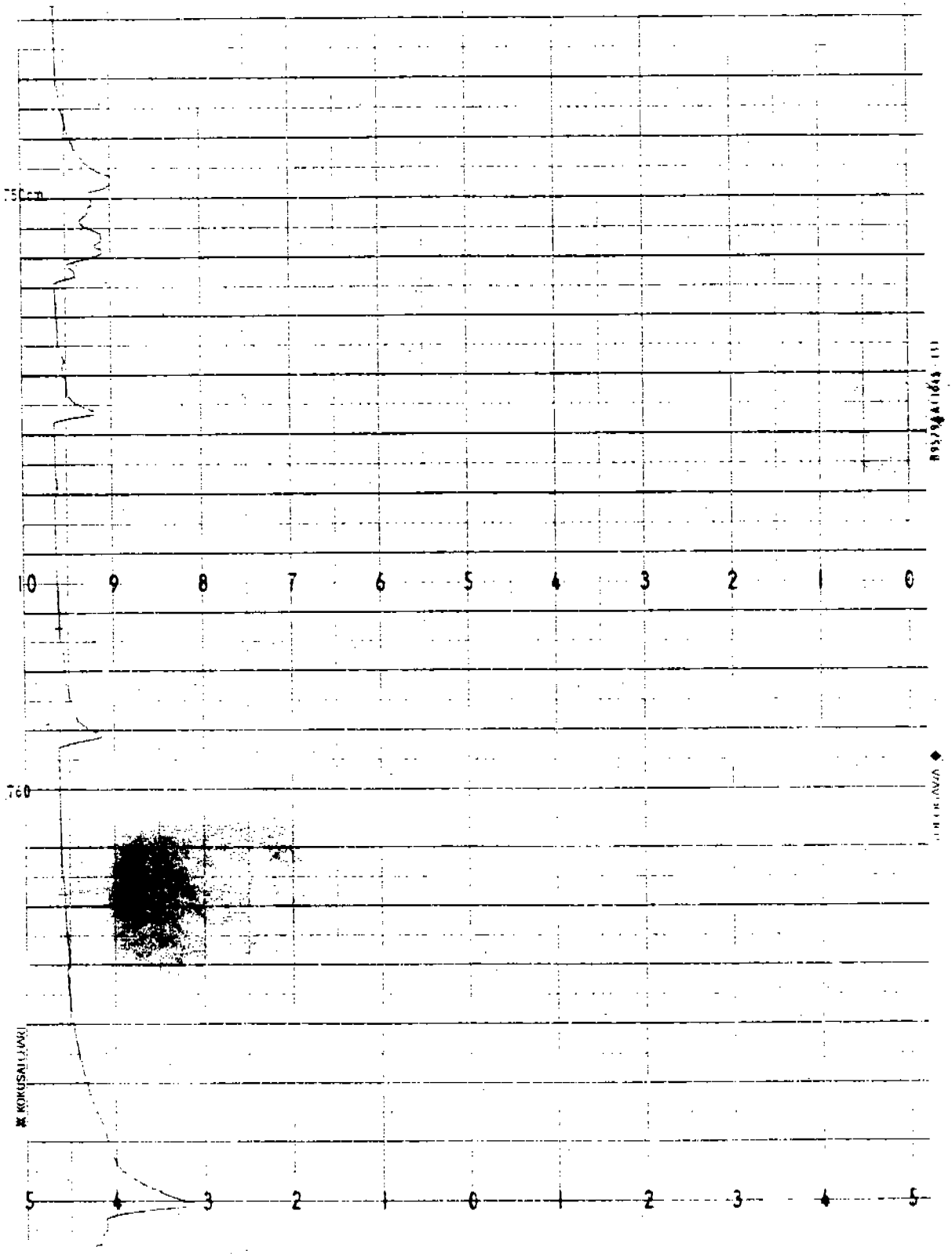
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
CRUSHED CAN CONVEYOR SYSTEM
June 26, 1992



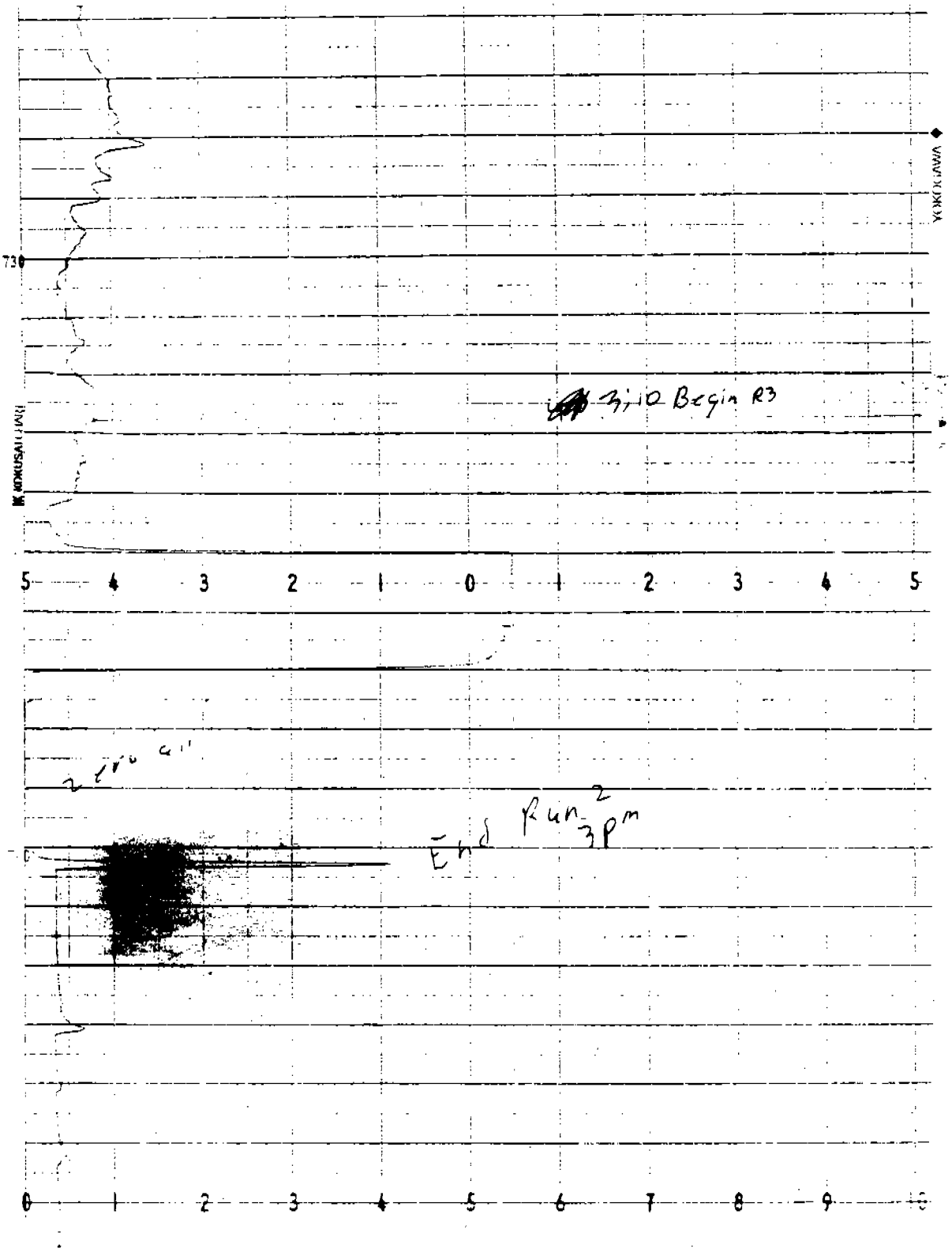
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
CRUSHED CAN CONVEYOR SYSTEM
June 26, 1992



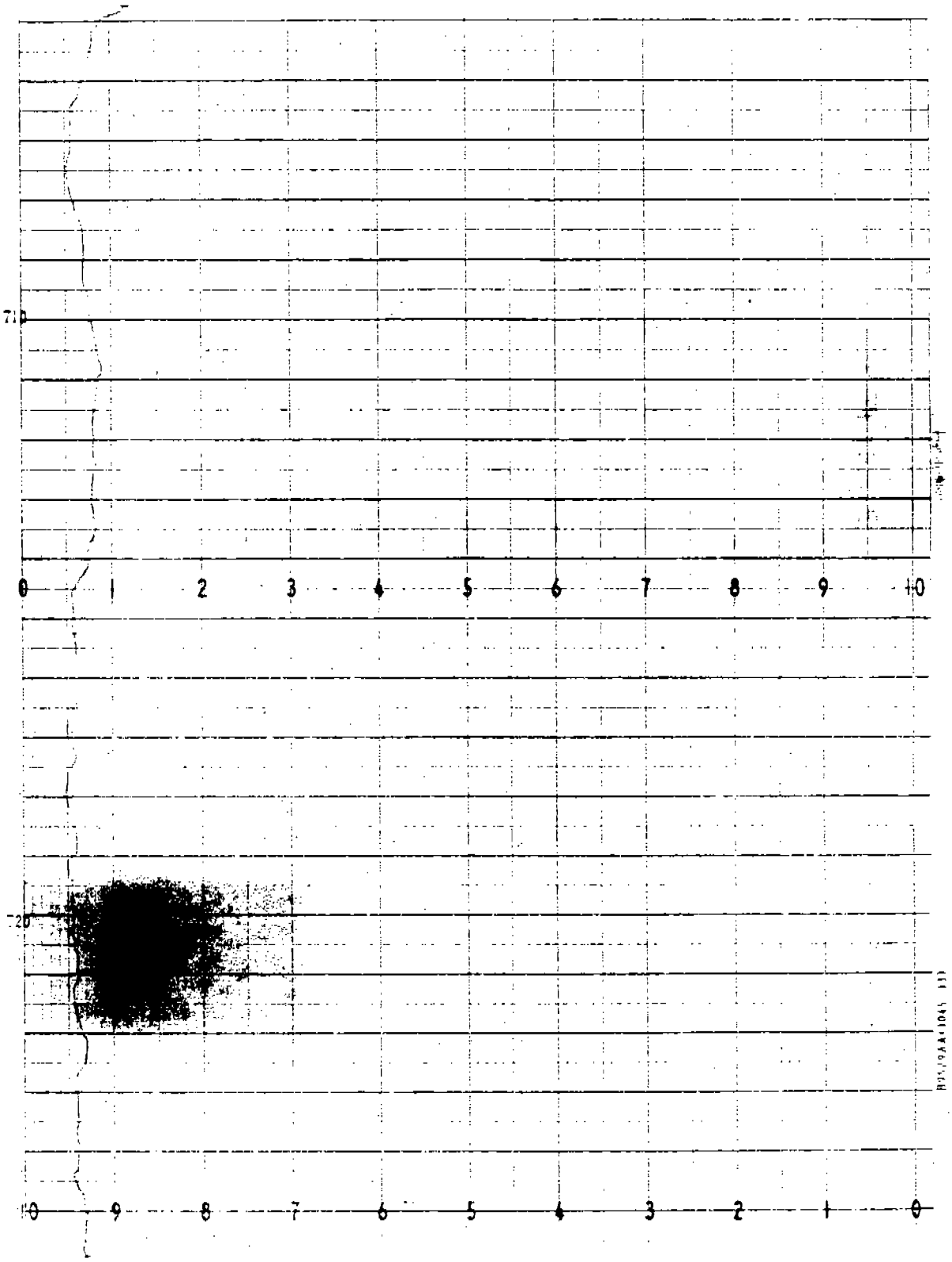
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
CRUSHED CAN CONVEYOR SYSTEM
June 26, 1992



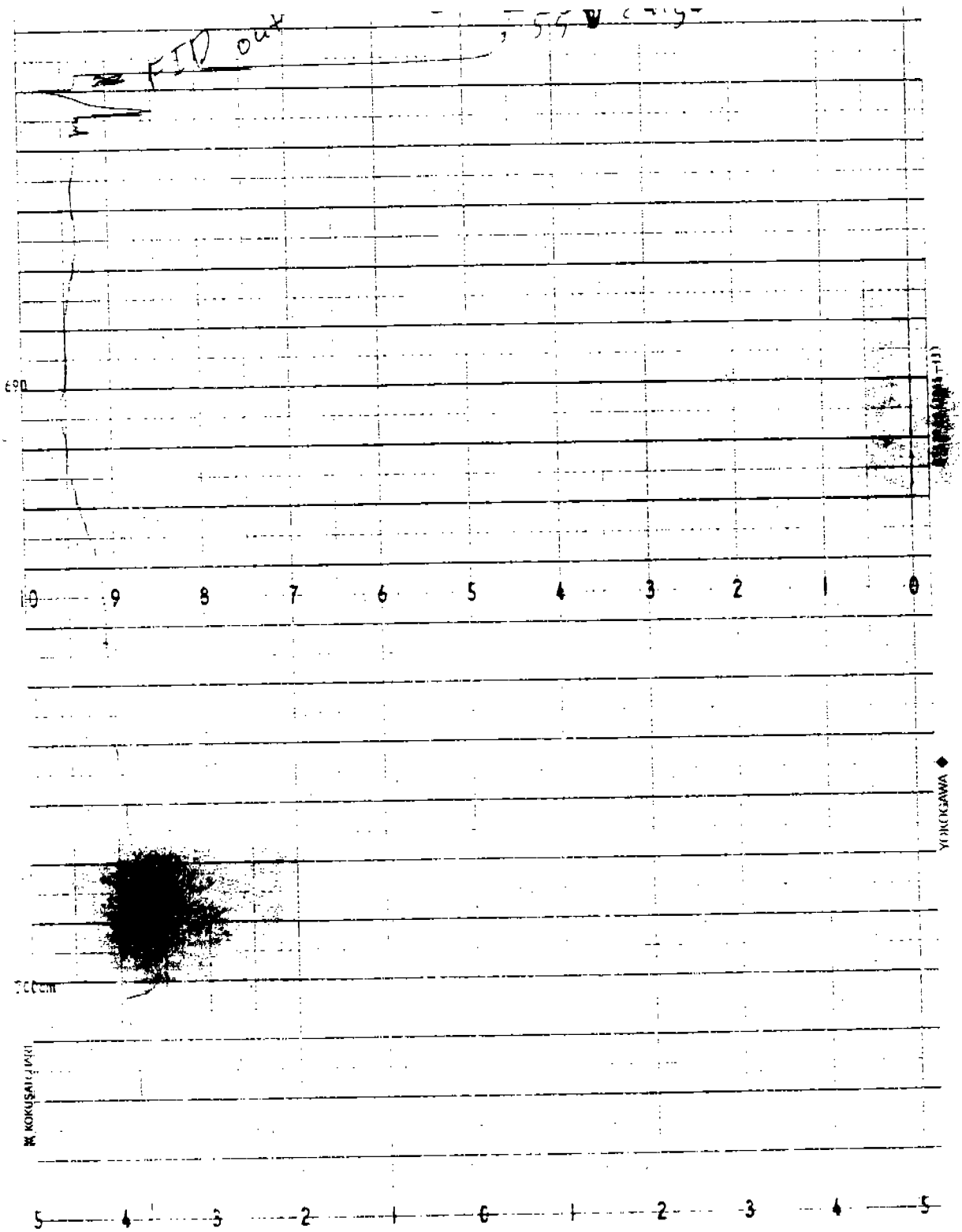
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
CRUSHED CAN CONVEYOR SYSTEM
June 26, 1992



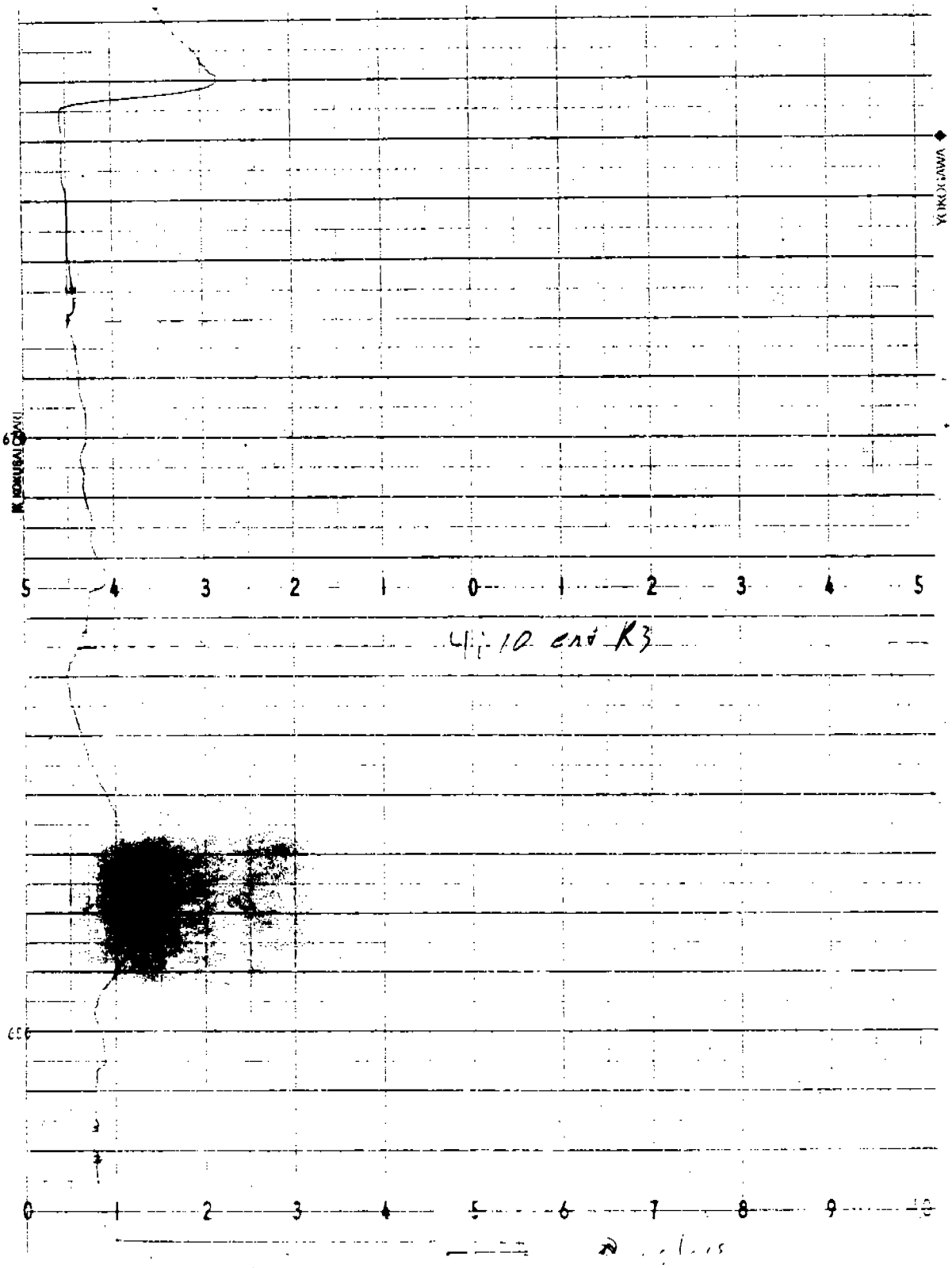
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
CRUSHED CAN CONVEYOR SYSTEM
June 26, 1992



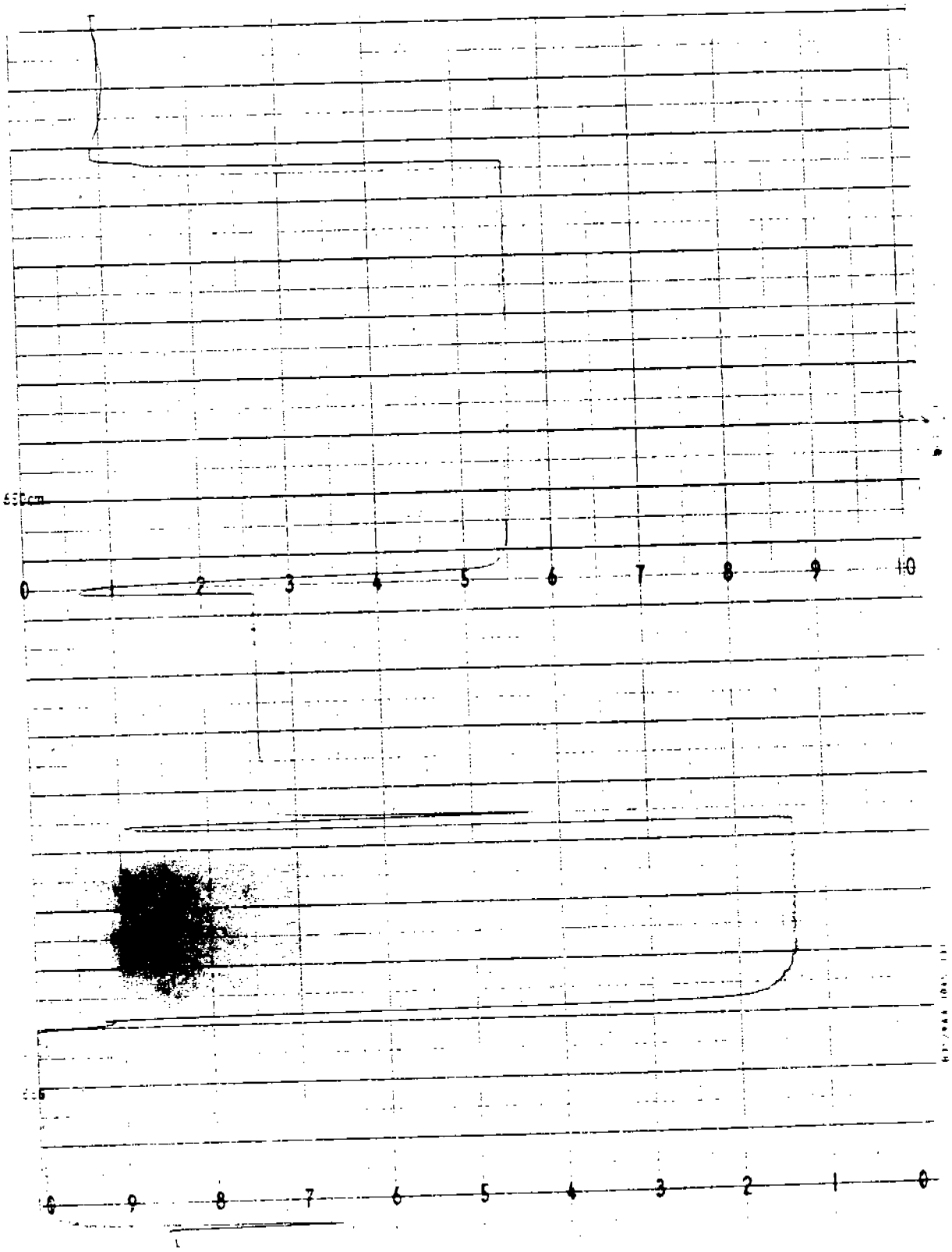
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
CRUSHED CAN CONVEYOR SYSTEM
June 26, 1992



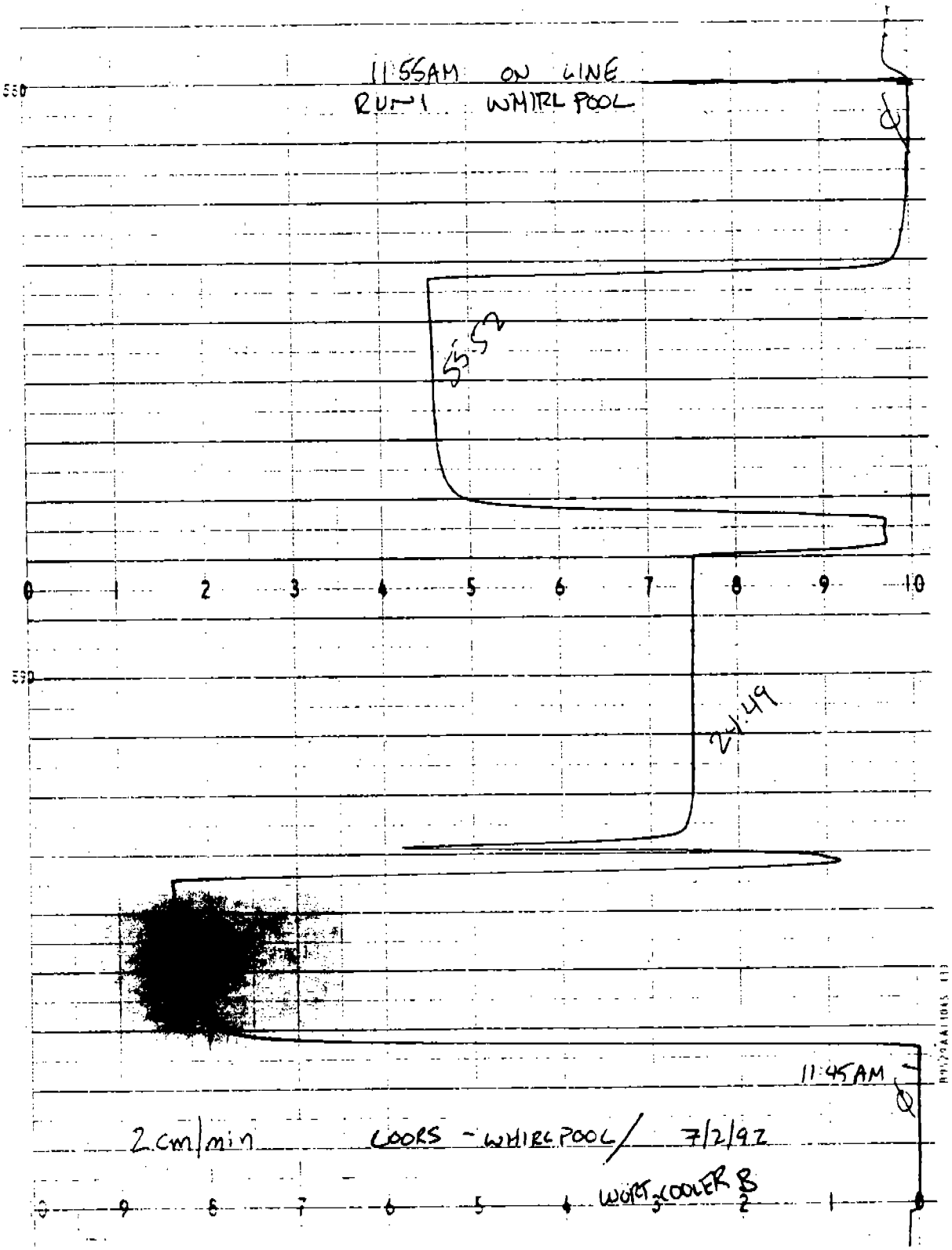
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
CRUSHED CAN CONVEYOR SYSTEM
June 26, 1992



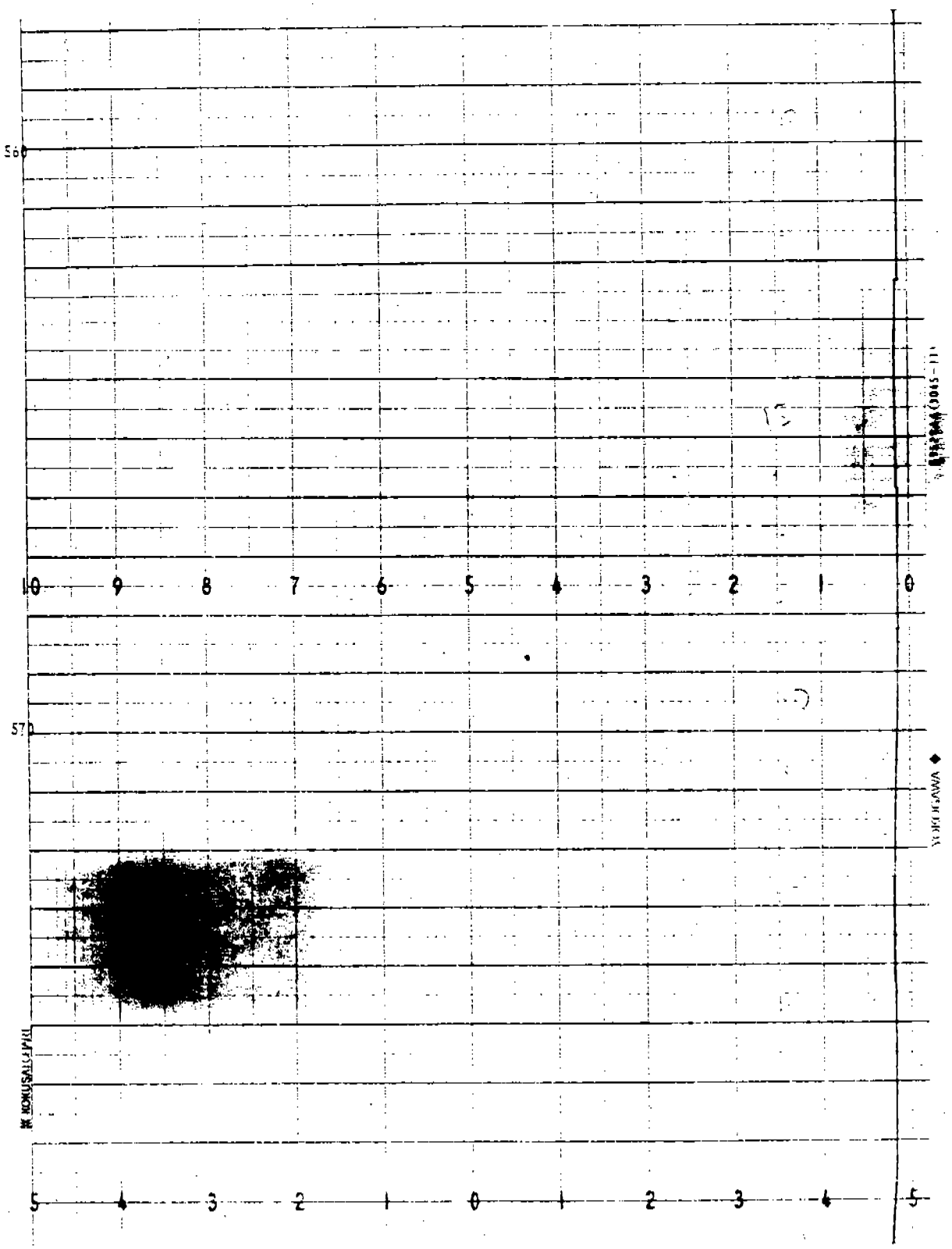
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
CRUSHED CAN CONVEYOR SYSTEM
June 26, 1992



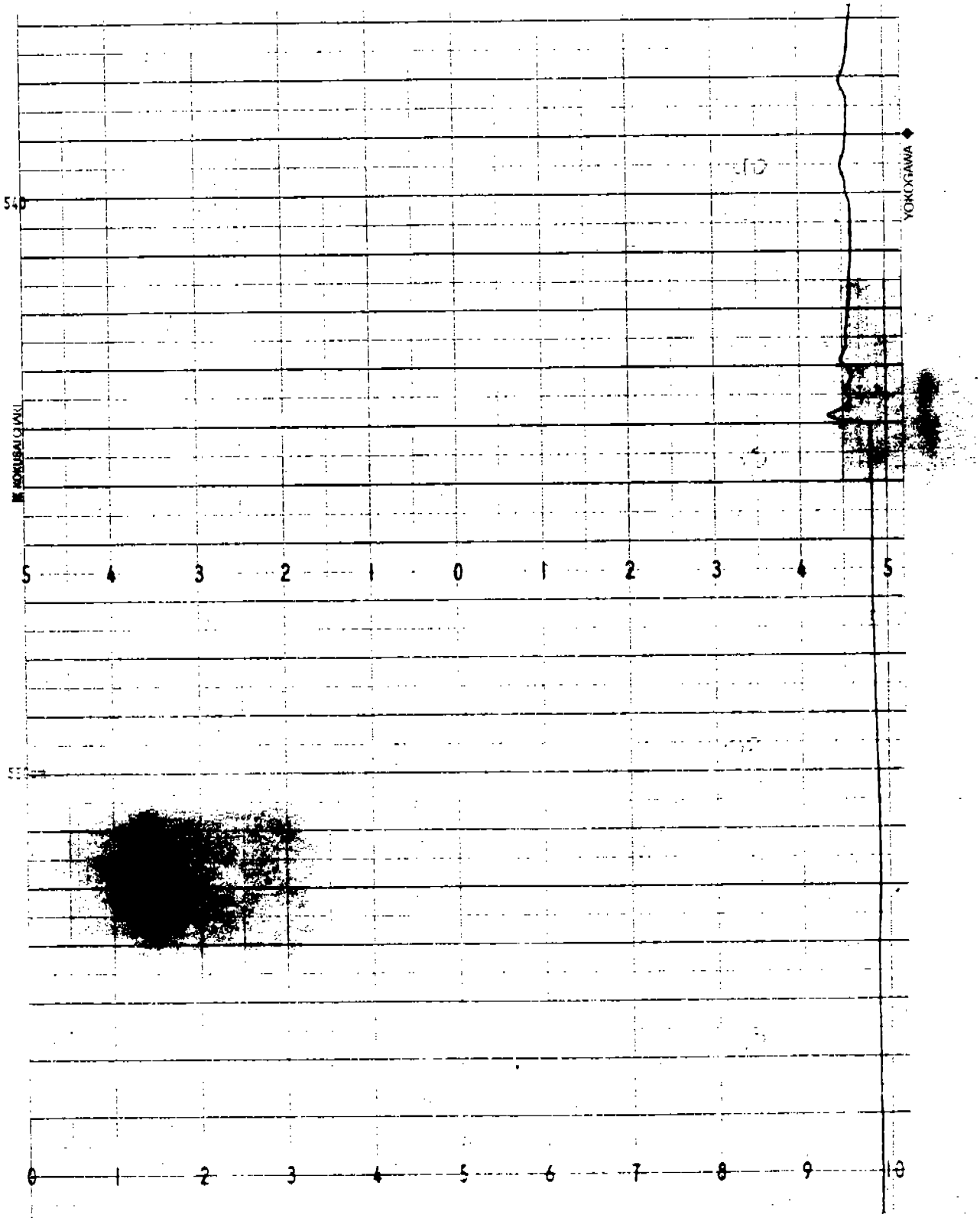
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



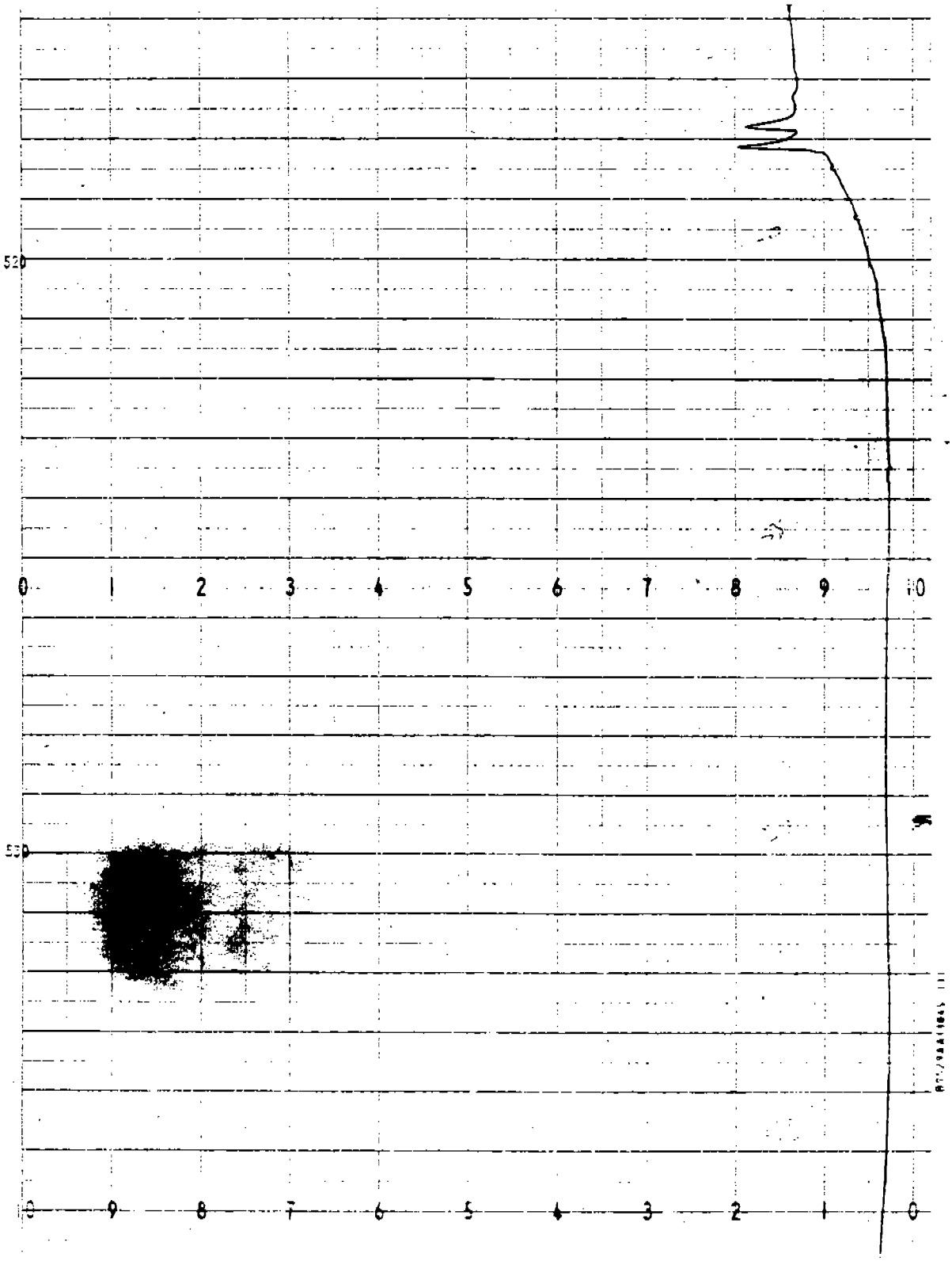
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



