

The Great Australian Bight and Trawling Tests  
of F.V. *Southern Endeavour*

By E. Highley and A. E. Stark

Division of Fisheries and Oceanography  
Technical Paper No. 27

Commonwealth Scientific and Industrial  
Research Organization, Australia  
Melbourne 1968

Printed by CSIRO, Melbourne

# THE GREAT AUSTRALIAN BIGHT AND TRAWLING TESTS OF F.V. SOUTHERN ENDEAVOUR

By E. HIGHLEY\* and A. E. STARK†

## Summary

Between March 1960 and November 1961, the 161 ft diesel trawler, *Southern Endeavour*, made 31 fishing trips from Adelaide to the edge of the continental shelf in the Great Australian Bight between 131° and 125° E. Details of time, place, duration, depth, and direction of trawling and wind strength, and catches of Bight redfish (*Trachichthodes gerrardi*), flathead (*Neoplatycephalus speculator*), jackass fish (*Nemadactylus macropterus*), mixed species, and total catch, compiled by skippers, are listed together with derived catch rates for each of 942 effective hauls.

Catch rate per day at sea was 4468 lb and per day fishing 7104 lb. Total catch was c. 1.8 million lb.

Available data suggest that biological production in the Bight is lower than on other parts of the Australian continental shelf. In general, weather conditions in the Bight are as good as in other Australian fishing areas. One of the most important features of the Bight trawling grounds is their great extent.

## I. INTRODUCTION

Between 1912 and 1952, a number of trawl fishing experiments and commercial tests were carried out in the Great Australian Bight. A description and comparison of the results of these is given by Houston (1954).

In June 1957, Federal Cabinet approved expenditure of up to \$502,000, from the Fisheries Development Trust Account, for further trawl fishing in the Bight. To initiate and manage the proposed venture, a company financed entirely from the Fisheries Development Trust Account, the "Southern Trawling Company Limited", was established, with Directors appointed by the Minister for Primary Industry. The project was to be managed on a commercial basis: it was hoped that other fishing interests would be attracted to the Bight grounds if the company was a commercial success.

A 161 ft diesel trawler, subsequently named F.V. *Southern Endeavour*, was bought in the U.K., and between March 1960 and November 1961 made 31 trips from Port Adelaide to areas along the edge of the continental shelf between about 131° and 125° E.

Returns from sale of the catch were not sufficient to cover costs and the venture was not a financial success. Nevertheless, considerable quantities of fish were landed, and it might be useful to make catch data available, in a convenient form, to interested parties.

\* Division of Fisheries and Oceanography, CSIRO, Cronulla, N.S.W. 2230. (Reprint No. 651.)

† Division of Mathematical Statistics, CSIRO; located at Cronulla.

Catches and catch rates per trawl for the three most important species encountered—Bight redfish (*Trachichthodes gerrardi*), flathead (*Neoplatycephalus specularis*), and jackass fish (*Nemadactylus macropterus*)—and for miscellaneous species, as well as total catch and catch rate per trawl, are given on pages 9–35. Catches were compiled from skippers' log books; catch rates were derived.

Section II is a summary of trawling operations, Section III explains the data headings, and a short description of the Great Australian Bight is given in Section IV.

A detailed analysis of *Southern Endeavour* catch and effort data is given by Kesteven and Stark (1967).

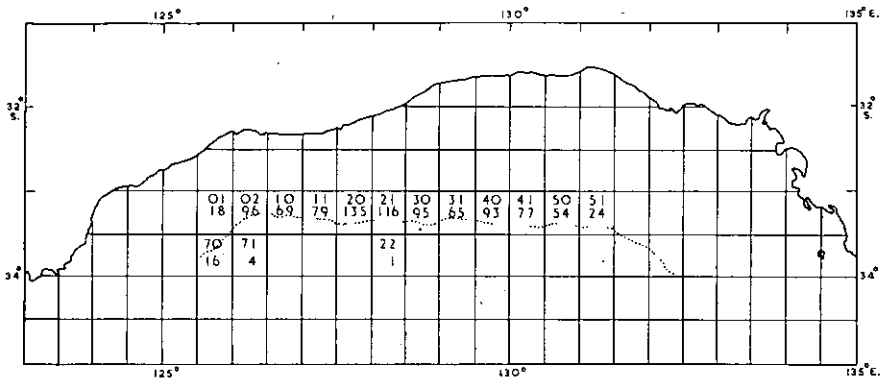


Fig. 1.—Fishing blocks (upper number) with number of effective trawls within each (lower number). ..... 90 fm contour.

## II. SUMMARY OF OPERATIONS

The 30 trips by *Southern Endeavour* occupied 405 days at sea with 255 days' fishing. Catch rate (for all species) per day at sea was 4468 lb and per day fishing 7104 lb. Total catch was approximately 1.8 million lb.

After December 1960, the vessel followed a 21 day cycle of operations: running to and from grounds, 5 days; fishing, 11½ days; turn-around, 4½ days.

Figure 1 gives the number of effective trawls per ½ square (block) for the area around the 90 fm (160 m) line, an effective trawl being one carried to completion without gear breakage or other mishaps.

