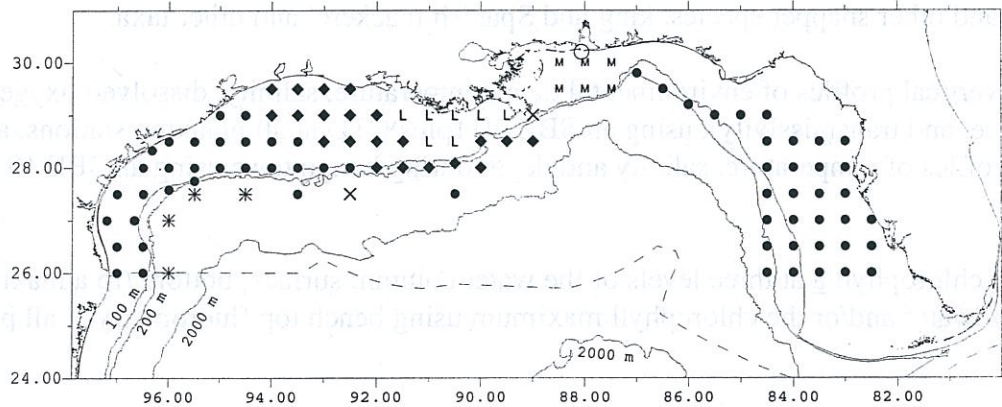


## CRUISE RESULTS

### Southeast Area Monitoring and Assessment Program (SEAMAP) 2002 Fall Ichthyoplankton Survey

NOAA Ship *Gordon Gunter* Cruise GU-02-05 (20)  
28 August - 21 September 2002



U.S. Department of Commerce  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
Southeast Fisheries Science Center  
Mississippi Laboratories  
Pascagoula Facility  
P.O. Drawer 1207  
Pascagoula, MS 39568-1207

## INTRODUCTION

The NOAA Ship *Gordon Gunter* departed Pascagoula, MS on 28 August 2002 to initiate the Southeast Area Monitoring and Assessment Program (SEAMAP) Fall Ichthyoplankton Survey in the northern Gulf of Mexico. The SEAMAP Program is a cooperative State/Federal/University program designed to collect biological and environmental data from waters of the U.S. Gulf of Mexico. During the Fall Survey plankton samples are collected from a systematic grid of stations to assess occurrence, distribution and abundance of the early life stages of a variety of species of fishes and invertebrates. The survey specifically targets larvae of red drum, red and other snapper species, and king and Spanish mackerel. A total of 22 successful sea days were worked over two legs during the cruise: Leg 1, 28 August - 13 September and Leg 2, 16 - 21 September 2002.

## OBJECTIVES

1. Collect ichthyoplankton samples with bongo and neuston nets for Gulf-wide estimates of abundance, frequency of occurrence, and distribution of the larvae and small juveniles of red drum, red and other snapper species, king and Spanish mackerel and other taxa.
2. Collect vertical profiles of environmental data (temperature, salinity, dissolved oxygen, fluorescence, and transmissivity), using an SBE 9/11plus CTD at all plankton stations, and realtime profiles of temperature, salinity and depth during bongo tows using an SBE 19 Seacat Profiler.
3. Measure chlorophyll *a* at three levels of the water column: surface, bottom (to a maximum of 200 m), midwater and/or the chlorophyll maximum using bench top fluorometry at all plankton stations.
4. Collect additional bongo ichthyoplankton samples at designated locations to a maximum depth of 300 m, targeting mesopelagic fish species not generally sampled at regular SEAMAP ichthyoplankton stations.
5. Collect data and samples for ichthyoplankton variability studies.