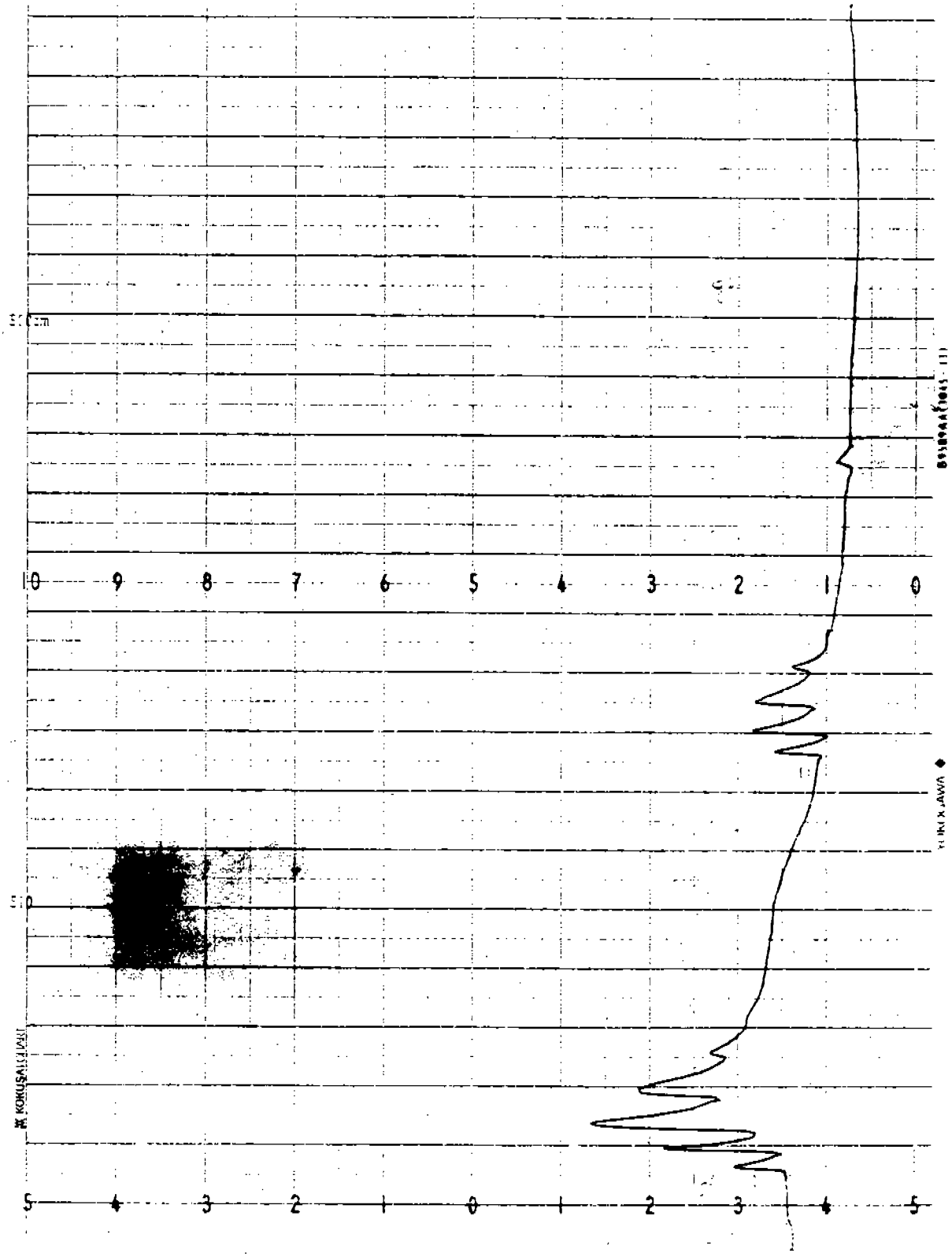
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



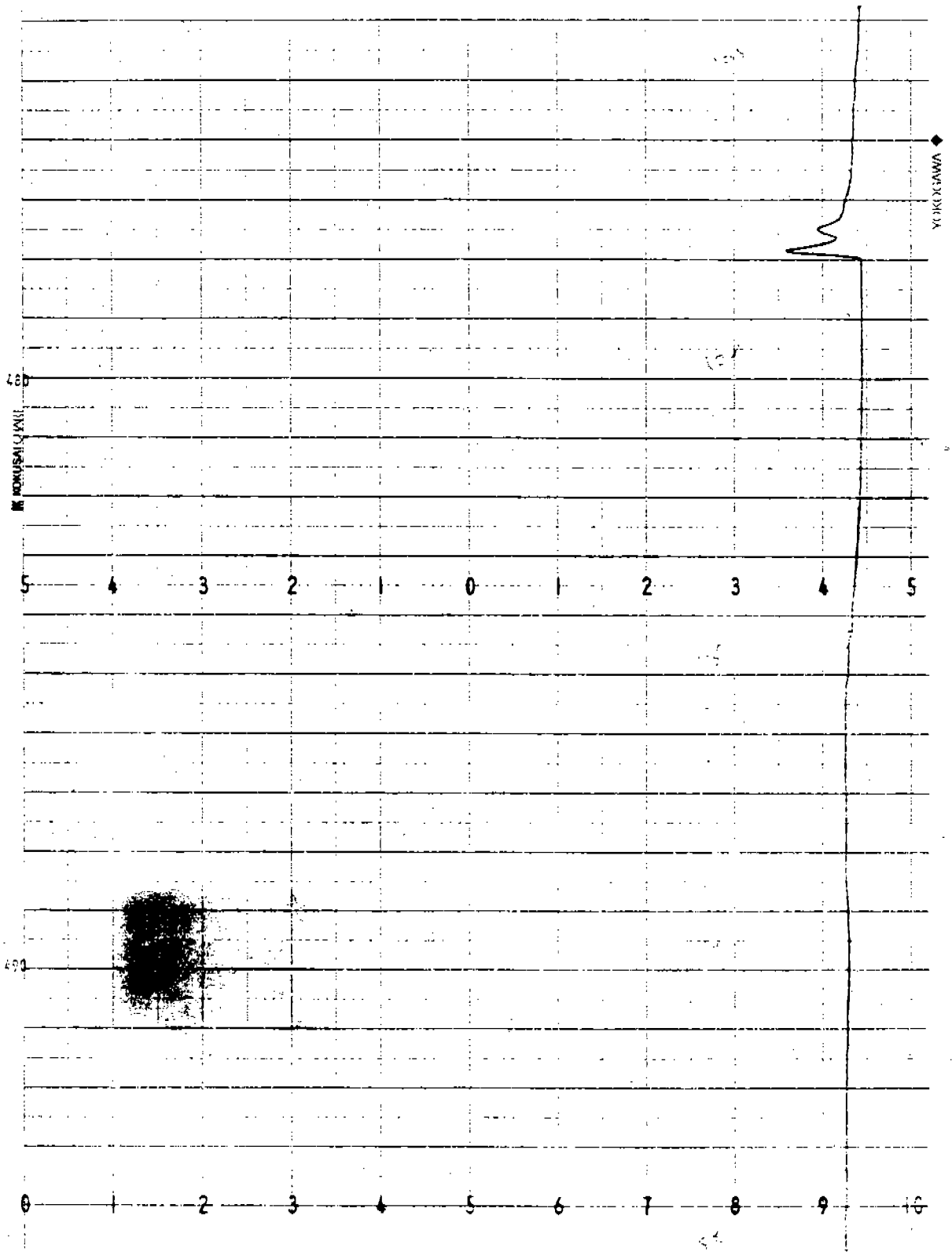
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



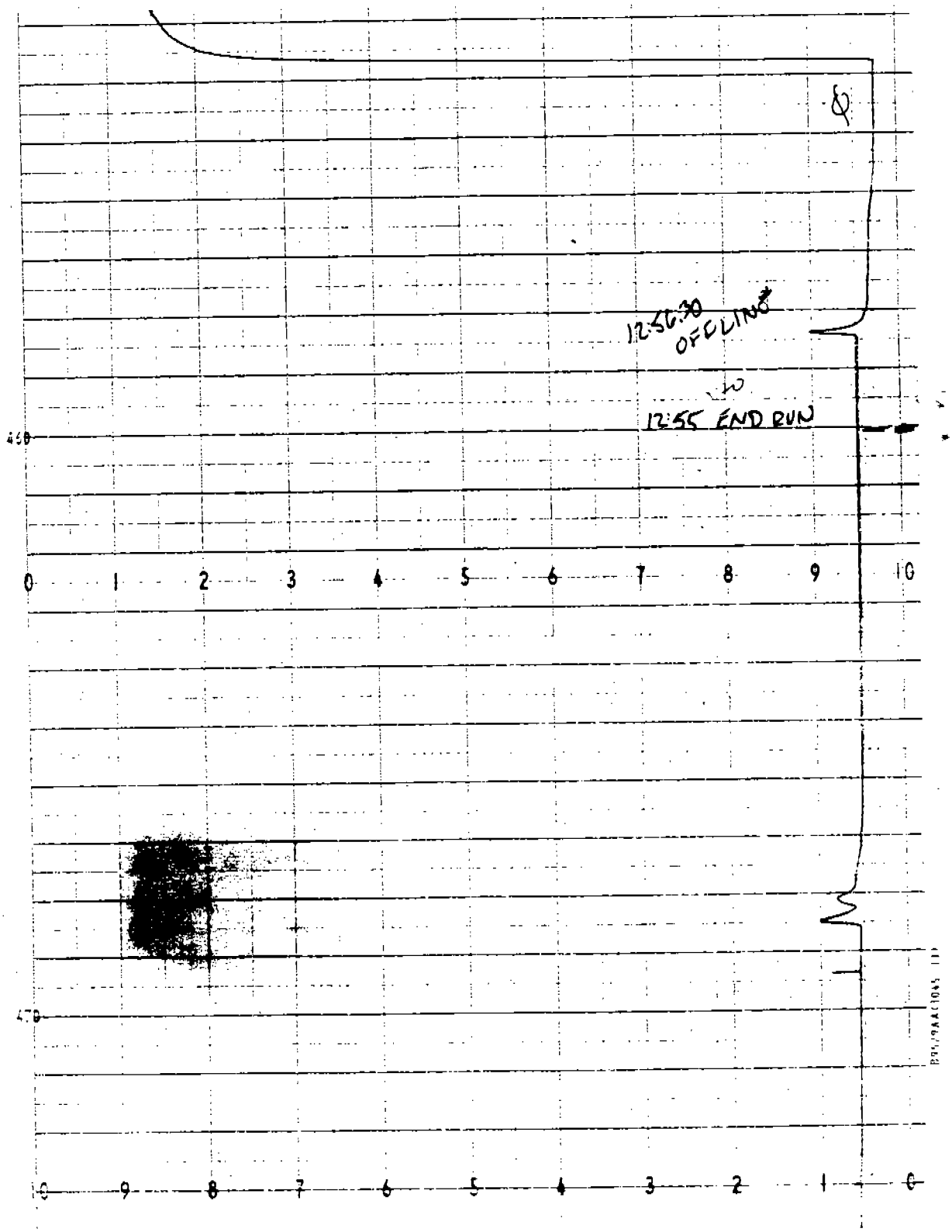
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



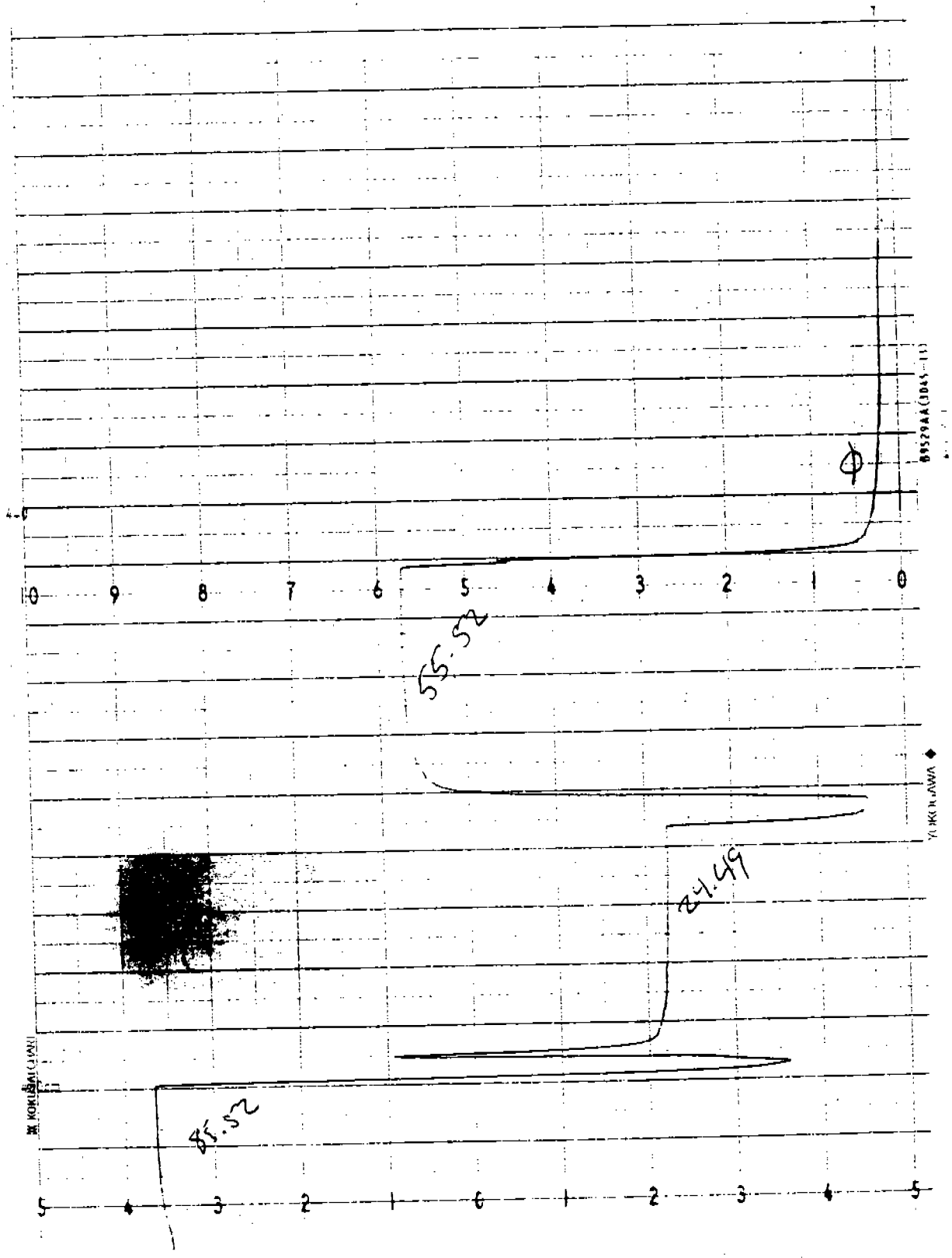
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



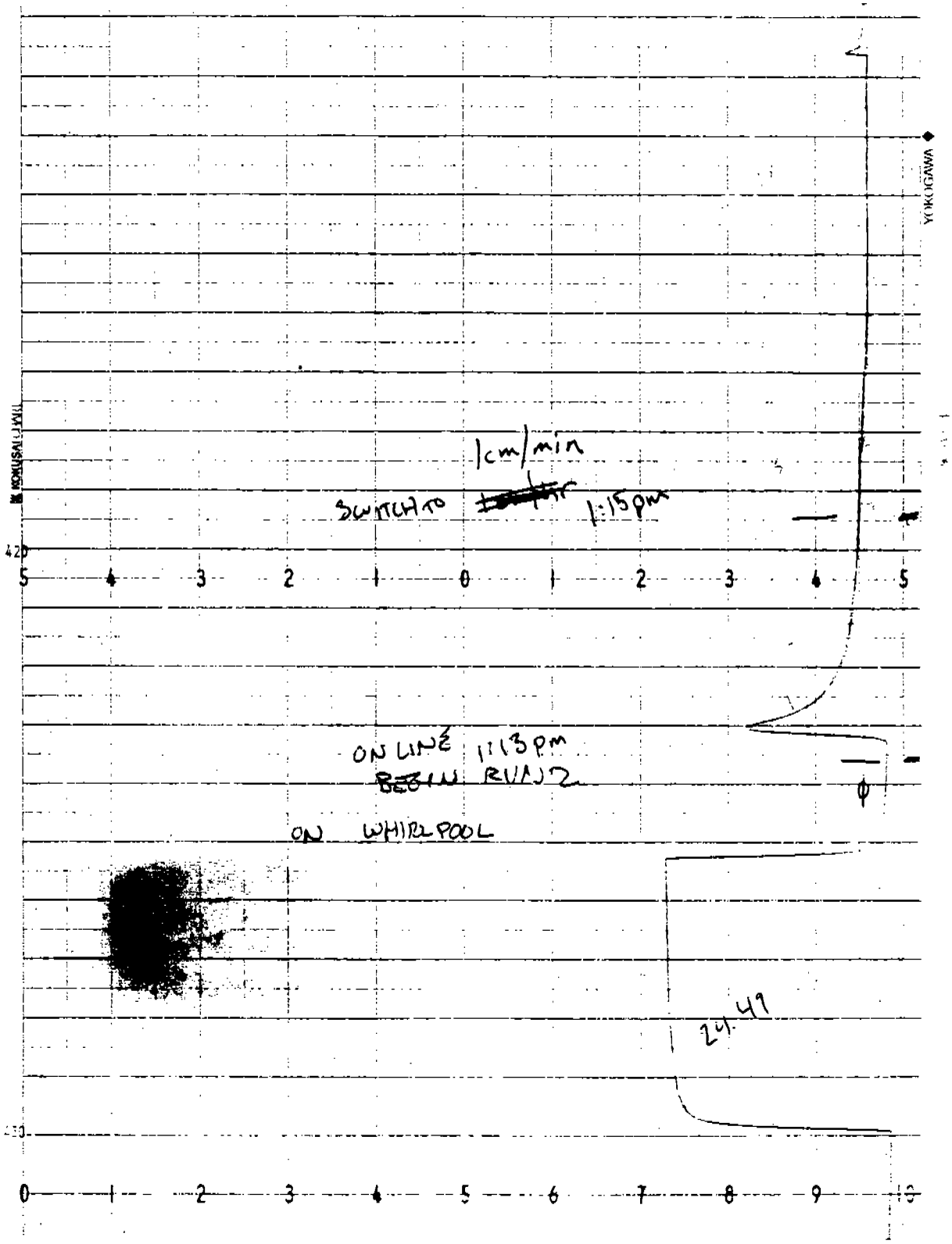
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



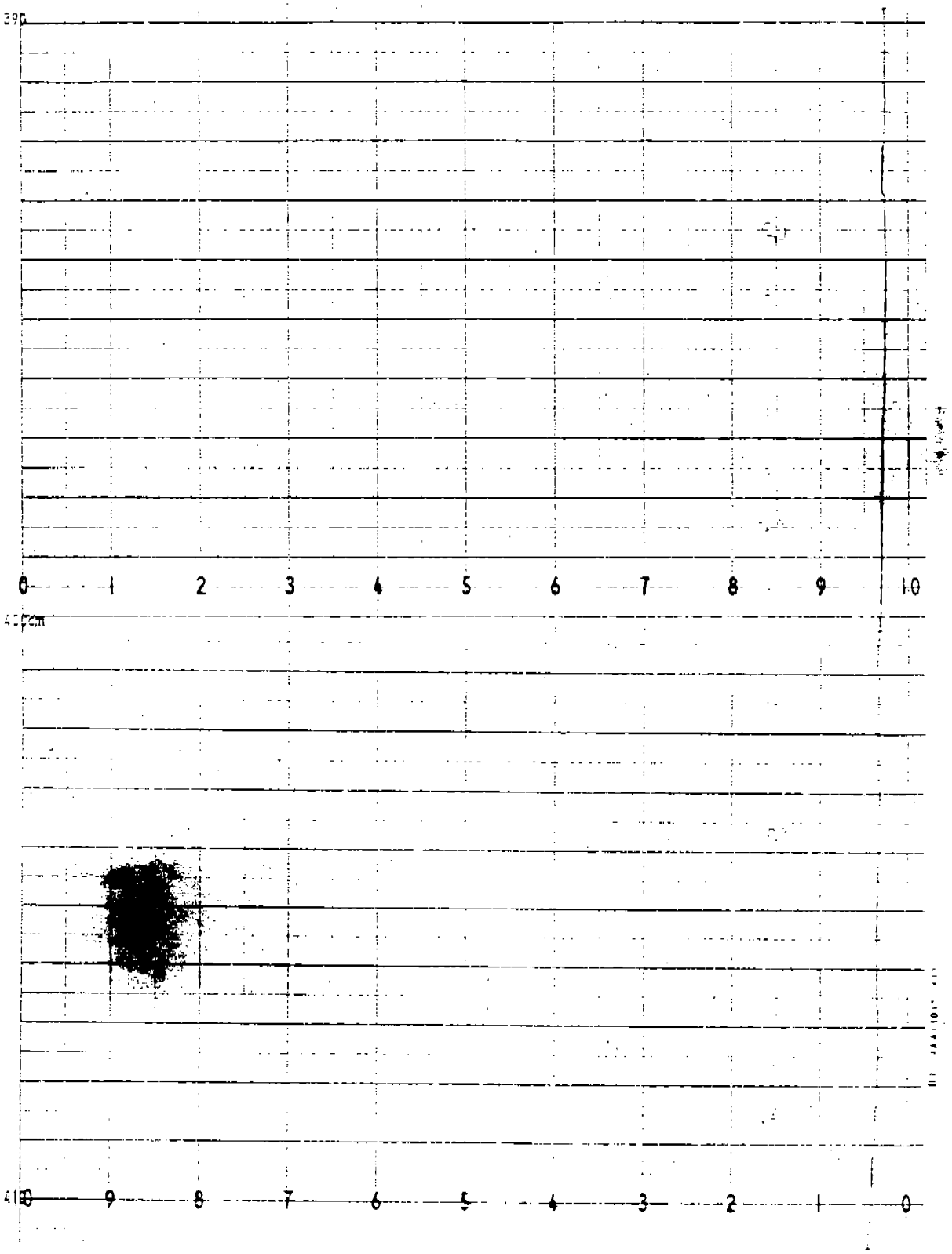
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



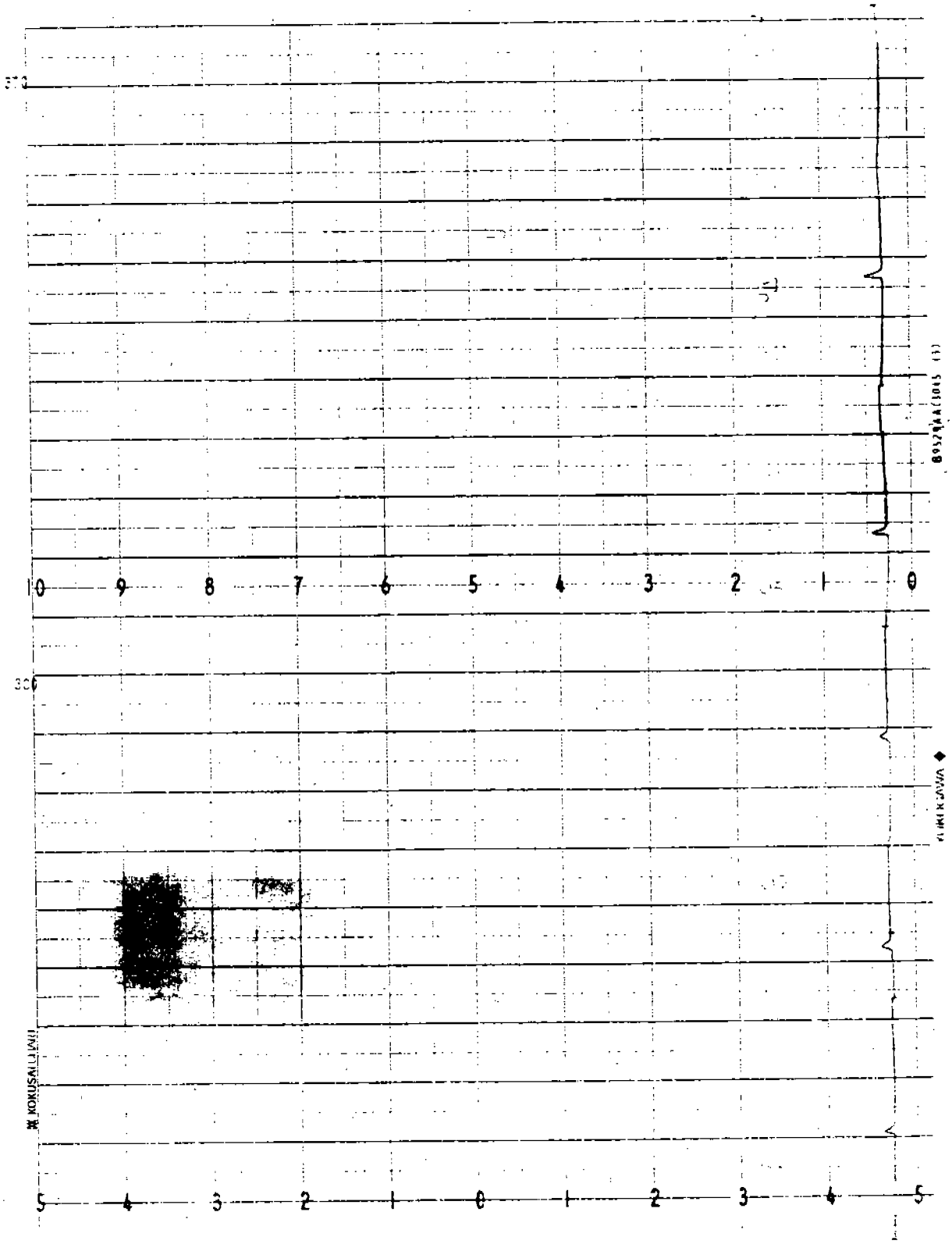
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



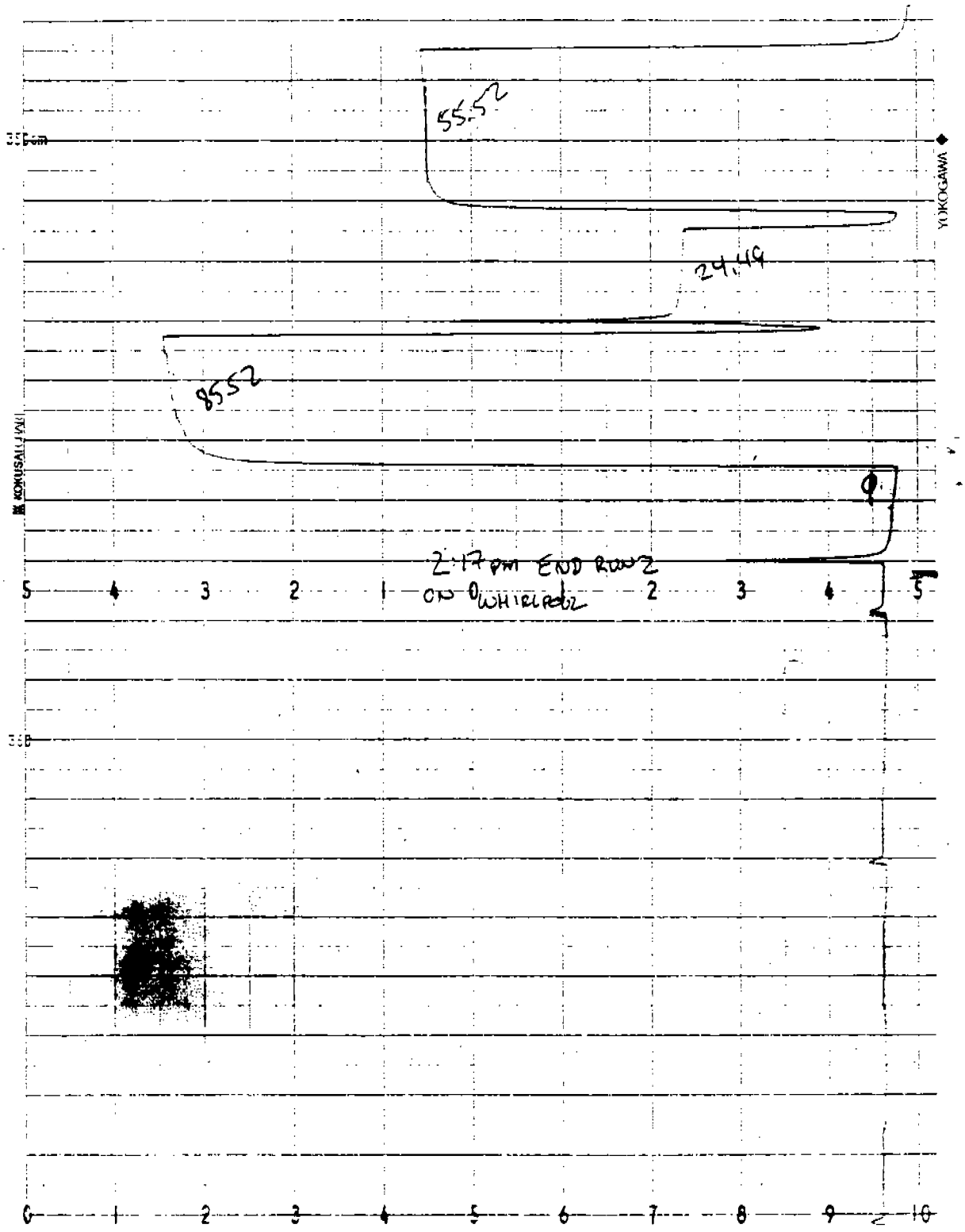
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



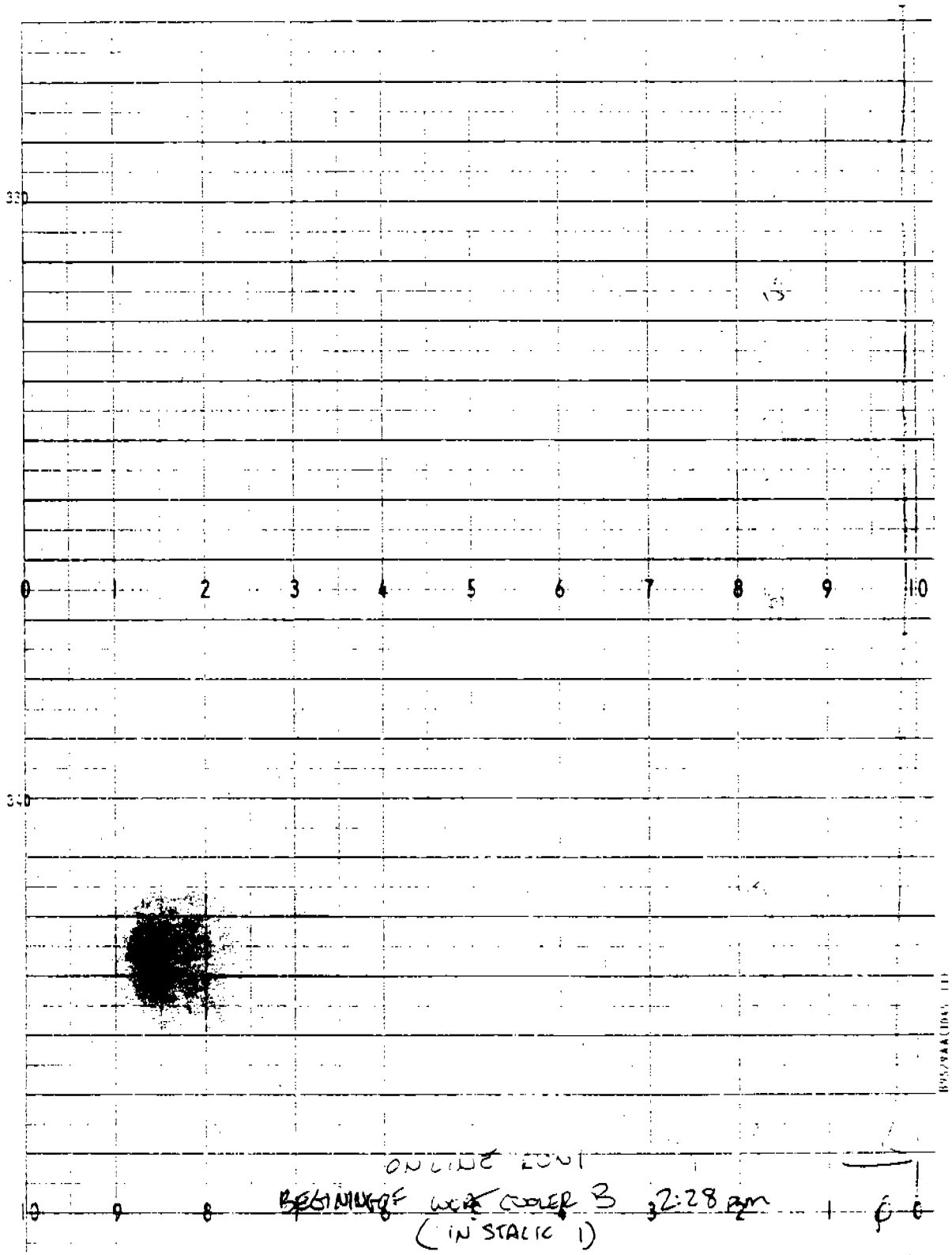
CAL 4

Post Cal

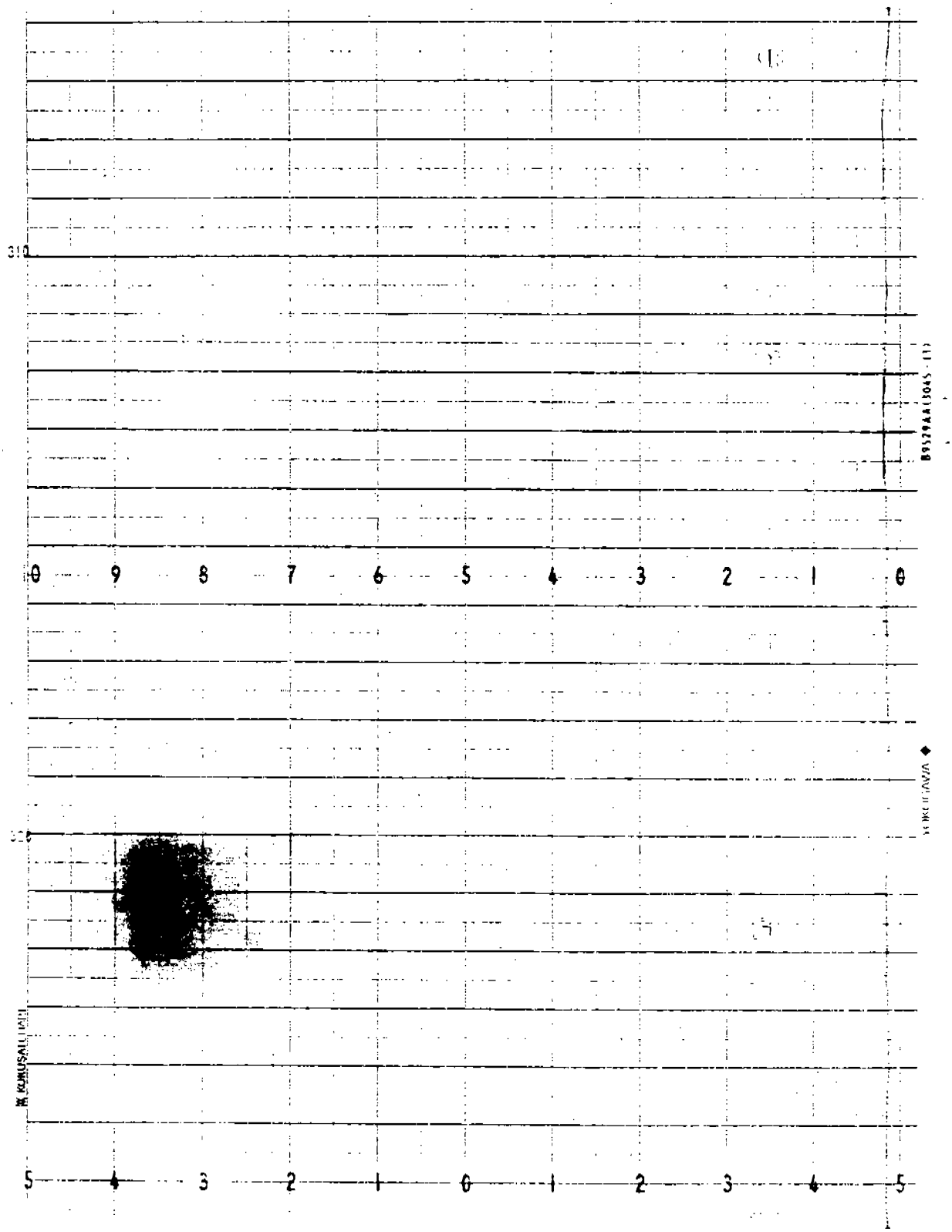
COORS BREWING
YEAST DRYING PLANT
10:13:03.43"
" 7-20-1991"
"TIME" "THC1" "
"SEC" "PPM" "PPM"

00:00:00:00.000	0	0	
00:00:00:29.999	365	0	
00:00:00:59.998	244	0	
00:00:01:29.998	166	0	
00:00:01:59.997	207	0	
00:00:02:29.997	91	0	
00:00:02:59.996	118	0	
00:00:03:29.996	27	0	
00:00:03:59.995	35	0	0 CHECK
00:00:04:29.995	49	0	
00:00:04:59.994	74	0	
00:00:05:29.994	183	0	
00:00:05:59.993	24656	0	
00:00:06:29.992	33958	0	
00:00:06:59.992	34063	0	33960 CHECK
00:00:07:29.991	33952	0	
00:00:07:59.991	34151	0	
00:00:08:29.990	14486	0	
00:00:08:59.990	8133	0	
00:00:09:29.989	8019	0	8423 CHECK
00:00:09:59.989	8052	0	
00:00:10:29.988	8364	0	
00:00:10:59.988	8343	0	

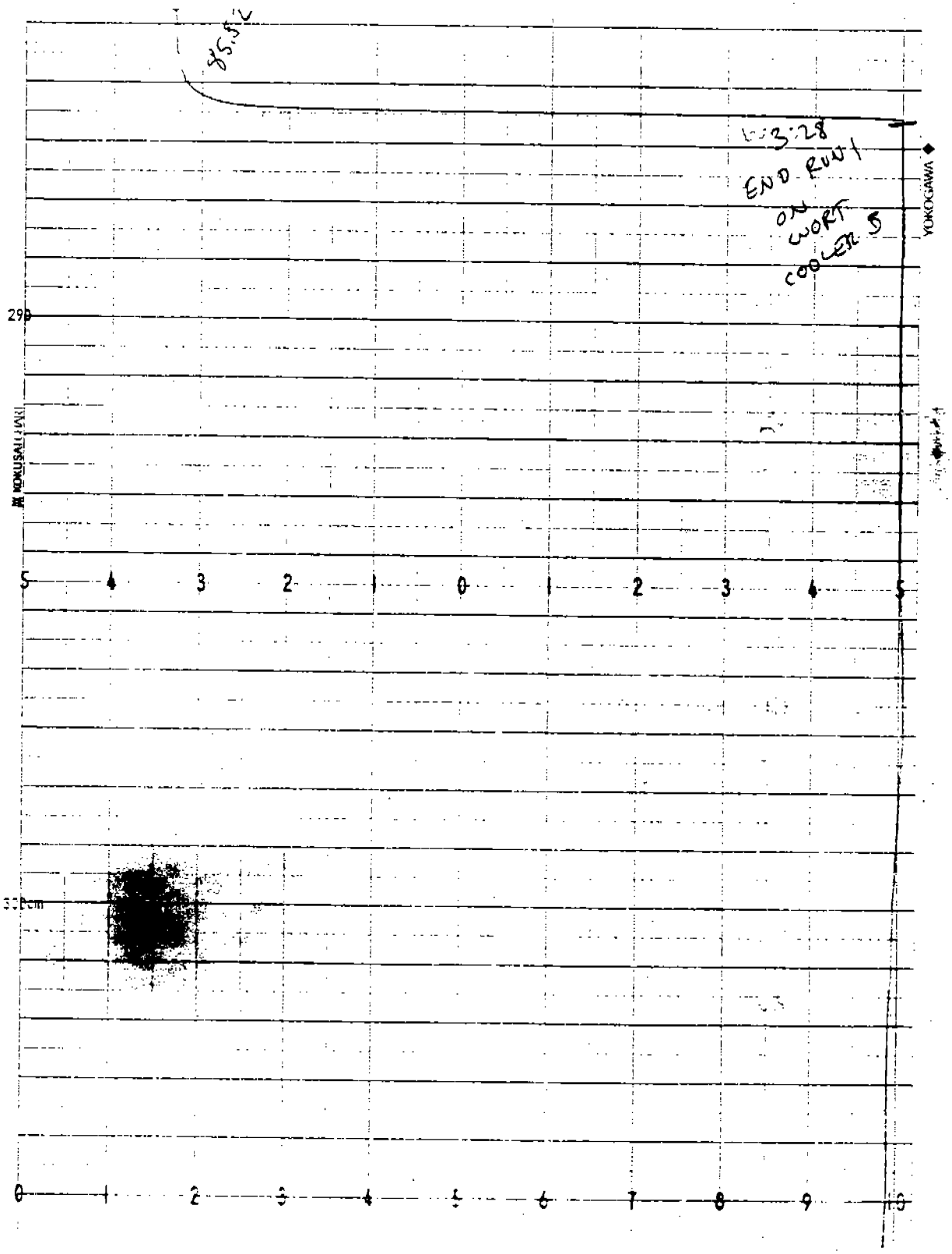
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