## III. EXPLANATION OF DATA

Data are classified by block (Fig. 1), trip, and haul. Details of time, place, duration, depth, and direction of haul and wind speed, and catches and catch rates for Bight redfish, flathead, jackass fish, and mixed species, and total catch, are given for each haul.

### *Explanation of Data Headings*

HAUL                    Haul number  
DATE                    Given as Day. Month. Year

TIME	}	Times at which the net was shot and hauled
NET NET SHOT HAULED		
TIME	}	Given as Day (0600–1800 hr) or Night (1800–0600 hr) according to time of major portion of the haul
CODE		
HAUL	}	Haul duration in hours and quarter-hours
DURN		
HR Q		
WATER	}	Average depth of the haul in fathoms
DEPTH (FM)		
DIRN	}	Direction in which the trawl was hauled
OF		
TRAWL		
WIND	}	Wind direction and force
DIRN		Direction coded—N.N.E., 02; N.E., 05; E.N.E., 07; E., 09; E.S.E., 11; S.E., 14; S.S.E., 16; S., 18; S.S.W., 20; S.W., 23; W.S.W., 25; W., 27; W.N.W., 29; N.W., 32; N.N.W., 34; N., 36; variable or unknown, 99; calm, 00.
FORCE		Force coded in Beaufort units
REDFISH, FLATHEAD, JACKASS, MIXED, AND TOTAL		Catches of Bight redfish, flathead, jackass fish, mixed species, and total catch, in baskets and hundredweights per hour (basket = 70 lb)

#### IV. FEATURES OF THE BIGHT

##### *Geography*

From Albany, W.A., to Kingston, S.A., along the continental shelf, is 1200 miles. At about 130° E., the shelf is 100 miles wide, with an average depth of 100 m. The shelf falls away rapidly and adjacent oceanic waters are more than 5000 m deep.

Along the Bight proper few ports afford shelter, and these to small vessels only. The main ports of the region, Port Adelaide, Port Lincoln, and Albany, can accommodate ocean-going vessels.

##### *Meteorology*

The weather of the Bight is determined mainly by north-south oscillation of a high-pressure belt centred around 30–35° S., and the influence of a low-pressure belt further south. Between these systems is a region of north-west to south-west winds that affects the Bight from late autumn to early spring.

In summer, winds are mainly light to moderate from the south and south-east. A south-westerly swell predominates and temperatures are mild to warm. However, cool changes follow rapid wind shifts to the south-west. In March and April, winds are mainly from the south-west. In summer, anticyclones tend to stagnate over the Bight at about 40° S. Resulting weather is calm with light southerlies near the coast. Near the coast, air temperature frequently rises to above 100°F in summer.

As winter approaches wind and swell become more westerly, and in winter west to north-west winds predominate. During winter, cool to cold conditions persist, with moderate to strong winds.

In winter, the most common depressions are inverted V-shaped isobaric systems that extend northward from the southern low-pressure belt. The seasonal march of the latitudinal pressure belts brings these depressions farthest north in late winter and early spring. When the anticyclone belt persists abnormally far north, the Bight is crossed by a succession of low-pressure waves at short intervals, with winds backing and veering between north-west and south-west. Rough weather prevails for weeks at a time and squalls are common.

Rainfall is moderate at the extremities of the Bight, but the central coast at the Head of the Bight is very dry. Cloud over the area is average. Visibility is generally good and fog comparatively infrequent.

A detailed account of weather in the Bight is given in "Australia Pilot" (British Admiralty 1960).

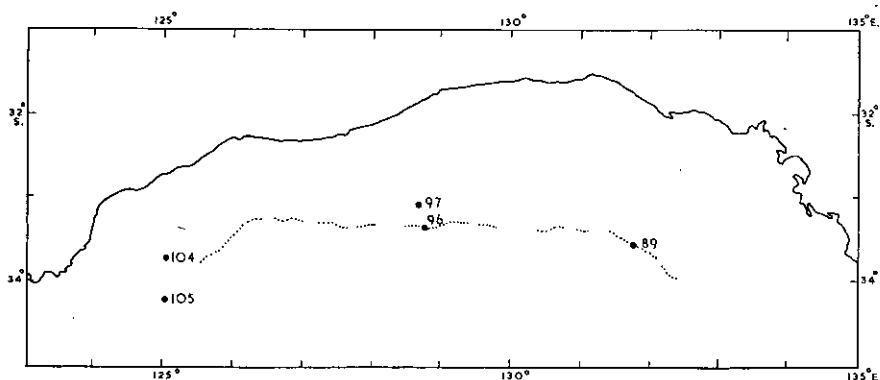


Fig. 2.—Positions of Bight stations occupied by H.M.A.S. *Gascoyne* in 1962 (CSIRO Aust. 1967).

### *Sediments and Bottom Fauna*

The small amount of marine geology that has been done in the Great Australian Bight suggests that it is of unusual geological interest. Terrestrial material is generally absent, at least in the coarser fractions. This is to be expected on a shelf adjoining one of the longest cliffs in the world, composed entirely of flat-lying limestones, with no rivers.