## METHODS

### Environmental Data Collection

Environmental data were collected at each designated ichthyoplankton station in accordance with procedures outlined in the SEAMAP data collections manual. Each regular SEAMAP station included a CTD cast to near bottom or a maximum depth of 200 m. At designated deep stations, a CTD profile was made to 300 m. The Seabird SBE 9/11 Plus CTD was used with the following sensors: SBE 03 temperature sensor, SBE 04 conductivity sensor, SBE Digiquartz pressure sensor, SBE 43 Dissolved oxygen sensor, Wetlabs Wetstar chlorophyll



fluorometer, and Wetlabs C-Star transmissometer. Information from shipboard sensors was accessed via the Scientific Computer System (SCS), which continuously displayed and recorded the ship's position, heading, speed, wind direction, wind speed, barometric pressure, sea surface temperature, air temperature and water depth. Water samples were taken, using Niskin bottles attached to a carousel sampler, at the surface, midwater or chlorophyll maximum, and near-bottom (up to 200 m maximum) for bench top fluorometric analysis using the Welshmeyer method. At stations where a chlorophyll maximum occurred at the surface or near-bottom an additional sample was taken at midwater. Temperature, salinity and depth were recorded in real time during all bongo net tows using a Seabird SBE19 Seacat Profiler.

### **Ichthyoplankton Sample Collection**

Ichthyoplankton sample and data collection were implemented in accordance with procedures outlined in the SEAMAP data collections manual. A predefined cruise track of 129 SEAMAP stations approximately 30 nautical miles apart in a systematic grid pattern were targeted for the survey. Sixty-six stations were planned for Leg 1 and 63 stations were planned for Leg 2. Primary station operations consisted of a CTD profile, a bongo tow with attached (on towing cable above the frame) Seacat Profiler, and a neuston tow. Plankton samples were taken with the standard SEAMAP 61 cm bongo outfitted with two 0.335 mm mesh nets and towed in an oblique path from near bottom or 200 m maximum depth to the surface. Vessel speed was adjusted during the bongo tow to maintain a 45-degree wire angle in order to uniformly sample the water column. Water temperature, salinity and depth were monitored and recorded during each bongo tow. Neuston samples were taken using a 0.947 mm mesh net attached to a 1 x 2 m metal frame and towed for 10 minutes at a vessel speed (~ 2 kts) sufficient to keep the net opening half submerged in the water and thus maintaining a sampling depth of 0.5 m.

## **RESULTS**

### **Environmental Data**

Ninety-eight, SBE 9/11 plus CTD and 95, SBE 19 Seacat profiles were taken during the cruise. CTD profiles were post-processed at sea by the Field Party Chief using Seabird's SEASAVE processing software. All environmental data and data from the ship's SCS were returned to the NMFS Pascagoula Laboratory for editing, analysis and archival.

### **Ichthyoplankton survey**

Over the course of the *Gordon Gunter* survey, ichthyoplankton samples were collected at 88 SEAMAP stations (Figure 1); 67 stations were sampled during Leg 1 (Table 2) and 22 stations were sampled during Leg 2 (Table 3). This resulted in the collection of 184 bongo samples (92 right and 92 left) and 88 neuston samples. Of the original 142 planned stations, only 88 were completed. At three stations only a CTD cast and water samples were taken due, in one instance, to winch problems, and in two instances to lightning. During Leg 1 Tropical Storm "Faye" formed in the western Gulf and forced us to suspend sampling in that region and to divert our cruise track to south Florida where we resumed sampling. Tropical storm Hanna developed in the eastern Gulf late in Leg 1 and caused us to change our cruise track once again. Operations on Leg 2 were cut short due to Hurricane Isidore which forced the ship to take refuge in Lake

Charles, Louisiana where the ship remained until the end of the time allotted for the Fall survey.

*Table 1.* Summary of ichthyoplankton collections taken during *Gordon Gunter* cruise 02-05 (20), 28 August - 21 September 2002.

Leg	CTD casts	Right - Bongo	Left - Bongo	Neuston	Chl. <u>a</u>
1	68	71	71	67	611
2	22	21	21	21	186
Totals	90	92	92	88	797

State contributions to the overall 2002 SEAMAP Fall Ichthyoplankton Survey include bongo and neuston samples taken at: 7 stations by Louisiana Department of Wildlife and Fisheries on September 16-18; and 6 stations by the Gulf Coast Research Laboratory, University of Southern Mississippi on October 10 & 11 (Figure 1). Neuston samples only were taken at 9 stations by the Alabama Department of Conservation and Natural Resources on September 17 (open circle on Figure 1 indicates general region of these closely spaced sampling sites).