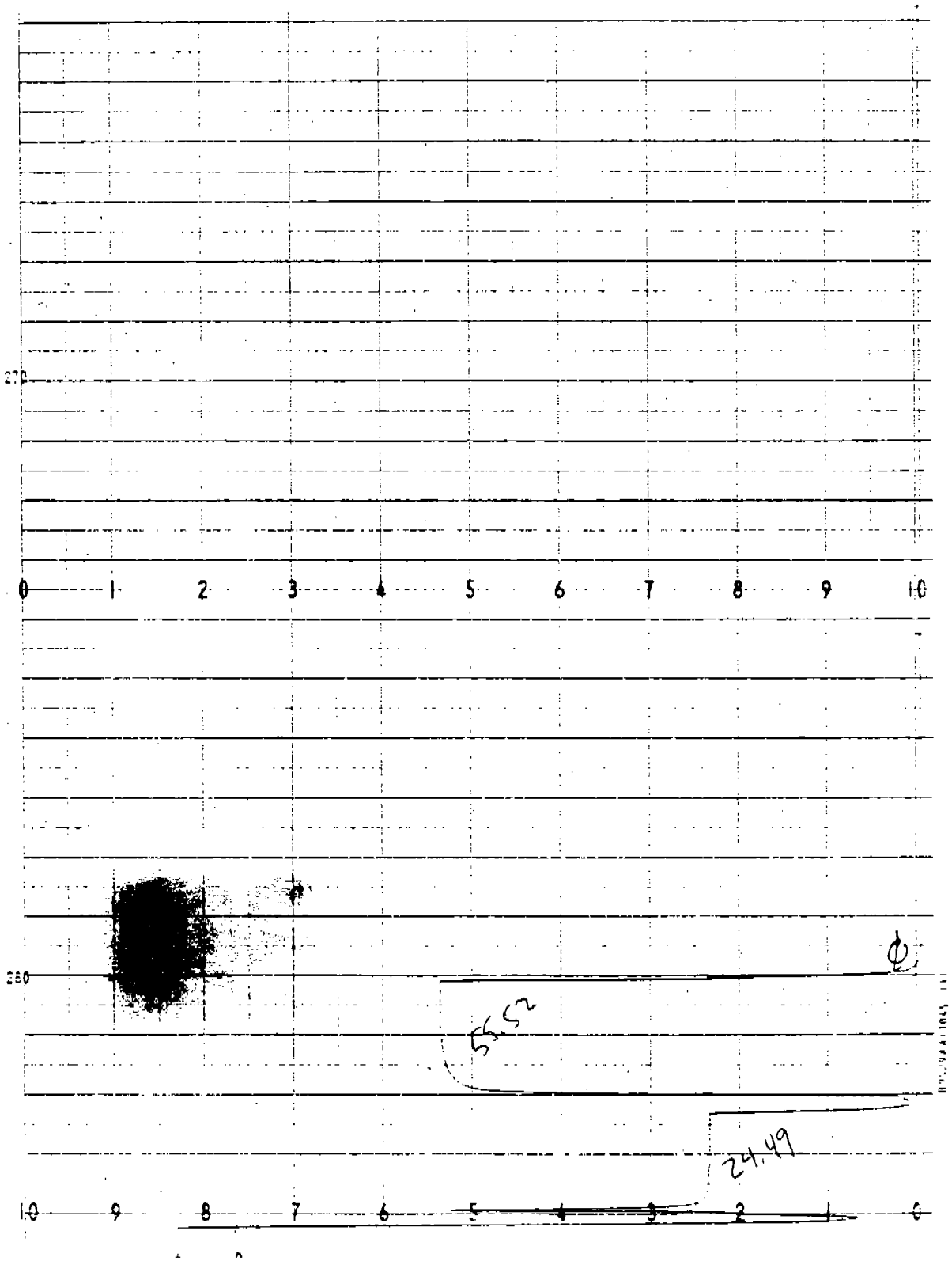
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



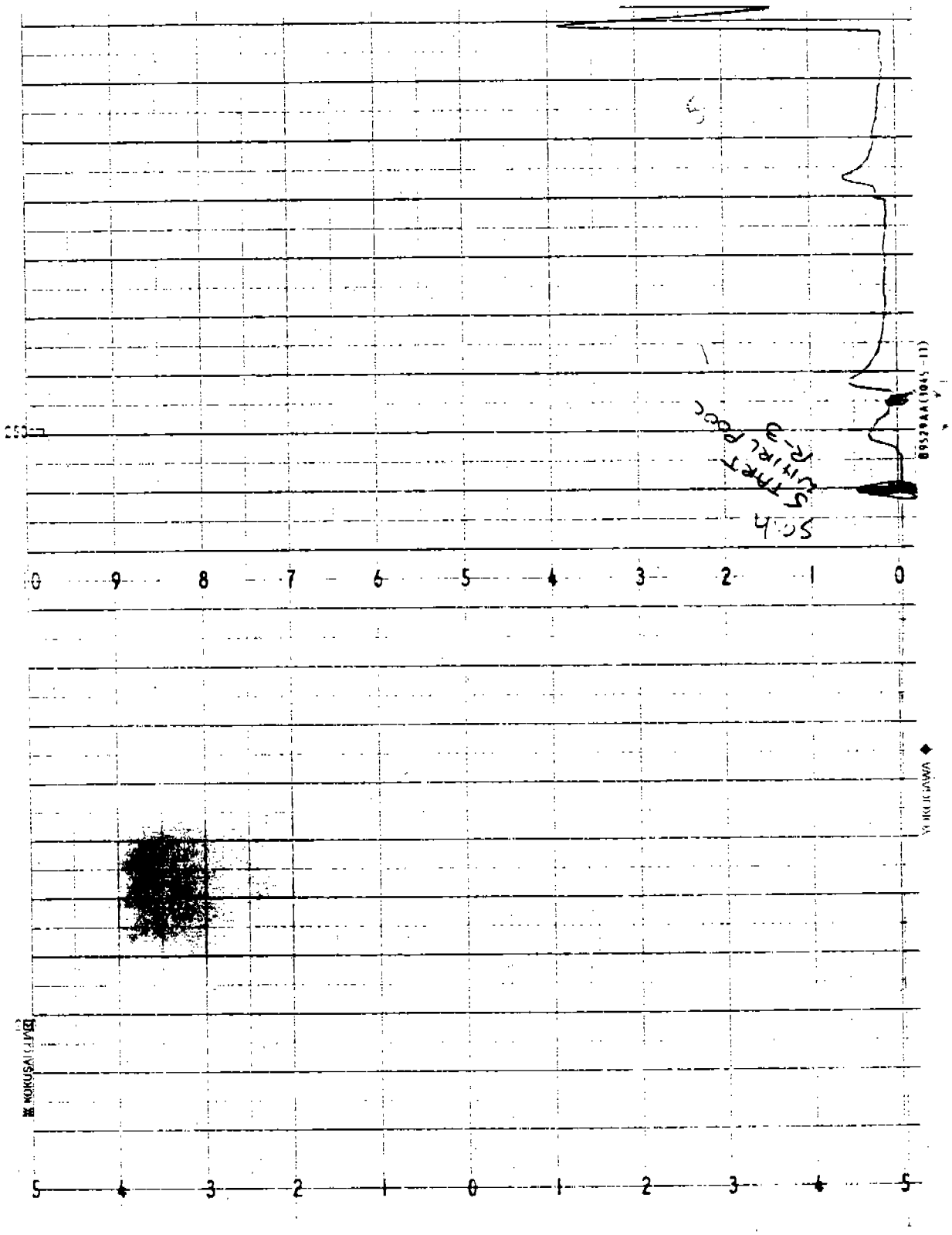
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



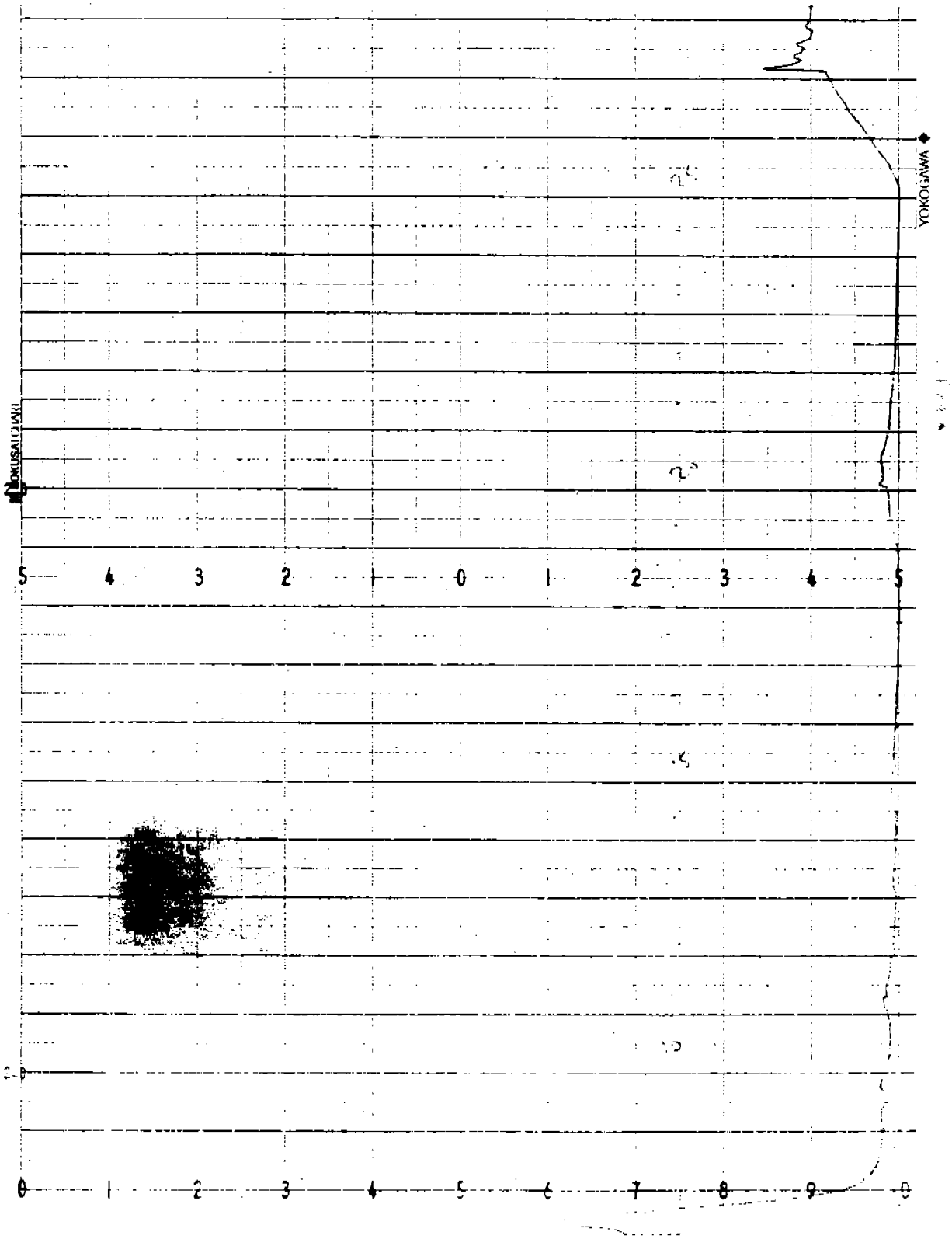
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



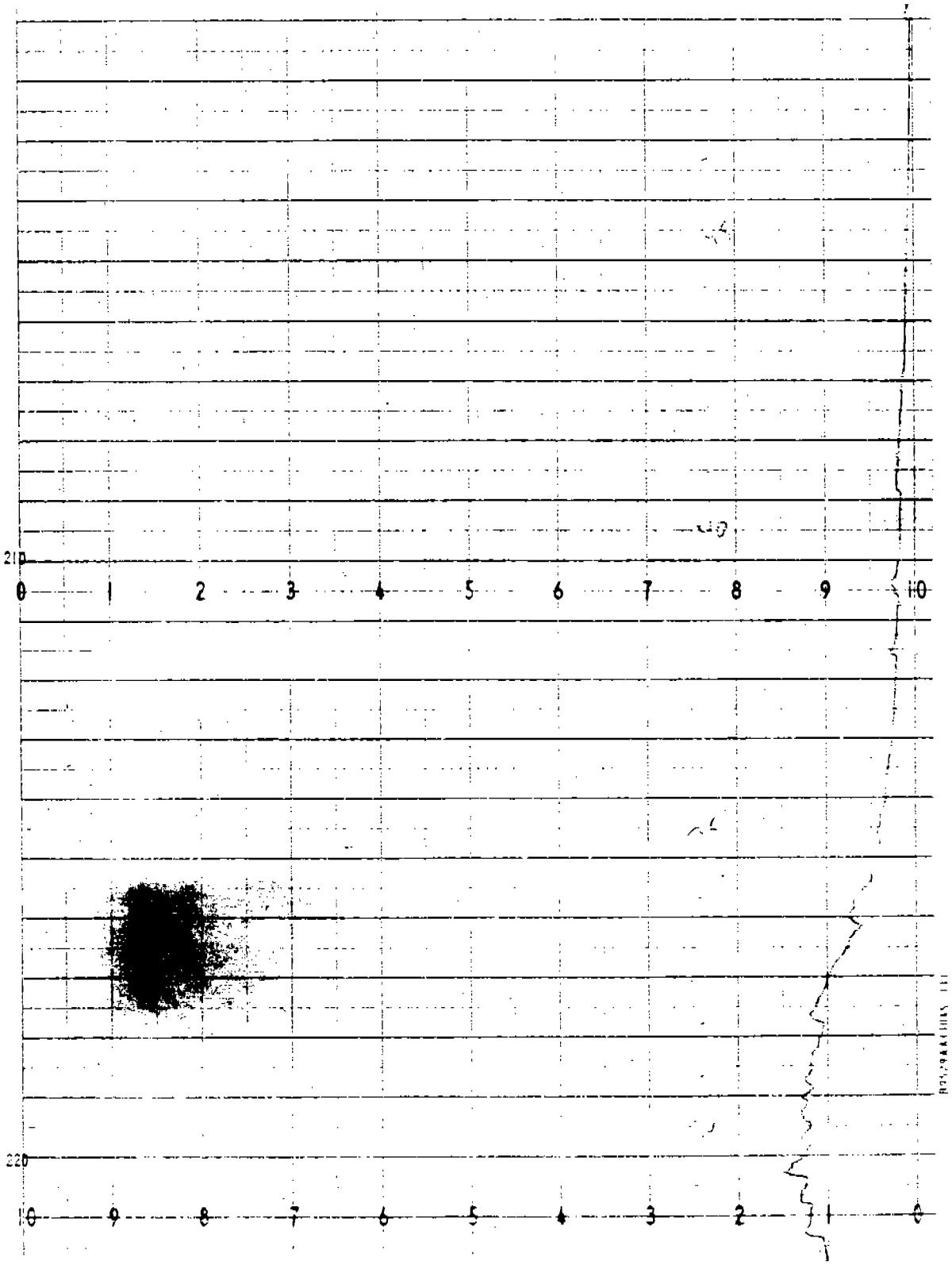
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



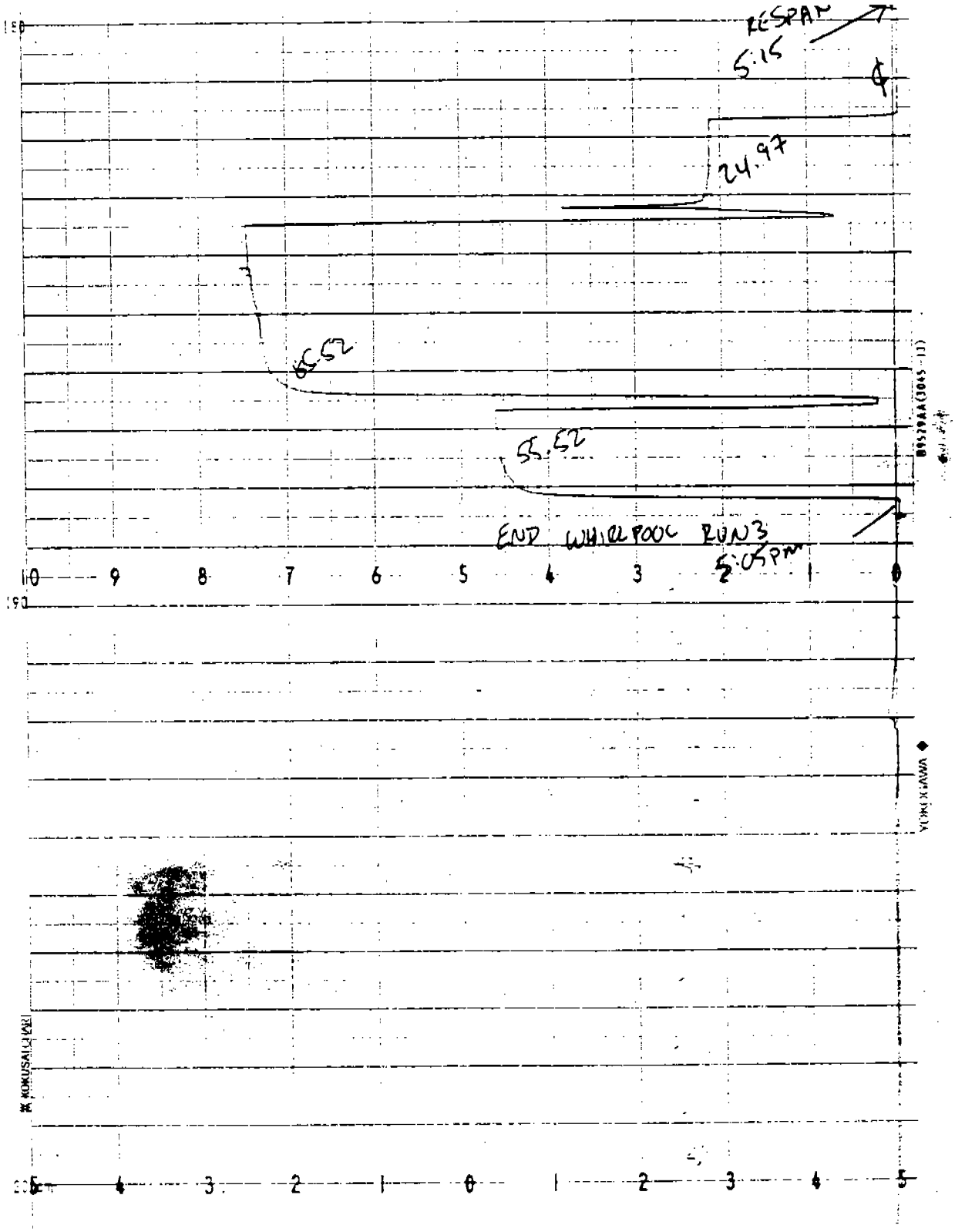
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



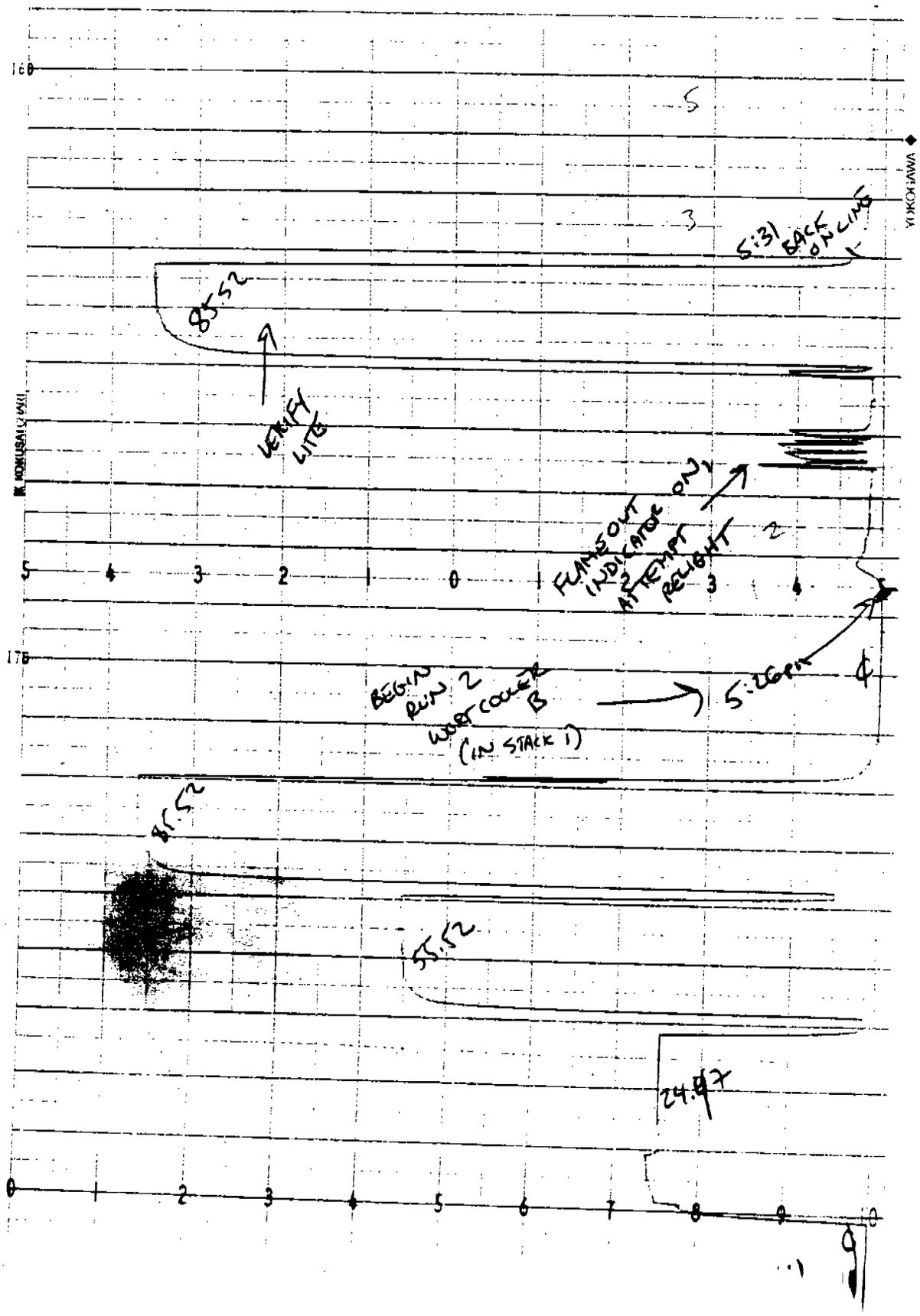
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



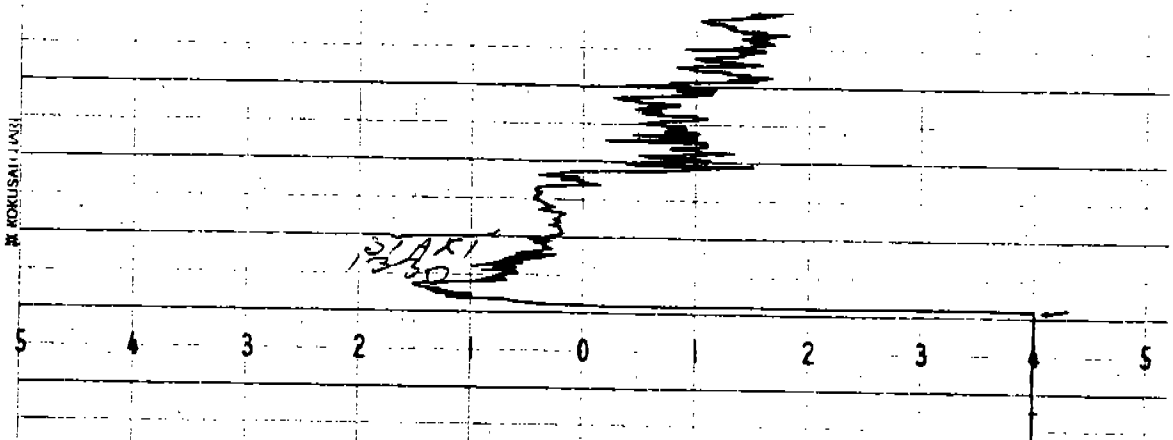
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



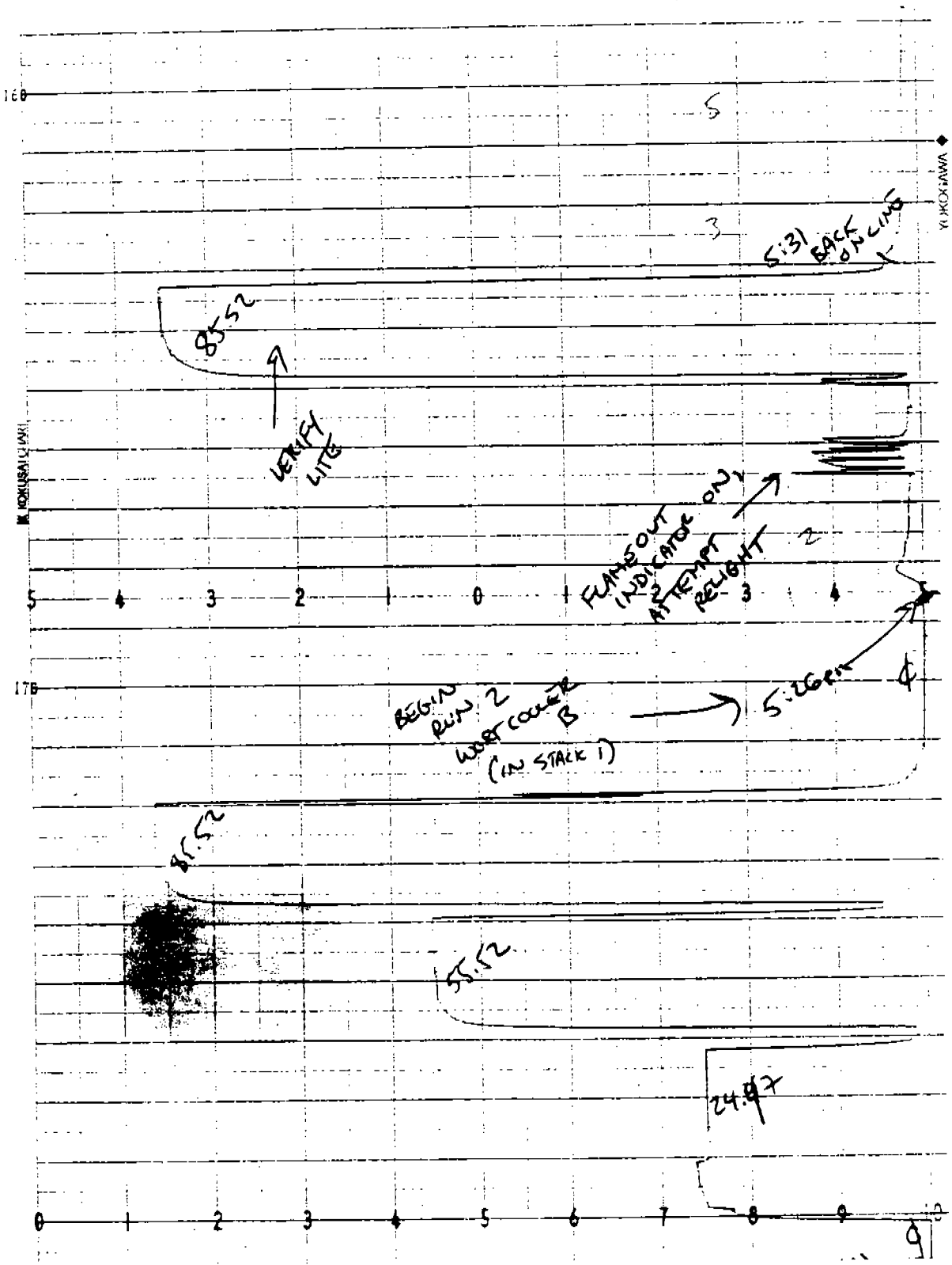
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



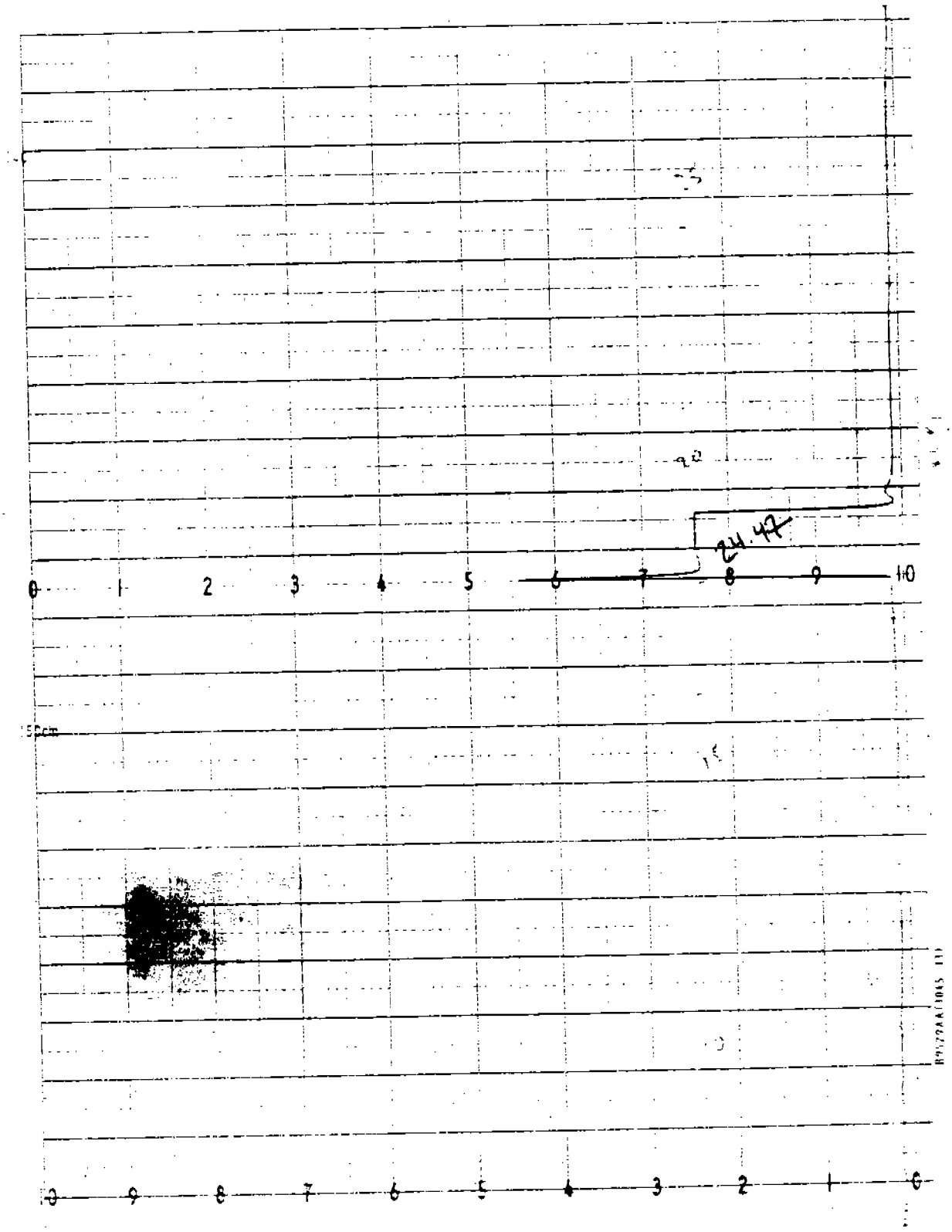
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
TRUB Vessels
July 7, 1992



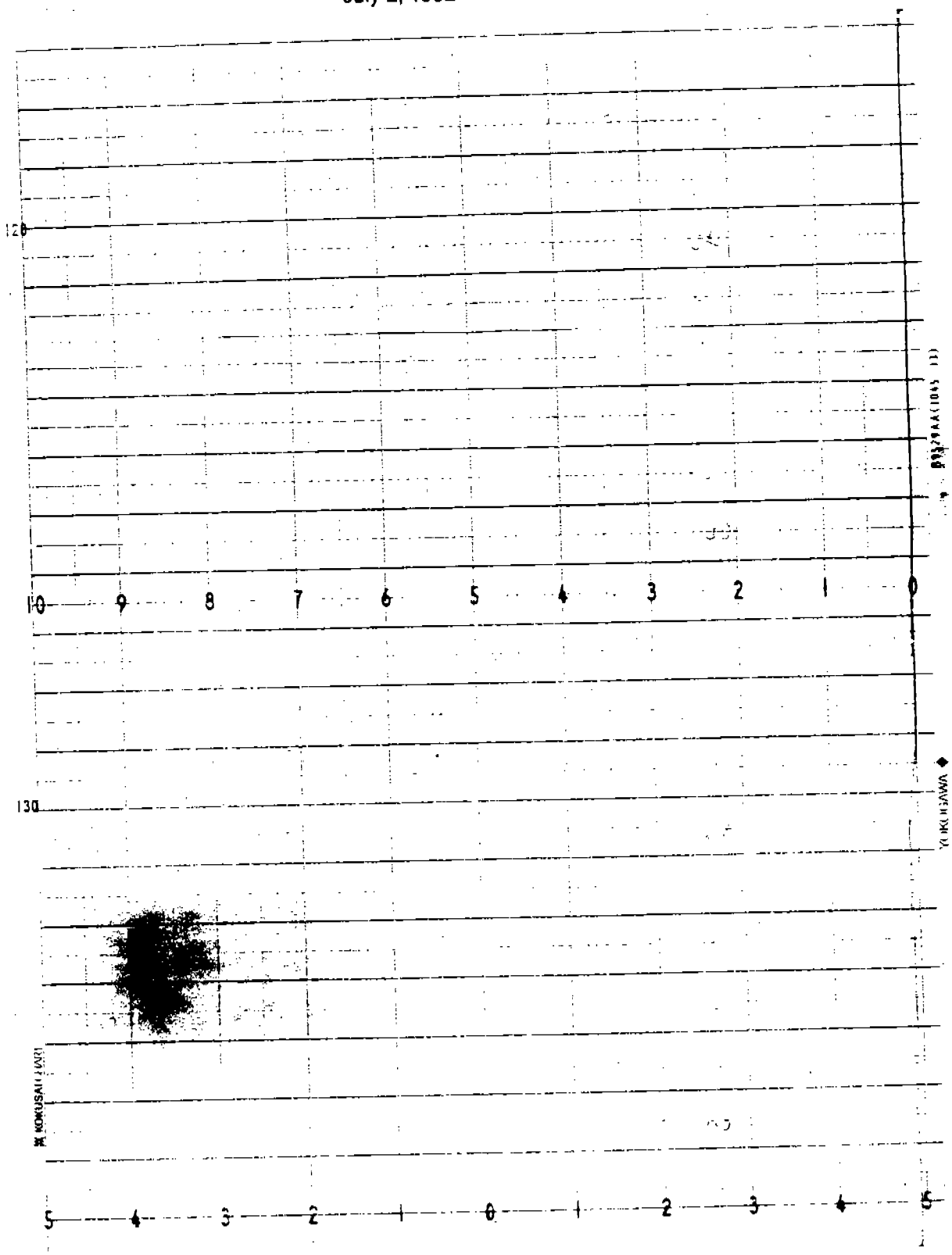
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



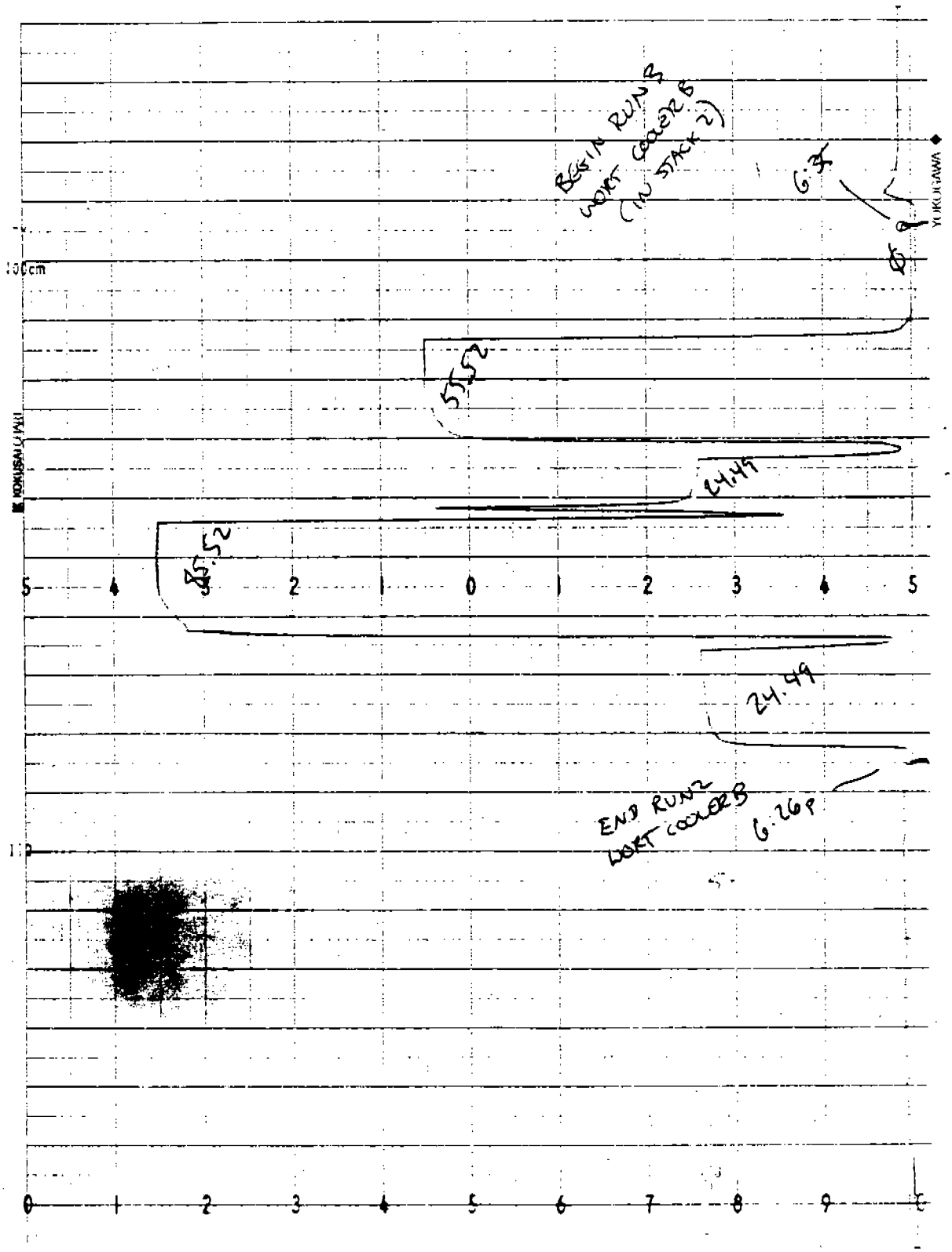
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