During an oceanographical cruise by H.M.A.S. *Gascoyne* in 1962 (CSIRO Aust. 1967), bottom samples were collected and bottom photographs taken at five stations (Fig. 2). Because of the comparative paucity of terrestrial material, the bottom fauna of the Bight shelf is markedly different from that of other parts of the Australian continental shelf. The fauna is similar to that found on sea-mounts far removed from land influences; "coralline" filter-feeders, particularly sponges and bryozoans, predominate, and sediments are almost entirely calcareous.

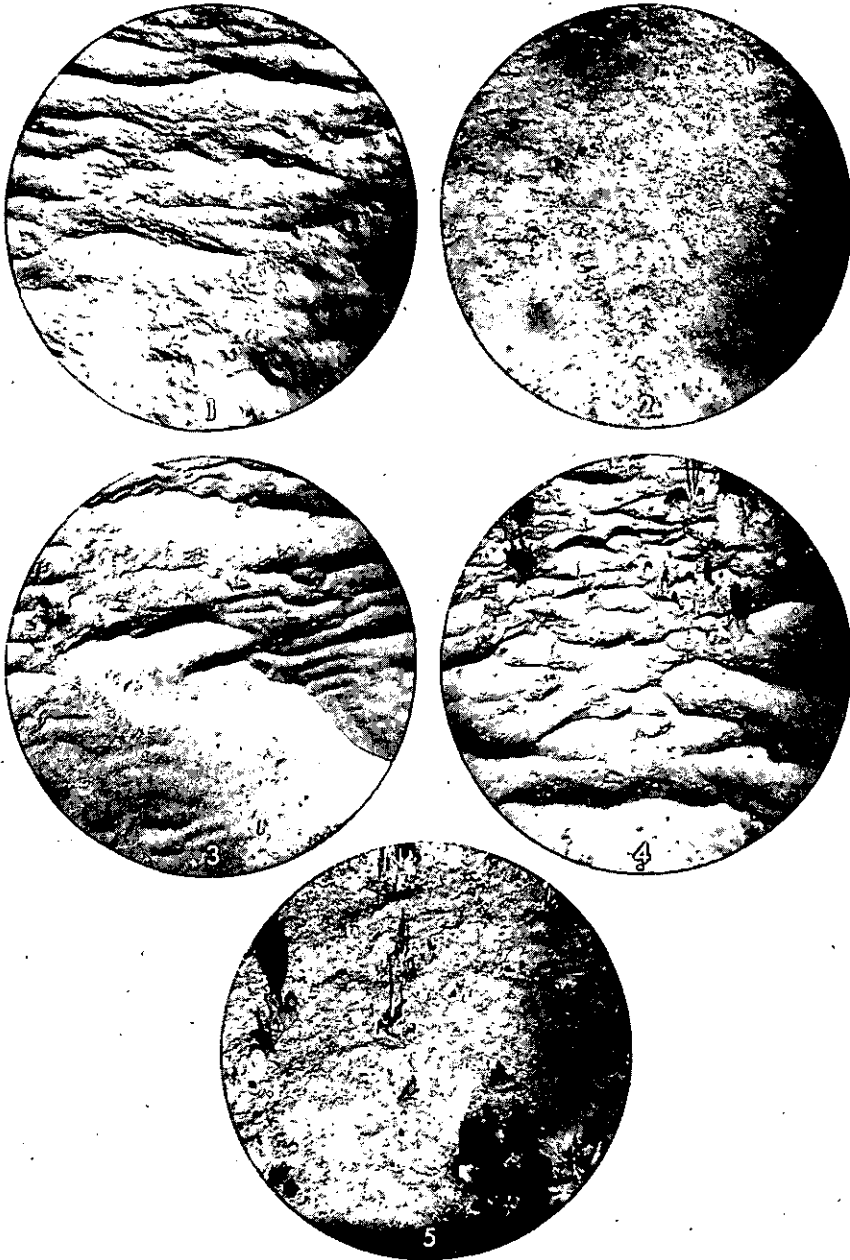


Fig. 3.—Bottom photographs at Bight stations (CSIRO Aust. 1967). Station numbers: 1, 89; 2, 96; 3, 97; 4, 104; 5, 105 (see Fig. 2).

Photographs taken at shallower (75 m) stations (Fig. 3) in the upper Bight showed a singularly barren bottom composed of coarse drifting calcareous sand marked by very large current ripples.

Mean benthic biomass from the five stations in the Bight was 3.7 g per grab. The mean of five stations between 33° and 38° S. on the east-coast continental shelf was 7 g per grab. These values are for non-coral species only; the species one would expect bottom-dwelling fishes to graze.

### Zooplankton

The only available zooplankton data for the Bight were collected in June–July, 1962 (CSIRO Aust. 1967). Eight tows were made at five stations (Fig. 2) in the trawling area. Mean zooplankton biomass for the five Bight stations was 58 mg per m<sup>3</sup>, only slightly lower than the mean for five stations on the east-coast shelf (90 mg per m<sup>3</sup>).