No variability samples and only four deep water bongo collections were taken due to lost survey time caused by multiple tropical weather systems in the Gulf this year. Plankton samples were assigned SEAMAP numbers at sea (Federal samples) or back at the Lab (State collected samples). Right bongos and neustons will be shipped to ZSIOP Gdynia, Poland for sorting. Left bongo samples will be deposited in the SEAMAP Invertebrate Archive at Gulf Coast Research Laboratory, University of Southern Mississippi, Ocean Springs, MS for archival.



## **CRUISE PARTICIPANTS**

Leg 1 (28 August - 13 September 2002)

### **Name / Title / Organization**

Joanne L.-Shultz / Field Party Chief / NMFS, Pascagoula, MS  
Alonzo Hamilton / Fishery Biologist / NMFS, Pascagoula, MS  
Pam Bond / Fishery Biologist / NMFS, Pascagoula, MS  
Dave Hanisko / Fishery Biologist / NMFS, Pascagoula, MS  
Jenna Tortorelli / Fishery Biologist / FMRI<sup>1</sup>, St. Petersburg, FL  
Maria Quimis / Cooperator / Ecuador

<sup>2</sup> - Florida Marine Research Institute

Leg 2 (16 September - 21 September 2002)

### **Name / Title / Organization**

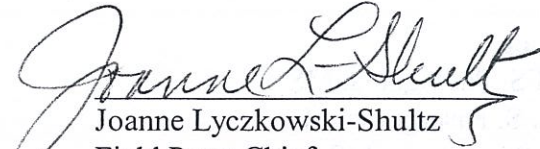
Pam Bond / Field Party Chief / NMFS, Pascagoula, MS  
Denice Drass / Fishery Biologist / NMFS, Pascagoula, MS  
Kim Williams / Fishery Biologist / FMRI<sup>1</sup>, St. Petersburg, FL  
Glenn Zapfe / Fishery Biologist / JCWS<sup>2</sup>, Pascagoula, MS  
Maria Quimis / Cooperator / Ecuador


<sup>1</sup> - Florida Marine Research Institute

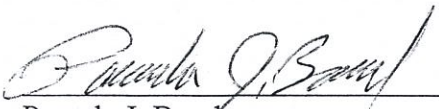
<sup>2</sup> - Johnson Controls World Services

Submitted by:

Approved by:

  
Joanne Lyczkowski-Shultz  
Field Party Chief

  
Scott Nichols, Director  
Mississippi Laboratories

  
Pamela J. Bond  
Field Party Chief

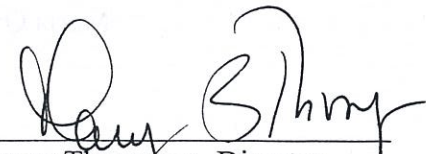
  
Nancy Thompson, Director  
Southeast Science and Research Center

Table 2. Summary of plankton sampling effort during the Fall SEAMAP Ichthyoplankton Survey conducted from the NOAA Ship *Gordon Gunter*, cruise GU-02-05, Leg 1, 28 August - 13 September 2002. P-Sta.# = Pascagoula station number; S-Sta.# = SEAMAP station number; Smp.# = SEAMAP sample number; R-B = Right Bongo; L-B = Left Bongo; NN = Neuston; Bold gear represents deep bongo trawls; Pres. = Initial preservative; Form = Formalin; ETOH = Ethyl alcohol.