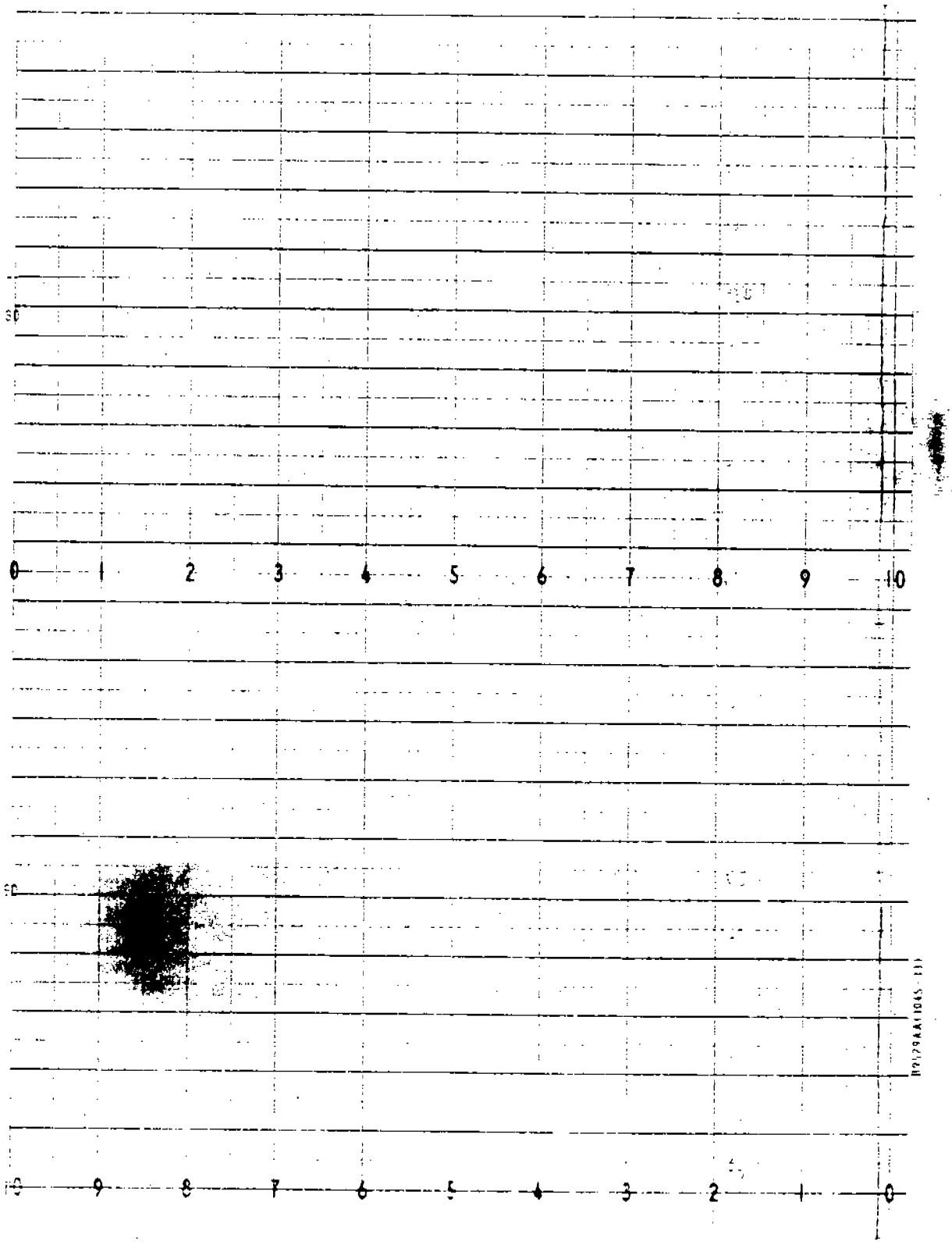
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



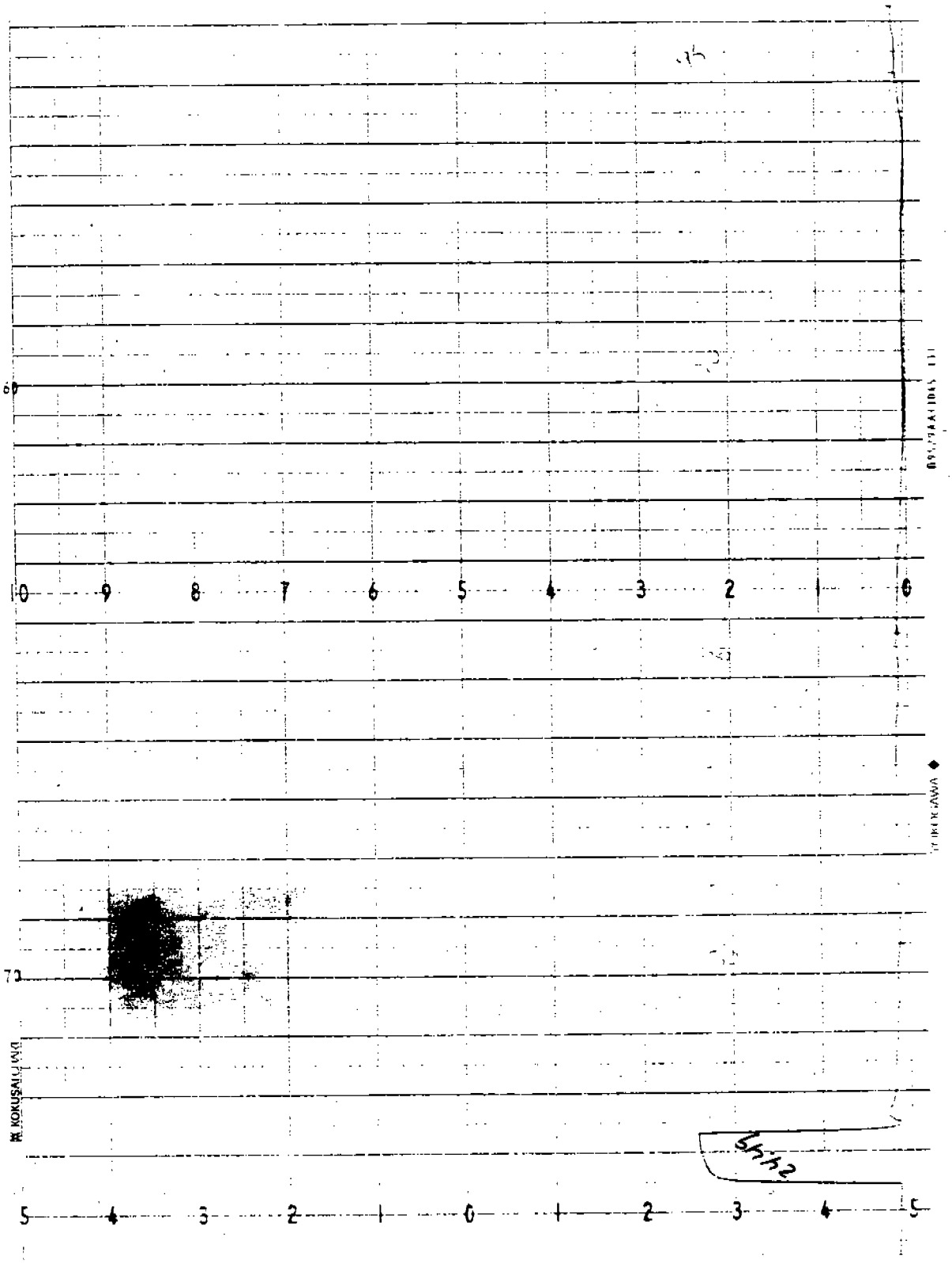
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



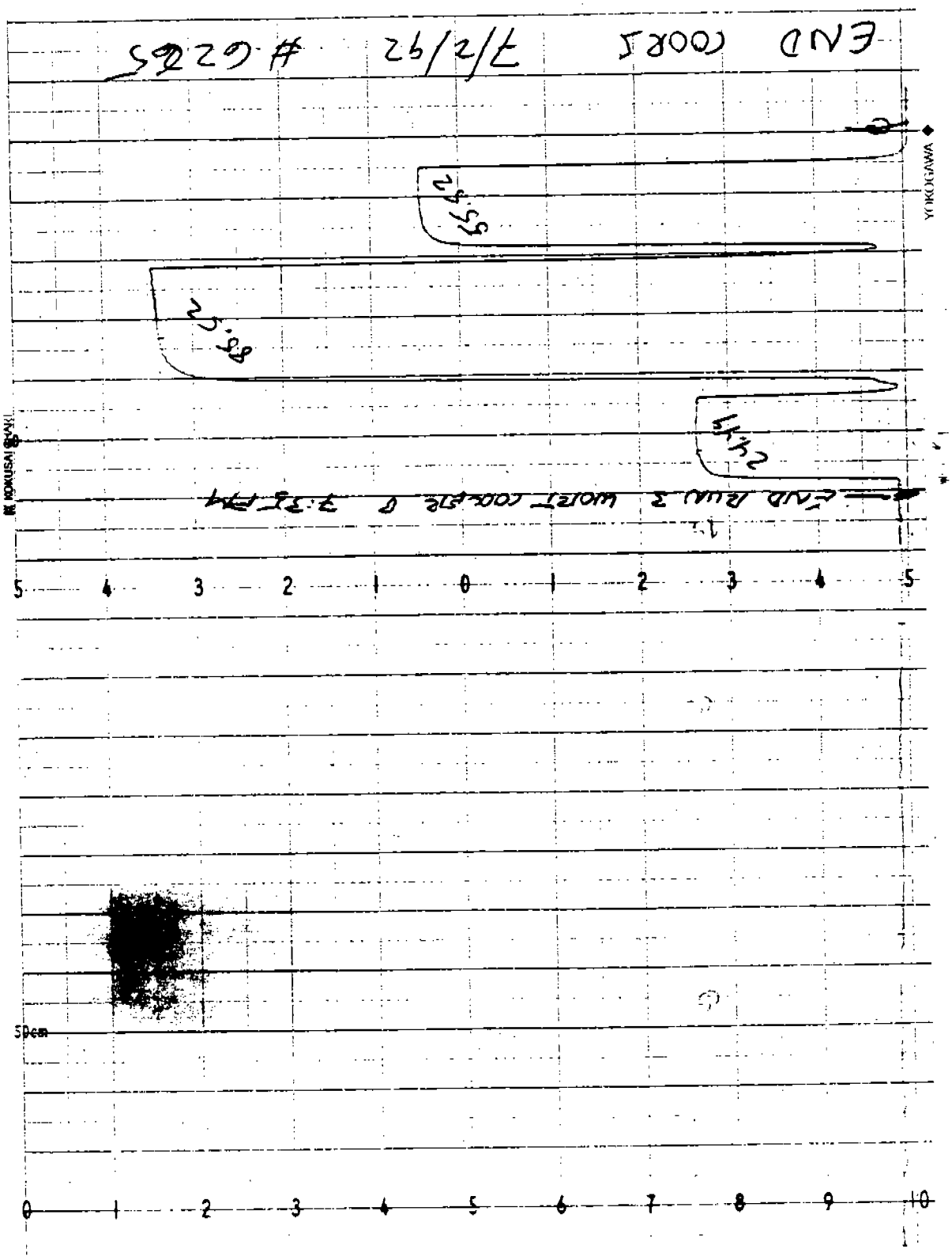
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



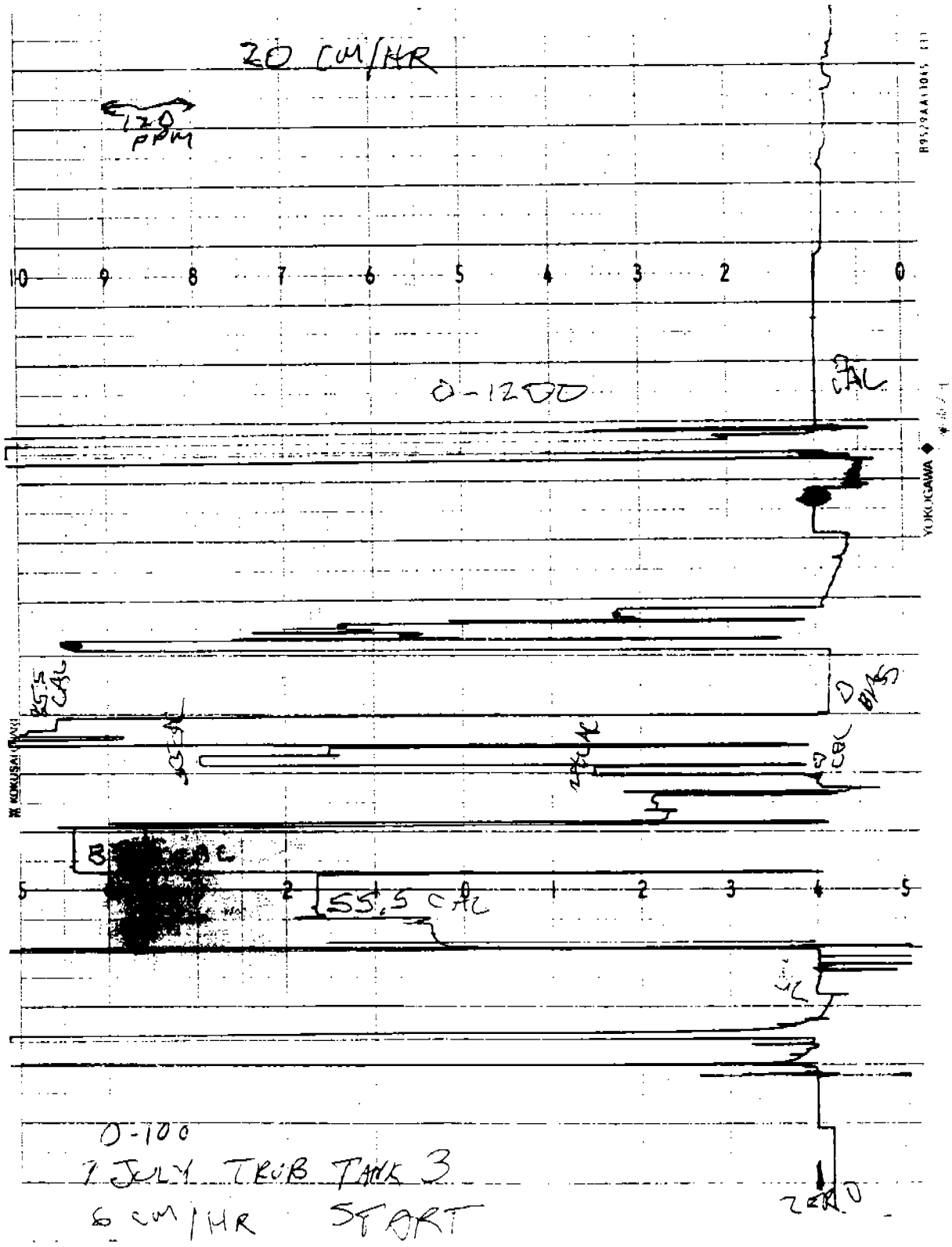
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



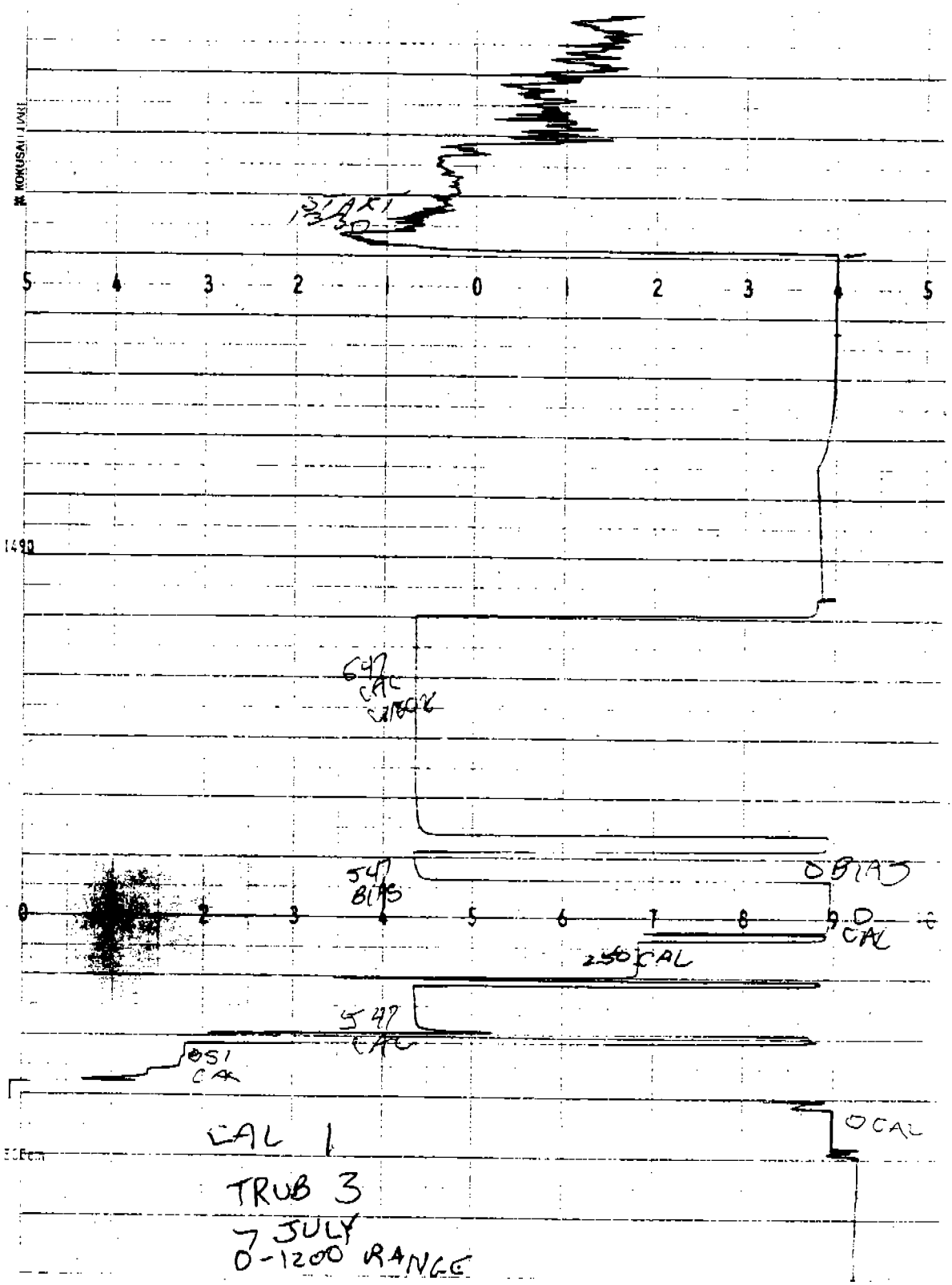
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
WHIRLPOOL VENT 7 AND WORT COOLER
July 2, 1992



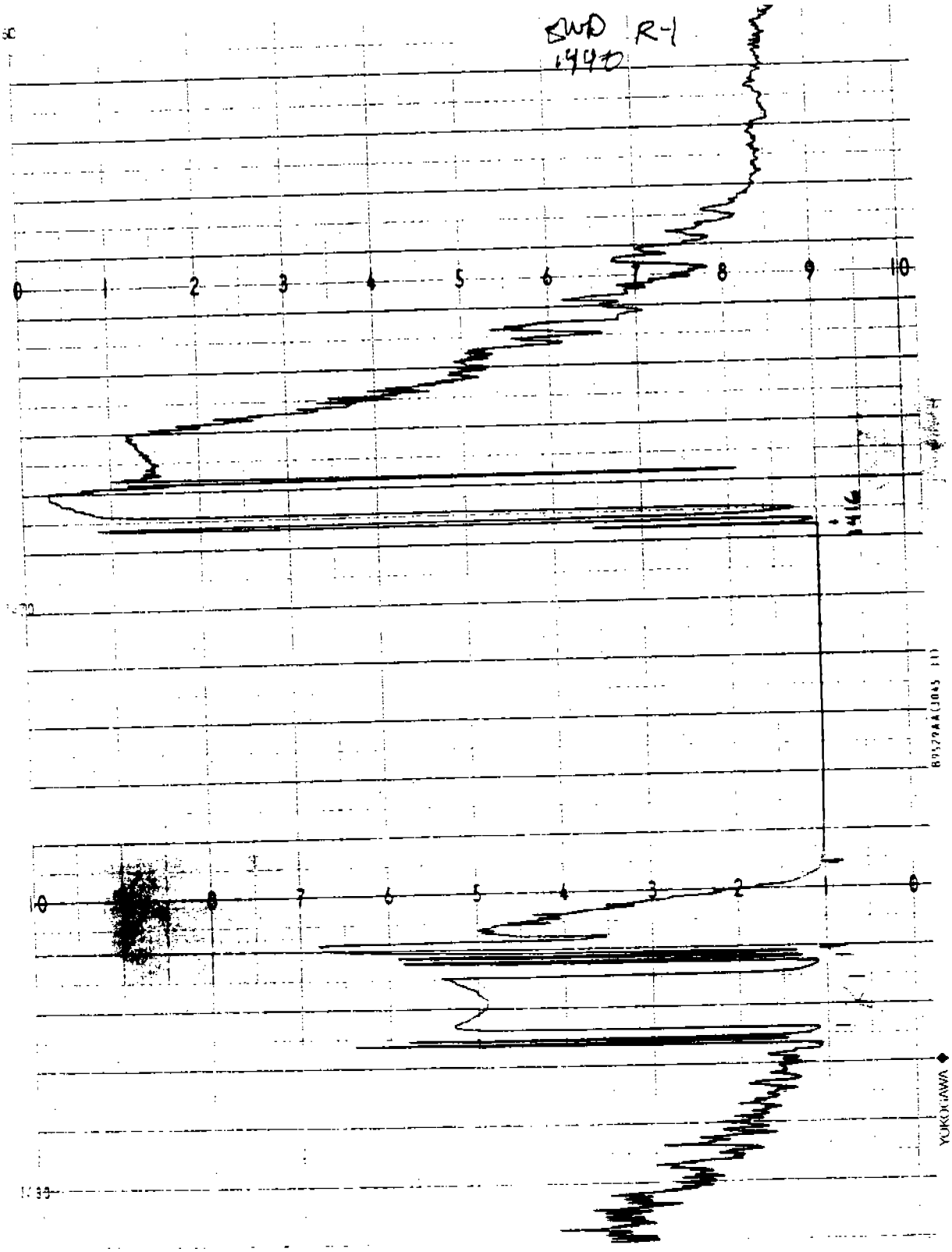
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
TRUB Vessels
July 7, 1992



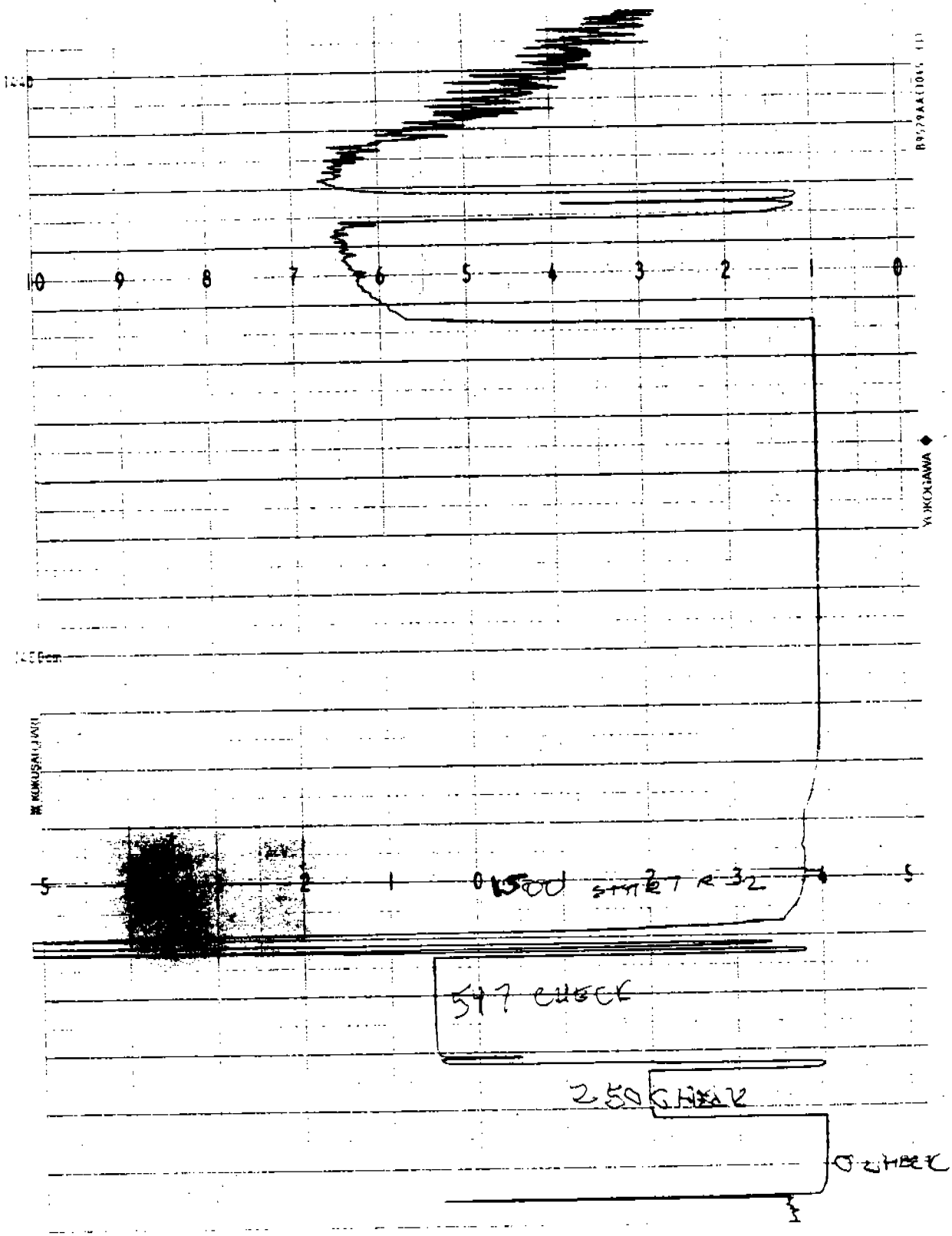
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
TRUB Vessels
July 7, 1992



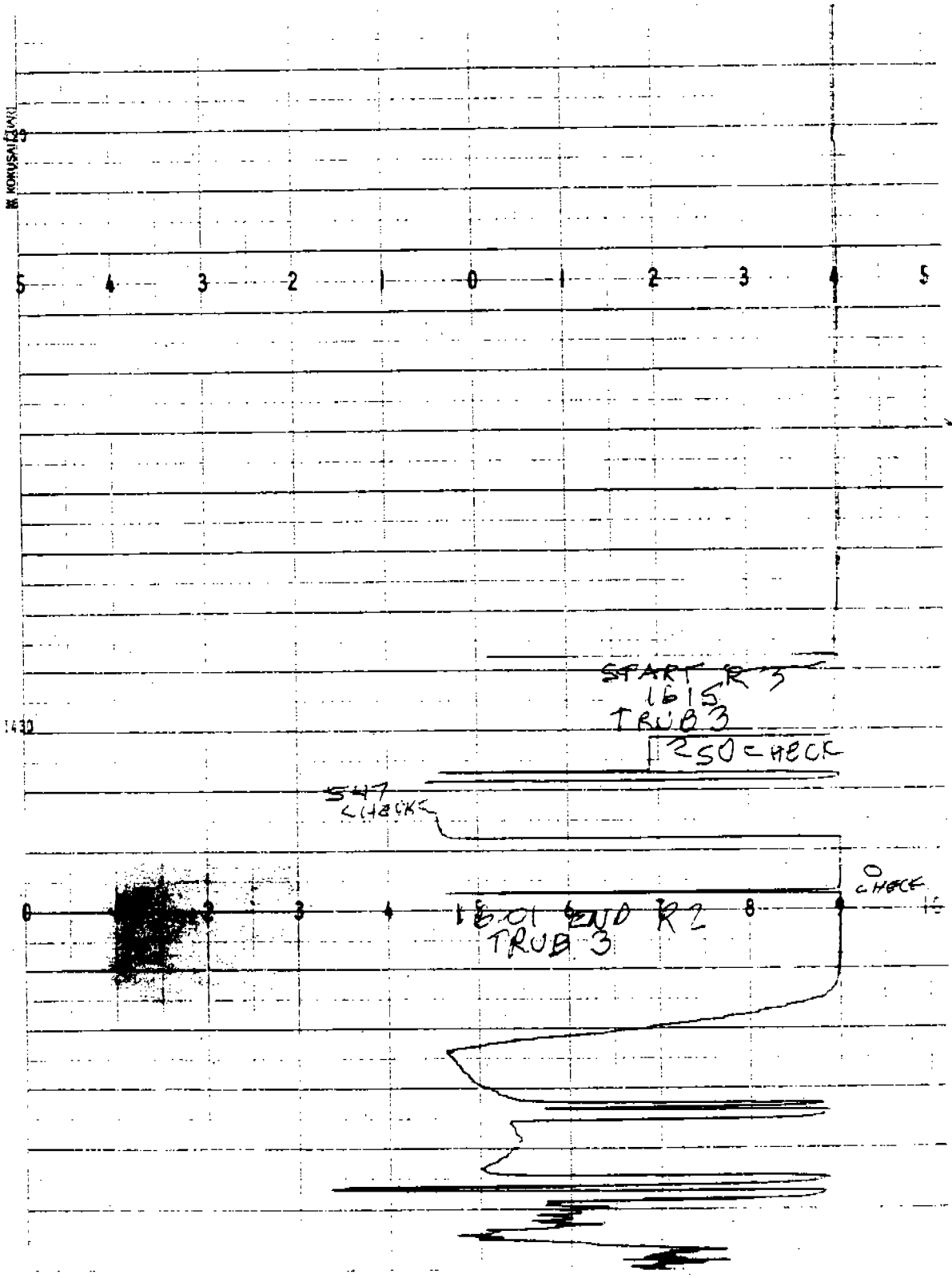
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
TRUB Vessels
July 7, 1992



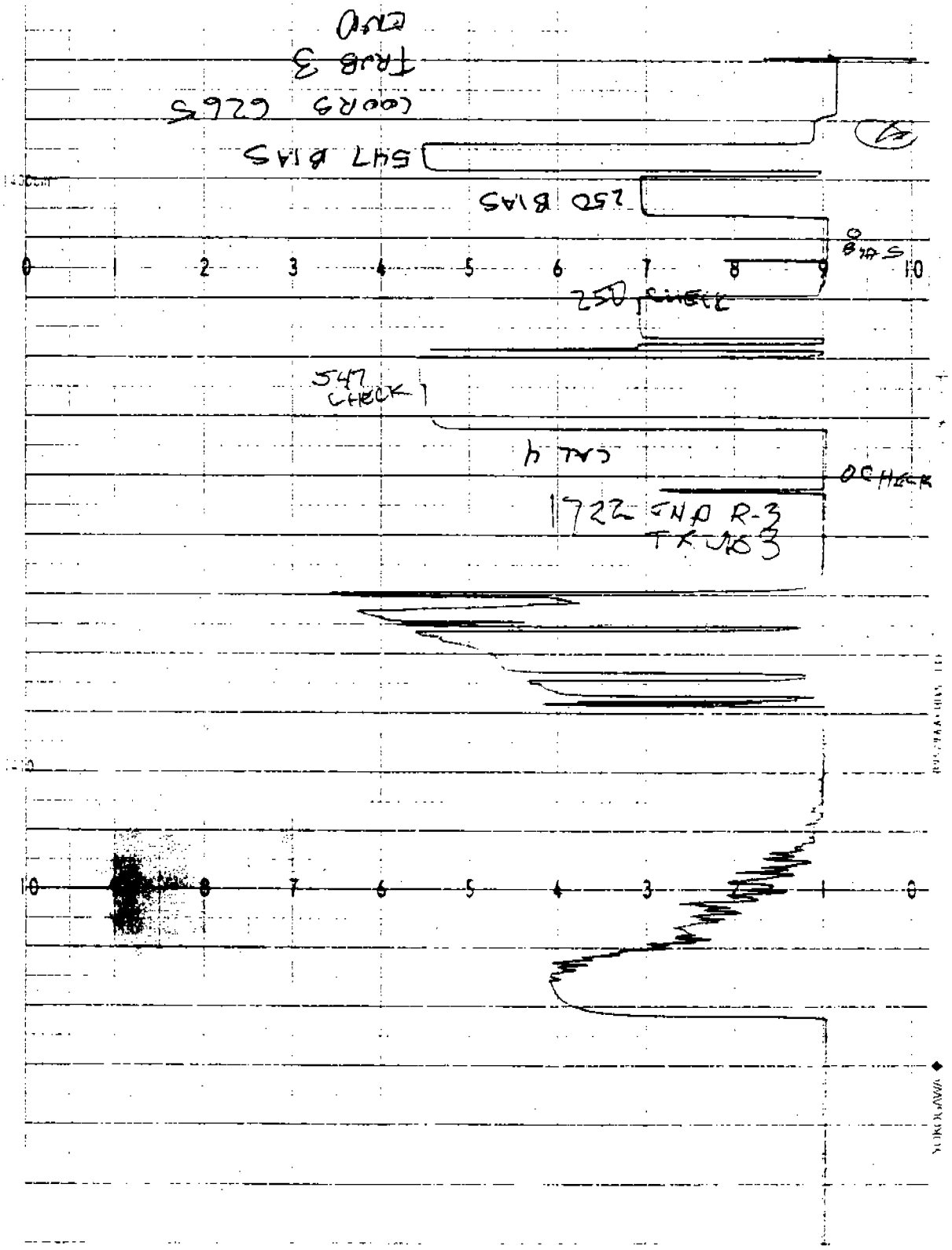
COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
TRUB Vessels
July 7, 1992



COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
TRUB Vessels
July 7, 1992



COORS BREWING COMPANY
TOTAL HYDROCARBON CONCENTRATION (as propane)
TRUB Vessels
July 7, 1992



[illegible] BREWING
GOLDEN BEER FILLING
"07:25:59.[illegible]"
" 7-11-1992"
"TIME" "THC1" "
"SEC" "PPM" "PPM"

GOLDEN BEER [illegible]

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00:00:00:14.999	1	0	
00:00:00:29.999	0	0	
00:00:00:44.999	-0	0	
00:00:00:59.998	-0	0	
00:00:01:14.998	0	0	
00:00:01:29.998	0	0	
00:00:01:44.998	-0	0	0 CAL
00:00:01:59.997	-1	0	
00:00:02:14.997	-0	0	
00:00:02:29.997	0	0	
00:00:02:44.997	3	0	
00:00:02:59.996	5	0	
00:00:03:14.996	5	0	
00:00:03:29.996	6	0	
00:00:03:44.995	5	0	
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00:00:04:29.995	771	0	
00:00:04:44.994	773	0	
00:00:04:59.994	773	0	
00:00:05:14.994	778	0	
00:00:05:29.994	785	0	
00:00:05:44.993	785	0	
00:00:05:59.993	800	0	
00:00:06:14.993	802	0	
00:00:06:29.992	809	0	
00:00:06:44.992	818	0	
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00:00:07:59.991	847	0	
00:00:08:14.991	846	0	
00:00:08:29.990	851	0	
00:00:08:44.990	850	0	851 CAL
00:00:08:59.990	851	0	
00:00:09:14.989	851	0	
00:00:09:29.989	851	0	
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00:00:09:59.9[illegible]	[illegible]1	0	
00:00:10:14.98[illegible]	[illegible]	0	
00:00:10:29.98[illegible]	15	0	
00:00:10:44.988	108	0	
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00:00:11:14.987	546	0	
00:00:11:29.987	548	0	
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00:00:12:29.986	548	0	
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00:00:12:59.985	549	0	
00:00:13:14.985	230	0	
00:00:13:29.985	13	0	
00:00:13:44.985	148	0	
00:00:13:59.984	252	0	
00:00:14:14.984	254	0	
[illegible]	[illegible]	[illegible]	250 CAL

Pre cal

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
00:00:15:44.981	1	0
00:00:15:59.981	1	0
00:00:17:14.981	1	0
00:00:17:29.980	1	0
00:00:17:44.980	1	0
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00:00:18:14.980	1	0
00:00:18:29.979	1	0
00:00:18:44.979	1	0
00:00:18:59.979	0	0

Recheck 0 CAL

"COORS BREWING "
"GOLDEN BEER LINE"
" 7-11-1992"
"08:47:42.45"

RUN-1 15min Post Fill

" Time"	"THC1" "	"
" sec" "	ppm" "	ppm"
00:00:00:00.000	14	0
00:00:00:59.999	15	0
00:00:01:59.999	15	0
00:00:02:59.999	15	0
00:00:03:59.999	14	0
00:00:04:59.999	14	0
00:00:05:59.999	14	0
00:00:06:59.999	14	0
00:00:07:59.999	14	0
00:00:08:59.999	14	0
00:00:09:59.999	14	0
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00:00:11:59.999	14	0
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00:00:13:59.998	15	0
00:00:14:59.998	14	0
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00:00:36:59.997	188	0
00:00:37:59.996	191	0
00:00:38:59.996	195	0
00:00:39:59.996	199	0
00:00:40:59.996	203	0
00:00:41:59.996	205	0
00:00:42:59.996	208	0