Biomass tended to be higher in shallow waters except where the shelf is widest, in the north of the Bight. Here, lower values occurred in shallow waters with higher values towards the edge of the shelf. This area of lower values corresponds with a region of very high salinity (> 36.00‰) and low phosphate (< 0.10 µg-atom/l.) found in summer (Rochford 1962).

### V. CONCLUSIONS

Available data suggest that biological production in the Bight is somewhat lower than on other parts of the Australian continental shelf. However, these data are very sparse. On the whole, weather conditions are as good as in other Australian fishing areas, except perhaps during late winter and early spring. On the other hand, cyclonic depressions are less frequent in the Bight.

One of the most important features of the Bight trawling grounds is their great extent. Time spent travelling to and from the fishing grounds seems to be an important factor in Bight fishing operations. However, much greater distances are often travelled by overseas fishing craft of a similar size to the *Southern Endeavour*. A number of factors, such as density of resources, efficiency of fishing operations, and market prices are relevant to the economics of fishing under such conditions.

### VI. REFERENCES

- BRITISH ADMIRALTY (1960).—“Australia Pilot.” Vol. I. (Hydrographic Dept., Admiralty: London.)
- CSIRO AUST. (1967).—Oceanographical observations in the Pacific and Indian Oceans in 1962. H.M.A.S. *Gascoyne*, Cruises G2/62 and G3/62. *CSIRO Aust. Oceanogr. Cruise Rep.* 16.
- HOUSTON, T. W. (1954).—Commercial trawling tests in the Great Australian Bight, 1949–52. CSIRO Aust. Div. Fish. Oceanogr. Tech. Pap. No. 2.
- KESTEVEN, G. L., and STARK, A. E. (1967).—Demersal fish stocks of the Great Australian Bight as estimated from the results of operations of F.V. *Southern Endeavour*. CSIRO Aust. Div. Fish. Oceanogr. Tech. Pap. No. 24.
- ROCHFORD, D. J. (1962).—Hydrology of the Indian Ocean. II. The surface waters of the south-east Indian Ocean and Arafura Sea in the spring and summer. *Aust. J. mar. Freshwat. Res.* 13, 226–51.



R L O C K 1

TRIP	HAUL	DATE	TIME NET SHOT HAULED	TIME CODE	HAUL DURN HR	WATER DEPTH (FM)	DIRN OF TRAWL	DIRN	WIND FORCE	BSKTS	REDFISH CWT/ HOUR	FLATHEAD BSKTS HOUR	JACKASS CWT/ BSKTS HOUR	MIXED CWT/ BSKTS HOUR	TOTAL CWT/ BSKTS HOUR
5	7	02.05.60	1710	2010	NIGHT	3 0	E	27	7	5	1.04	0	0	0	5 1.04
5	8	02.05.60	2300	0215	NIGHT	3 1	E	27	6	3	.58	0	0	0	5 .96
5	9	03.05.60	0330	0650	NIGHT	3 1	W	27	6	7	1.35	1	1.19	2	20 3.85
5	5	02.05.60	0700	1000	DAY	3 0	W	27	7	2	.42	1	.21	1	10 2.08
5	10	03.05.60	0800	1100	DAY	3 0	E	27	7	7	1.46	1	.21	1	10 2.08
5	6	02.05.60	1100	1415	DAY	3 1	W	27	7	10	1.92	1	.19	5	20 3.85
9	39	08.08.60	1715	2115	NIGHT	4 0	E	27	2	1	.16	0	0	2	5 .78
9	26	06.08.60	0200	0530	NIGHT	3 2	W	18	2	18	3.21	0	0	6	50 8.93
9	27	06.08.60	0630	1000	DAY	3 2	W	00	0	2	.36	1	.18	6	20 3.57
9	18	04.08.60	0800	1230	DAY	4 2	W	27	6	12	1.67	0	0	4	30 4.17
9	19	04.08.60	1400	1830	DAY	4 2	E	27	6	0	0	0	0	4	10 1.59
9	38	08.08.60	1220	1600	DAY	3 3	E	32	2	2	.33	1	.17	24	30 5.00
14	11	04.11.60	1915	2215	NIGHT	3 0	W	14	3	6	1.25	1	.21	5	15 3.13
14	12	04.11.60	2315	0245	NIGHT	3 2	W	14	3	1	.18	0	0	2	5 .89
14	17	05.11.60	2300	0300	NIGHT	4 0	E	14	4	6	.94	0	0	2	10 1.56
14	13	05.11.60	0345	0730	NIGHT	3 3	W	14	4	12	2.00	3	.50	15	40 6.67
14	10	04.11.60	1405	1735	DAY	3 2	W	09	2	4	.71	1	.18	23	35 6.25
18	27	02.02.61	0300	0600	NIGHT	3 0	E	14	3	30	6.25	2	.42	10	50 10.42