P-Sta.#	S-Sta. #	Smp. #	Gear	Pres.	Date
001	B030	29379	R - B	10% Form	30 Aug. 02
"	"	29380	L - B	10% Form	"
"	"	29381	NN	10% Form	"
"	"	29382	<b>R - B</b>	10% Form	"
"	"	29383	<b>L - B</b>	10% Form	"
002	B316	29384	R - B	10% Form	31 Aug. 02
"	"	29385	L - B	95% ETOH	"
"	"	29386	NN	10% Form	"
003	B032	29387	R - B	10% Form	31 Aug. 02
"	"	29388	L - B	10% Form	"
"	"	29389	NN	10% Form	"
004	B239	29390	R - B	10% Form	31 Aug. 02
"	"	29391	L - B	10% Form	"
"	"	29392	NN	10% Form	"
005	B238	29393	R - B	10% Form	31 Aug. 02
"	"	29394	L - B	10% Form	"
"	"	29395	NN	10% Form	"
006	B051	29396	R - B	10% Form	31 Aug. 02
"	"	29397	L - B	95% ETOH	"
"	"	29398	NN	10% Form	"
007	B328	29399	R - B	10% Form	01 Sept. 02
"	"	29400	L - B	95% ETOH	"
"	"	29401	NN	10% Form	"

P-Sta.#	S-Sta. #	Smp. #	Gear	Pres.	Date
008	B031	29402	R - B	10% Form	01 Sept. 02
"	"	29403	L - B	10% Form	"
"	"	29404	NN	10% Form	"
"	"	29405	<b>R - B</b>	10% Form	"
"	"	29406	<b>L - B</b>	10% Form	"
009	B232	29407	R - B	10% Form	01 Sept. 02
"	"	29408	L - B	95% ETOH	"
"	"	29409	NN	10% Form	"
010	B234	29410	R - B	10% Form	01 Sept. 02
"	"	29411	L - B	95% ETOH	"
"	"	29412	NN	10% Form	"
011	B235	29413	R - B	10% Form	02 Sept. 02
"	"	29414	L - B	95% ETOH	"
"	"	29415	NN	10% Form	"
012	B233	29416	R - B	10% Form	02 Sept. 02
"	"	29417	L - B	95% ETOH	"
"	"	29418	NN	10% Form	"
013	B231	29419	R - B	10% Form	02 Sept. 02
"	"	29420	L - B	10% Form	"
"	"	29421	NN	10% Form	"
014	B327	29422	R - B	10% Form	02 Sept. 02
"	"	29423	L - B	10% Form	"
"	"	29424	NN	10% Form	"



Table 2 continued.

P-Sta.#	S-Sta. #	Smp. #	Gear	Pres.	Date
015	B230	29425	R - B	10% Form	02 Sept. 02
"	"	29426	L - B	10% Form	"
"	"	29427	NN	10% Form	"
016	B228	29428	R - B	10% Form	02 Sept. 02
"	"	29429	L - B	10% Form	"
"	"	29430	NN	10% Form	"
017	B226	29431	R - B	10% Form	02 Sept. 02
"	"	29432	L - B	95% ETOH	"
"	"	29433	NN	10% Form	"
018	B326	29434	R - B	10% Form	03 Sept. 02
"	"	29435	L - B	10% Form	"
"	"	29436	NN	10% Form	"
019	B225	29437	R - B	10% Form	03 Sept. 02
"	"	29438	L - B	10% Form	"
"	"	29439	NN	10% Form	"
"	"	29440	<b>R - B</b>	10% Form	"
"	"	29441	<b>L - B</b>	10% Form	"
020	B223	29442	R - B	10% Form	03 Sept. 02
"	"	29443	L - B	10% Form	"
"	"	29444	NN	10% Form	"
021	B222	29445	R - B	10% Form	03 Sept. 02
"	"	29446	L - B	95% ETOH	"
"	"	29447	NN	10% Form	"
022	B221	29448	R - B	10% Form	03 Sept. 02
"	"	29449	L - B	10% Form	"
"	"	29450	NN	10% Form	"