Run 1

9AM COORS START FILLING

[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
00:00:49:59.995	233	0	
00:00:50:59.995	238	0	
00:00:51:59.995	242	0	
00:00:52:59.995	244	0	
00:00:53:59.995	249	0	
00:00:54:59.995	257	0	
00:00:55:59.995	266	0	
00:00:56:59.995	274	0	
00:00:57:59.995	281	0	
00:00:58:59.995	289	0	
00:00:59:59.995	296	0	
00:01:00:59.994	304	0	
00:01:01:59.994	312	0	
00:01:02:59.994	319	0	
00:01:03:59.994	325	0	
00:01:04:59.994	332	0	
00:01:05:59.994	339	0	
00:01:06:59.994	346	0	
00:01:07:59.994	352	0	
00:01:08:59.994	359	0	
00:01:09:59.994	364	0	
00:01:10:59.994	363	0	
00:01:11:59.994	340	0	
00:01:12:59.994	351	0	
00:01:13:59.994	355	0	
00:01:14:59.993	362	0	RUN 1 STOPPED FILL
00:01:15:59.993	378	0	
00:01:16:59.993	382	0	
00:01:17:59.993	380	0	
00:01:18:59.993	378	0	
00:01:19:59.993	376	0	
00:01:20:59.993	372	0	
00:01:21:59.993	249	0	
00:01:22:59.993	116	0	
00:01:23:59.993	86	0	
00:01:24:59.993	69	0	
00:01:25:59.993	59	0	
00:01:26:59.992	50	0	
00:01:27:59.992	43	0	
00:01:28:59.992	43	0	
00:01:29:59.99[illegible]	[illegible]	0	
00:01:30:59.99[illegible]	[illegible]	0	
00:01:31:59.99[illegible]	[illegible]	0	
00:01:32:59.99[illegible]	31	0	

[illegible]
[illegible]
[illegible]
[illegible]
TIME [illegible]
"SEC" "PPM" "PPM"

00:00:[illegible]:00.000	0	0
00:00:00:14.999	-1	0
00:00:00:29.999	-1	0
00:00:00:44.999	-1	0
00:00:00:59.998	-1	0
00:00:01:14.998	-0	0
00:00:01:29.998	-0	0
00:00:01:44.998	-0	0
00:00:01:59.997	-1	0
00:00:02:14.997	-1	0
00:00:02:29.997	-1	0
00:00:02:44.997	-0	0
00:00:02:59.996	4	0
00:00:03:14.996	41	0
00:00:03:29.996	93	0
00:00:03:44.995	598	0
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00:00:04:14.995	45	0
00:00:04:29.995	183	0
00:00:04:44.994	603	0
00:00:04:59.994	606	0
00:00:05:14.994	608	0
00:00:05:29.994	594	0
00:00:05:44.993	583	0
00:00:05:59.993	579	0
00:00:06:14.993	578	0
00:00:06:29.992	572	0
00:00:06:44.992	567	0
00:00:06:59.992	559	0
00:00:07:14.992	547	0
00:00:07:29.991	552	0
00:00:07:44.991	545	0
00:00:07:59.991	545	0
00:00:08:14.991	546	0
00:00:08:29.990	546	0
00:00:08:44.990	545	0
00:00:08:59.990	545	0
00:00:09:14.989	514	0
00:00:09:29.989	255	0
00:00:09:44.989	246	0
00:00:09:59.989	256	0
00:00:10:14.988	255	0
00:00:10:29.988	255	0
00:00:10:44.988	254	0
00:00:10:59.988	253	0
00:00:11:14.987	254	0
00:00:11:29.987	255	0
00:00:11:44.987	250	0
00:00:11:59.986	182	0
00:00:12:14.986	146	0
00:00:12:29.986	2	0
00:00:12:44.986	1	0
00:00:12:59.985	1	0
00:00:13:14.985	1	0
00:00:13:29.985	1	0
00:00:13:44.985	-0	0
00:00:13:59.984	-1	0
00:00:14:14.984	-0	0

1 POST
0 CAL RUN 1

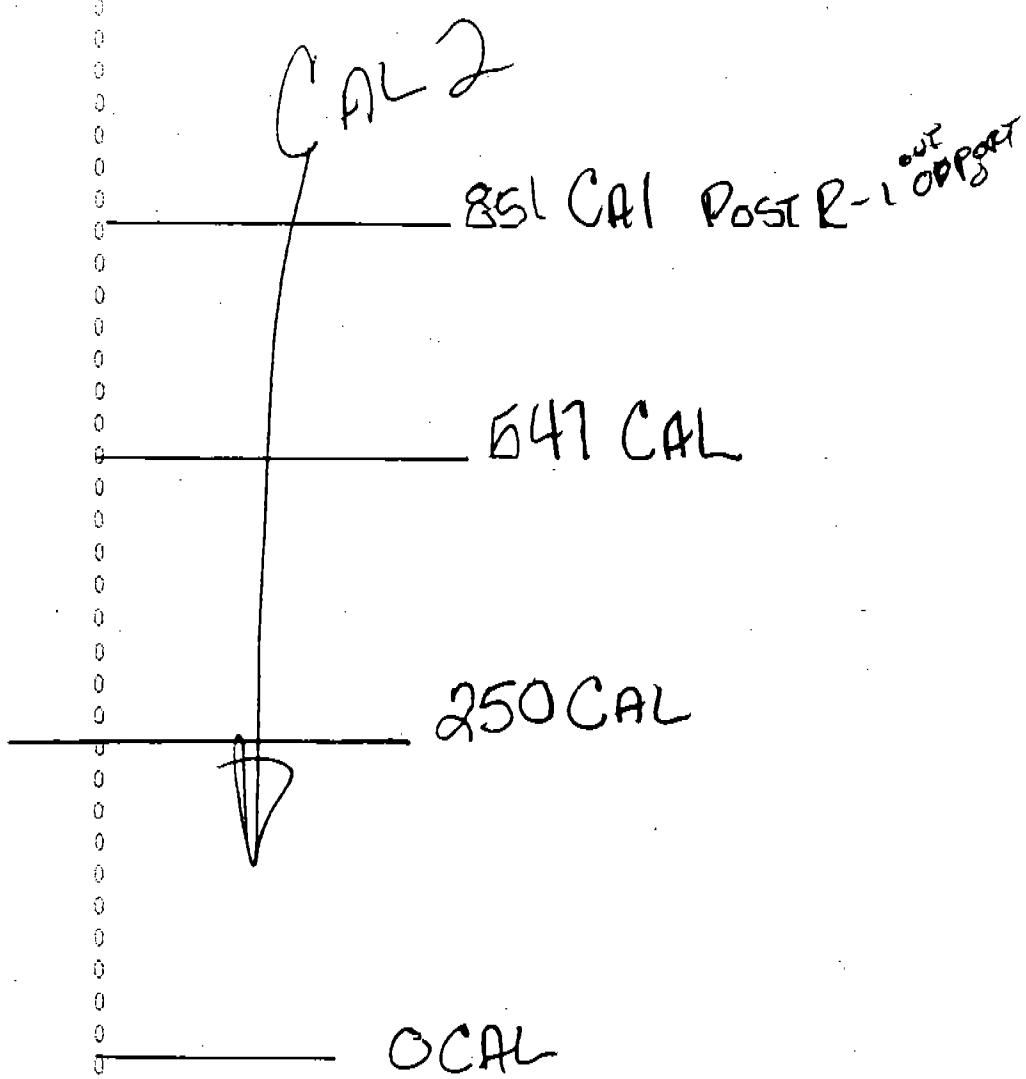
547 CAL

250 CAL

POST CAL OUT OF PORT

0 CAL

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
00:00:16:14.981	841	0
00:00:16:29.981	848	0
00:00:16:44.981	848	0
00:00:16:59.981	849	0
00:00:17:14.981	849	0
00:00:17:29.980	848	0
00:00:17:44.980	849	0
00:00:17:59.980	848	0
00:00:18:14.980	849	0
00:00:18:29.979	850	0
00:00:18:44.979	851	0
00:00:18:59.979	849	0
00:00:19:14.979	850	0
00:00:19:29.978	850	0
00:00:19:44.978	533	0
00:00:19:59.978	216	0
00:00:20:14.978	547	0
00:00:20:29.977	547	0
00:00:20:44.977	548	0
00:00:20:59.977	549	0
00:00:21:14.976	446	0
00:00:21:29.976	19	0
00:00:21:44.976	209	0
00:00:21:59.976	253	0
00:00:22:14.975	254	0
00:00:22:29.975	255	0
00:00:22:44.975	255	0
00:00:22:59.974	254	0
00:00:23:14.974	254	0
00:00:23:29.974	254	0
00:00:23:44.974	254	0
00:00:23:59.973	108	0
00:00:24:14.973	11	0
00:00:24:29.973	20	0
00:00:24:44.973	0	0
00:00:24:59.972	-0	0
00:00:25:14.972	-0	0
00:00:25:29.972	-0	0
00:00:25:44.972	0	0
00:00:25:59.971	1	0



[illegible]
"GOLDEN BEER FILLING"
"06:59:[illegible]
" 7-13-1992
"TIME" "THI1" "
"SEC" "PPM" "PPM"

00:00:00:00.000	0	0
00:00:00:14.999	-1	0
00:00:00:29.999	-1	0
00:00:00:44.999	-1	0
00:00:00:59.998	-1	0
00:00:01:14.998	-1	0
00:00:01:29.998	-1	0
00:00:01:44.998	-1	0
00:00:01:59.997	-1	0
00:00:02:14.997	0	0
00:00:02:29.997	-0	0
00:00:02:44.997	-0	0
00:00:02:59.996	-0	0
00:00:03:14.996	0	0
00:00:03:29.996	0	0
00:00:03:44.995	0	0
00:00:03:59.995	0	0
00:00:04:14.995	0	0
00:00:04:29.995	0	0
00:00:04:44.994	1	0
00:00:04:59.994	1	0
00:00:05:14.994	3	0
00:00:05:29.994	3	0
00:00:05:44.993	79	0
00:00:05:59.993	472	0
00:00:06:14.993	773	0
00:00:06:29.992	778	0
00:00:06:44.992	780	0
00:00:06:59.992	780	0
00:00:07:14.992	780	0
00:00:07:29.991	781	0
00:00:07:44.991	802	0
00:00:07:59.991	818	0
00:00:08:14.991	827	0
00:00:08:29.990	839	0
00:00:08:44.990	843	0
00:00:08:59.990	[illegible]	0
00:00:09:14.989	[illegible]	0
00:00:09:29.989	[illegible]	0
00:00:09:44.989	[illegible]	0
00:00:09:59.989	[illegible]	0
00:00:10:14.988	[illegible]	0
00:00:10:29.988	850	0
00:00:10:44.988	849	0
00:00:10:59.988	848	0
00:00:11:14.987	849	0
00:00:11:29.987	851	0
00:00:11:44.987	850	0
00:00:11:59.986	851	0
00:00:12:14.986	851	0
00:00:12:29.986	851	0
00:00:12:44.986	850	0
00:00:12:59.985	850	0
00:00:13:14.985	850	0
00:00:13:29.985	851	0
00:00:13:44.985	851	0
00:00:13:[illegible]	850	0

0 CAL 4

851 CAL 4

[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
00:00:15:44.981	547	0	
00:00:15:59.981	547	0	
00:00:16:14.981	547	0	
00:00:16:29.982	547	0	
00:00:16:44.981	546	0	
00:00:16:59.981	546	0	
00:00:17:14.981	546	0	
00:00:17:29.980	546	0	
00:00:17:44.980	547	0	
00:00:17:59.980	548	0	
00:00:18:14.980	547	0	
00:00:18:29.979	547	0	
00:00:18:44.979	547	0	
00:00:18:59.979	546	0	
00:00:19:14.979	546	0	
00:00:19:29.978	545	0	
00:00:19:44.978	547	0	
00:00:19:59.978	546	0	
00:00:20:14.978	547	0	547CAL4
00:00:20:29.977	547	0	
00:00:20:44.977	547	0	
00:00:20:59.977	547	0	
00:00:21:14.976	547	0	
00:00:21:29.976	547	0	
00:00:21:44.976	113	0	
00:00:21:59.976	15	0	
00:00:22:14.975	18	0	
00:00:22:29.975	116	0	
00:00:22:44.975	250	0	
00:00:22:59.974	252	0	
00:00:23:14.974	252	0	
00:00:23:29.974	252	0	
00:00:23:44.974	253	0	
00:00:23:59.973	253	0	
00:00:24:14.973	253	0	
00:00:24:29.973	252	0	
00:00:24:44.973	252	0	250 CAL4
00:00:24:59.972	252	0	
00:00:25:14.972	252	0	
00:00:25:29.972	252	0	
00:00:25:44.972	[illegible]	0	
00:00:25:59.971	[illegible]	0	
00:00:26:14.971	[illegible]	0	
00:00:26:29.971	[illegible]	0	
00:00:26:44.970	35	0	
00:00:26:59.970	1	0	
00:00:27:14.970	1	0	
00:00:27:29.970	1	0	
00:00:27:44.969	1	0	
00:00:27:59.969	1	0	OCAL 4
00:00:28:14.969	1	0	
00:00:28:29.968	0	0	
00:00:28:44.968	0	0	

END CAL 9:30

[illegible]
GOLDEN BEER LINE
[illegible]
10:58:[illegible]

START 10:58

Time sec	THC1 ppm	ppm
00:00:00:00.000	11	0
00:00:00:59.999	11	0
00:00:01:59.999	10	0
00:00:02:59.999	9	0
00:00:03:59.999	10	0
00:00:04:59.999	11	0
00:00:05:59.999	11	0
00:00:06:59.999	10	0
00:00:07:59.999	11	0
00:00:08:59.999	12	0
00:00:09:59.999	11	0
00:00:10:59.999	11	0
00:00:11:59.999	10	0
00:00:12:59.998	9	0
00:00:13:59.998	8	0
00:00:14:59.998	9	0
00:00:15:59.998	8	0
00:00:16:59.998	8	0
00:00:17:59.998	8	0
00:00:18:59.998	8	0
00:00:19:59.998	7	0
00:00:20:59.998	4	0
00:00:21:59.998	7	0
00:00:22:59.998	143	0
00:00:23:59.998	105	0
00:00:24:59.997	123	0
00:00:25:59.997	140	0
00:00:26:59.997	148	0
00:00:27:59.997	157	0
00:00:28:59.997	164	0
00:00:29:59.997	176	0
00:00:31:59.997	177	0
00:00:32:59.997	178	0
00:00:33:59.997	180	0
00:00:34:59.997	182	0
00:00:35:59.997	182	0
00:00:36:59.997	182	0
00:00:37:59.996	182	0
00:00:38:59.996	182	0
00:00:39:59.996	186	0
00:00:40:59.996	189	0
00:00:41:59.996	191	0
00:00:42:59.996	192	0
00:00:43:59.996	195	0
00:00:44:59.996	195	0
00:00:45:59.996	187	0
00:00:46:59.996	206	0
00:00:47:59.996	216	0
00:00:48:59.995	223	0
00:00:49:59.995	226	0
00:00:50:59.995	230	0
00:00:51:59.995	234	0
00:00:52:59.995	238	0
00:00:53:59.995	244	0
00:00:54:59.995	252	0
00:00:55:59.995	261	0
00:00:56:59.995	271	0
00:00:57:59.995	[illegible]	0

11:32

[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]:59.994	[illegible]	
[illegible]:59.994	340	0
[illegible]:59.994	347	0
00:01:07:59.994	354	0
00:01:08:59.994	362	0
00:01:09:59.994	368	0
00:01:10:59.994	376	0
00:01:11:59.994	353	0
00:01:12:59.994	340	0
00:01:13:59.994	355	0
00:01:14:59.993	364	0
00:01:15:59.993	386	0
00:01:16:59.993	401	0
00:01:17:59.993	145	0
00:01:18:59.993	14	0
00:01:19:59.993	35	0
00:01:20:59.993	27	0
00:01:21:59.993	19	0
00:01:22:59.993	25	0
00:01:23:59.993	23	0
00:01:24:59.993	24	0
00:01:25:59.993	23	0
00:01:26:59.992	22	0
00:01:27:59.992	11	0
00:01:28:59.992	8	0
00:01:29:59.992	13	0
00:01:30:59.992	22	0
00:01:31:59.992	16	0
00:01:32:59.992	17	0
00:01:33:59.992	17	0
00:01:34:59.992	18	0
00:01:35:59.992	18	0
00:01:36:59.992	12	0
00:01:37:59.991	14	0
00:01:38:59.991	14	0
00:01:39:59.991	14	0
00:01:40:59.991	16	0
00:01:41:59.991	16	0
00:01:42:59.991	18	0
00:01:43:59.991	15	0
00:01:44:59.991	14	0
00:01:45:59.991	17	0
00:01:46:59.991	17	0
00:01:47:59.991	19	0
00:01:48:59.991	13	0
00:01:49:59.990	13	0
00:01:50:59.990	14	0
00:01:51:59.990	25	0
00:01:52:59.990	21	0
00:01:53:59.990	22	0
00:01:54:59.990	9	0
00:01:55:59.990	11	0
00:01:56:59.990	16	0
00:01:57:59.990	14	0
00:01:58:59.990	14	0
00:01:59:59.990	16	0
00:02:00:59.990	17	0
00:02:01:59.989	21	0
00:02:02:59.989	20	0
[illegible]	[illegible]	

stop Run 3

Fill STOPPED

POCKET GAS H.O FLOW

[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	7	
[illegible]	5	
[illegible]	4	0
[illegible]	6	0
00:02:13:59.989	6	0
00:02:13:59.988	7	0
00:02:14:59.988	5	0
00:02:15:59.988	9	0
00:02:16:59.988	9	0
00:02:17:59.988	8	0
00:02:18:59.988	8	0
00:02:19:59.988	10	0
00:02:20:59.988	9	0
00:02:21:59.988	10	0
00:02:22:59.988	9	0

[illegible]	[illegible]	[illegible]
00:00:00:00.000	0	0
00:00:00:14.999	0	0
00:00:00:29.999	1	0
00:00:00:44.999	1	0
00:00:00:59.998	1	0
00:00:01:14.998	1	0
00:00:01:29.998	1	0
00:00:01:44.998	1	0
00:00:01:59.997	1	0
00:00:02:14.997	1	0
00:00:02:29.997	2	0
00:00:02:44.997	5	0
00:00:02:59.996	5	0
00:00:03:14.996	5	0
00:00:03:29.996	664	0
00:00:03:44.995	884	0
00:00:03:59.995	888	0
00:00:04:14.995	890	0
00:00:04:29.995	890	0
00:00:04:44.994	891	0
00:00:04:59.994	489	0
00:00:05:14.994	113	0
00:00:05:29.994	573	0
00:00:05:44.993	576	0
00:00:05:59.993	576	0
00:00:06:14.993	576	0
00:00:06:29.992	576	0
00:00:06:44.992	576	0
00:00:06:59.992	576	0
00:00:07:14.992	577	0
00:00:07:29.991	530	0
00:00:07:44.991	12	0
00:00:07:59.991	9	0
00:00:08:14.991	6	0
00:00:08:29.990	143	0
00:00:08:44.990	265	0
00:00:08:59.990	266	0
00:00:09:14.989	266	0
00:00:09:29.989	267	0
00:00:09:44.989	268	0
00:00:09:59.989	268	0
00:00:10:14.988	267	0
00:00:10:29.988	267	0
00:00:10:44.988	266	0
00:00:10:59.988	266	0
00:00:11:14.987	267	0
00:00:11:29.987	267	0
00:00:11:44.987	267	0
00:00:11:59.986	267	0
00:00:12:14.986	267	0
00:00:12:29.986	267	0
00:00:12:44.986	171	0
00:00:12:59.985	7	0
00:00:13:14.985	7	0
00:00:13:29.985	186	0
00:00:13:44.985	507	0
00:00:13:59.984	661	0

0 CAL5 ✓

851 CAL5 ✓

547 CAL5 ✓

250 CAL5 ✓

RECAL FOR RUN4

351 CAL 5

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
00:00:16:29.982	13	0
00:00:16:44.981	74	0
00:00:16:59.981	3	0
00:00:17:14.981	2	0
00:00:17:29.980	1	0
00:00:17:44.980	1	0
00:00:17:59.980	1	0
00:00:18:14.980	1	0
00:00:18:29.979	1	0
00:00:18:44.979	4	0
00:00:18:59.979	170	0
00:00:19:14.979	540	0
00:00:19:29.978	544	0
00:00:19:44.978	546	0
00:00:19:59.978	548	0
00:00:20:14.978	548	0
00:00:20:29.977	548	0
00:00:20:44.977	548	0
00:00:20:59.977	548	0
00:00:21:14.976	90	0
00:00:21:29.976	10	0
00:00:21:44.976	175	0
00:00:21:59.976	253	0
00:00:22:14.975	253	0
00:00:22:29.975	253	0
00:00:22:44.975	254	0
00:00:22:59.974	253	0

OCAL RECAL 5

547 RECAL 5

250 RECAL 5

00:00:00:00.000	0	0
00:00:00:14.999	272	0
00:00:00:29.999	257	0
00:00:00:44.999	253	0
00:00:00:59.998	251	0
00:00:01:14.998	254	0
00:00:01:29.998	251	0
00:00:01:44.998	251	0
00:00:01:59.997	251	0
00:00:02:14.997	252	0
00:00:02:29.997	131	0
00:00:02:44.997	217	0
00:00:02:59.996	12	0
00:00:03:14.996	270	0
00:00:03:29.996	534	0
00:00:03:44.995	538	0
00:00:03:59.995	544	0
00:00:04:14.995	547	0
00:00:04:29.995	546	0
00:00:04:44.994	546	0
00:00:04:59.994	546	0
00:00:05:14.994	123	0
00:00:05:29.994	56	0
00:00:05:44.993	5	0
00:00:05:59.993	2	0
00:00:06:14.993	0	0
00:00:06:29.992	-0	0
00:00:06:44.992	-0	0
00:00:06:59.992	1	0
00:00:07:29.991	1	0
00:00:07:44.991	3	0
00:00:07:59.991	7	0
00:00:08:14.991	242	0
00:00:08:29.990	540	0
00:00:08:44.990	544	0
00:00:08:59.990	549	0
00:00:09:14.989	549	0
00:00:09:29.989	548	0
00:00:09:44.989	547	0
00:00:09:59.989	546	0
00:00:10:14.988	540	0
00:00:10:29.988	247	0
00:00:10:44.988	15	0
00:00:10:59.988	193	0
00:00:11:14.987	253	0
00:00:11:29.987	253	0
00:00:11:44.987	253	0
00:00:11:59.986	254	0
00:00:12:14.986	254	0
00:00:12:29.986	254	0
00:00:12:44.986	254	0
00:00:12:59.985	252	0

250 CAL 0 CAL 5A

547 CAL 5A

0 CAL 5A

547 CAL 5A

253 CAL 5A

RUN 4

00:00:00:59.999	5	0	
00:00:00:59.999	5	0	
00:00:01:59.999	4	0	Blow up
00:00:02:59.999	2	0	
00:00:03:59.999	2	0	
00:00:04:59.999	3	0	
00:00:05:59.999	5	0	
00:00:06:59.999	3	0	
00:00:07:59.999	3	0	
00:00:08:59.999	5	0	
00:00:09:59.999	4	0	16:20
00:00:10:59.999	2	0	
00:00:11:59.999	5	0	
00:00:12:59.998	64	0	Flow
00:00:13:59.998	87	0	
00:00:14:59.998	104	0	
00:00:15:59.998	115	0	
00:00:16:59.998	126	0	
00:00:17:59.998	130	0	
00:00:18:59.998	132	0	16:30
00:00:19:59.998	137	0	
00:00:20:59.998	143	0	
00:00:21:59.998	150	0	
00:00:22:59.998	158	0	
00:00:23:59.998	166	0	
00:00:24:59.997	175	0	
00:00:25:59.997	183	0	
00:00:26:59.997	188	0	
00:00:27:59.997	194	0	
00:00:28:59.997	199	0	
00:00:29:59.997	203	0	4:41
00:00:30:59.997	206	0	
00:00:31:59.997	209	0	
00:00:32:59.997	211	0	
00:00:33:59.997	213	0	
00:00:34:59.997	216	0	
00:00:35:59.997	197	0	
00:00:36:59.997	210	0	
00:00:37:59.996	[illegible]	0	
00:00:38:59.996	[illegible]	0	4:50
00:00:39:59.996	[illegible]	0	
00:00:40:59.996	223	0	
00:00:41:59.996	227	0	
00:00:42:59.996	232	0	
00:00:43:59.996	240	0	
00:00:44:59.996	252	0	
00:00:45:59.996	264	0	
00:00:46:59.996	278	0	
00:00:47:59.996	288	0	
00:00:48:59.995	300	0	
00:00:49:59.995	310	0	5:01
00:00:50:59.995	317	0	
00:00:51:59.995	325	0	
00:00:52:59.995	332	0	
00:00:53:59.995	340	0	
00:00:54:59.995	345	0	
00:00:55:59.995	352	0	
00:00:56:59.995	359	0	

[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]:59.994	[illegible]	0
[illegible]:59.994	[illegible]	0
[illegible]:59.994	405	0
00:01:06:59.994	427	0 — HORN BLEW FLOW = 0
00:01:07:59.994	382	0
00:01:08:59.994	57	0
00:01:09:59.994	32	0 — J:21
00:01:10:59.994	24	0 — REMOVE PROBE
00:01:11:59.994	3	0
00:01:12:59.994	1	0

1 9 V 6

COORS BREWING
GOLDEN BEER FILLING
17:[illegible]:[illegible]:[illegible]
" 7-13-1992"
"TIME" "THC1" "
"SEC" "PPM" "PPM"

00:00:00:00.000	0	0
00:00:00:14.999	-0	0
00:00:00:29.999	-1	0
00:00:00:44.999	-1	0
00:00:00:59.998	**-1**	**0**
00:00:01:14.998	-1	0
00:00:01:29.998	-0	0
00:00:01:44.998	0	0
00:00:01:59.997	1	0
00:00:02:14.997	3	0
00:00:02:29.997	4	0
00:00:02:44.997	126	0
00:00:02:59.996	217	0
00:00:03:14.996	223	0
00:00:03:29.996	232	0
00:00:03:44.995	231	0
00:00:03:59.995	233	0
00:00:04:14.995	240	0
00:00:04:29.995	243	0
00:00:04:44.994	245	0
00:00:04:59.994	245	0
00:00:05:14.994	244	0
00:00:05:29.994	245	0
00:00:05:44.993	246	0
00:00:05:59.993	179	0
00:00:06:14.993	35	0
00:00:06:29.992	530	0
00:00:06:44.992	56	0
00:00:06:59.992	518	0
00:00:07:14.992	543	0
00:00:07:29.991	547	0
00:00:07:44.991	550	0
00:00:07:59.991	552	0
00:00:08:14.991	551	0
00:00:08:29.990	555	0
00:00:08:44.990	[illegible]	0
00:00:08:59.99[illegible]	[illegible]59	0
00:00:09:14.98[illegible]	[illegible]	0
00:00:09:29.989	[illegible]	0
00:00:09:44.989	560	0
00:00:09:59.989	562	0

0 CAL 6 V

250 CAL 6 V

547 CAL 6 V

"COORS BREWING"
"YEAST DRYING PLANT"
" 7-16-1992"
"11:35:15.00"

Time	"THC1"	"
" sec	" ppm"	" ppm"
00:00:00:00.000	78	0
00:00:00:59.999	17	0
00:00:01:59.999	75	0

7.16.92

YEAST DRYING PLANT

(10)

"COORS BREWING"
"YEAST DRYING PLANT"
"11:43:02.50"
" 7-16-1992"

CAL

"TIME"	"THC1"	"
"SEC"	"PPM"	"PPM"
00:00:00:00.000	0	0
00:00:00:29.999	87	0
00:00:00:59.998	97	0
00:00:01:29.998	65	0
00:00:01:59.997	7532	0
00:00:02:29.997	34539	0
00:00:02:59.996	33877	0
00:00:03:29.996	30136	0
00:00:03:59.995	10318	0
00:00:04:29.995	8582	0
00:00:04:59.994	8546	0
00:00:05:29.994	8575	0
00:00:05:59.993	6207	0
00:00:06:29.992	3299	0
00:00:06:59.992	5646	0
00:00:07:29.991	5657	0
00:00:07:59.991	5613	0
00:00:08:29.990	5637	0

0 CAL

33960 CAL

~~5455~~ 8423 CAL

[illegible]
[illegible] DRYING PLANT
[illegible]
[illegible]
"Time" "THC1" " "
"sec" " ppm" " ppm"

Run 1

Run 1

00:00:00:00.000	26209	0
00:00:00:59.999	27990	0
00:00:01:59.999	28095	0
00:00:02:59.999	28114	0
00:00:03:59.999	28665	0
00:00:04:59.999	27791	0
00:00:05:59.999	28799	0
00:00:06:59.999	28677	0
00:00:07:59.999	28827	0
00:00:08:59.999	28583	0
00:00:09:59.999	28279	0
00:00:10:59.999	**28788**	**0**
00:00:11:59.999	29104	0
00:00:12:59.998	28152	0
00:00:13:59.998	28291	0
00:00:14:59.998	28399	0
00:00:15:59.998	28523	0
00:00:16:59.998	28649	0
00:00:17:59.998	28335	0
00:00:18:59.998	28837	0
00:00:19:59.998	**28542**	**0**
00:00:20:59.998	28905	0
00:00:21:59.998	28899	0
00:00:22:59.998	28888	0
00:00:23:59.998	28510	0
00:00:24:59.997	28720	0
00:00:25:59.997	28816	0
00:00:26:59.997	28690	0
00:00:27:59.997	28562	0
00:00:28:59.997	28460	0
00:00:29:59.997	**28082**	**0**
00:00:30:59.997	28237	0
00:00:31:59.997	28177	0
00:00:32:59.997	27986	0
00:00:33:59.997	27906	0
00:00:34:59.997	27932	0
00:00:35:59.997	27815	0
00:00:36:59.99[illegible]	[illegible]67	0
00:00:37:59.99[illegible]	[illegible]29	0
00:00:38:59.99[illegible]	[illegible]93	0
00:00:39:59.99[illegible]	[illegible]712	0
00:00:40:59.99[illegible]	[illegible]140	0
00:00:41:59.996	27825	0
00:00:42:59.996	27454	0
00:00:43:59.996	27379	0
00:00:44:59.996	27233	0
00:00:45:59.996	27031	0
00:00:46:59.996	27178	0
00:00:47:59.996	27038	0
00:00:48:59.995	27255	0
00:00:49:59.995	27044	0
00:00:50:59.995	27180	0
00:00:51:59.995	26702	0
00:00:52:59.995	26809	0
00:00:53:59.995	26911	0
00:00:54:59.995	26864	0
00:00:55:59.995	26953	0
[illegible]	[illegible]	[illegible]

00:00:59:59.995	26739	0

[illegible]
EAST DRYING PLANT
[illegible]
7-18-1992
"TIME" "THC1" " "
"SEC" "FPM" "FPM"

00:00:00:00.000	0	0	
00:00:00:29.999	32487	0	
00:00:00:59.998	33900	0	
00:00:01:29.998	34022	0	
00:00:01:59.997	34041	0	
00:00:02:29.997	33717	0	
00:00:02:59.996	**33789**	**0**	33960 CAL2
00:00:03:29.996	32847	0	
00:00:03:59.995	29257	0	
00:00:04:29.995	16548	0	
00:00:04:59.994	520	0	
00:00:05:29.994	332	0	
00:00:05:59.993	220	0	
00:00:06:29.992	171	0	
00:00:06:59.992	174	0	
00:00:07:29.991	191	0	
00:00:07:59.991	**188**	**0**	0 CAL2
00:00:08:29.990	111	0	
00:00:08:59.990	139	0	
00:00:09:29.989	104	0	
00:00:09:59.989	146	0	

"COORS BREWING"
"YEAST DRYING PLANT"
"13:18:59.08"
" 7-16-1992"

Run 2

"TIME"	"THC1"	"
"SEC"	"PPM"	"PPM"
00:00:00:00.000	0	0
00:00:00:29.999	26835	0
00:00:00:59.998	26223	0
00:00:01:29.998	26398	0
00:00:01:59.997	25301	0
00:00:02:29.997	25913	0
00:00:02:59.996	26819	0
00:00:03:29.996	26276	0
00:00:03:59.995	26379	0
00:00:04:29.995	26294	0
00:00:04:59.994	**26615**	**0**
00:00:05:29.994	26111	0
00:00:05:59.993	26676	0
00:00:06:29.992	25819	0
00:00:06:59.992	26854	0
00:00:07:29.991	25041	0
00:00:07:59.991	25246	0
00:00:08:29.990	25909	0
00:00:08:59.990	26295	0
00:00:09:29.989	25743	0
00:00:09:59.989	**25871**	**0**
00:00:10:29.988	26531	0
00:00:10:59.988	25918	0
00:00:11:29.987	26159	0
00:00:11:59.986	25362	0
00:00:12:29.986	25852	0
00:00:12:59.985	26303	0
00:00:13:29.985	26176	0
00:00:13:59.984	26687	0
00:00:14:29.984	26719	0
00:00:14:59.983	**26501**	**0**
00:00:15:29.983	26653	0
00:00:15:59.982	25992	0
00:00:16:29.982	25788	0
00:00:16:59.981	26352	0
00:00:17:29.980	25767	0
00:00:17:59.980	26038	0
00:00:18:29.979	26487	0
00:00:18:59.[illegible]	[illegible]	0
00:00:19:29.[illegible]	[illegible]	0
00:00:19:59.[illegible]	[illegible]	**0**
00:00:20:29.[illegible]	[illegible]	0
00:00:20:59.[illegible]	[illegible]	0
00:00:21:29.976	25624	0
00:00:21:59.976	25689	0
00:00:22:29.975	25885	0
00:00:22:59.974	25591	0
00:00:23:29.974	25633	0
00:00:23:59.973	26630	0
00:00:24:29.973	25540	0
00:00:24:59.972	**25526**	**0**
00:00:25:29.972	25618	0
00:00:25:59.971	25871	0
00:00:26:29.971	25416	0
00:00:26:59.970	25855	0
00:00:27:29.970	26014	0
00:00:27:59.969	25381	0
00:00:28:29.969	[illegible]	0

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
00:00:31:59.957	25146	0
00:00:32:29.954	25362	0
00:00:32:59.954	25801	0
00:00:33:29.953	25651	0
00:00:33:59.953	25123	0
00:00:34:29.952	25583	0
00:00:34:59.951	**24783**	**0**
00:00:35:29.951	25487	0
00:00:35:59.950	25644	0
00:00:36:29.950	25541	0
00:00:36:59.949	25303	0
00:00:37:29.949	25407	0
00:00:37:59.948	25729	0
00:00:38:29.948	24970	0
00:00:38:59.947	24751	0
00:00:39:29.947	25107	0
00:00:39:59.946	**26460**	**0**
00:00:40:29.946	26009	0
00:00:40:59.945	26282	0
00:00:41:29.944	25578	0
00:00:41:59.944	24969	0
00:00:42:29.943	25485	0
00:00:42:59.943	25760	0
00:00:43:29.942	25945	0
00:00:43:59.942	25999	0
00:00:44:29.941	25748	0
00:00:44:59.941	24729	0
00:00:45:29.940	25133	0
00:00:45:59.939	25278	0
00:00:46:29.939	24822	0
00:00:46:59.938	25522	0
00:00:47:29.938	25443	0
00:00:47:59.937	25530	0
00:00:48:29.937	25075	0
00:00:48:59.936	25398	0
00:00:49:29.936	25017	0
00:00:49:59.935	24819	0
00:00:50:29.935	24775	0
00:00:50:59.934	24813	0
00:00:51:29.934	25004	0
00:00:51:59.933	[illegible]	0
00:00:52:29.932	[illegible]	0
00:00:52:59.932	[illegible]	0
00:00:53:29.931	[illegible]	0
00:00:53:59.931	24921	0
00:00:54:29.930	24885	0
00:00:54:59.930	24830	0
00:00:55:29.929	24865	0
00:00:55:59.929	25385	0
00:00:56:29.928	24739	0
00:00:56:59.927	25773	0
00:00:57:29.927	24684	0
00:00:57:59.927	25097	0
00:00:58:29.926	25977	0
00:00:58:59.925	25395	0
00:00:59:29.925	25893	0
00:00:59:59.924	22806	0
00:01:00:29.924	24830	0
00:01:00:59.923	25269	0
00:01:01:29.923	25771	0

"COORS BREWING"
"YEAST DRYING PLANT"
"14:28:13.75"
" 7-16-1992"
"TIME" "THC1" " "
"SEC" "PPM" "PPM"

CAl 3

00:00:00:00.000	0	0
00:00:00:29.999	-558	0
00:00:00:59.998	2074	0
00:00:01:29.998	1277	0
00:00:01:59.997	882	0
00:00:02:29.997	590	0
00:00:02:59.996	452	0
00:00:03:29.996	412	0
00:00:03:59.995	267	0
00:00:04:29.995	223	0

Post Cal 2

CSC Aked
STARTED CBCYDF
NOT CBCCAL

"COORS BREWING"
"YEAST DRYING PLANT"
"14:33:55.11"
" 7-16-1992"
"TIME" "THC1" " "
"SEC" "PPM" "PPM"

Cal 3

[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	0	
[illegible]	[illegible]	0	
[illegible]	[illegible]	0	
00:00:02:14.997	82	0	Cal3 Zero Air
00:00:02:29.997	110	0	
00:00:02:44.997	130	0	
00:00:02:59.996	29999	0	
00:00:03:14.996	33554	0	
00:00:03:29.996	33613	0	
00:00:03:44.995	33027	0	
00:00:03:59.995	33162	0	
00:00:04:14.995	33345	0	
00:00:04:29.995	33172	0	Cal3 33960
00:00:04:44.994	33649	0	
00:00:04:59.994	33533	0	
00:00:05:14.994	33532	0	
00:00:05:29.994	33169	0	

CAL 3

7.20.92

"COORS BREWING"
"YEAST DRYING PLANT"
"08:47:00.33"
" 7-20-1992"

"TIME"	"TH01"	"
"SEC"	"PPM"	"PPM"
00:00:00:00.000	0	0
00:00:00:29.999	36000	0
00:00:00:59.998	36000	0
00:00:01:29.998	36000	0
00:00:01:59.997	36000	0
00:00:02:29.997	36000	0
00:00:02:59.996	36000	0
00:00:03:29.996	36000	0
00:00:03:59.995	17068	0
00:00:04:29.995	34014	0
00:00:04:59.994	34128	0
00:00:05:29.994	34248	0
00:00:05:59.993	19936	0
00:00:06:29.992	11585	0
00:00:06:59.992	8625	0
00:00:07:29.991	8720	0
00:00:07:59.991	8636	0
00:00:08:29.990	8599	0
00:00:08:59.990	8547	0
00:00:09:29.989	8484	0
00:00:09:59.989	3971	0
00:00:10:29.988	5246	0
00:00:10:59.988	5260	0
00:00:11:29.987	4957	0
00:00:11:59.986	1008	0
00:00:12:29.986	42	0
00:00:12:59.985	34	0
00:00:13:29.985	24	0

