PLAINTIFF'S EXHIBIT
CEL-1459

CELANESE ENGINEERING RESINS
Bishop, Texas

TO: Mr. D. A. Reck April 10, 1986

FROM: G. D. Boyd GDB-371-86

LABORATORY MONTHLY HIGHLIGHTS

MARCH, 1986

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HIGHLIGHTS

EAST LABORATORY

Steve Vogt completed his training in the chemical section and is presently on the regular work schedule.

Luis Benavides reported to the East Lab on March 31 and is presently training in the chemical section. His projected training completion date is May 2, 1986.

Pam Wagner reported to the West Lab on March 31, 1986.

Fifty-nine personnel samples were collected in March. Below is a list of sampling by contaminant:

	TWA	STEL
Antimony	-	1
Asbestos	3	1
Formaldehyde	19	
Noise	29	
Total Dust	6	

In addition to the samples listed above, 4 Assay Technology badge samples (formaldehyde) were collected for the side-by-side comparison study, 19 area noise samples were collected for Leo Trejo (noise reduction projects), and 13 area formaldehyde samples were collected to determine background formaldehyde levels in Kingsville, Bishop, and Corpus Christi.

Revision A.85 of the RTE-A operating system for the lab HP-1000 was installed on March 19, 1986. Only two hours down time were required to install the new software because the majority of the work was accomplished at Hewlett-Packard's Corpus Christi office. A newer version of the LAS (GC software) and BLISS were installed at the same time.

One training session for non-Lab personnel on the use of the BLISS search routine was held March 20. This search routine allows sophisticated access to the analytical results in the Lab data base. More training sessions will be held as interest demands.

The initial meeting of the Laboratory SPC team was held on March 25, 1986. Team members include Leanne Harvey, Team Leader; Jim Russell, Facilitator; Felix Soliz, Lab Supervisor; Cinda Alvarado, Rey Garcia, Don Skrovan, Jim Vargas, and Steve Vogt. Rodney Pope is also assigned to this team and will join us upon his transfer to the East Laboratory in May.

Flow-through core-testing of the simulated APAP unit waste streams was completed in March. As suspected, the hydroxlamine proved to be incompatible with the Bishop and Bay City well formations. Hydroxylamine reacts at room temperature in the core, causing much gas formation. The testing will be documented in April.

009996

Development of the 1,4-dioxolane process is nearing completion. Total organic carbon analyses of the waste water stream indicate that there are unknowns present which we do not see by our gas chromatography (GC) analyses. These "extra" by-products reduce the yield by 0.5 - 1.0%. Current work is focused on determining whether "inerts" have built up in the reaction mixture which may require some blow-down and efficiency loss. The Tech Center will do some corrosion testing to help select a suitable material of construction for the reactor and reboiler. This will complete the development effort. Our current best estimate of process yield to dioxolane is 95% based on formaldehyde fed and 96% based on ethylene glycol fed.

WEST LABORATORY

The Tech Center has completed analyzing the various distillation samples of return methanol from SH-1 using gas chromatography/mass spectroscopy (GC/MS). These analyses did not identify any potential compounds which would cause yellowing of Celcon (when reacted with Irganox). Since the GC/MS analyses concentrated only on the major components, concentration and separation of the minor components is underway using liquid chromatography.

Method development (utilizing the Image Analyzer) for black specks in Celanex keytop products is in progress. Speck sizing and differentiation is underway.

Analysis for silicone oil in four complaint lots from Polyplastics has been completed. Three of the four lots were found to contain less than 18 wt% silicone oil (specification 20 $\pm$ 2 wt%). The samples were analyzed using a gravimetric method. Additionally, one sample was analyzed by the method used by Polyplastics. The Bishop analysis was confirmed by the Polyplastic analytical method.

An EMS Advisory Council was established to provide guidance and maintain smooth operation of the EMS Crew. The membership was established and some preliminary action items were assigned. The first meeting is tentatively scheduled for May.

David Clapper (Senior Lab Technician) and Toyo Kawamura (Warehouse Foreman) provided two 40-hour ECA courses for the new members of the EMS Crew. Thank you, David and Toyo!

PROCESS ANALYZER GROUP

All pH meters and sample loss flow switches for the Spill Control project are in Plant. Initial TOD analyzer checkout and factory training has been rescheduled for April 23 and 24. The first two TOD analyzers are now scheduled to ship to Bishop during the last week of April. Sample system optimization continues.

009997

The Acetate reactor water analyzer is on-line and showing acceptable correlation with Karl Fisher water analysis. Unit lab sampling has been reduced to once every two hours.

Problems were encountered with the MO-IV absorber vent analyzer. % HCHO has been low and sometimes below the detectable limit of the analyzer. Some problems in the sample system have been identified. Work is continuing to resolve these problems and identify others.

CO analyzers were installed in the MS control room AC duct and the tank car cleaning rack breathing air. These are both operating well.

The engineering package for the T-243 OH density meter is complete and the analyzer should be installed in April.

The SH-2 Komline-Sanderson oxygen analyzer has been taken off-line until sample system modifications are complete. The SH-2 Quench/Grinder Vent oxygen analyzer's purge was incorrectly connected to 1 psi nitrogen, which was inadequate for purge requirements. We are awaiting the connection of approximately 40 psi nitrogen.

The MH-2 TO Feed GC has been up and running most of the month, and has been turned over to the unit. The Honda feed GC is in the final stages of commissioning, and calibration methods are being optimized. We anticipate completion by mid-April.

The titrator was started up for the analysis of low levels of free TEA before and after the HH system. We are currently optimizing the analysis parameters. Plugging problems have been encountered with the Quench tank sample stream to the titrator. Engineering is making piping modifications to correct this.

A Uniloc oxygen analyzer, salvaged from Paraform, will be installed on the Flake Compaction/Transfer system.

STATISTICS

	% OVERTIME	% ABSENTEEISM	
EAST LAB		7.5	2.5
WEST LAB		15.1	1.7
PROCESS ANALYZER GROUP		3.7	0.8