P-Sta.#	S-Sta. #	Smp. #	Gear	Pres.	Date
023	B219	29451	R - B	10% Form	03 Sept. 02
"	"	29452	L - B	10% Form	"
"	"	29453	NN	10% Form	"
024	B218	29454	R - B	10% Form	04 Sept. 02
"	"	29455	L - B	95% ETOH	"
"	"	29456	NN	10% Form	"
025	B217	29457	R - B	10% Form	04 Sept. 02
"	"	29458	L - B	10% Form	"
"	"	29459	NN	10% Form	"
026	B243	29460	R - B	10% Form	04 Sept. 02
"	"	29461	L - B	95% ETOH	"
"	"	29462	NN	10% Form	"
"	"	29463	<b>R - B</b>	10% Form	"
"	"	29464	<b>L - B</b>	10% Form	"
027	B216	29465	R - B	10% Form	04 Sept. 02
"	"	29466	L - B	10% Form	"
"	"	29467	NN	10% Form	"
028	B215	29468	R - B	10% Form	04 Sept. 02
"	"	29469	L - B	95% ETOH	"
"	"	29470	NN	10% Form	"
029	B210	29471	R - B	10% Form	05 Sept. 02
"	"	29472	L - B	10% Form	"
"	"	29473	NN	10% Form	"
030	B209	29474	R - B	10% Form	05 Sept. 02
"	"	29475	L - B	95% ETOH	"
"	"	29476	NN	10% Form	"



Table 2 continued.

P-Sta.#	S-Sta. #	Smp. #	Gear	Pres.	Date
031	B244	29477	R - B	10% Form	05 Sept. 02
"	"	29478	L - B	10% Form	"
"	"	29479	NN	10% Form	"
032	B023	29480	R - B	10% Form	05 Sept. 02
"	"	29481	L - B	10% Form	"
"	"	29482	NN	10% Form	"
033	B202	29483	R - B	10% Form	05 Sept. 02
"	"	29484	L - B	95% ETOH	"
"	"	29485	NN	10% Form	"
034	B245	CTD only due to lightning			06 Sept. 02
"	"				"
"	"				"
035	B247	29486	R - B	10% Form	06 Sept. 02
"	"	29487	L - B	10% Form	"
"	"	29488	NN	10% Form	"
036	B147	29489	R - B	10% Form	07 Sept. 02
"	"	29490	L - B	10% Form	"
"	"	29491	NN	10% Form	"
037	B131	29492	R - B	10% Form	08 Sept. 02
"	"	29493	L - B	10% Form	"
"	"	29494	NN	10% Form	"
038	B122	29495	R - B	10% Form	08 Sept. 02
"	"	29496	L - B	10% Form	"
"	"	29497	NN	10% Form	"
039	B108	29498	R - B	10% Form	08 Sept. 02
"	"	29499	L - B	10% Form	"
"	"	29500	NN	10% Form	"

P-Sta.#	S-Sta. #	Smp. #	Gear	Pres.	Date
040	B099	29501	R - B	10% Form	08 Sept. 02
"	"	29502	L - B	10% Form	"
"	"	29503	NN	10% Form	"
041	B098	29504	R - B	10% Form	08 Sept. 02
"	"	29505	L - B	10% Form	"
"	"	29506	NN	10% Form	"
042	B109	29507	R - B	10% Form	08 Sept. 02
"	"	29508	L - B	10% Form	"
"	"	29509	NN	10% Form	"
043	B121	29510	R - B	10% Form	09 Sept. 02
"	"	29511	L - B	10% Form	"
"	"	29512	NN	10% Form	"
044	B132	29513	R - B	10% Form	09 Sept. 02
"	"	29514	L - B	10% Form	"
"	"	29515	NN	10% Form	"
045	B146	29516	R - B	10% Form	09 Sept. 02
"	"	29517	L - B	10% Form	"
"	"	29518	NN	10% Form	"
046	B145	29519	R - B	10% Form	09 Sept. 02
"	"	29520	L - B	10% Form	"
"	"	29521	NN	10% Form	"
047	B133	29522	R - B	10% Form	09 Sept. 02
"	"	29523	L - B	10% Form	"
"	"	29524	NN	95% ETOH	"
048	B120	29525	R - B	10% Form	09 Sept. 02
"	"	29526	L - B	10% Form	"
"	"	29527	NN	10% Form	"



Table 2 continued.