Pic Cal

33960 CAL

8423 CAL

5455 CAL

0 CAL

[illegible] BREWING
YEAST DRYING PLANT
7-20-1992
09:05:49.27

Run 3

Run 3

Time sec	THC1 ppm	ppm
00:00:00:00.000	21041	0
00:00:00:59.999	23914	0
00:00:01:59.999	25969	0
00:00:02:59.999	25910	0
00:00:03:59.999	25097	0
00:00:04:59.999	24940	0
00:00:05:59.999	24768	0
00:00:06:59.999	24280	0
00:00:07:59.999	24494	0
00:00:08:59.999	24492	0
00:00:09:59.999	24608	0
00:00:10:59.999	24647	0
00:00:11:59.999	24625	0
00:00:12:59.998	24558	0
00:00:13:59.998	24717	0
00:00:14:59.998	24353	0
00:00:15:59.998	24154	0
00:00:16:59.998	24427	0
00:00:17:59.998	24446	0
00:00:18:59.998	24243	0
00:00:19:59.998	24085	0
00:00:20:59.998	23926	0
00:00:21:59.998	24400	0
00:00:22:59.998	24536	0
00:00:23:59.998	24957	0
00:00:24:59.997	24915	0
00:00:25:59.997	24604	0
00:00:26:59.997	24738	0
00:00:27:59.997	24954	0
00:00:28:59.997	24846	0
00:00:29:59.997	24897	0
00:00:30:59.997	24902	0
00:00:31:59.997	24853	0
00:00:32:59.997	24937	0
00:00:33:59.997	25093	0
00:00:34:59.997	[illegible]199	0
00:00:35:59.997	[illegible]65	0
00:00:36:59.997	[illegible]	0
00:00:37:59.996	[illegible]82	0
00:00:38:59.996	[illegible]90	0
00:00:39:59.996	26092	0
00:00:40:59.996	26350	0
00:00:41:59.996	26443	0
00:00:42:59.996	26336	0
00:00:43:59.996	26502	0
00:00:44:59.996	26717	0
00:00:45:59.996	27098	0
00:00:46:59.996	26922	0
00:00:47:59.996	26903	0
00:00:48:59.995	26941	0
00:00:49:59.995	27096	0
00:00:50:59.995	27218	0
00:00:51:59.995	27245	0
00:00:52:59.995	27064	0
00:00:53:59.995	26817	0

[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	0
[illegible]	17074	0
[illegible]	17415	0
[illegible]	17766	0
[illegible]	17584	0

CAL 4

Post Cal

[illegible] BREWING
YEAST DRYING PLANT
[illegible]
" 7-20-1992"
TIME" "THC1" "
"SEC" "PPM" "PPM"

00:00:00:00.000	0	0	
00:00:00:29.999	365	0	
00:00:00:59.998	244	0	
00:00:01:29.998	166	0	
00:00:01:59.997	207	0	
00:00:02:29.997	91	0	
00:00:02:59.996	118	0	
00:00:03:29.996	27	0	
00:00:03:59.995	35	0	0 CHECK
00:00:04:29.995	49	0	
00:00:04:59.994	74	0	
00:00:05:29.994	183	0	
00:00:05:59.993	24656	0	
00:00:06:29.992	33958	0	
00:00:06:59.992	34063	0	33960 CHECK
00:00:07:29.991	33952	0	
00:00:07:59.991	34151	0	
00:00:08:29.990	14486	0	
00:00:08:59.990	8133	0	
00:00:09:29.989	8019	0	8423 CHECK
00:00:09:59.989	8052	0	
00:00:10:29.988	8364	0	
00:00:10:59.988	8343	0	

"COORS BREWING"
"WATER TREATMENT"
"~~[illegible]~~" 12:00
" 8-17-1992"

CAL 1

"TIME"	"TH01"	"
"SEC"	"PPM"	"PPM"
00:00:00:00.000	0	0
00:00:00:14.999	3	0
00:00:00:29.999	-3	0
00:00:00:44.999	-7	0
00:00:00:59.998	-7	0
00:00:01:14.998	-7	0
00:00:01:29.998	-3	0
00:00:01:44.998	0	0
00:00:01:59.997	0	0
00:00:02:14.997	-0	0
00:00:02:29.997	0	0
00:00:02:44.997	0	0
00:00:02:59.996	0	0
00:00:03:14.996	1	0
00:00:03:29.996	0	0
00:00:03:44.995	545	0
00:00:03:59.995	866	0
00:00:04:14.995	872	0
00:00:04:29.995	[illegible]	0
00:00:04:44.994	[illegible]	0
00:00:04:59.994	847	0
00:00:05:14.994	848	0
00:00:05:29.994	849	0
00:00:05:44.993	850	0
00:00:05:59.993	849	0
00:00:06:14.993	849	0
00:00:06:29.992	850	0
00:00:06:44.992	849	0
00:00:06:59.992	849	0
00:00:07:14.992	850	0
00:00:07:29.991	849	0
00:00:07:44.991	29	0
00:00:07:59.991	6	0
00:00:08:14.991	3	0
00:00:08:29.990	2	0
00:00:08:44.990	2	0
00:00:08:59.990	2	0
00:00:09:14.989	1	0
00:00:09:29.989	1	0
00:00:09:44.989	1	0
00:00:09:59.989	1	0
00:00:10:14.988	1	0
00:00:10:29.988	1	0
00:00:10:44.988	1	0
00:00:10:59.988	1	0
00:00:11:14.987	1	0
00:00:11:29.987	1	0
00:00:11:44.987	1	0
00:00:11:59.986	1	0
00:00:12:14.986	1	0

0 CAL

850 CAL

[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
00:00:14:14.983	1	0	
00:00:14:29.983	1	0	
00:00:14:44.983	1	0	
00:00:14:59.983	1	0	
00:00:15:14.983	1	0	
00:00:15:29.983	1	0	
00:00:15:44.982	1	0	
00:00:15:59.982	1	0	
00:00:16:14.982	1	0	
00:00:16:29.982	1	0	
00:00:16:44.981	1	0	
00:00:16:59.981	1	0	
00:00:17:14.981	1	0	
00:00:17:29.980	0	0	
00:00:17:44.980	1	0	
00:00:17:59.980	1	0	
00:00:18:14.980	1	0	
00:00:18:29.979	0	0	
00:00:18:44.979	1	0	251.4
00:00:18:59.979	389	0	~~260~~ CAL
00:00:19:14.979	258	0	
00:00:19:29.978	253	0	
00:00:19:44.978	253 253.5	0	
00:00:19:59.978	252	0	
00:00:20:14.978	121	0	
00:00:20:29.977	228	0	
00:00:20:44.977	541	0	
00:00:20:59.977	543	0	
00:00:21:14.976	543	0	
00:00:21:29.976	543	0	
00:00:21:44.976	543	0	
00:00:21:59.976	544	0	547CAL
00:00:22:14.975	545	0	
00:00:22:29.975	545	0	
00:00:22:44.975	545	0	

Run 1

1220

Time	THC1 ppm	
00:00:00:00.000	137	0
00:00:00:59.999	125	0
00:00:01:59.999	125	0
00:00:02:59.999	125	0
00:00:03:59.999	124	0
00:00:04:59.999	125	0
00:00:05:59.999	124	0
00:00:06:59.999	125	0
00:00:07:59.999	125	0
00:00:08:59.999	124	0
00:00:09:59.999	124	0
00:00:10:59.999	125	0
00:00:11:59.999	124	0
00:00:12:59.998	128	0
00:00:13:59.998	138	0
00:00:14:59.998	139	0
00:00:15:59.998	137	0
00:00:16:59.998	141	0
00:00:17:59.998	138	0
00:00:18:59.998	141	0
00:00:19:59.998	153	0
00:00:20:59.998	157	0
00:00:21:59.998	181	0
00:00:22:59.998	198	0
00:00:23:59.998	182	0
00:00:24:59.997	177	0
00:00:25:59.997	169	0
00:00:26:59.997	163	0
00:00:27:59.997	156	0
00:00:28:59.997	152	0
00:00:29:59.997	148	0
00:00:30:59.997	145	0
00:00:31:59.997	143	0
00:00:32:59.997	139	0
00:00:33:59.997	137	0
00:00:34:59.997	135	0
00:00:35:59.997	133	0
00:00:36:59.997	133	0
00:00:37:59.996	129	0
00:00:38:59.996	128	0
00:00:39:59.996	128	0
00:00:40:59.996	127	0
00:00:41:59.996	124	0
00:00:42:59.996	124	0
00:00:43:59.996	122	0
00:00:44:59.996	122	0
00:00:45:59.996	122	0
00:00:46:59.996	122	0
00:00:47:59.996	122	0
00:00:48:59.995	122	0
00:00:49:59.995	121	0
00:00:50:59.995	121	0
00:00:51:59.995	121	0
00:00:52:59.995	121	0
00:00:53:59.995	119	0
00:00:54:59.995	120	0
00:00:55:59.995	119	0
00:00:56:59.995	119	0

[illegible]

"COORS BREWING"
"WATER TREATMENT" 1335 CAL 2
"~~42:48:37.30~~"
" 8-17-1992"
"TIME" "THC1" " "
"SEC" "PPM" "PPM"

00:00:00:00.000	0	0	
00:00:00:14.999	1	0	
00:00:00:29.999	0	0	
00:00:00:44.999	1	0	
00:00:00:59.998	1	0	0 CHECK
00:00:01:14.998	1	0	
00:00:01:29.998	0	0	
00:00:01:44.998	1	0	
00:00:01:59.997	1	0	
00:00:02:14.997	1	0	
00:00:02:29.997	165	0	
00:00:02:44.997	13	0	
00:00:02:59.996	1	0	
00:00:03:14.996	1	0	
00:00:03:29.996	1	0	
00:00:03:44.995	0	0	
00:00:03:59.995	145	0	
00:00:04:14.995	242	0	
00:00:04:29.995	244	0	
00:00:04:44.994	244	0	
00:00:04:59.994	244	0	
00:00:05:14.994	245	0	
00:00:05:29.994	245	0	251.4 CHECK
00:00:05:44.993	245	0	
00:00:05:59.993	245	0	
00:00:06:14.993	122	0	
00:00:06:29.992	136	0	
00:00:06:44.992	523	0	
00:00:06:59.992	529	0	
00:00:07:14.992	531	0	
00:00:07:29.991	531	0	
00:00:07:44.991	531	0	
00:00:07:59.991	532	0	547.8 CHECK
00:00:08:14.991	532	0	
00:00:08:29.990	532	0	
00:00:08:44.990	532	0	
00:00:08:59.990	532	0	
00:00:09:14.989	541	0	
00:00:09:29.989	559	0	
00:00:09:44.989	546	0	547.8 RECAL
00:00:09:59.989	548	0	
00:00:10:14.988	549	0	
00:00:10:29.988	51	0	
00:00:10:44.988	192	0	
00:00:10:59.988	252	0	251.4 RECAL
00:00:11:14.987	252	0	
00:00:11:29.987	252	0	
00:00:11:44.987	189	0	
00:00:11:59.986	4	0	

0 RECKL

COORS BREWING
WATER TREATMENT
" 5-17-1991"
"14:00:55.00"
" Tice "TH01" "

RUN 2

"DHMS"	ppm	ppm
00:00:00:00.000	115	0
00:00:00:59.999	115	0
00:00:01:59.999	118	0
00:00:02:59.999	118	0
00:00:03:59.999	118	0
00:00:04:59.999	118	0
00:00:05:59.999	118	0
00:00:06:59.999	118	0
00:00:07:59.999	117	0
00:00:08:59.999	117	0
00:00:09:59.999	118	0
00:00:10:59.999	117	0
00:00:11:59.999	117	0
00:00:12:59.998	117	0
00:00:13:59.998	118	0
00:00:14:59.998	117	0
00:00:15:59.998	116	0
00:00:16:59.998	115	0
00:00:17:59.998	114	0
00:00:18:59.998	117	0
00:00:19:59.998	118	0
00:00:20:59.998	119	0
00:00:21:59.998	120	0
00:00:22:59.998	120	0
00:00:23:59.998	120	0
00:00:24:59.997	121	0
00:00:25:59.997	122	0
00:00:26:59.997	122	0
00:00:27:59.997	122	0
00:00:28:59.997	123	0
00:00:29:59.997	124	0
00:00:30:59.997	122	0
00:00:31:59.997	123	0
00:00:32:59.997	124	0
00:00:33:59.997	123	0
00:00:34:59.997	124	0
00:00:35:59.997	123	0
00:00:36:59.997	124	0
00:00:37:59.996	123	0
00:00:38:59.996	124	0
00:00:39:59.996	123	0
00:00:40:59.996	123	0
00:00:41:59.996	124	0
00:00:42:59.996	123	0
00:00:43:59.996	125	0
00:00:44:59.996	124	0
00:00:45:59.996	123	0
00:00:46:59.996	124	0
00:00:47:59.996	124	0
00:00:48:59.995	123	0
00:00:49:59.995	122	0
00:00:50:59.995	124	0
00:00:51:59.995	123	0
00:00:52:59.995	123	0
00:00:53:59.995	124	0
00:00:54:59.995	124	0
00:00:55:59.995	123	0
00:00:56:59.995	122	0

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

"COORS BREWING"
"WATER TREATMENT"
"15:06:12.13"
" 8-17-1992"

CAL 3

"TIME"	"THC1"	"
"SEC"	"PPM"	"PPM"
00:00:00:00.000	0	0
00:00:00:14.999	2	0
00:00:00:29.999	1	0
00:00:00:44.999	1	0
00:00:00:59.998	1	0
00:00:01:14.998	1	0
00:00:01:29.998	0	0
00:00:01:44.998	1	0
00:00:01:59.997	46	0
00:00:02:14.997	255	0
00:00:02:29.997	232	0
00:00:02:44.997	259	0
00:00:02:59.996	259	0
00:00:03:14.996	260	0
00:00:03:29.996	260	0
00:00:03:44.995	260	0
00:00:03:59.995	260	0
00:00:04:14.995	260	0
00:00:04:29.995	260	0
00:00:04:44.994	199	0
00:00:04:59.994	3	0
00:00:05:14.994	1	0
00:00:05:29.994	436	0
00:00:05:44.993	559	0
00:00:05:59.993	562	0
00:00:06:14.993	562	0
00:00:06:29.992	563	0
00:00:06:44.992	563	0
00:00:06:59.992	564	0
00:00:07:14.992	558	0
00:00:07:29.991	548	0
00:00:07:44.991	547	0
00:00:07:59.991	548	0
00:00:08:14.991	548	0
00:00:08:29.990	352	0
00:00:08:44.990	7	0
00:00:08:59.990	187	0
00:00:09:14.989	250	0
00:00:09:29.989	252	0
00:00:09:44.989	252	0
00:00:09:59.989	251	0
00:00:10:14.988	78	0
00:00:10:29.988	38	0
00:00:10:44.988	1	0
00:00:10:59.988	0	0
00:00:11:14.987	0	0
00:00:11:29.987	-0	0

0 CHECK

251.4 CHECK

547.8 CHECK

547.8 RECAL

251.4 RECAL

0 RECAL

Run 3

"[illegible] BREWING
WATER TREATMENT"
"8-17-1992"
"15:34:55.13"

"Time"	"THC1"	
"DHMS"	ppm	ppm"
00:00:00:00.000	141	0
00:00:00:59.999	140	0
00:00:01:59.999	137	0
00:00:02:59.999	133	0
00:00:03:59.999	132	0
00:00:04:59.999	130	0
00:00:05:59.999	129	0
00:00:06:59.999	127	0
00:00:07:59.999	124	0
00:00:08:59.999	125	0
00:00:09:59.999	122	0
00:00:10:59.999	120	0
00:00:11:59.999	122	0
00:00:12:59.998	120	0
00:00:13:59.998	119	0
00:00:14:59.998	119	0
00:00:15:59.998	118	0
00:00:16:59.998	118	0
00:00:17:59.998	124	0
00:00:18:59.998	120	0
00:00:19:59.998	119	0
00:00:20:59.998	120	0
00:00:21:59.998	120	0
00:00:22:59.998	120	0
00:00:23:59.998	120	0
00:00:24:59.997	121	0
00:00:25:59.997	120	0
00:00:26:59.997	119	0
00:00:27:59.997	119	0
00:00:28:59.997	118	0
00:00:29:59.997	118	0
00:00:30:59.997	117	0
00:00:31:59.997	117	0
00:00:32:59.997	116	0
00:00:33:59.997	116	0
00:00:34:59.997	114	0
00:00:35:59.997	115	0
00:00:36:59.997	114	0
00:00:37:59.996	114	0
00:00:38:59.996	114	0
00:00:39:59.996	114	0
00:00:40:59.996	111	0
00:00:41:59.996	111	0
00:00:42:59.996	112	0
00:00:43:59.996	111	0
00:00:44:59.996	111	0
00:00:45:59.996	111	0
00:00:46:59.996	111	0
00:00:47:59.996	111	0
00:00:48:59.995	111	0
00:00:49:59.995	110	0
00:00:50:59.995	111	0
00:00:51:59.995	110	0
00:00:52:59.995	110	0
00:00:53:59.995	110	0
00:00:54:59.995	110	0
00:00:55:59.995	109	0
00:00:56:59.995	110	0

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
00:01:03:59.994	109	0
00:01:04:59.994	105	0
00:01:05:59.994	109	0
00:01:06:59.994	110	0
00:01:07:59.994	109	0
00:01:08:59.994	109	0
00:01:09:59.994	109	0
00:01:10:59.994	109	0
00:01:11:59.994	109	0
00:01:12:59.994	109	0

CA14

"COORS BREWING"
"WATER TREATMENT"
"16:52:26.36"
" 8-17-1992"

"TIME"	"THC1"	"
"SEC"	"PPM"	"PPM"
00:00:00:00.000	0	0
00:00:00:14.999	1	0
00:00:00:29.999	0	0
00:00:00:44.999	0	0
00:00:00:59.998	0	0
00:00:01:14.998	0	0
00:00:01:29.998	1	0
00:00:01:44.998	10	0
00:00:01:59.997	241	0
00:00:02:14.997	245	0
00:00:02:29.997	246	0
00:00:02:44.997	246	0
00:00:02:59.996	247	0
00:00:03:14.996	169	0
00:00:03:29.996	55	0
00:00:03:44.995	524	0
00:00:03:59.995	534	0
00:00:04:14.995	535	0
00:00:04:29.995	535	0
00:00:04:44.994	536	0

0 CAI Check

251.4 CAI Check

547.8 CAI Check

FIELD DATA PRINTOUTS

COORS BREWING COMPANY
CAE Project No. 6265
Bottle and Can CO2 Bowl Vent
Pre-calibration - Run 1
June 24, 1992
9:37:09 AM

	Time sec	THC ppm
Zero Span	9:37:09 AM	0
Cal=1	9:37:24 AM	0
	9:37:39 AM	2
	9:37:54 AM	1
	9:38:09 AM	0
	9:38:24 AM	-2
	9:38:39 AM	-2
	9:38:54 AM	-3
	9:39:09 AM	-1
	9:39:24 AM	2
	9:39:39 AM	3
	9:39:54 AM	2
	9:40:09 AM	-1
	9:40:24 AM	-1
	9:40:39 AM	-2
	9:40:54 AM	-63
	9:41:09 AM	-108
	9:41:24 AM	-52
	9:41:39 AM	112
	9:41:54 AM	220
	9:42:09 AM	582
	9:42:24 AM	583
	9:42:39 AM	590
	9:42:54 AM	592
	9:43:09 AM	579
	9:43:24 AM	592
	9:43:39 AM	589
	9:43:54 AM	580
	9:44:09 AM	591
	9:44:24 AM	596
	9:44:39 AM	582
	9:44:54 AM	439
	9:45:09 AM	840
	9:45:24 AM	844
	9:45:39 AM	849
	9:45:54 AM	850
	9:46:09 AM	852
	9:46:24 AM	851
	9:46:39 AM	848
	9:46:54 AM	849
	9:47:09 AM	835
	9:47:24 AM	445
	9:47:39 AM	13
	9:47:54 AM	-2
	9:48:09 AM	-7
	9:48:24 AM	-10
	9:48:39 AM	-9
	9:48:54 AM	-4
	9:49:09 AM	-1
	9:49:24 AM	-1
	9:49:39 AM	-4
	9:49:54 AM	-2

	Time sec	THC ppm
	9:50:09 AM	0
	9:50:24 AM	3
	9:50:39 AM	2
	9:50:54 AM	0
	9:51:09 AM	2
	9:51:24 AM	10
	9:51:39 AM	410
	9:51:54 AM	13
	9:52:09 AM	6
	9:52:24 AM	2
	9:52:39 AM	425
	9:52:54 AM	534
	9:53:09 AM	543
	9:53:24 AM	548
	9:53:39 AM	550
	9:53:54 AM	551
	9:54:09 AM	548
	9:54:24 AM	542
	9:54:39 AM	295
	9:54:54 AM	239
Cal Span	9:55:09 AM	250
Cal=248	9:55:24 AM	250
	9:55:39 AM	247
	9:55:54 AM	245
	9:56:09 AM	246
	9:56:24 AM	244
	9:56:39 AM	185
	9:56:54 AM	10
	9:57:09 AM	3
	9:57:24 AM	-2
	9:57:39 AM	-4
	9:57:54 AM	-5
	9:58:09 AM	21
	9:58:24 AM	237
	9:58:39 AM	247
	9:58:54 AM	249
	9:59:09 AM	250
	9:59:24 AM	250
	9:59:39 AM	250
	9:59:54 AM	117

COORS BREWING COMPANY
CAE Project No. 6265
Bottle and Can CO2 Bowl Vent
Run 1
June 24, 1992
10:04:39 AM

Time	THC ppm	Time	THC ppm
10:04:39 AM	40	10:56:39 AM	49
10:05:39 AM	39	10:57:39 AM	54
10:06:39 AM	38	10:58:39 AM	42
10:07:39 AM	41	10:59:39 AM	41
10:08:39 AM	40	11:00:39 AM	40
10:09:39 AM	40	11:01:39 AM	40
10:10:39 AM	40	11:02:39 AM	47
10:11:39 AM	40	11:03:39 AM	42
10:12:39 AM	39	11:04:39 AM	39
10:13:39 AM	39	11:05:39 AM	38
10:14:39 AM	41		
10:15:39 AM	39		
10:16:39 AM	38		
10:17:39 AM	37		
10:18:39 AM	35		
10:19:39 AM	37		
10:20:39 AM	35		
10:21:39 AM	36		
10:22:39 AM	33		
10:23:39 AM	35		
10:24:39 AM	37		
10:25:39 AM	35		
10:26:39 AM	36		
10:27:39 AM	39		
10:28:39 AM	38		
10:29:39 AM	37		
10:30:39 AM	35		
10:31:39 AM	35		
10:32:39 AM	35		
10:33:39 AM	38		
10:34:39 AM	39		
10:35:39 AM	39		
10:36:39 AM	36		
10:37:39 AM	39		
10:38:39 AM	37		
10:39:39 AM	37		
10:40:39 AM	45		
10:41:39 AM	44		
10:42:39 AM	39		
10:43:39 AM	38		
10:44:39 AM	37		
10:45:39 AM	37	Average	38
10:46:39 AM	36		
10:47:39 AM	35		
10:48:39 AM	37		
10:49:39 AM	38		
10:50:39 AM	37		
10:51:39 AM	35		
10:52:39 AM	34		
10:53:39 AM	34		
10:54:39 AM	34		
10:55:39 AM	38		

COORS BREWING COMPANY
CAE Project No. 6265
Bottle and Can CO2 Bowl Vent
Post-calibration - Run 1
June 24, 1992
11:10:08 AM

	Time sec	THC ppm
	11:10:08 AM	0
	11:10:23 AM	72
	11:10:38 AM	5
	11:10:53 AM	3
	11:11:08 AM	66
	11:11:23 AM	18
	11:11:38 AM	68
	11:11:53 AM	12
	11:12:08 AM	23
	11:12:23 AM	74
	11:12:38 AM	52
	11:12:53 AM	51
	11:13:08 AM	47
	11:13:23 AM	48
	11:13:38 AM	43
	11:13:53 AM	6
Zero Span	11:14:08 AM	-1
Cal=-2	11:14:23 AM	-2
	11:14:38 AM	-3
	11:14:53 AM	-7
	11:15:08 AM	-6
	11:15:23 AM	-4
	11:15:38 AM	-6
	11:15:53 AM	-7
	11:16:08 AM	147
	11:16:23 AM	240
	11:16:38 AM	241
	11:16:53 AM	245
Cal Span	11:17:08 AM	247
Cal=246	11:17:23 AM	244
	11:17:38 AM	246
	11:17:53 AM	247
	11:18:08 AM	244
	11:18:23 AM	245
	11:18:38 AM	256
	11:18:53 AM	240
	11:19:08 AM	239
	11:19:23 AM	239

COORS BREWING COMPANY
CAE Project No. 6265
Bottle and Can CO2 Bowl Vent
Run 2
June 24, 1992
11:22:04 AM

Time	THC ppm	Time	THC ppm
11:22:04 AM	27	12:14:04 PM	20
11:23:04 AM	31	12:15:04 PM	21
11:24:04 AM	33	12:16:04 PM	23
11:25:04 AM	36	12:17:04 PM	21
11:26:04 AM	33	12:18:04 PM	24
11:27:04 AM	31	12:19:04 PM	24
11:28:04 AM	34	12:20:04 PM	25
11:29:04 AM	32	12:21:04 PM	21
11:30:04 AM	30	12:22:04 PM	23
11:31:04 AM	30	12:23:04 PM	22
11:32:04 AM	32		
11:33:04 AM	33		
11:34:04 AM	50		
11:35:04 AM	48		
11:36:04 AM	39		
11:37:04 AM	38		
11:38:04 AM	44		
11:39:04 AM	54		
11:40:04 AM	51		
11:41:04 AM	42		
11:42:04 AM	40		
11:43:04 AM	43		
11:44:04 AM	43		
11:45:04 AM	39		
11:46:04 AM	35		
11:47:04 AM	34		
11:48:04 AM	34		
11:49:04 AM	39		
11:50:04 AM	36		
11:51:04 AM	29		
11:52:04 AM	28		
11:53:04 AM	23		
11:54:04 AM	24		
11:55:04 AM	24		
11:56:04 AM	26		
11:57:04 AM	25		
11:58:04 AM	27		
11:59:04 AM	27		
12:00:04 PM	26		
12:01:04 PM	25		
12:02:04 PM	24		
12:03:04 PM	23	Average	30
12:04:04 PM	21		
12:05:04 PM	23		
12:06:04 PM	23		
12:07:04 PM	23		
12:08:04 PM	23		
12:09:04 PM	24		
12:10:04 PM	23		
12:11:04 PM	22		
12:12:04 PM	22		
12:13:04 PM	20		

COORS BREWING COMPANY
CAE Project No. 6265
Bottle and Can CO2 Bowl Vent
Post-calibration - Run 2
June 24, 1992
1:04:00 PM

	Time sec	THC ppm
	1:04:00 PM	0
	1:04:15 PM	-14
	1:04:30 PM	-12
	1:04:45 PM	-10
	1:05:00 PM	-10
	1:05:15 PM	-12
	1:05:30 PM	-13
	1:05:45 PM	-13
	1:06:00 PM	-12
	1:06:15 PM	-9
	1:06:30 PM	-10
	1:06:45 PM	144
	1:07:00 PM	234
Cal Span	1:07:15 PM	241
Cal=241	1:07:30 PM	243
	1:07:45 PM	240
	1:08:00 PM	240
	1:08:15 PM	241
	1:08:30 PM	242
	1:08:45 PM	239
	1:09:00 PM	130
Zero Span	1:09:15 PM	-2
Cal=-5	1:09:30 PM	-6
	1:09:45 PM	-6
	1:10:00 PM	-6

COORS BREWING COMPANY
CAE Project No. 6265
Bottle and Can CO2 Bowl Vent
Run 3
June 24, 1992
1:58:48 PM

Time	THC ppm	Time sec	THC ppm
1:58:48 PM	21	2:50:48 PM	21
1:59:48 PM	23	2:51:48 PM	17
2:00:48 PM	20	2:52:48 PM	20
2:01:48 PM	20	2:53:48 PM	16
2:02:48 PM	20	2:54:48 PM	18
2:03:48 PM	19	2:55:48 PM	17
2:04:48 PM	19	2:56:48 PM	21
2:05:48 PM	18	2:57:48 PM	19
2:06:48 PM	17	2:58:48 PM	17
2:07:48 PM	17	2:59:48 PM	18
2:08:48 PM	17		
2:09:48 PM	17		
2:10:48 PM	18		
2:11:48 PM	18		
2:12:48 PM	17		
2:13:48 PM	16		
2:14:48 PM	21		
2:15:48 PM	18		
2:16:48 PM	20		
2:17:48 PM	19		
2:18:48 PM	20		
2:19:48 PM	18		
2:20:48 PM	17		
2:21:48 PM	17		
2:22:48 PM	17		
2:23:48 PM	20		
2:24:48 PM	15		
2:25:48 PM	17		
2:26:48 PM	19		
2:27:48 PM	19		
2:28:48 PM	20		
2:29:48 PM	17		
2:30:48 PM	15		
2:31:48 PM	18		
2:32:48 PM	16		
2:33:48 PM	12		
2:34:48 PM	13		
2:35:48 PM	14		
2:36:48 PM	16		
2:37:48 PM	16		
2:38:48 PM	14		
2:39:48 PM	17	Average	18
2:40:48 PM	15		
2:41:48 PM	15		
2:42:48 PM	15		
2:43:48 PM	16		
2:44:48 PM	17		
2:45:48 PM	17		
2:46:48 PM	18		
2:47:48 PM	22		
2:48:48 PM	22		
2:49:48 PM	18		

COORS BREWING COMPANY
CAE Project No. 6265
Bottle and Can CO2 Bowl Vent
Post-calibration - Run 3
June 24, 1992
3:03:05 PM

	Time sec	THC ppm
	3:03:05 PM	0
	3:03:20 PM	-19
	3:03:35 PM	-19
	3:03:50 PM	-18
	3:04:05 PM	-18
Zero Span	3:04:20 PM	-16
Cal=-15	3:04:35 PM	-16
	3:04:50 PM	-14
	3:05:05 PM	207
	3:05:20 PM	233
	3:05:35 PM	236
	3:05:50 PM	234
	3:06:05 PM	234
	3:06:20 PM	235
	3:06:35 PM	236
	3:06:50 PM	235
	3:07:05 PM	183
	3:07:20 PM	0
	3:07:35 PM	-12
	3:07:50 PM	-17
	3:08:05 PM	-18
	3:08:20 PM	-18
	3:08:35 PM	-17
	3:08:50 PM	-16
	3:09:05 PM	-16
	3:09:20 PM	125
	3:09:35 PM	234
	3:09:50 PM	239
Cal Span	3:10:05 PM	241
Cal=243	3:10:20 PM	242
	3:10:35 PM	245
	3:10:50 PM	210
	3:11:05 PM	-3
	3:11:20 PM	-13
	3:11:35 PM	-16

COORS BREWING COMPANY
CAE Project No. 6265
Bottle Filler Room Vent
Pre-calibration - Run 1
June 25, 1992
8:38:44 AM

	Time sec	THC ppm
	8:38:44 AM	0
	8:38:59 AM	1
	8:39:14 AM	1
	8:39:29 AM	1
	8:39:44 AM	1
	8:39:59 AM	1
	8:40:14 AM	1
	8:40:29 AM	1
	8:40:44 AM	1
	8:40:59 AM	1
	8:41:14 AM	1
Zero Span	8:41:29 AM	1
Cal=0	8:41:44 AM	0
	8:41:59 AM	-1
	8:42:14 AM	-1
	8:42:29 AM	278
	8:42:44 AM	841
	8:42:59 AM	849
	8:43:14 AM	845
	8:43:29 AM	846
	8:43:44 AM	856
	8:43:59 AM	853
	8:44:14 AM	847
	8:44:29 AM	844
	8:44:44 AM	852
	8:44:59 AM	850
	8:45:14 AM	842
	8:45:29 AM	846
	8:45:44 AM	551
	8:45:59 AM	45
	8:46:14 AM	425
	8:46:29 AM	531
	8:46:44 AM	545
	8:46:59 AM	548
	8:47:14 AM	554
	8:47:29 AM	544
	8:47:44 AM	543
	8:47:59 AM	551
	8:48:14 AM	545
	8:48:29 AM	542
	8:48:44 AM	336
	8:48:59 AM	232
	8:49:14 AM	420
	8:49:29 AM	275
	8:49:44 AM	259
	8:49:59 AM	259
	8:50:14 AM	261
	8:50:29 AM	225
	8:50:44 AM	238
	8:50:59 AM	248
	8:51:14 AM	249
	8:51:29 AM	247

	Time sec	THC ppm
	8:51:44 AM	237
	8:51:59 AM	240
	8:52:14 AM	235
	8:52:29 AM	150
	8:52:44 AM	144
	8:52:59 AM	157
	8:53:14 AM	182
	8:53:29 AM	172
	8:53:44 AM	94
	8:53:59 AM	26
	8:54:14 AM	11
	8:54:29 AM	135
	8:54:44 AM	241
	8:54:59 AM	239
	8:55:14 AM	242
	8:55:29 AM	248
	8:55:44 AM	245
	8:55:59 AM	242
	8:56:14 AM	247
	8:56:29 AM	248
	8:56:44 AM	171
	8:56:59 AM	38
	8:57:14 AM	247
	8:57:29 AM	217
	8:57:44 AM	17
	8:57:59 AM	1
	8:58:14 AM	1
	8:58:29 AM	-3
	8:58:44 AM	-6
	8:58:59 AM	-7
	8:59:14 AM	-2
	8:59:29 AM	-1
	8:59:44 AM	9
	8:59:59 AM	235
Cal Span	9:00:14 AM	248
Cal=245	9:00:29 AM	245
	9:00:44 AM	241
	9:00:59 AM	245
	9:01:14 AM	244

COORS BREWING COMPANY
CAE Project No. 6265
Bottle Filler Room Vent
Run 1
June 25, 1992
9:03:56 AM

Time	THC ppm
9:03:56 AM	39
9:04:56 AM	38
9:05:56 AM	41
9:06:56 AM	38
9:07:56 AM	35
9:08:56 AM	35
9:09:56 AM	34
9:10:56 AM	34
9:11:56 AM	36
9:12:56 AM	36
9:13:56 AM	34
9:14:56 AM	34
9:15:56 AM	35
9:16:56 AM	35
9:17:56 AM	54
9:18:56 AM	56
9:19:56 AM	58
9:20:56 AM	57
9:21:56 AM	53
9:22:56 AM	50
9:23:56 AM	51
9:24:56 AM	47
9:25:56 AM	44
9:26:56 AM	46
9:27:56 AM	43
9:28:56 AM	40
9:29:56 AM	47
9:30:56 AM	48
9:31:56 AM	45
9:32:56 AM	44
9:33:56 AM	44
9:34:56 AM	51
9:35:56 AM	49
9:36:56 AM	45
9:37:56 AM	51
9:38:56 AM	42
9:39:56 AM	39
9:40:56 AM	41
9:41:56 AM	34
9:42:56 AM	34
9:43:56 AM	35
9:44:56 AM	35
9:45:56 AM	39
9:46:56 AM	35
9:47:56 AM	37
9:48:56 AM	40
9:49:56 AM	38
9:50:56 AM	37
9:51:56 AM	41
9:52:56 AM	40
9:53:56 AM	34
9:54:56 AM	37
9:55:56 AM	37
9:56:56 AM	34
9:57:56 AM	30
9:58:56 AM	28
9:59:56 AM	30
10:00:56 AM	29
10:01:56 AM	29
10:02:56 AM	25
10:03:56 AM	24
10:04:56 AM	25
10:05:56 AM	25
Average	39

COORS BREWING COMPANY
CAE Project No. 6265
Bottle Filler Room Vent
Post-calibration - Run 1
June 25, 1992
10:09:24 AM

Time sec	THC ppm		Time sec	THC ppm
10:09:24 AM	0		10:22:24 AM	252
10:09:39 AM	35		10:22:39 AM	250
10:09:54 AM	3		10:22:54 AM	254
10:10:09 AM	-2		10:23:09 AM	249
10:10:24 AM	-3		10:23:24 AM	256
10:10:39 AM	-8		10:23:39 AM	250
10:10:54 AM	-3		10:23:54 AM	255
10:11:09 AM	-7		10:24:09 AM	254
10:11:24 AM	-9		10:24:24 AM	249
10:11:39 AM	-4		10:24:39 AM	162
10:11:54 AM	-11		10:24:54 AM	-6
10:12:09 AM	-6		10:25:09 AM	6
10:12:24 AM	-12	Zero Span	10:25:24 AM	1
10:12:39 AM	-6	Cal=0	10:25:39 AM	0
10:12:54 AM	-13		10:25:54 AM	1
10:13:09 AM	-6		10:26:09 AM	-2
10:13:24 AM	-12		10:26:24 AM	2
10:13:39 AM	-8		10:26:39 AM	-3
10:13:54 AM	-9		10:26:54 AM	3
10:14:09 AM	-12		10:27:09 AM	-3
10:14:24 AM	-7		10:27:24 AM	2
10:14:39 AM	-14		10:27:39 AM	-3
10:14:54 AM	-7		10:27:54 AM	1
10:15:09 AM	-13		10:28:09 AM	-1
10:15:24 AM	119		10:28:24 AM	0
10:15:39 AM	220		10:28:39 AM	1
10:15:54 AM	222		10:28:54 AM	206
10:16:09 AM	224		10:29:09 AM	266
10:16:24 AM	221		10:29:24 AM	258
10:16:39 AM	225		10:29:39 AM	248
10:16:54 AM	222	Cal Span	10:29:54 AM	250
10:17:09 AM	222	Cal=248	10:30:09 AM	247
10:17:24 AM	225		10:30:24 AM	248
10:17:39 AM	222		10:30:39 AM	244
10:17:54 AM	223		10:30:54 AM	251
10:18:09 AM	224		10:31:09 AM	249
10:18:24 AM	220		10:31:24 AM	241
10:18:39 AM	231		10:31:39 AM	245
10:18:54 AM	231		10:31:54 AM	244
10:19:09 AM	232			
10:19:24 AM	220			
10:19:39 AM	215			
10:19:54 AM	229			
10:20:09 AM	234			
10:20:24 AM	238			
10:20:39 AM	257			
10:20:54 AM	249			
10:21:09 AM	259			
10:21:24 AM	252			
10:21:39 AM	243			
10:21:54 AM	246			
10:22:09 AM	254			

COORS BREWING COMPANY
CAE Project No. 6265
Bottle Filler Room Vent
Run 2
June 25, 1992
10:33:05 AM

Time	THC ppm	Time	THC ppm
10:33:05 AM	47	11:25:05 AM	40
10:34:05 AM	48	11:26:05 AM	37
10:35:05 AM	50	11:27:05 AM	34
10:36:05 AM	51	11:28:05 AM	39
10:37:05 AM	51	11:29:05 AM	39
10:38:05 AM	56	11:30:05 AM	38
10:39:05 AM	54	11:31:05 AM	43
10:40:05 AM	58	11:32:05 AM	39
10:41:05 AM	58	11:33:05 AM	32
10:42:05 AM	52	11:34:05 AM	31
10:43:05 AM	49	11:35:05 AM	35
10:44:05 AM	43	11:36:05 AM	37
10:45:05 AM	37	11:37:05 AM	42
10:46:05 AM	36		
10:47:05 AM	35		
10:48:05 AM	34		
10:49:05 AM	34		
10:50:05 AM	32		
10:51:05 AM	40		
10:52:05 AM	45		
10:53:05 AM	45		
10:54:05 AM	46		
10:55:05 AM	54		
10:56:05 AM	62		
10:57:05 AM	67		
10:58:05 AM	64		
10:59:05 AM	65		
11:00:05 AM	57		
11:01:05 AM	55		
11:02:05 AM	51		
11:03:05 AM	52		
11:04:05 AM	51		
11:05:05 AM	50		
11:06:05 AM	50		
11:07:05 AM	48		
11:08:05 AM	45		
11:09:05 AM	41		
11:10:05 AM	40		
11:11:05 AM	39		
11:12:05 AM	47		
11:13:05 AM	51		
11:14:05 AM	53	Average	46
11:15:05 AM	51		
11:16:05 AM	52		
11:17:05 AM	49		
11:18:05 AM	50		
11:19:05 AM	49		
11:20:05 AM	46		
11:21:05 AM	46		
11:22:05 AM	44		
11:23:05 AM	42		
11:24:05 AM	45		