B L O C K 2

TRIP HAUL	DATE	TIME NET SHOT HAULED	TIME CODE	HAUL DURN HR Q	WATER DEPTH (FM)	DIRN OF TRAWL	DIRN FORCE	WIND	REDFISH BSKTS	REDFISH CMT/ HOUR	FLATHEAD BSKTS	FLATHEAD CMT/ HOUR	JACKASS BSKTS	JACKASS CMT/ HOUR	MIXED BSKTS	MIXED CMT/ HOUR	TOTAL BSKTS	TOTAL CMT/ HOUR
4	8	17.04.60	1720	2020	088	E	00	0	20	4.17	1	.21	20	4.17	9	1.88	50	10.42
4	14	15.04.60	1845	2200	083	E	27	3	10	1.92	0	0	5	.96	4	.77	20	3.85
4	4	16.04.60	2250	0130	075	W	23	3	0	0	0	0	10	2.27	0	0	10	2.27
4	15	18.04.60	2255	0215	080	W	27	4	2	.38	0	0	2	.86	1	.19	5	.96
4	20	19.04.60	2200	0100	080	E	23	6	.12	2.50	0	0	1	.21	2	.42	15	3.13
4	4	17.04.60	0240	0520	085	N	23	2	20	4.17	1	.23	10	2.27	2	.45	15	3.41
4	16	19.04.60	0310	0610	085	W	27	5	20	4.17	1	.21	6	1.25	3	.63	30	6.25
4	11	18.04.60	0640	0940	083	W	00	2	10	2.08	2	.42	20	4.17	8	1.67	40	8.33
4	17	19.04.60	0710	1010	090	E	27	5	12	2.50	1	.21	18	3.75	1	.21	30	6.25
4	12	18.04.60	1015	1350	085	W	19	2	3	.83	0	0	5	4.17	2	.42	35	7.29
4	18	18.04.60	1015	1350	085	W	27	2	20	3.85	0	0	5	1.04	7	1.46	15	3.13
4	18	19.04.60	1115	1430	085	W	23	5	4	.77	0	0	10	1.92	9	1.73	40	7.69
4	22	20.04.60	1030	1330	073	N	23	4	15	3.13	0	0	5	1.04	0	0	20	4.17
4	13	18.04.60	1435	1735	083	W	27	3	15	3.13	1	.21	5	1.04	4	.83	25	5.21
4	19	19.04.60	1530	1845	078	E	23	5	10	1.92	1	.19	5	1.15	8	1.54	25	4.81
5	4	02.05.60	0305	0605	080	W	27	6	1	.21	0	0	1	.21	8	1.67	10	2.08
6	16	24.05.60	1945	2315	085	W	00	0	5	.89	0	0	8	1.43	7	1.25	20	3.57
6	20	25.05.60	1830	2215	085	W	27	7	10	1.67	0	0	8	1.33	2	.33	20	3.33
6	17	25.05.60	0820	0320	085	E	27	2	7	1.46	0	0	5	1.04	8	1.67	20	4.17
6	21	26.05.60	2320	0240	085	E	27	7	1	3.35	0	0	5	.96	8	1.54	20	3.85
6	22	26.05.60	0350	0715	087	W	23	7	10	1.79	0	0	5	.89	5	.89	20	3.57
6	13	24.05.60	0415	0815	085	W	18	2	12	1.88	0	0	9	1.41	19	2.97	40	6.25
6	9	23.05.60	0825	1225	090	W	23	5	7	1.09	1	.16	17	2.66	5	.78	30	4.69
6	14	24.05.60	0940	1340	085	W	18	2	13	2.03	0	0	15	2.34	12	1.88	40	6.25
6	18	25.05.60	0910	1240	090	W	27	6	10	1.79	0	0	10	1.79	5	.89	25	4.46
6	23	26.05.60	0915	1245	085	E	23	7	10	1.79	0	0	6	1.07	4	.71	20	3.57
6	10	25.05.60	1315	1715	085	E	23	5	2	.31	0	0	8	1.25	5	.78	15	2.34
6	15	26.05.60	1440	1840	083	E	00	0	10	1.56	0	0	20	3.13	20	3.13	50	7.81
6	19	25.05.60	1415	1715	085	E	27	6	11	2.29	0	0	10	2.08	4	.83	25	5.21
9	11	02.08.60	1800	2230	088	W	32	4	20	2.78	0	0	23	3.19	17	2.36	60	8.33
9	12	03.08.60	2400	0330	088	E	32	5	17	3.04	0	0	20	3.57	13	2.32	50	8.93
9	16	04.08.60	2110	0110	088	E	27	7	16	2.50	0	0	6	.94	8	1.25	30	4.69
9	20	04.08.60	2600	2400	088	E	27	5	25	3.91	0	0	6	.94	9	1.41	40	6.25
9	25	05.08.60	2030	2415	085	W	18	2	25	4.17	0	0	6	1.00	5	.83	36	6.00
9	9	08.08.60	2200	0200	088	W	27	2	10	1.56	2	.31	16	2.50	7	1.09	35	5.47
9	17	04.08.60	0300	0700	088	W	27	7	14	2.19	0	0	16	2.50	20	3.13	50	7.81
9	13	03.08.60	0445	0845	085	W	32	5	17	2.66	0	0	6	.94	17	2.66	40	6.25
9	22	05.08.60	0930	0930	085	W	32	3	4	.83	0	0	3	.63	33	6.88	40	8.33
9	14	03.08.60	0930	1330	088	W	32	5	6	.94	1	.16	15	2.34	13	2.03	35	5.47
9	23	05.08.60	1030	1430	085	W	18	3	1	.16	1	.16	10	1.39	12	1.88	20	3.13
9	10	02.08.60	1500	1630	088	W	32	4	0	0	0	0	10	1.39	15	2.08	25	3.47
9	15	03.08.60	1540	1940	088	E	27	6	2	.31	0	0	6	.94	2	.31	10	1.56
9	24	05.08.60	1600	1930	083	E	18	2	11	1.96	0	0	7	1.25	22	3.93	40	7.14
11	12	10.09.60	0230	0630	083	W	36	2	4	.63	0	0	1	.15	27	4.22	32	5.00
11	35	15.09.60	0045	0345	095	W	18	4	8	1.67	0	0	6	1.25	28	5.83	42	8.75