P-Sta.#	S-Sta. #	Smp. #	Gear	Pres.	Date
049	B110	29528	R - B	10% Form	09 Sept. 02
"	"	29529	L - B	10% Form	"
"	"	29530	NN	10% Form	"
050	B097	29531	R - B	10% Form	10 Sept. 02
"	"	29532	L - B	10% Form	"
"	"	29533	NN	10% Form	"
051	B111	29534	R - B	10% Form	10 Sept. 02
"	"	29535	L - B	10% Form	"
"	"	29536	NN	10% Form	"
052	B119	29537	R - B	10% Form	10 Sept. 02
"	"	29538	L - B	10% Form	"
"	"	29539	NN	10% Form	"
053	B134	29540	R - B	10% Form	10 Sept. 02
"	"	29541	L - B	10% Form	"
"	"	29542	NN	10% Form	"
054	B144	29543	R - B	10% Form	10 Sept. 02
"	"	29544	L - B	95% ETOH	"
"	"	29545	NN	10% Form	"
055	B143	29546	R - B	10% Form	10 Sept. 02
"	"	29547	L - B	95% ETOH	"
"	"	29548	NN	95% ETOH	"
056	B135	29549	R - B	10% Form	10 Sept. 02
"	"	29550	L - B	10% Form	"
"	"	29551	NN	95% ETOH	"
057	B118	29552	R - B	10% Form	11 Sept. 02
"	"	29553	L - B	10% Form	"
"	"	29554	NN	10% Form	"

P-Sta.#	S-Sta. #	Smp. #	Gear	Pres.	Date
058	B112	29555	R - B	10% Form	11 Sept. 02
"	"	29556	L - B	10% Form	"
"	"	29557	NN	10% Form	"
059	B113	29558	R - B	10% Form	11 Sept. 02
"	"	29559	L - B	10% Form	"
"	"	29560	NN	10% Form	"
060	B117	29561	R - B	10% Form	11 Sept. 02
"	"	29562	L - B	10% Form	"
"	"	29563	NN	10% Form	"
061	B136	29564	R - B	10% Form	11 Sept. 02
"	"	29565	L - B	10% Form	"
"	"	29566	NN	10% Form	"
062	B142	29567	R - B	10% Form	11 Sept. 02
"	"	29568	L - B	95% ETOH	"
"	"	29569	NN	10% Form	"
063	B141	29570	R - B	10% Form	12 Sept. 02
"	"	29571	L - B	10% Form	"
"	"	29572	NN	10% Form	"
064	B155	29573	R - B	10% Form	12 Sept. 02
"	"	29574	L - B	95% ETOH	"
"	"	29575	NN	10% Form	"
065	B159	29576	R - B	10% Form	12 Sept. 02
"	"	29577	L - B	10% Form	"
"	"	29578	NN	10% Form	"
066	B165	29579	R - B	10% Form	12 Sept. 02
"	"	29580	L - B	95% ETOH	"
"	"	29581	NN	10% Form	"



Table 2 continued.

P-Sta.#	S-Sta. #	Smp. #	Gear	Pres.	Date
067	B169	29582	R - B	10% Form	12 Sept. 02
"	"	29583	L - B	95% ETOH	"
"	"	29584	NN	10% Form	"

P-Sta.#	S-Sta. #	Smp. #	Gear	Pres.	Date
068	B320	29585	R - B	10% Form	12 Sept. 02
"	"	29586	L - B	95% ETOH	"
"	"	29587	NN	10% Form	"

Table 3. Summary of plankton sampling effort during the Fall SEAMAP Ichthyoplankton Survey conducted from the NOAA Ship *Gordon Gunter*, cruise GU-02-05, Leg 2, 16 September - 21 September 2002. P-Sta.# = Pascagoula station number; S-Sta.# = SEAMAP station number; Smp.# = SEAMAP sample number; R-B = Right Bongo; L-B = Left Bongo; NN = Neuston; Pres. = Initial preservative; Form = Formalin; ETOH = Ethyl alcohol.