COORS BREWING COMPANY
CAE Project No. 6265
Bottle Filler Room Vent
Post-calibration - Run 2
June 25, 1992
11:43:21 AM

	Time sec	THC ppm
	11:43:21 AM	0
	11:43:36 AM	-1
	11:43:51 AM	-1
Zero Span	11:44:06 AM	0
Cal=0	11:44:21 AM	0
	11:44:36 AM	0
	11:44:51 AM	0
	11:45:06 AM	0
	11:45:21 AM	1
	11:45:36 AM	0
	11:45:51 AM	0
	11:46:06 AM	0
	11:46:21 AM	0
	11:46:36 AM	3
	11:46:51 AM	5
	11:47:06 AM	174
	11:47:21 AM	241
	11:47:36 AM	243
	11:47:51 AM	241
	11:48:06 AM	234
	11:48:21 AM	234
	11:48:36 AM	234
	11:48:51 AM	237
	11:49:06 AM	241
Cal Span	11:49:21 AM	243
Cal=244	11:49:36 AM	244
	11:49:51 AM	245
	11:50:06 AM	242
	11:50:21 AM	239
	11:50:36 AM	235
	11:50:51 AM	235
	11:51:06 AM	235
	11:51:21 AM	237
	11:51:36 AM	237
	11:51:51 AM	235
	11:52:06 AM	235
	11:52:21 AM	237
	11:52:36 AM	239
	11:52:51 AM	241
	11:53:06 AM	243
	11:53:21 AM	243
	11:53:36 AM	244

COORS BREWING COMPANY
CAE Project No. 6265
Bottle Filler Room Vent
Run 3
June 25, 1992
11:57:39 AM

Time	THC ppm	Time sec	THC ppm
11:57:39 AM	33	12:49:39 PM	51
11:58:39 AM	35	12:50:39 PM	47
11:59:39 AM	28	12:51:39 PM	50
12:00:39 PM	33	12:52:39 PM	53
12:01:39 PM	29	12:53:39 PM	58
12:02:39 PM	37	12:54:39 PM	58
12:03:39 PM	33	12:55:39 PM	53
12:04:39 PM	31	12:56:39 PM	47
12:05:39 PM	37	12:57:39 PM	45
12:06:39 PM	39	12:58:39 PM	49
12:07:39 PM	37	12:59:39 PM	41
12:08:39 PM	29	1:00:39 PM	43
12:09:39 PM	35	1:01:39 PM	57
12:10:39 PM	40		
12:11:39 PM	40		
12:12:39 PM	41		
12:13:39 PM	33		
12:14:39 PM	35		
12:15:39 PM	31		
12:16:39 PM	30		
12:17:39 PM	30		
12:18:39 PM	34		
12:19:39 PM	41		
12:20:39 PM	43		
12:21:39 PM	45		
12:22:39 PM	36		
12:23:39 PM	37		
12:24:39 PM	36		
12:25:39 PM	30		
12:26:39 PM	33		
12:27:39 PM	39		
12:28:39 PM	43		
12:29:39 PM	40		
12:30:39 PM	36		
12:31:39 PM	44		
12:32:39 PM	40		
12:33:39 PM	37		
12:34:39 PM	48		
12:35:39 PM	51		
12:36:39 PM	62		
12:37:39 PM	58		
12:38:39 PM	55	Average	42
12:39:39 PM	56		
12:40:39 PM	51		
12:41:39 PM	47		
12:42:39 PM	43		
12:43:39 PM	45		
12:44:39 PM	44		
12:45:39 PM	44		
12:46:39 PM	48		
12:47:39 PM	47		
12:48:39 PM	45		

COORS BREWING COMPANY
CAE Project No. 6265
Bottle Filler Room Vent
Post-calibration - Run 3
June 25, 1992
1:05:50 PM

	Time sec	THC ppm		
	1:05:50 PM	0	1:18:50 PM	236
	1:06:05 PM	13	1:19:05 PM	230
Zero Span	1:06:20 PM	0	1:19:20 PM	230
Cal=0	1:06:35 PM	0	1:19:35 PM	236
	1:06:50 PM	2	1:19:50 PM	236
	1:07:05 PM	1	1:20:05 PM	229
	1:07:20 PM	-3	1:20:20 PM	236
	1:07:35 PM	-8	1:20:35 PM	236
	1:07:50 PM	-11		
	1:08:05 PM	-10		
	1:08:20 PM	-6		
	1:08:35 PM	-2		
	1:08:50 PM	-4		
	1:09:05 PM	-11		
	1:09:20 PM	-12		
	1:09:35 PM	-12		
	1:09:50 PM	-12		
	1:10:05 PM	-3		
	1:10:20 PM	-3		
	1:10:35 PM	-6		
	1:10:50 PM	-11		
	1:11:05 PM	-12		
	1:11:20 PM	-9		
	1:11:35 PM	-3		
	1:11:50 PM	0		
	1:12:05 PM	47		
	1:12:20 PM	235		
	1:12:35 PM	237		
	1:12:50 PM	231		
	1:13:05 PM	230		
	1:13:20 PM	232		
Cal Span	1:13:35 PM	239		
Cal=237	1:13:50 PM	240		
	1:14:05 PM	238		
	1:14:20 PM	232		
	1:14:35 PM	231		
	1:14:50 PM	240		
	1:15:05 PM	237		
	1:15:20 PM	231		
	1:15:35 PM	232		
	1:15:50 PM	239		
	1:16:05 PM	240		
	1:16:20 PM	106		
	1:16:35 PM	-4		
	1:16:50 PM	-11		
	1:17:05 PM	-13		
	1:17:20 PM	-8		
	1:17:35 PM	-7		
	1:17:50 PM	-14		
	1:18:05 PM	-13		
	1:18:20 PM	116		
	1:18:35 PM	238		

COORS BREWING COMPANY
CAE Project No. 6265
Keg Line No. 3 - Filler Exhaust
Pre-calibration - Run 1
June 25, 1992
6:36:33 PM

Time sec	THC ppm		Time sec	THC ppm
6:36:33 PM	0		6:49:33 PM	254
6:36:48 PM	14	Cal Span	6:49:48 PM	252
6:37:03 PM	19	Cal=251	6:50:03 PM	249
6:37:18 PM	15		6:50:18 PM	250
6:37:33 PM	5		6:50:33 PM	253
6:37:48 PM	5		6:50:48 PM	253
6:38:03 PM	4		6:51:03 PM	255
6:38:18 PM	0		6:51:18 PM	245
6:38:33 PM	-3		6:51:33 PM	244
6:38:48 PM	-6		6:51:48 PM	240
6:39:03 PM	-7		6:52:03 PM	234
6:39:18 PM	-5		6:52:18 PM	94
6:39:33 PM	180		6:52:33 PM	-162
6:39:48 PM	841		6:52:48 PM	-146
6:40:03 PM	865		6:53:03 PM	-7
6:40:18 PM	859		6:53:18 PM	-10
6:40:33 PM	856		6:53:33 PM	-8
6:40:48 PM	859	Zero Span	6:53:48 PM	-2
6:41:03 PM	859	Cal=-2	6:54:03 PM	-2
6:41:18 PM	844		6:54:18 PM	-3
6:41:33 PM	841		6:54:33 PM	0
6:41:48 PM	840		6:54:48 PM	484
6:42:03 PM	853		6:55:03 PM	536
6:42:18 PM	857		6:55:18 PM	537
6:42:33 PM	859		6:55:33 PM	539
6:42:48 PM	859		6:55:48 PM	546
6:43:03 PM	854		6:56:03 PM	402
6:43:18 PM	852		6:56:18 PM	188
6:43:33 PM	852		6:56:33 PM	251
6:43:48 PM	850		6:56:48 PM	251
6:44:03 PM	851		6:57:03 PM	251
6:44:18 PM	851		6:57:18 PM	249
6:44:33 PM	853		6:57:33 PM	226
6:44:48 PM	853		6:57:48 PM	130
6:45:03 PM	338			
6:45:18 PM	263			
6:45:33 PM	525			
6:45:48 PM	552			
6:46:03 PM	553			
6:46:18 PM	551			
6:46:33 PM	552			
6:46:48 PM	553			
6:47:03 PM	552			
6:47:18 PM	554			
6:47:33 PM	554			
6:47:48 PM	557			
6:48:03 PM	555			
6:48:18 PM	234			
6:48:33 PM	319			
6:48:48 PM	273			
6:49:03 PM	262			
6:49:18 PM	257			

COORS BREWING COMPANY
CAE Project No. 6265
Keg Line No. 3 - Filler Exhaust
Run 1
June 25, 1992
7:04:23 PM

Time	THC ppm	Time	THC ppm
7:04:23 PM	83	7:53:23 PM	95
7:05:23 PM	116	7:54:23 PM	98
7:06:23 PM	132	7:55:23 PM	94
7:07:23 PM	157	7:56:23 PM	125
7:08:23 PM	133	7:57:23 PM	284
7:09:23 PM	121	7:58:23 PM	520
7:10:23 PM	127	7:59:23 PM	363
7:11:23 PM	118	8:00:23 PM	209
7:12:23 PM	109	8:01:23 PM	299
7:13:23 PM	105	8:02:23 PM	416
7:14:23 PM	107	8:03:23 PM	480
7:15:23 PM	101	8:04:23 PM	364
7:16:23 PM	98	8:05:23 PM	231
7:17:23 PM	101		
7:18:23 PM	99		
7:19:23 PM	100		
7:20:23 PM	96		
7:21:23 PM	100		
7:22:23 PM	99		
7:23:23 PM	98		
7:24:23 PM	98		
7:25:23 PM	96		
7:26:23 PM	89		
7:27:23 PM	92		
7:28:23 PM	91		
7:29:23 PM	86		
7:30:23 PM	87		
7:31:23 PM	88		
7:32:23 PM	97		
7:33:23 PM	96		
7:34:23 PM	102		
7:35:23 PM	102		
7:36:23 PM	107		
7:37:23 PM	104		
7:38:23 PM	102		
7:39:23 PM	108		
7:40:23 PM	104		
7:41:23 PM	107		
7:42:23 PM	104		
7:43:23 PM	101		
7:44:23 PM	100		
7:45:23 PM	103	Average	139
7:46:23 PM	104		
7:47:23 PM	99		
7:48:23 PM	101		
7:49:23 PM	99		
7:50:23 PM	100		
7:51:23 PM	100		
7:52:23 PM	100		

COORS BREWING COMPANY
CAE Project No. 6265
Keg Line No. 3 - Filler Exhaust
Post-calibration - Run 1
June 25, 1992
8:08:08 PM

	Time sec	THC ppm
Zero Span	8:08:08 PM	0
Cal=0	8:08:23 PM	159
	8:08:38 PM	263
	8:08:53 PM	268
	8:09:08 PM	257
	8:09:23 PM	254
	8:09:38 PM	255
Cal Span	8:09:53 PM	254
Cal=250	8:10:08 PM	252
	8:10:23 PM	247
	8:10:38 PM	245
	8:10:53 PM	241
	8:11:08 PM	243
	8:11:23 PM	169
	8:11:38 PM	165
	8:11:53 PM	523
	8:12:08 PM	527
	8:12:23 PM	524
	8:12:38 PM	525
	8:12:53 PM	527
	8:13:08 PM	533
	8:13:23 PM	535
	8:13:38 PM	531
	8:13:53 PM	529
	8:14:08 PM	526

COORS BREWING COMPANY
CAE Project No. 6265
Keg Line No. 3 - Filler Exhaust
Run 2
June 25, 1992
8:15:50 PM

Time	THC ppm	Time	THC ppm
8:15:50 PM	438	9:07:50 PM	143
8:16:50 PM	481	9:08:50 PM	143
8:17:50 PM	489	9:09:50 PM	152
8:18:50 PM	485	9:10:50 PM	144
8:19:50 PM	477	9:11:50 PM	144
8:20:50 PM	451	9:12:50 PM	150
8:21:50 PM	488	9:13:50 PM	144
8:22:50 PM	556	9:14:50 PM	140
8:23:50 PM	573	9:15:50 PM	148
8:24:50 PM	523	9:16:50 PM	210
8:25:50 PM	476	9:17:50 PM	251
8:26:50 PM	468		
8:27:50 PM	444		
8:28:50 PM	434		
8:29:50 PM	420		
8:30:50 PM	397		
8:31:50 PM	347		
8:32:50 PM	195		
8:33:50 PM	168		
8:34:50 PM	166		
8:35:50 PM	189		
8:36:50 PM	156		
8:37:50 PM	129		
8:38:50 PM	148		
8:39:50 PM	181		
8:40:50 PM	193		
8:41:50 PM	198		
8:42:50 PM	209		
8:43:50 PM	220		
8:44:50 PM	238		
8:45:50 PM	215		
8:46:50 PM	220		
8:47:50 PM	218		
8:48:50 PM	340		
8:49:50 PM	301		
8:50:50 PM	270		
8:51:50 PM	256		
8:52:50 PM	232		
8:53:50 PM	197		
8:54:50 PM	247		
8:55:50 PM	226		
8:56:50 PM	201	Average	269
8:57:50 PM	226		
8:58:50 PM	228		
8:59:50 PM	207		
9:00:50 PM	226		
9:01:50 PM	222		
9:02:50 PM	187		
9:03:50 PM	173		
9:04:50 PM	153		
9:05:50 PM	139		
9:06:50 PM	151		

COORS BREWING COMPANY
CAE Project No. 6265
Keg Line No. 3 - Filler Exhaust
Post-calibration - Run 2
June 25, 1992
9:22:19 PM

	Time sec	THC ppm
	9:22:19 PM	0
	9:22:34 PM	11
	9:22:49 PM	7
	9:23:04 PM	3
	9:23:19 PM	0
	9:23:34 PM	-4
Zero Span	9:23:49 PM	1
Cal=2	9:24:04 PM	3
	9:24:19 PM	2
	9:24:34 PM	-3
	9:24:49 PM	-6
	9:25:04 PM	-1
	9:25:19 PM	0
	9:25:34 PM	48
	9:25:49 PM	230
	9:26:04 PM	236
Cal Span	9:26:19 PM	243
Cal=242	9:26:34 PM	243
	9:26:49 PM	239
	9:27:04 PM	234
	9:27:19 PM	238
	9:27:34 PM	239
	9:27:49 PM	243
	9:28:04 PM	242
	9:28:19 PM	238
	9:28:34 PM	235
	9:28:49 PM	233
	9:29:04 PM	236
	9:29:19 PM	241
	9:29:34 PM	85
	9:29:49 PM	464
	9:30:04 PM	515
	9:30:19 PM	519
	9:30:34 PM	524
	9:30:49 PM	522
	9:31:04 PM	520
	9:31:19 PM	523
	9:31:34 PM	530
	9:31:49 PM	528
	9:32:04 PM	527
	9:32:19 PM	523
	9:32:34 PM	521
	9:32:49 PM	525
	9:33:04 PM	530
	9:33:19 PM	530
	9:33:34 PM	526
	9:33:49 PM	523
	9:34:04 PM	525
	9:34:19 PM	531
	9:34:34 PM	531
	9:34:49 PM	532

COORS BREWING COMPANY
CAE Project No. 6265
Keg Line No. 3 - Filler Exhaust
Run 3
June 25, 1992
9:38:12 PM

Time	THC ppm	Time sec	THC ppm
9:38:12 PM	141	10:30:12 PM	319
9:39:12 PM	204	10:31:12 PM	275
9:40:12 PM	196	10:32:12 PM	304
9:41:12 PM	165	10:33:12 PM	289
9:42:12 PM	160	10:34:12 PM	280
9:43:12 PM	181	10:35:12 PM	227
9:44:12 PM	194	10:36:12 PM	256
9:45:12 PM	209	10:37:12 PM	268
9:46:12 PM	206	10:38:12 PM	251
9:47:12 PM	213	10:39:12 PM	217
9:48:12 PM	176		
9:49:12 PM	168		
9:50:12 PM	171		
9:51:12 PM	185		
9:52:12 PM	161		
9:53:12 PM	167		
9:54:12 PM	168		
9:55:12 PM	160		
9:56:12 PM	161		
9:57:12 PM	155		
9:58:12 PM	150		
9:59:12 PM	151		
10:00:12 PM	145		
10:01:12 PM	153		
10:02:12 PM	153		
10:03:12 PM	148		
10:04:12 PM	153		
10:05:12 PM	149		
10:06:12 PM	160		
10:07:12 PM	157		
10:08:12 PM	159		
10:09:12 PM	160		
10:10:12 PM	173		
10:11:12 PM	232		
10:12:12 PM	211		
10:13:12 PM	208		
10:14:12 PM	210		
10:15:12 PM	204		
10:16:12 PM	238		
10:17:12 PM	250		
10:18:12 PM	221		
10:19:12 PM	238	Average	205
10:20:12 PM	309		
10:21:12 PM	285		
10:22:12 PM	219		
10:23:12 PM	218		
10:24:12 PM	221		
10:25:12 PM	203		
10:26:12 PM	225		
10:27:12 PM	246		
10:28:12 PM	261		
10:29:12 PM	287		

COORS BREWING COMPANY
CAE Project No. 6265
Keg Line No. 3 - Filler Exhaust
Post-calibration - Run 3
June 25, 1992
10:43:56 PM

	Time sec	THC ppm
	10:43:56 PM	0
	10:44:11 PM	11
	10:44:26 PM	9
	10:44:41 PM	6
Zero Span	10:44:56 PM	2
Cal=0	10:45:11 PM	1
	10:45:26 PM	0
	10:45:41 PM	-2
	10:45:56 PM	-3
	10:46:11 PM	-5
	10:46:26 PM	-7
	10:46:41 PM	-7
	10:46:56 PM	-7
	10:47:11 PM	-7
	10:47:26 PM	-8
	10:47:41 PM	-7
	10:47:56 PM	203
Cal Span	10:48:11 PM	250
Cal=252	10:48:26 PM	252
	10:48:41 PM	253
	10:48:56 PM	253
	10:49:11 PM	253
	10:49:26 PM	253
	10:49:41 PM	252
	10:49:56 PM	252
	10:50:11 PM	252
	10:50:26 PM	253
	10:50:41 PM	252
	10:50:56 PM	249
	10:51:11 PM	248
	10:51:26 PM	126
	10:51:41 PM	17
	10:51:56 PM	10
	10:52:11 PM	11
	10:52:26 PM	22
	10:52:41 PM	3
	10:52:56 PM	0
	10:53:11 PM	-3
	10:53:26 PM	-6
	10:53:41 PM	-6
	10:53:56 PM	-7
	10:54:11 PM	-7
	10:54:26 PM	203
	10:54:41 PM	248
	10:54:56 PM	248
	10:55:11 PM	245
	10:55:26 PM	247
	10:55:41 PM	254
	10:55:56 PM	251

COORS BREWING COMPANY
CAE Project No. 6265
Golden Beer Loadout (GBL)
Pre-calibration - Run 1
July 11, 1992
7:25:59 AM

	Time sec	THC ppm
	7:25:59 AM	0
	7:26:14 AM	1
Zero Span	7:26:29 AM	0
Cal=0	7:26:44 AM	0
	7:26:59 AM	0
	7:27:14 AM	0
	7:27:29 AM	0
	7:27:44 AM	0
	7:27:59 AM	-1
	7:28:14 AM	0
	7:28:29 AM	0
	7:28:44 AM	3
	7:28:59 AM	5
	7:29:14 AM	5
	7:29:29 AM	6
	7:29:44 AM	5
	7:29:59 AM	618
	7:30:14 AM	767
	7:30:29 AM	771
	7:30:44 AM	773
	7:30:59 AM	773
	7:31:14 AM	778
	7:31:29 AM	785
	7:31:44 AM	785
	7:31:59 AM	800
	7:32:14 AM	802
	7:32:29 AM	809
	7:32:44 AM	818
	7:32:59 AM	819
	7:33:14 AM	822
	7:33:29 AM	837
	7:33:44 AM	837
	7:33:59 AM	847
	7:34:14 AM	846
	7:34:29 AM	851
	7:34:44 AM	850
	7:34:59 AM	851
	7:35:14 AM	851
	7:35:29 AM	851
	7:35:44 AM	851
	7:35:59 AM	851
	7:36:14 AM	246
	7:36:29 AM	15
	7:36:44 AM	108
	7:36:59 AM	542
	7:37:14 AM	546
	7:37:29 AM	548
	7:37:44 AM	549
	7:37:59 AM	548
	7:38:14 AM	548
	7:38:29 AM	548
	7:38:44 AM	548
	7:38:59 AM	549
	7:39:14 AM	230
	7:39:29 AM	13
	7:39:44 AM	146
Cal Span	7:39:59 AM	252
Cal=253	7:40:14 AM	254
	7:40:29 AM	253
	7:40:44 AM	253
	7:40:59 AM	254
	7:41:14 AM	254
	7:41:29 AM	253
	7:41:44 AM	215
	7:41:59 AM	15
	7:42:14 AM	19
	7:42:29 AM	19
	7:42:44 AM	1
	7:42:59 AM	1
	7:43:14 AM	1
	7:43:29 AM	1
	7:43:44 AM	1
	7:43:59 AM	0
	7:44:14 AM	1
	7:44:29 AM	1
	7:44:44 AM	1
	7:44:59 AM	0

COORS BREWING COMPANY
CAE Project No. 6265
Golden Beer Loadout (GBL)
Run 1
July 11, 1992
9:10:42 AM

Time	THC ppm	Time	THC ppm
9:10:42 AM	62	10:02:42 AM	362
9:11:42 AM	94	10:03:42 AM	378
9:12:42 AM	124	10:04:42 AM	382
9:13:42 AM	133	10:05:42 AM	380
9:14:42 AM	137	10:06:42 AM	378
9:15:42 AM	141	10:07:42 AM	376
9:16:42 AM	146	10:08:42 AM	372
9:17:42 AM	151	10:09:42 AM	249
9:18:42 AM	156	10:10:42 AM	116
9:19:42 AM	163	10:11:42 AM	86
9:20:42 AM	170	10:12:42 AM	69
9:21:42 AM	175	10:13:42 AM	59
9:22:42 AM	180	10:14:42 AM	50
9:23:42 AM	184	10:15:42 AM	43
9:24:42 AM	188	10:16:42 AM	43
9:25:42 AM	191	10:17:42 AM	37
9:26:42 AM	195	10:18:42 AM	36
9:27:42 AM	199	10:19:42 AM	33
9:28:42 AM	203	10:20:42 AM	31
9:29:42 AM	205		
9:30:42 AM	208		
9:31:42 AM	210		
9:32:42 AM	209		
9:33:42 AM	209		
9:34:42 AM	227		
9:35:42 AM	232		
9:36:42 AM	232		
9:37:42 AM	234		
9:38:42 AM	238		
9:39:42 AM	242		
9:40:42 AM	244		
9:41:42 AM	249		
9:42:42 AM	257		
9:43:42 AM	266		
9:44:42 AM	274		
9:45:42 AM	281		
9:46:42 AM	289		
9:47:42 AM	296		
9:48:42 AM	304		
9:49:42 AM	312		
9:50:42 AM	319		
9:51:42 AM	325	Average	223
9:52:42 AM	332		
9:53:42 AM	339		
9:54:42 AM	346		
9:55:42 AM	352		
9:56:42 AM	359		
9:57:42 AM	364		
9:58:42 AM	363		
9:59:42 AM	340		
10:00:42 AM	351		
10:01:42 AM	355		

COORS BREWING COMPANY
CAE Project No. 6265
Golden Beer Loadout (GBL)
Post-calibration - Run 1
July 11, 1992
10:27:02 AM

	Time sec	THC ppm		
	10:27:02 AM	0	10:40:02 AM	1
	10:27:17 AM	-1	10:40:17 AM	1
	10:27:32 AM	-1	10:40:32 AM	1
	10:27:47 AM	-1	10:40:47 AM	0
	10:28:02 AM	-1	10:41:02 AM	-1
Zero Span	10:28:17 AM	0	10:41:17 AM	0
Cal=0	10:28:32 AM	0	10:41:32 AM	6
	10:28:47 AM	0	10:41:47 AM	8
	10:29:02 AM	-1	10:42:02 AM	810
	10:29:17 AM	-1	10:42:17 AM	635
	10:29:32 AM	-1	10:42:32 AM	843
	10:29:47 AM	0	10:42:47 AM	259
	10:30:02 AM	4	10:43:02 AM	253
	10:30:17 AM	41	10:43:17 AM	841
	10:30:32 AM	93	10:43:32 AM	846
	10:30:47 AM	598	10:43:47 AM	848
	10:31:02 AM	135	10:44:02 AM	849
	10:31:17 AM	45	10:44:17 AM	849
	10:31:32 AM	183	10:44:32 AM	848
	10:31:47 AM	603	10:44:47 AM	849
	10:32:02 AM	606	10:45:02 AM	848
	10:32:17 AM	608	10:45:17 AM	849
	10:32:32 AM	594	10:45:32 AM	850
	10:32:47 AM	583	10:45:47 AM	851
	10:33:02 AM	579	10:46:02 AM	849
	10:33:17 AM	578	10:46:17 AM	850
	10:33:32 AM	572	10:46:32 AM	850
	10:33:47 AM	567	10:46:47 AM	533
	10:34:02 AM	559	10:47:02 AM	216
	10:34:17 AM	547	10:47:17 AM	547
	10:34:32 AM	552	10:47:32 AM	547
	10:34:47 AM	545	10:47:47 AM	548
	10:35:02 AM	545	10:48:02 AM	549
	10:35:17 AM	546	10:48:17 AM	446
	10:35:32 AM	546	10:48:32 AM	19
	10:35:47 AM	545	10:48:47 AM	209
	10:36:02 AM	545	10:49:02 AM	253
	10:36:17 AM	514	10:49:17 AM	254
	10:36:32 AM	255	10:49:32 AM	255
	10:36:47 AM	246	10:49:47 AM	255
	10:37:02 AM	256	10:50:02 AM	254
	10:37:17 AM	255	10:50:17 AM	254
	10:37:32 AM	255	10:50:32 AM	254
	10:37:47 AM	254	10:50:47 AM	254
Cal Span	10:38:02 AM	253	10:51:02 AM	108
Cal=253	10:38:17 AM	254	10:51:17 AM	11
	10:38:32 AM	255	10:51:32 AM	20
	10:38:47 AM	250	10:51:47 AM	0
	10:39:02 AM	182	10:52:02 AM	0
	10:39:17 AM	146	10:52:17 AM	0
	10:39:32 AM	2	10:52:32 AM	0
	10:39:47 AM	1	10:52:47 AM	0

COORS BREWING COMPANY
CAE Project No. 6265
Golden Beer Loadout (GBL)
Pre-calibration - Run 3
July 13, 1992
10:27:02 AM

	Time sec	THC ppm			
	10:27:02 AM	0		10:40:02 AM	850
	10:27:17 AM	-1		10:40:17 AM	850
	10:27:32 AM	-1		10:40:32 AM	851
	10:27:47 AM	-1		10:40:47 AM	851
	10:28:02 AM	-1		10:41:02 AM	850
	10:28:17 AM	-1		10:41:17 AM	850
	10:28:32 AM	-1		10:41:32 AM	850
	10:28:47 AM	-1		10:41:47 AM	376
	10:29:02 AM	-1		10:42:02 AM	17
	10:29:17 AM	0		10:42:17 AM	554
	10:29:32 AM	0		10:42:32 AM	546
	10:29:47 AM	0		10:42:47 AM	547
Zero Span	10:30:02 AM	0		10:43:02 AM	547
Cal=0	10:30:17 AM	0		10:43:17 AM	547
	10:30:32 AM	0		10:43:32 AM	547
	10:30:47 AM	0		10:43:47 AM	546
	10:31:02 AM	0		10:44:02 AM	546
	10:31:17 AM	0		10:44:17 AM	546
	10:31:32 AM	0		10:44:32 AM	546
	10:31:47 AM	1		10:44:47 AM	547
	10:32:02 AM	1		10:45:02 AM	548
	10:32:17 AM	3		10:45:17 AM	547
	10:32:32 AM	3		10:45:32 AM	547
	10:32:47 AM	79		10:45:47 AM	547
	10:33:02 AM	472		10:46:02 AM	546
	10:33:17 AM	773		10:46:17 AM	546
	10:33:32 AM	778		10:46:32 AM	545
	10:33:47 AM	780		10:46:47 AM	547
	10:34:02 AM	780		10:47:02 AM	546
	10:34:17 AM	780		10:47:17 AM	547
	10:34:32 AM	781		10:47:32 AM	547
	10:34:47 AM	802		10:47:47 AM	547
	10:35:02 AM	818		10:48:02 AM	547
	10:35:17 AM	827		10:48:17 AM	547
	10:35:32 AM	839		10:48:32 AM	547
	10:35:47 AM	843		10:48:47 AM	113
	10:36:02 AM	849		10:49:02 AM	15
	10:36:17 AM	853		10:49:17 AM	18
	10:36:32 AM	846		10:49:32 AM	116
	10:36:47 AM	847		10:49:47 AM	250
	10:37:02 AM	850		10:50:02 AM	252
	10:37:17 AM	850		10:50:17 AM	252
	10:37:32 AM	850		10:50:32 AM	252
	10:37:47 AM	849		10:50:47 AM	253
	10:38:02 AM	848		10:51:02 AM	253
	10:38:17 AM	849		10:51:17 AM	253
	10:38:32 AM	851	Cal Span	10:51:32 AM	252
	10:38:47 AM	850	Cal=252	10:51:47 AM	252
	10:39:02 AM	851		10:52:02 AM	252
	10:39:17 AM	851		10:52:17 AM	252
	10:39:32 AM	851		10:52:32 AM	252
	10:39:47 AM	850		10:52:47 AM	252

COORS BREWING COMPANY
CAE Project No. 6265
Golden Beer Loadout (GBL)
Run 3
July 13, 1992
11:20:58 AM

Time	THC ppm	Time sec	THC ppm
11:20:58 AM	143	12:12:58 PM	364
11:21:58 AM	105	12:13:58 PM	386
11:22:58 AM	123	12:14:58 PM	401
11:23:58 AM	140		
11:24:58 AM	148		
11:25:58 AM	157		
11:26:58 AM	164		
11:27:58 AM	171		
11:28:58 AM	176		
11:29:58 AM	177		
11:30:58 AM	178		
11:31:58 AM	180		
11:32:58 AM	182		
11:33:58 AM	182		
11:34:58 AM	182		
11:35:58 AM	182		
11:36:58 AM	182		
11:37:58 AM	186		
11:38:58 AM	189		
11:39:58 AM	191		
11:40:58 AM	192		
11:41:58 AM	195		
11:42:58 AM	195		
11:43:58 AM	187		
11:44:58 AM	206		
11:45:58 AM	216		
11:46:58 AM	223		
11:47:58 AM	226		
11:48:58 AM	230		
11:49:58 AM	234		
11:50:58 AM	238		
11:51:58 AM	244		
11:52:58 AM	252		
11:53:58 AM	261		
11:54:58 AM	271		
11:55:58 AM	279		
11:56:58 AM	287		
11:57:58 AM	296		
11:58:58 AM	304		
11:59:58 AM	313		
12:00:58 PM	321		
12:01:58 PM	329	Average	243
12:02:58 PM	321		
12:03:58 PM	340		
12:04:58 PM	347		
12:05:58 PM	354		
12:06:58 PM	362		
12:07:58 PM	368		
12:08:58 PM	376		
12:09:58 PM	353		
12:10:58 PM	340		
12:11:58 PM	355		

COORS BREWING COMPANY
CAE Project No. 6265
Golden Beer Loadout (GBL)
Post-calibration - Run 3
July 13, 1992
1:23:03 PM

	Time sec	THC ppm
	1:23:03 PM	0
	1:23:18 PM	0
	1:23:33 PM	1
	1:23:48 PM	1
	1:24:03 PM	1
Zero Span	1:24:18 PM	1
Cal=1	1:24:33 PM	1
	1:24:48 PM	1
	1:25:03 PM	1
	1:25:18 PM	1
	1:25:33 PM	2
	1:25:48 PM	5
	1:26:03 PM	5
	1:26:18 PM	5
	1:26:33 PM	664
	1:26:48 PM	884
	1:27:03 PM	888
	1:27:18 PM	890
	1:27:33 PM	890
	1:27:48 PM	891
	1:28:03 PM	489
	1:28:18 PM	113
	1:28:33 PM	573
	1:28:48 PM	576
	1:29:03 PM	576
	1:29:18 PM	576
	1:29:33 PM	576
	1:29:48 PM	576
	1:30:03 PM	576
	1:30:18 PM	577
	1:30:33 PM	530
	1:30:48 PM	12
	1:31:03 PM	9
	1:31:18 PM	6
	1:31:33 PM	143
	1:31:48 PM	265
	1:32:03 PM	266
	1:32:18 PM	266
	1:32:33 PM	267
	1:32:48 PM	268
	1:33:03 PM	268
	1:33:18 PM	267
	1:33:33 PM	267
	1:33:48 PM	266
	1:34:03 PM	266
	1:34:18 PM	267
	1:34:33 PM	267
	1:34:48 PM	267
	1:35:03 PM	267
	1:35:18 PM	267
	1:35:33 PM	267
	1:35:48 PM	171
	1:36:03 PM	7
	1:36:18 PM	7
	1:36:33 PM	166
	1:36:48 PM	507
	1:37:03 PM	881
	1:37:18 PM	885
	1:37:33 PM	880
	1:37:48 PM	865
	1:38:03 PM	854
	1:38:18 PM	849
	1:38:33 PM	848
	1:38:48 PM	847
	1:39:03 PM	847
	1:39:18 PM	367
	1:39:33 PM	13
	1:39:48 PM	74
	1:40:03 PM	3
	1:40:18 PM	2
	1:40:33 PM	1
	1:40:48 PM	1
	1:41:03 PM	1
	1:41:18 PM	1
	1:41:33 PM	1
	1:41:48 PM	4
	1:42:03 PM	170
	1:42:18 PM	540
	1:42:33 PM	544
	1:42:48 PM	546
	1:43:03 PM	548
	1:43:18 PM	548
	1:43:33 PM	548
	1:43:48 PM	548
	1:44:03 PM	548
	1:44:18 PM	90
	1:44:33 PM	10
	1:44:48 PM	175
Cal Span	1:45:03 PM	253
Cal=253	1:45:18 PM	253
	1:45:33 PM	253
	1:45:48 PM	254
	1:46:03 PM	253

COORS BREWING COMPANY
CAE Project No. 6265
Golden Beer Loadout (GBL)
Run 4
July 13, 1992
4:23:17 PM

Time	THC ppm	Time sec	THC ppm
4:23:17 PM	64	5:15:17 PM	383
4:24:17 PM	87	5:16:17 PM	406
4:25:17 PM	104	5:17:17 PM	427
4:26:17 PM	115		
4:27:17 PM	126		
4:28:17 PM	130		
4:29:17 PM	132		
4:30:17 PM	137		
4:31:17 PM	143		
4:32:17 PM	150		
4:33:17 PM	158		
4:34:17 PM	166		
4:35:17 PM	175		
4:36:17 PM	183		
4:37:17 PM	188		
4:38:17 PM	194		
4:39:17 PM	199		
4:40:17 PM	203		
4:41:17 PM	206		
4:42:17 PM	209		
4:43:17 PM	211		
4:44:17 PM	213		
4:45:17 PM	216		
4:46:17 PM	197		
4:47:17 PM	210		
4:48:17 PM	227		
4:49:17 PM	225		
4:50:17 PM	223		
4:51:17 PM	223		
4:52:17 PM	227		
4:53:17 PM	232		
4:54:17 PM	240		
4:55:17 PM	252		
4:56:17 PM	264		
4:57:17 PM	278		
4:58:17 PM	288		
4:59:17 PM	300		
5:00:17 PM	310		
5:01:17 PM	317		
5:02:17 PM	325		
5:03:17 PM	332		
5:04:17 PM	340	Average	248
5:05:17 PM	345		
5:06:17 PM	352		
5:07:17 PM	359		
5:08:17 PM	366		
5:09:17 PM	372		
5:10:17 PM	380		
5:11:17 PM	388		
5:12:17 PM	398		
5:13:17 PM	361		
5:14:17 PM	377		

COORS BREWING COMPANY
CAE Project No. 6265
Golden Beer Loadout (GBL)
Post-calibration - Run 4
July 13, 1992
5:29:33 PM

	Time sec	THC ppm
	5:29:33 PM	0
	5:29:48 PM	0
	5:30:03 PM	-1
	5:30:18 PM	-1
	5:30:33 PM	-1
Zero Span	5:30:48 PM	-1
Cal=0	5:31:03 PM	0
	5:31:18 PM	0
	5:31:33 PM	1
	5:31:48 PM	3
	5:32:03 PM	4
	5:32:18 PM	126
	5:32:33 PM	217
	5:32:48 PM	223
	5:33:03 PM	232
	5:33:18 PM	231
	5:33:33 PM	233
	5:33:48 PM	240
	5:34:03 PM	243
Cal Span	5:34:18 PM	245
Cal=245	5:34:33 PM	245
	5:34:48 PM	244
	5:35:03 PM	245
	5:35:18 PM	246
	5:35:33 PM	179
	5:35:48 PM	35
	5:36:03 PM	530
	5:36:18 PM	56
	5:36:33 PM	518
	5:36:48 PM	543
	5:37:03 PM	547
	5:37:18 PM	550
	5:37:33 PM	552
	5:37:48 PM	551
	5:38:03 PM	555
	5:38:18 PM	558
	5:38:33 PM	559
	5:38:48 PM	556
	5:39:03 PM	558
	5:39:18 PM	560
	5:39:33 PM	562

COORS BREWING COMPANY
CAE Project No. 6265
Yeast Drying Plant
Pre-calibration - Run 1
July 16, 1992
11:35:13 AM

	Time sec	THC ppm
	11:35:13 AM	0
Zero Span	11:35:43 AM	87
Cal=83	11:36:13 AM	97
	11:36:43 AM	65
	11:37:13 AM	7532
Cal Span	11:37:43 AM	34539
Cal=32851	11:38:13 AM	33877
	11:38:43 AM	30136
	11:39:13 AM	10318
	11:39:43 AM	8582
	11:40:13 AM	8546
	11:40:43 AM	8575
	11:41:13 AM	6207
	11:41:43 AM	3299
	11:42:13 AM	5646
	11:42:43 AM	5657
	11:43:13 AM	5613
	11:43:43 AM	5637

COORS BREWING COMPANY
CAE Project No. 6265
Yeast Drying Plant
Run 1
July 16, 1992
11:56:40 AM