12	40	28.09.60	1730	2130	NIGHT	4 0	080	E	23	2	21	3.28	1	.16	8	1.25	10	1.56	40	6.25	
12	45	29.09.60	1645	2045	NIGHT	4 0	080	E	23	2	16	.63	0	.63	4	.63	4	.63	12	1.88	
12	41	29.09.60	2230	0200	NIGHT	3 2	090	W	23	3	16	2.86	1	.18	5	.89	8	1.43	30	5.36	
12	46	29.09.60	2130	0100	NIGHT	3 2	085	W	18	2	4	.36	0	.71	4	.71	3	.54	9	1.61	
12	37	28.09.60	0330	0630	NIGHT	3 0	090	W	32	3	21	4.38	0	0	5	1.04	4	.83	30	6.25	
12	42	29.09.60	0330	0730	NIGHT	3 2	080	E	18	2	7	1.25	0	0	5	.89	0	0	12	2.14	
12	38	28.09.60	0730	1030	DAY	3 0	090	W	36	2	2	.42	1	.21	12	2.50	5	1.04	20	4.17	
12	43	29.09.60	0930	1345	DAY	4 1	085	W	18	2	6	0	0	0	1	.15	2	.29	3	.44	
12	39	28.09.60	1230	1530	DAY	3 0	090	W	00	0	4	.83	2	.42	7	1.46	2	.42	15	3.13	
13	88	18.10.60	2000	2400	NIGHT	4 0	075	W	09	3	10	1.56	1	.16	6	.94	3	.47	20	3.13	
14	8	04.11.60	0445	0845	DAY	4 0	105	W	36	2	5	.78	2	.31	6	.94	5	.78	18	2.81	
14	9	04.11.60	0945	1315	DAY	3 2	105	W	05	2	4	.71	2	.36	16	2.66	6	1.07	28	5.00	
14	19	06.11.60	1100	1500	DAY	4 0	105	E	14	4	10	1.56	1	.16	6	.94	3	.47	20	3.13	
16	31	01.12.60	1800	2200	NIGHT	4 0	078	W	14	2	15	2.34	1	.16	11	1.72	8	1.25	35	5.47	
16	36	02.12.60	1800	2145	NIGHT	3 3	075	W	14	2	12	2.30	1	.53	8	1.33	8	1.25	30	5.00	
16	41	03.12.60	1815	2215	NIGHT	4 0	080	W	09	1	13	2.03	2	.31	7	1.09	6	.94	28	4.38	
16	46	04.12.60	1920	2320	NIGHT	4 0	078	E	00	0	12	1.88	0	.16	7	1.09	5	.78	29	3.91	
16	18	28.11.60	2315	0245	NIGHT	3 2	080	E	14	4	15	2.68	0	0	5	.89	5	.89	25	4.46	
16	32	01.12.60	2300	0245	NIGHT	4 0	078	E	14	1	27	4.50	0	0	7	1.17	6	1.00	40	6.67	
16	37	02.12.60	2245	0245	NIGHT	4 0	082	E	14	2	2	.31	1	.16	5	.78	2	.31	10	1.56	
16	42	04.12.60	2315	0300	NIGHT	3 3	078	E	09	1	23	3.83	3	.63	11	1.83	8	1.33	45	7.29	
16	47	05.12.60	2400	0300	NIGHT	3 0	078	E	00	0	13	3.13	3	.63	8	1.67	9	1.88	35	7.29	
16	19	29.11.60	0330	0730	NIGHT	4 0	080	W	14	5	10	1.56	0	0	4	.63	1	.16	15	2.34	
16	33	02.12.60	0345	0730	NIGHT	3 3	078	W	14	2	22	3.67	1	.17	7	1.17	5	.83	35	5.83	
16	38	03.12.60	0345	0745	NIGHT	4 0	080	E	00	0	16	2.50	1	.16	8	1.25	10	1.56	35	5.47	