P-Sta.#	S-Sta. #	Smp. #	Gear	Pres.	Date
069	B183	CTD only due to winch problems			17 Sept. 02
"	"				"
"	"				"
070	B184	29588	R - B	10% Form	17 Sept. 02
"	"	29589	L - B	10% Form	"
"	"	29590	NN	10% Form	"
071	B186	29591	R - B	10% Form	17 Sept. 02
"	"	29592	L - B	95% ETOH	"
"	"	29593	NN	10% Form	"
072	B016	29594	R - B	10% Form	17 Sept. 02
"	"	29595	L - B	10% Form	"
"	"	29596	NN	10% Form	"
073	B189	29597	R - B	10% Form	17 Sept. 02
"	"	29598	L - B	10% Form	"
"	"	29599	NN	10% Form	"
074	B190	29600	R - B	10% Form	18 Sept. 02
"	"	29601	L - B	95% ETOH	"
"	"	29602	NN	10% Form	"
075	B017	29603	R - B	10% Form	18 Sept. 02
"	"	29604	L - B	10% Form	"
"	"	29605	NN	10% Form	"
076	B196	29606	R - B	10% Form	18 Sept. 02
"	"	29607	L - B	10% Form	"
"	"	29608	NN	10% Form	"

P-Sta.#	S-Sta. #	Smp. #	Gear	Pres.	Date
077	B195	29609	R - B	10% Form	18 Sept. 02
"	"	29610	L - B	95% ETOH	"
"	"	29611	NN	10% Form	"
078	B022	29612	R - B	10% Form	18 Sept. 02
"	"	29613	L - B	10% Form	"
"	"	29614	NN	10% Form	"
079	B201	29615	R - B	10% Form	18 Sept. 02
"	"	29616	L - B	95% ETOH	"
"	"	29617	NN	10% Form	"
080	B203	29618	R - B	10% Form	19 Sept. 02
"	"	29619	L - B	10% Form	"
"	"	29620	NN	10% Form	"
081	B208	29621	R - B	10% Form	19 Sept. 02
"	"	29622	L - B	95% ETOH	"
"	"	29623	NN	10% Form	"
082	B207	29624	R - B	10% Form	19 Sept. 02
"	"	29625	L - B	10% Form	"
"	"	29626	NN	10% Form	"
083	B211	29627	R - B	10% Form	19 Sept. 02
"	"	29628	L - B	95% ETOH	"
"	"	29629	NN	10% Form	"
084	B214	29630	R - B	10% Form	19 Sept. 02
"	"	29631	L - B	95% ETOH	"
"	"	29632	NN	10% Form	"



Table 3 continued.

P-Sta.#	S-Sta. #	Smp. #	Gear	Pres.	Date
085	B213	29633	R - B	10% Form	19 Sept. 02
"	"	29634	L - B	10% Form	"
"	"	29635	NN	10% Form	"
086	B212	29636	R - B	10% Form	20 Sept. 02
"	"	29637	L - B	10% Form	"
"	"	29638	NN	10% Form	"
087	B206	29639	R - B	10% Form	20 Sept. 02
"	"	29640	L - B	10% Form	"
"	"	29641	NN	10% Form	"

P-Sta.#	S-Sta. #	Smp. #	Gear	Pres.	Date
088	B205	29642	R - B	10% Form	20 Sept. 02
"	"	29643	L - B	10% Form	"
"	"	29644	NN	10% Form	"
089	B204	29645	R - B	10% Form	20 Sept. 02
"	"	29646	L - B	10% Form	"
"	"	29647	NN	10% Form	"
090	B200	29648	R - B	10% Form	20 Sept. 02
"	"	29649	L - B	10% Form	"
"	"	29650	NN	10% Form	"