Time	THC ppm	Time	THC ppm
11:56:40 AM	26209	12:48:40 PM	26702
11:57:40 AM	27990	12:49:40 PM	26809
11:58:40 AM	28095	12:50:40 PM	26911
11:59:40 AM	28114	12:51:40 PM	26864
12:00:40 PM	28685	12:52:40 PM	26953
12:01:40 PM	27791	12:53:40 PM	26307
12:02:40 PM	28799	12:54:40 PM	26590
12:03:40 PM	28677	12:55:40 PM	26130
12:04:40 PM	28827	12:56:40 PM	26739
12:05:40 PM	28583		
12:06:40 PM	28279		
12:07:40 PM	28788		
12:08:40 PM	29104		
12:09:40 PM	28152		
12:10:40 PM	28291		
12:11:40 PM	28399		
12:12:40 PM	28523		
12:13:40 PM	28649		
12:14:40 PM	28335		
12:15:40 PM	28837		
12:16:40 PM	28542		
12:17:40 PM	28905		
12:18:40 PM	28899		
12:19:40 PM	28888		
12:20:40 PM	28510		
12:21:40 PM	28720		
12:22:40 PM	28816		
12:23:40 PM	28690		
12:24:40 PM	28562		
12:25:40 PM	28460		
12:26:40 PM	28082		
12:27:40 PM	28237		
12:28:40 PM	28177		
12:29:40 PM	27986		
12:30:40 PM	27906		
12:31:40 PM	27932		
12:32:40 PM	27815		
12:33:40 PM	27667		
12:34:40 PM	27929		
12:35:40 PM	27493		
12:36:40 PM	27712		
12:37:40 PM	28140	Average	27899
12:38:40 PM	27825		
12:39:40 PM	27454		
12:40:40 PM	27379		
12:41:40 PM	27233		
12:42:40 PM	27031		
12:43:40 PM	27178		
12:44:40 PM	27038		
12:45:40 PM	27255		
12:46:40 PM	27044		
12:47:40 PM	27180		

COORS BREWING COMPANY
CAE Project No. 6265
Yeast Drying Plant
Post-calibration - Run 1
June 16, 1992
1:00:40 PM

	Time sec	THC ppm
	1:00:40 PM	0
	1:01:10 PM	32487
Cal Span	1:01:40 PM	33900
Cal=33920	1:02:10 PM	34022
	1:02:40 PM	34041
	1:03:10 PM	33717
	1:03:40 PM	33789
	1:04:10 PM	32847
	1:04:40 PM	29257
	1:05:10 PM	16548
	1:05:40 PM	520
	1:06:10 PM	332
	1:06:40 PM	220
	1:07:10 PM	171
	1:07:40 PM	174
	1:08:10 PM	191
	1:08:40 PM	188
Zero Span	1:09:10 PM	111
Cal=118	1:09:40 PM	139
	1:10:10 PM	104
	1:10:40 PM	146

COORS BREWING COMPANY
CAE Project No. 6265
Yeast Drying Plant
Run 2
July 16, 1992
1:19:59 PM

Time	THC ppm	Time	THC ppm	Time	THC ppm
		1:45:29 PM	25671	2:11:29 PM	25509
1:19:59 PM	26635	1:45:59 PM	25416	2:11:59 PM	26276
1:20:29 PM	26223	1:46:29 PM	25655	2:12:29 PM	24722
1:20:59 PM	26398	1:46:59 PM	26014	2:12:59 PM	25409
1:21:29 PM	25301	1:47:29 PM	25381	2:13:29 PM	24921
1:21:59 PM	25913	1:47:59 PM	25750	2:13:59 PM	24885
1:22:29 PM	26619	1:48:29 PM	25637	2:14:29 PM	24630
1:22:59 PM	26276	1:48:59 PM	25699	2:14:59 PM	24865
1:23:29 PM	26379	1:49:29 PM	25424	2:15:29 PM	25385
1:23:59 PM	26294	1:49:59 PM	25431	2:15:59 PM	24739
1:24:29 PM	26615	1:50:29 PM	26256	2:16:29 PM	25773
1:24:59 PM	26111	1:50:59 PM	25897	2:16:59 PM	24684
1:25:29 PM	26676	1:51:29 PM	25246	2:17:29 PM	25097
1:25:59 PM	25819	1:51:59 PM	25362	2:17:59 PM	25977
1:26:29 PM	26854	1:52:29 PM	25601	2:18:29 PM	25395
1:26:59 PM	25041	1:52:59 PM	25651	2:18:59 PM	25693
1:27:29 PM	25246	1:53:29 PM	25123	2:19:29 PM	22606
1:27:59 PM	25909	1:53:59 PM	25588	2:19:59 PM	24830
1:28:29 PM	26295	1:54:29 PM	24783	2:20:29 PM	25269
1:28:59 PM	25743	1:54:59 PM	25487	2:20:59 PM	25771
1:29:29 PM	25871	1:55:29 PM	25644	2:21:29 PM	26086
1:29:59 PM	26531	1:55:59 PM	25541	2:21:59 PM	26581
1:30:29 PM	25918	1:56:29 PM	25303	2:22:29 PM	25208
1:30:59 PM	26159	1:56:59 PM	25407	2:22:59 PM	25893
1:31:29 PM	25362	1:57:29 PM	25729	2:23:29 PM	25903
1:31:59 PM	25652	1:57:59 PM	24970	2:23:59 PM	25121
1:32:29 PM	26303	1:58:29 PM	24751		
1:32:59 PM	26176	1:58:59 PM	25107		
1:33:29 PM	26687	1:59:29 PM	26460		
1:33:59 PM	26719	1:59:59 PM	26009		
1:34:29 PM	26501	2:00:29 PM	26282		
1:34:59 PM	26653	2:00:59 PM	25578		
1:35:29 PM	25992	2:01:29 PM	24969		
1:35:59 PM	25788	2:01:59 PM	25485		
1:36:29 PM	26382	2:02:29 PM	25760		
1:36:59 PM	25767	2:02:59 PM	25945		
1:37:29 PM	26098	2:03:29 PM	25999		
1:37:59 PM	26497	2:03:59 PM	25748		
1:38:29 PM	25727	2:04:29 PM	24729		
1:38:59 PM	25542	2:04:59 PM	25133		
1:39:29 PM	26047	2:05:29 PM	25278		
1:39:59 PM	25303	2:05:59 PM	24822	Average	25646
1:40:29 PM	25996	2:06:29 PM	25522		
1:40:59 PM	25624	2:06:59 PM	25443		
1:41:29 PM	25689	2:07:29 PM	25530		
1:41:59 PM	25865	2:07:59 PM	25075		
1:42:29 PM	25591	2:08:29 PM	25398		
1:42:59 PM	25833	2:08:59 PM	25017		
1:43:29 PM	26630	2:09:29 PM	24819		
1:43:59 PM	25540	2:09:59 PM	24775		
1:44:29 PM	25526	2:10:29 PM	24813		
1:44:59 PM	25618	2:10:59 PM	25004		

COORS BREWING COMPANY
CAE Project No. 6265
Yeast Drying Plant
Post-calibration - Run 2
June 16, 1992
2:33:55 PM

	Time sec	THC ppm
	2:33:55 PM	0
	2:34:10 PM	134
	2:34:25 PM	142
	2:34:40 PM	125
	2:34:55 PM	135
	2:35:10 PM	148
	2:35:25 PM	152
	2:35:40 PM	122
Zero Span	2:35:55 PM	115
Cal=102	2:36:10 PM	82
	2:36:25 PM	110
	2:36:40 PM	130
	2:36:55 PM	29999
	2:37:10 PM	33584
	2:37:25 PM	33613
	2:37:40 PM	33027
	2:37:55 PM	33162
	2:38:10 PM	33345
	2:38:25 PM	33172
Cal Span	2:38:40 PM	33649
Cal=33571	2:38:55 PM	33533
	2:39:10 PM	33532
	2:39:25 PM	33189

COORS BREWING COMPANY
CAE Project No. 6265
Yeast Drying Plant
Pre-calibration - Run 3
July 20, 1992
8:47:00 AM

	Time sec	THC ppm
	8:47:00 AM	0
	8:47:30 AM	36000
	8:48:00 AM	36000
	8:48:30 AM	36000
	8:49:00 AM	36000
	8:49:30 AM	36000
	8:50:00 AM	36000
	8:50:30 AM	36000
	8:51:00 AM	17068
Cal Span	8:51:30 AM	34014
Cal=34130	8:52:00 AM	34128
	8:52:30 AM	34248
	8:53:00 AM	19936
	8:53:30 AM	11585
	8:54:00 AM	8625
	8:54:30 AM	8720
	8:55:00 AM	8636
	8:55:30 AM	8599
	8:56:00 AM	8547
	8:56:30 AM	8484
	8:57:00 AM	3971
	8:57:30 AM	5246
	8:58:00 AM	5260
	8:58:30 AM	4957
	8:59:00 AM	1008
Zero Span	8:59:30 AM	42
Cal=33	9:00:00 AM	34
	9:00:30 AM	24

COORS BREWING COMPANY
CAE Project No. 6265
Yeast Drying Plant
Run 3
July 20, 1992
9:05:49 AM

Time	THC ppm	Time sec	THC ppm
9:05:49 AM	21041	9:57:49 AM	27245
9:06:49 AM	23914	9:58:49 AM	27064
9:07:49 AM	25969	9:59:49 AM	26817
9:08:49 AM	25910	10:00:49 AM	26281
9:09:49 AM	25097	10:01:49 AM	26261
9:10:49 AM	24940	10:02:49 AM	26561
9:11:49 AM	24768	10:03:49 AM	26572
9:12:49 AM	24260	10:04:49 AM	26540
9:13:49 AM	24494	10:05:49 AM	27274
9:14:49 AM	24492	10:06:49 AM	27426
9:15:49 AM	24608	10:07:49 AM	27706
9:16:49 AM	24647	10:08:49 AM	27594
9:17:49 AM	24625		
9:18:49 AM	24558		
9:19:49 AM	24717		
9:20:49 AM	24353		
9:21:49 AM	24154		
9:22:49 AM	24427		
9:23:49 AM	24446		
9:24:49 AM	24243		
9:25:49 AM	24085		
9:26:49 AM	23926		
9:27:49 AM	24400		
9:28:49 AM	24536		
9:29:49 AM	24957		
9:30:49 AM	24915		
9:31:49 AM	24604		
9:32:49 AM	24738		
9:33:49 AM	24954		
9:34:49 AM	24846		
9:35:49 AM	24897		
9:36:49 AM	24902		
9:37:49 AM	24853		
9:38:49 AM	24937		
9:39:49 AM	25093		
9:40:49 AM	25199		
9:41:49 AM	25365		
9:42:49 AM	25588		
9:43:49 AM	25682		
9:44:49 AM	25690		
9:45:49 AM	26092		
9:46:49 AM	26350	Average	25498
9:47:49 AM	26443		
9:48:49 AM	26336		
9:49:49 AM	26502		
9:50:49 AM	26717		
9:51:49 AM	27098		
9:52:49 AM	26992		
9:53:49 AM	26903		
9:54:49 AM	26941		
9:55:49 AM	27096		
9:56:49 AM	27218		

COORS BREWING COMPANY
CAE Project No. 6265
Yeast Drying Plant
Post-calibration - Run 3
July 20, 1992
10:13:03 AM

	Time sec	THC ppm
	10:13:03 AM	0
	10:13:33 AM	365
	10:14:03 AM	244
	10:14:33 AM	166
	10:15:03 AM	207
	10:15:33 AM	91
	10:16:03 AM	118
Zero Span	10:16:33 AM	27
Cal=37	10:17:03 AM	35
	10:17:33 AM	49
	10:18:03 AM	74
	10:18:33 AM	183
	10:19:03 AM	24656
Cal Span	10:19:33 AM	33958
Cal=34031	10:20:03 AM	34063
	10:20:33 AM	33952
	10:21:03 AM	34151
	10:21:33 AM	14486
	10:22:03 AM	8133
	10:22:33 AM	8019
	10:23:03 AM	8052
	10:23:33 AM	8364
	10:24:03 AM	8343

PROCESS DATA

COORS
1-7-92
b#6265

BARRELS = 31.25 U.S. GAL P-1-CFC

TRUB OP DATA

TIME	WP	TANK #	V_o	V_f	NOTES
13:18	~~30~~	~~29.2~~ 3	30	29.2	
1330	~~29~~	3	29.2	29.2	START RUN #1
1:35	—	3	29.2	29.21	
1:40	—	3	29.21	29.37	
1:45	—	3	29.37	29.11	
1:50	5	3	29.11	40.55	DROPPING FROM WP-5
1:55	5	3	40.55	56.16	DROPPING STOPPED 13:53
1:60		3	56.16	56.26	
14:05		3	56.21	56.49	
1410		3	56.49	56.37	
14-15			56.37	57.37	14:16 #1 WP DROPPING STOPPED @ V = 58
1420			57.37	58.03	FULL
1425			58.03	58.41	
1430			58.41	58.77	
			58.77	58.54	
1435			58.54	58.78	
1440					
1445			58.78	58.73	14:46 TRUB EMPTIES
					Vo = 58.73 : 22 =

Coors
7-7-92
#6265

P-2CF4

TRUB OP DATA

time	WP	tank	V_o	V_f	
14:50		3	50.73	3929	
14:55			3929	55.53	14:51 WP 7 DUMPING IN #3 UST 38BBL
15:00			5553	57.00	14:56 TANK full @ 57.60 BBL
15:05					
15:10					15:13 57.77 BBLS
15:15			57.77	57.95	
15:20			5795	5797	PUMP TURNED ON/EMPTYING TANK 3
1525			5797	3450	
1530			34.50	2724	15:28 PUMP VALVE CLOSES V_f = 26.29 HOT WATER FLUSH
1535			27.24	2725	
1540			2725	2745	U=5376 @ 15:53 WP5 OFF
1545	5		2745	2726	
1550			2726	40.51	
1555			40.51	5375	
16:00			5375	5375	

Jccrs
7-7-92
#6265

TRUB OP DATA

time	WP#	tank	V_o BBL	V_s BBL	Notes
1605		3	53.75	53.66	
10			53.66	53.72	
15			53.72	59.64	#1 WP DROPPING 16:10:15 → V_s 53.72 16:11:11 59.41 V.
20			59.29	59.29	
25			59.53	59.62	
30			59.62	59.59	*
35			59.59	59.59	
40			59.59	59.59	
45			59.59	59.62	
50			59.62	59.64	16:49 ~~Pump~~ VALVE OPEN START V_o 59.64
55			59.64	38.38	16:50:49 V_o @ 59.64 → PUMP ST.
17:00			38.38	28.95	V_f 28.~~64~~ 16:58:16 VALVE CLOSES
17:05			28.95		
17:10				29.08	
17:15			29.08	53.33 → OFF 5min Time scale 17:18:00	
17:20			58.31	35.92	3 Pumps ON SUCKING
17:30			35.92	28.73	

COORS
7-7-92
#6265

TRub DP DATA

time	WP	TANK #	V_o	V_f	
1735			28.73	28.94	
40			28.94	28.60	
45			28.60	28.39	
50			28.39		
55					
1800					
5					LAST FILL 17:48 V_o 28.50
10					17:53 V_f 55.1
15					
20					
25					
30					

[illegible]

[illegible] BREWING COMPANY
PACKAGING PRODUCTION REPORTING SYSTEM
YEAR-TO DATE PACKAGING PRODUCTION - GOLDEN
YEAR 1991

	TOTAL		
ARTY BALL			
BL - CONV			
OOSE	892,582	=	148,767 bbls
1/8 BL - CONV			
'OOSE	87,843	=	10,980 bbls
ARTY BALL - TOTAL	980,425		159,747 bbls.
INE 2			
1/ BL - STEEL			
---	112,317	=	28,079 bbls
BL - STEEL			
---	1,047,288	=	523,644 bbls
'INE 2 - TOTAL	1,159,605		551,723 bbls.
EG LINE 3			
1/4 BL - STEEL			
---	95,369	=	23,842 bbls
1/ BL - STEEL			
---	2,055,411	=	1,027,707 bbls.
INE 3 - TOTAL	2,150,780		1,051,549 bbls.
'INES - TOTAL	4,290,810		

1991	CAN DEFILLER (bbls.)	TOTAL BBLS. TO CELLAR 9
Jan.	2613	51388
Feb.	3429	46700
March	580	10304
April	4778	71553
May	8715	82194
June	8343	87302
July	1259	84281
Aug.	10253	77171
Sept.	14887	62689
Oct.	10098	53832
Nov.	4090	50125
Dec.	3855	47662
TOTAL	72900	725,201

ALCOHOL AVG. AT CELLAR 9 (20 week avg.) = 3.2109

TRANSLOAD - 1,039,708 gal. } '92 Y.T.D.
33,539 bbls

663,200 gal. } '91
21,393 bbls

Coors Brewing Company
Golden, Colorado

METER READINGS SHEET

CI—733 D

CAN/BTL
BOWL VENT

LINE #15PL DATE 6-24-92

ME	NUMBER 1 METER	NUMBER 2 METER	TOTAL	CASES PER HOUR	CASE INSP. HOUR	CASE INSP. ½ HR.	WAREHOUSE MIN. DOWNTIME STOPS	WAREHOUSE MIN. DOWNTIME MINS.	NAME	HOUR	STAMP
12 AM	39165	39165	9062	1368	2265					4	
PM	37803	37803	7700	1900	2000					3½	
10 PM	35903	35903	5600	1900	2320					2½	
PM	34003	34003	3900	2400	2600					1½	
PM	31603	31603	1500	1500						½	NL
7 PM	30103	30103	7085	2185	2361			½ Changeover		3	DL
PM	27618	27618	4600	2200	2300					2	
5 PM	25418	25418	2400	2400						1	
PM	23018	23018	18700	2300	2337					8	
3 PM	20718	20718	16400	2500	2342					7	
PM	18218	18218	13900	2300	2316		5	5 min.		6	
1 PM	15918	15918	11600	2200	2320					5	
PM	13718	13718	9400	2100	2350					4	
11 AM	11618	11618	7300	2400	2433					3	
AM	9218	9218	4900	2200	2450					2	
AM	7018	7018	2700	2700						1	
AM	4318	4318	-0-	-0-							
AM											
5 AM											
M											
4 AM											
M											
2 AM	4318	4318	4318	2118	2159					2	
M	2200	2200	2200	2200						1	

TYPE OF BEER

TOTAL HOURS 17.5

PED IN COLD ROOM

TYPE OF BEER

TOTAL PRODUCTION 39161

PRODUCTION RECORD (START AT BOTTOM OF SHEET)

SCHEDULE	NUMBER 1 METER	PRODUCED	NUMBER 2 METER	DESTROYED	RERUNS
JP-				for -	

M E M O R A N D U M

JUNE 26, 1992

TO: TOM BUEB

FROM: MIKE MURPHY

SUBJECT: BARRELAGE NUMBERS DURING PACKAGING AIR TESTING

The following is a listing of the number of cases, kegs and barrels produced during the air compliance testing completed this week in Packaging:

JUNE 23, 1992
CAN FILLER ROOM VENTS

14:00-15:00-	19,700 cases	=>	1429.83 bbls.
15:30-16:30-	21,055 cases	=>	1528.17 bbls.
17:00-18:00-	20,400 cases	=>	1480.63 bbls.
Total cs/bbls-	**61,155 cases**	**=>**	**4438.63 bbls.**
Average-	20,385 cases	=>	1479.54 bbls.

JUNE 24, 1992
CAN & BOTTLE FILLER BOWL CO2 VENTS

10:00-11:00-	24,800 cs.(12oz.)	=>	
	1,066 cs.(32oz.)	=>	1902.14 bbls.
12:00-13:00-	24,225 cs.(12oz.)	=>	
	1,280 cs.(32oz.)	=>	1882.12 bbls.
14:00-15:00-	24,600 cs.(12oz.)	=>	
	1,372 cs.(32oz.)	=>	1918.24 bbls.
Total cs/bbls-	**73,625 cs.(12oz.)**	**=>**	
	3,718 cs.(32oz.)	**=>**	**5703.49 bbls**
Average-	24,542 cs.(12oz.)	=>	
	1,239 cs.(32oz.)	=>	1901.16 bbls.

Note: Barrelage figures for June 24, 1992 are totals of 12oz. can, 12oz. bottle and 32oz. bottle case counts.

JUNE 25, 1992
BOTTLE FILLER ROOM VENTS

09:00-10:00-	5600 cs. (12oz.)	=>	
	1200 cs. (32oz.)	=>	522.57 bbls.
10:30-11:30-	5500 cs. (12oz.)	=>	
	1000 cs. (32oz.)	=>	495.96 bbls.
12:00-13:00-	5745 cs. (12oz.)	=>	
	1200 cs. (32oz.)	=>	533.09 bbls.
Total cs/bbls-	**16,845 cs.(12oz.)**	**=>**	
	3,400 cs.(32oz.)	**=>**	**1551.63 bbls.**
Average-	5615 cs. (12oz.)	=>	
	1133 cs. (12oz.)	=>	517.21 bbls.

JUNE 25, 1992
KEG #3 CO2 VENT

19:00-20:00-	0 kegs	=>	0 bbls.
20:30-21:30-	436 kegs	=>	218 bbls.
22:00-23:00-	385 kegs	=>	192.5 bbls.
Total kegs/bbls.-	**821 kegs**	**=>**	**410.5 bbls.**
Average-	274 kegs	=>	137 bbls.

Note: - Barrelage figures for Bottle Filler room vents are totals of 12oz. bottle and 32 oz. bottle case counts.
- All keg production during the above listed time periods is 1/2 bbls.

JUNE 26, 1992
CAN DE-FILL AIR VENTS

12:30-13:30-	80 gal.	=>	2.5 bbls.
14:00-15:00-	173 gal.	=>	5.58 bbls.
15:10-16:10-	522 gal.	=>	16.84 bbls.
Total gal/bbls.	**775 gal.**	**=>**	**25 bbls.**
Average-	258.3 gal.	=>	8.33 bbls.

Conversion factors for cases/kegs to barrels are as follows:

12oz. (cans or bottles)-	no. cases * .07258
32oz. (bottles) -	no. cases * .09677
Kegs -	no. kegs * .5
Gallons-	no. gal. / 31

Adolph Coors Company
GBL, Golden Beer Load
Rail Car Load Report

Date Mon 07-13-1992

ORDER:
Order # = 28538
Distributor = 470001
Brand = L

PERSONNEL:
Shift = N
Super = JTURECEK
Crew = TR/DR/MG/

****

SEALS:
Seal #1-4 = HZ111416, HZ111417, HZ111418, HZ111419

****

FILL DATA:
Fill # = 58
T/C # = CORX5083
Load Spot = E

System # = 2
Start Date = 07-13-92
Start Time = 16:15:12
Stop Date = 07-13-92
Stop Time = 17:19:15

Carbonation = 1.76
Specific grav = 0.99963
Turbidity = 0.100
Flavor(A,N,C) =
CO2 purity:
pre-CIP = 0.00
pre-fill= 0.00
fill = 99.94
Volume = 659.69
CO2 pressure = 8.56
CIP machine 1 = FAILED
CIP machine 2 = FAILED

	AVG.	HIGH	LOW
Temperature=	-1.49	-1.27	-1.60
Diss O2 =	26.04	36.56	--

****

PROCESSING:

	ACTION	AV.TEMP	START	STOP	% CONC.
1	2 PHOSPHOR	39.473	13:37:01	13:58:02	2.30
2	3 DEOX2	10.014	14:11:03	14:34:04	20.00
3	7 BEER LOA	-1.486	16:15:12	17:19:15	6.73
4		0.000			0.00
5		0.000			0.00
6		0.000			0.00
7		0.000			0.00
8		0.000			0.00

****

COMMENTS:

Adolph Coors Company
GBL, Golden Beer Load
Rail Car Load Report

Date Mon 07-13-1992

ORDER:
Order # = 28539
Distributor = 470001
Brand = L

PERSONNEL:
Shift = N
Super = JTURECEK
Crew = TR/DR/MG/

****

SEALS:
Seal #1-4 = HZ111412, HZ111413, HZ111414, HZ111415

****

FILL DATA:
Fill # = 59
T/C # = CORX5246
Load Spot = F

System # = 2
Start Date = 07-13-92
Start Time = 16:15:12
Stop Date = 07-13-92
Stop Time = 17:20:20

Carbonation = 1.76
Specific grav = 0.99963
Turbidity = 0.100
Flavor(A,N,C) =
CO2 purity:
pre-CIP = 0.00
pre-fill= 0.00
fill = 99.91
Volume = 660.00
CO2 pressure = 8.68
CIP machine 1 = FAILED
CIP machine 2 = FAILED

	AVG.	HIGH	LOW
Temperature=	-1.49	-1.27	-1.60
Diss O2 =	26.01	36.56	--

****

PROCESSING:

	ACTION	AV.TEMP	START	STOP	% CONC.
1	2 PHOSPHOR	39.473	13:37:01	13:58:02	2.30
2	3 DEOX2	10.014	14:11:04	14:34:04	20.00
3	7 BEER LOA	-1.488	16:15:12	17:20:20	6.73
4		0.000			0.00
5		0.000			0.00
6		0.000			0.00
7		0.000			0.00
8		0.000			0.00

****

COMMENTS:

Adolph Coors Company
GBL, Golden Beer Load
Rail Car Load Report

Date Mon 07-13-1992

ORDER:
Order # = 28535
Distributor = 470001
Brand = L

PERSONNEL:
Shift = N
Super = JTURECEK
Crew = TR/DR/MG/

****

SEALS:
Seal #1-4 = HZ111400, HZ111401, HZ111402, HZ111403

****

FILL DATA:
Fill # = 51
T/C # = CORX5175
Load Spot = F

System # = 2
Start Date = 07-13-92
Start Time = 11:11:30
Stop Date = 07-13-92
Stop Time = 12:15:38

Carbonation = 1.76
Specific grav = 0.99963
Turbidity = 0.160
Flavor(A,N,C) =
CO2 purity:
pre-CIP = 0.00
pre-fill= 0.00
fill = 99.90
Volume = 659.59
CO2 pressure = 8.55
CIP machine 1 = FAILED
CIP machine 2 = FAILED

	AVG.	HIGH	LOW
Temperature=	-1.48	-1.17	-1.65
Diss O2 =	28.04	39.57	--

****

PROCESSING:

	ACTION	AV.TEMP	START	STOP	% CONC.
1	2 PHOSPHOR	38.171	09:23:40	09:44:39	2.50
2	3 DEOX2	9.661	10:08:23	10:22:40	20.00
3	3 DEOX2	9.608	10:41:35	10:50:19	6.73
4	7 BEER LOA	-1.485	11:11:30	12:15:38	0.00
5		0.000			0.00
6		0.000			0.00
7		0.000			0.00
8		0.000			0.00

****

COMMENTS:

Adolph Coors Company
GBL, Golden Beer Load
Rail Car Load Report

Date Mon 07-13-1992

ORDER:
Order # = 28534
Distributor = 470001
Brand = L

PERSONNEL:
Shift = N
Super = JTURECEK
Crew = TR/DR/MG/

****

SEALS:
Seal #1-4 = HZ111396, HZ111397, HZ111398, HZ111399

****

FILL DATA:
Fill # = 50
T/C # = CORX5039
Load Spot = E

System # = 2
Start Date = 07-13-92
Start Time = 11:11:28
Stop Date = 07-13-92
Stop Time = 12:15:34

Carbonation = 1.76
Specific grav = 0.99963
Turbidity = 0.160
Flavor(A,N,C) =
CO2 purity:
pre-CIP = 0.00
pre-fill= 0.00
fill = 99.90
Volume = 659.69
CO2 pressure = 8.57
CIP machine 1 = FAILED
CIP machine 2 = FAILED

	AVG.	HIGH	LOW
Temperature=	-1.48	-1.17	-1.65
Diss O2 =	27.95	39.57	--

****

PROCESSING:

	ACTION	AV.TEMP	START	STOP	% CONC.
1	2 PHOSPHOR	38.183	09:23:40	09:44:40	2.50
2	3 DEOX2	9.661	10:08:22	10:22:40	20.00
3	3 DEOX2	9.608	10:41:34	10:50:16	6.73
4	7 BEER LOA	-1.485	11:11:28	12:15:34	0.00
5		0.000			0.00
6		0.000			0.00
7		0.000			0.00
8		0.000			0.00

****

COMMENTS:

Coors

Adolph Coors Company
Golden, Colorado

EVAPORATOR

CI-3689

EAST DRYING PLANT

DATE 7-16-92

☐ NIGHTS Riel ☐ DAYS GREG

	AM 2	4	6	8	10	PM 12	2	4	6	8	10	12	TOTAL AVG.
D RATE	72	72	72	72	72	72	72	72					
OTALIZER (CIRCLE FINAL)	133	270	403	537	672	805	939	1074	1221				1221
ANSFER SOLIDS/pH	9.90/5.76				9.82/5.68								9.90/5.72
ANSFER TANK NO.	5-2				96-6	96-6	96-6	96-6					
ORTH TANK LEVEL	36	96	84	50	100	94	80	54					
-1 STEAM VALVE/TC-1 TEMP	4.2/23	4.2/22	4.2/22	4.2/22	4.2/21	4.2/21	4.2/21	4.2/22					
PCV-215-VALVE	40	40	40	40	40	40	40	40					
HT HEATER TEMP	139	138	138	154	151	156	159	162					
OND. VACUUM	20.1	19.8	20.0	16.5	15.8	15.0	15.2	15.6					
COND. VALVE	0	0	0	0	0	0	0	0					
AL. NO. 1 STEAM TEMP.	196	197	198	199	193	196	196	197					
ASH VESSEL OTHER TEMP.	119	121	120	134	136	139	139	140					
NO. 3 SEPARATOR TEMP.	127	130	129	149	152	157	156	156					
2 CONDENSOR VACUUM	-20.0	-20.0	-20.0	-20.0	-17.0	-19.0	-18.5	-19.0					
1 CONDENSOR VACUUM	-20.0	-20.0	-20.0	-15.0	-13.0	-12.5	-12.0	-13.5					
COOLING WATER IN NO. 2	55	55	53	52	52	55	54	54					
OLING WATER OUT NO. 2	57	56	55	55	54	55	57	58					
OLING WATER OUT NO. 1	69	70	69	62	62	62	64	66					
NO. 2A CAL. SEP. TEMP/VACUUM	132/-10	132/-10	132/-10	153/-10	155/-9	160/-8	162/-9	160/-9					
2B CAL. SEP. TEMP/VACUUM	131/-10	135/-10	130/-10	147/-10	140/-9	155/-8	156/-9	154/-9					
NO. 1 CAL. SEP. TEMP/VACUUM	170/0	171/0	170/0	175/0	176/0	178/0	179/0	177/0					
OUTLET SOLIDS	31.90	26.77	29.23	24.94	18.69	22.13	26.11	26.67					25.78
FILTER ON LINE WEST		clean			✓			CLEAN					
FILTER ON LINE EAST		✓			CLEAN			✓					
ME/FILTER CLEANED		2 PM			9 AM			3 AM					

UP-TIME REPORT	Mid-2 am	2 am-4 am	4 am-6 am	6 am-8 am	8 am-10 am	10 am-Noon	Noon-2 pm	2 pm-4 pm	4 pm-6 pm	6 pm-8 pm	8 pm-10 pm	10 pm-Mid	TOTAL TIME HOURS
ART/STOP TIMES		3/N	1:30/6:30		8:00/N				6 water	8 [illegible]			
NNING SOUTH TANK, MIN.	120	60		90			15	60	120				7.75
RUNNING NORTH TANK, MIN.		60	120	30	120	120	105	60					10.25
NNING COLD LOOP, MIN.													
NNING ON WATER, MIN.										120			2.0
COND. YEAST to C-9													
WNTIME REPORT													
DOWN FOR STANDARD CIP											120	120	4.0
OWN FOR EXTENDED CIP													
WN FOR MAINTENANCE													
DOWNTIME (SEE DRYER REPORT)													

THER

Coors

Adolph Coors Company
Golden, Colorado

EVAPORATOR

CI—3689

YEAST DRYING PLANT

DATE 7-20-92

☐ NIGHTS [illegible] ☐ DAYS TERRY

	AM 2	4	6	8	10	PM 12	2	4	6	8	10	12	TOTAL AVG.
FEED RATE	78	72	72	72	72	72							
TOTALIZER (CIRCLE FINAL)	157	302	447	592	738	883							
TRANSFER SOLIDS/pH	16.5/4.69	16.98/4.82	10.92/5.65		13.20/5.10								
TRANSFER TANK NO.	6-5	5-12	5-12		6-12								
NORTH TANK LEVEL	100+	61	72	85	44	74							
-1 STEAM VALVE/TC-1 TEMP	4.2/27	4.2/27	4.2/29	4.2/32	4.2/31	4.2/32							
PCV-215 VALVE	40	40	40	40	40	40							
[illegible]HT HEATER TEMP	142	146	145	149	150	150							
COND. VACUUM	19.2	19.4	19	19.1	19.3	19.2							
COND. VALVE	0	0	0	0	0	0							
[illegible] NO. 1 STEAM TEMP.	191	189	193	196	197	198							
[illegible] VESSEL [illegible] TEMP.	127	127	128	129	131	129							
NO. 3 SEPARATOR TEMP.	134	132	135	134	134	134							
[illegible]2 CONDENSOR VACUUM	-20.0	-19.8	-19.8	-19.8	-19.8	-19.7							
[illegible]1 CONDENSOR VACUUM	-19.0	-19.0	-19	-19	-19	-18.9							
COOLING WATER IN NO. 2	59	56	55	54	54	55							
COOLING WATER OUT NO. 2	60	59	58	58	58	58							
COOLING WATER OUT NO. 1	75	75	74	75	74	74							
NO. 2A CAL. SEP. TEMP/VACUUM	135/-13	136/-13	139/-12	138/-11	137/-10	138/-10							
2B CAL. SEP. TEMP/VACUUM	135/-13	134/-13	136/-12	136/-11	135/-10	136/-10							
NO. 1 CAL. SEP. TEMP/VACUUM	167/-4	165/-6	167/-2	170/-1	172/-1	174/-1							
OUTLET SOLIDS	31.62	31.45	31.78	29.0	30.63								
FILTER ON LINE WEST					✓								
FILTER ON LINE EAST					CLEAN								
E/FILTER CLEANED					9.00								
UP-TIME REPORT	Mid-2 am	2 am-4 am	4 am-6 am	6 am-8 am	8 am-10 am	10 am-Noon	Noon-2 pm	2 pm-4 pm	4 pm-6 pm	6 pm-8 pm	8 pm-10 pm	10 pm-Mid	TOTAL TIME HOURS
RT/STOP TIMES													
R[illegible]INING SOUTH TANK, MIN.	120	120	120	120	120	120							
RUNNING NORTH TANK, MIN.													
[illegible]INING COLD LOOP, MIN.													
R[illegible]INING ON WATER, MIN.													
COND. YEAST to C-9													
[illegible]WNTIME REPORT													
DOWN FOR STANDARD CIP													
[illegible]WN FOR EXTENDED CIP													
[illegible]WN FOR MAINTENANCE													
DOWNTIME (SEE DRYER REPORT)													

[illegible]HER

CAE Source Testing

CAE engineers are professional experts in air pollution emission measurements. They possess an in-depth understanding of both the emission sources as well as the control equipment being evaluated. Our engineers select the significant variables to be measured during a test program in order to provide the most meaningful data. CAE can help clients develop a plan for evaluating and controlling emissions to meet legislative standards. CAE utilizes the most appropriate EPA, ASME or NIOSH method depending upon situational requirements.

These services include:

- Compliance planning and status determination
- Pollution control device performance evaluation
- Emission inventories (O_2, CO, CO_2, SO_2, SO_3, NOx, [illegible] multi-metals [illegible] particu[illegible]
- Visual [illegible] monitoring
- Velocity and temperature traversing
- CEMS PST audits
- In situ resistivity and particle sizing measurements
- Total hydrocarbon determination

CAE Combustion

Because of the regulatory and operational complexity of incinerators, CAE has developed this specialty testing department. This group provides a wide variety of engineering consulting services for municipal incinerators, hospital waste incinerators and RCRA/TSCA incinerators. CAE is highly experienced in all phases of compliance testing for combustion systems from development of the sampling and analytical matrix to performance of all data reduction, validation and reporting.

The combustion group provides engineering consulting services for:

- Trial burn assistance
- DRE determination
- Municipal refuse incinerator testing
- Boiler efficiency studies
- HVT sampling
- Continuous emission monitoring consulting
- Design calculations
- Air pollution control permits
- Energy recovery design
- Multi-metals sampling
- Volatile/semi-volatile organics
- RCRA/TSCA incinerator testing
- Air toxic assessments
- Hospital waste incineration

CAE Analytical Services

CAE's in-house laboratory provides technically accurate and timely chemical analysis. We can perform analyses for a variety of organics and inorganics including NOx, SO/SO_2, H_2S, VOCs and chlorides. Our comprehensive quality control program guarantees the accuracy of any analysis. CAE Analytical prides itself on providing clients with the most modern, accurate and cost-effective sample preparation and analysis available. We offer a full range of qualitative and quantitative analytical services including:

- Air quality
- Water quality
- Toxic and hazardous waste identification
- Occupational safety and health

The staff uses a variety of instrumental and wet chemical methods including:

- Chemical spectroscopy
- Gas chromatography of air, liquids, soil and water samples
- Atomic absorption spectroscopy of water soluble analytes
- EPA Method 25 analysis

CAE Mobile Laboratories

CAE has developed mobile analytical laboratories in response to an increasing customer demand for faster turnaround of test results. CAE's mobile laboratories are equipped with state-of-the-art instrumentation, and are staffed with experienced chemists. On-site analysis also results in significant reduction in analytical costs.

Our services include:

- Portable gas chromatography
- Identification and characterization of VOCs
- Analysis of unstable compounds
- Soil and water screening
- Total reduced sulfur (TRS) characterization and EPA Methods 15 and 16
- Ambient emissions testing for OSHA and NIOSH compliance
- Well monitoring - sample [illegible]
- Fugitive [illegible]

CAE Diagnostic Services

CAE Diagnostic Services offers performance diagnosis and troubleshooting services for electrostatic precipitators and flow control of directing devices. This group provides computer modeling, laboratory resistivity measurements, physical flow modeling, field testing and particulate characterization. Computer modeling applications include resistivity, precipitator performance and gas flow. Three-dimensional scale models of pollution control equipment, system ductwork or stacks can determine the gas flow distribution, pressure drop and proper vaning for overall system efficiency.

Futhermore, the Diagnostic department performs the following:

- Inspection and evaluation of precipitator characteristics
- Laboratory resistivity studies
- 3-D gas flow modeling
- Particulate characterization: resistivity, size, density, chemistry
- Field flow measurement
- ESP evaluation and consulting
- Selection of coats
- Fluid dynamics

CAE Express

CAE Express provides emergency equipment sales. Delivery is guaranteed within 24 hours for:

- Source sampling equipment
- Source sampling supplies
- CEM system hardware

CAE Instrument Rental

CAE Instrument Rental offers a diversified line of gas monitors of gas monitors for both source and ambient air applications including O_2, CO_2, CO, NOx, SO_2 and THC. A variety of industrial hygiene and personal survey tools are available as well as data acquisition systems, calibration materials and sampling supplies.

Our equipment includes:

- Source gas monitors
- Ambient air monitors
- Source gas sampling equipment
- Industrial hygiene tools
- Field screening equipment
- Calibration materials

CAE Offices

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CAE Departments

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CAE Combustion
CAE Diagnostic
CAE Europe
CAE Express
CAE Instrument Rental
CAE Seminars
CAE Source Testing
CAE VOC Services