16	43	04.12.60	0445	0830	DAY	3 3	078	W	09	2	25	4.17	1	.17	7	1.17	5	.83	39	6.33	
16	20	29.11.60	0830	1230	DAY	4 0	080	W	14	5	0	.78	0	0	4	.63	6	.94	15	2.34	
16	34	02.12.60	0815	1215	DAY	4 0	078	E	14	1	1	.16	1	.16	6	.94	4	.63	12	1.88	
16	39	03.12.60	0840	1240	DAY	4 0	080	W	14	1	5	.78	1	.16	3	.47	3	.47	12	1.88	
16	44	04.12.60	0945	1315	DAY	3 2	075	E	09	1	2	.36	1	.18	3	.54	4	.71	10	1.79	
16	30	01.12.60	1345	1715	DAY	3 2	075	E	09	1	0	0	0	0	6	1.07	6	1.07	12	2.14	
16	35	02.12.60	1330	1715	DAY	3 3	078	W	14	2	2	.53	1	.17	5	.83	2	.53	10	1.67	
16	40	03.12.60	1330	1715	DAY	3 3	080	W	09	2	0	0	0	1	.17	5	.83	6	1.00	12	2.00
16	45	04.12.60	1445	1830	DAY	3 3	075	W	00	0	2	.33	1	.17	3	.50	4	.67	10	1.67	
17	18	12.01.61	1635	1930	NIGHT	3 0	085	E	18	3	5	1.04	1	.21	10	2.08	9	1.88	25	5.21	
17	36	16.01.61	1715	2015	NIGHT	3 0	095	W	18	4	4	.83	4	.83	2	.42	3	.63	10	2.08	
17	41	17.01.61	1600	2000	NIGHT	4 0	085	W	14	2	3	.47	5	.78	10	1.56	32	5.00	50	7.81	
17	32	16.01.61	2330	0130	NIGHT	4 0	085	E	18	2	16	2.50	1	.16	8	1.25	25	3.91	50	7.81	
17	37	16.01.61	2200	0130	NIGHT	3 2	080	W	18	3	4	.71	0	0	0	0	0	0	4	.71	
17	38	17.01.61	0215	0600	NIGHT	3 3	090	W	14	2	60	10.00	13	2.17	16	2.67	11	1.83	100	16.67	
17	16	12.01.61	0800	1130	DAY	3 2	085	W	36	2	1	.89	1	.18	5	.89	9	1.61	20	3.57	
17	33	16.01.61	0430	0830	DAY	4 0	090	E	18	2	18	2.81	0	0	7	1.09	35	5.47	60	9.38	
17	39	17.01.61	0700	1000	DAY	3 0	090	W	14	2	30	6.25	4	.83	10	2.08	6	1.25	50	10.42	
17	34	16.01.61	0930	1215	DAY	2 3	090	E	14	4	12	2.73	0	0	5	1.14	3	.68	20	4.55	
17	40	17.01.61	1130	1445	DAY	3 1	090	W	14	2	2	0	2	.38	5	.96	9	1.54	15	2.88	
17	17	12.01.61	1315	1615	DAY	3 0	100	W	18	2	5	1.04	0	.21	11	2.29	13	2.71	30	6.25	
17	35	16.01.61	1500	1800	DAY	3 0	090	E	18	4	11	2.29	1	.21	4	.83	4	.83	20	4.17	
18	29	02.02.61	1700	2100	NIGHT	4 0	090	E	14	4	10	1.56	0	0	4	.63	1	.16	15	2.84	
18	24	02.02.61	1200	1600	DAY	4 0	080	E	14	4	5	.78	1	.16	7	1.09	0	0	13	2.03	
19	43	20.02.61	2300	0300	NIGHT	4 0	110	W	27	3	0	0	2	.51	6	.94	6	.94	14	2.19	

B L O C K 10

TRIP	HAUL	DATE	TIME NET SHOT HAULED	TIME CODE	HAUL DURN HR Q	WATER DEPTH (FM)	DIRN OF TRAWL	DIRN	DRIVE	WIND	REDFISH BSKTS	REDFISH CWT/ HOUR	FLATHEAD BSKTS	FLATHEAD CWT/ HOUR	JACKASS BSKTS	JACKASS CWT/ HOUR	MIXED BSKTS	MIXED CWT/ HOUR	TOTAL BSKTS	TOTAL CWT/ HOUR
4	3	16.04.60	1805 2115	NIGHT	3 1	080	W	23	3		2	.38	0	0	10	1.92	3	.58	15	2.88
4	9	17.04.60	0200 0500	NIGHT	3 0	098	E	00	0		8	1.67	0	0	2	.42	5	1.04	15	3.13
4	10	18.04.60	0200 0500	NIGHT	3 0	085	W	00	0		10	2.08	0	0	2	.63	3	.63	15	3.13
4	1	16.04.60	1000 1300	DAY	3 0	080	W	27	4		2	.42	1	.21	15	3.13	2	.42	20	4.17
5	2	01.05.60	1940 2240	NIGHT	3 0	075	W	27	6		4	.83	0	0	1	.21	3	.63	5	1.67
5	35	18.05.60	1700 2000	NIGHT	4 0	090	E	23	7		26	5.42	1	.21	24	5.00	4	.83	55	11.46
5	18	06.05.60	2015 0315	NIGHT	4 0	095	E	18	2		25	3.91	2	.31	17	2.66	6	.94	50	7.81
5	13	05.05.60	0115 0415	NIGHT	3 0	095	E	27	7		2	.42	0	0	1	.21	7	1.46	10	2.08
5	14	06.05.60	0145 0445	NIGHT	3 0	095	E	23	4		25	5.21	1	.21	11	2.29	8	1.67	45	9.38
5	32	18.05.60	0345 0645	NIGHT	3 0	085	W	27	7		17	3.54	1	.21	6	1.25	16	3.33	40	8.33
5	15	06.05.60	0600 0900	DAY	3 0	090	W	23	4		15	3.13	1	.21	14	2.92	10	2.08	40	8.33
5	33	10.05.60	0745 1045	DAY	3 0	090	E	23	7		4	1.04	1	.21	17	3.54	7	1.46	30	6.25
5	16	06.05.60	1100 1400	DAY	3 2	085	E	20	4		2	.36	1	.18	11	1.96	6	1.07	20	3.57
5	34	10.05.60	1145 1545	DAY	4 0	090	W	23	7		6	.94	1	.16	29	4.53	4	.63	40	6.25
5	1	01.05.60	1415 1715	DAY	3 0	080	W	27	5		2	.42	0	0	1	.21	4	.83	5	1.04
5	17	06.05.60	1600 1900	DAY	3 2	115	W	18	2		2	.36	1	.18	2	.36	5	.89	10	1.79
6	7	22.05.60	1715 2115	NIGHT	4 0	085	W	27	6		2	.31	0	0	2	.31	6	.94	10	1.56
6	11	23.05.60	1830 2230	NIGHT	4 0	080	E	18	5		14	2.19	0	0	6	.94	0	0	20	3.13
6	12	23.05.60	2315 0315	NIGHT	4 0	085	W	18	5		12	1.88	0	0	9	1.41	19	2.97	40	6.25
6	8	28.05.60	0315 0715	NIGHT	4 0	085	W	27	5		13	2.03	0	0	9	1.41	13	2.03	35	5.47
9	9	02.08.60	0710 1110	DAY	4 0	088	W	32	3		4	.63	1	.16	9	1.41	11	1.72	25	3.91
11	10	09.09.60	1700 2030	NIGHT	3 2	090	W	36	3		10	1.79	0	0	18	3.21	10	1.79	38	6.79
11	34	14.09.60	1945 2345	NIGHT	4 0	090	W	18	3		3	.47	1	.16	6	.94	40	6.25	50	7.81
11	11	10.09.60	2145 0130	NIGHT	3 3	090	W	36	3		3	1.4	0	0	4	.67	30	5.00	48	8.00
11	20	11.09.60	0100 0530	NIGHT	3 2	090	E	14	2		3	.54	2	.36	4	.71	22	3.93	31	5.54
11	21	12.09.60	0130 0530	NIGHT	4 0	095	E	14	4		3	.47	2	.31	4	.63	27	4.22	36	5.63
11	29	09.09.60	0900 1300	DAY	4 0	090	W	36	2		3	.47	0	0	5	.78	15	2.34	23	3.59
11	33	14.09.60	1445 1845	DAY	4 0	090	W	18	2		1	.16	1	.16	2	.31	0	0	4	.63
12	30	26.09.60	1715 2115	NIGHT	4 0	080	W	05	2		9	1.41	1	.16	9	1.41	11	1.72	30	4.69
12	35	27.09.60	1930 2230	NIGHT	3 0	085	E	36	4		11	2.29	1	.21	6	1.25	7	1.46	25	5.21
12	31	26.09.60	2215 0215	NIGHT	4 0	080	W	05	3		4	.63	1	.16	0	0	5	.78	10	1.56
12	36	28.09.60	2400 0230	NIGHT	2 2	085	W	36	4		3	.75	0	0	1	.25	2	.50	6	1.56
12	32	27.09.60	0315 0715	NIGHT	4 0	110	W	36	2		16	2.50	1	.16	33	5.16	20	3.13	70	10.94
12	47	30.09.60	0200 0530	NIGHT	3 2	090	E	18	2		9	1.61	1	.18	3	.54	2	.36	15	2.68
12	48	30.09.60	0620 0920	DAY	3 0	090	E	00	0		4	.83	2	.42	14	2.92	5	1.04	25	5.21
12	33	27.09.60	0930 1245	DAY	3 1	070	E	36	3		1	.19	0	0	14	2.69	5	.96	20	3.85
12	34	27.09.60	1415 1730	DAY	3 1	090	W	36	3		0	0	1	.19	13	2.50	11	2.12	25	4.81

13	87	18.10.60	1500	1900	DAY	4	0	075	W	14	2	10	1.56	1	.16	4	.63	3	.47	18	2.81
14	6	03.11.60	2000	2330	NIGHT	3	2	075	W	00	0	4	.71	1	.18	2	.36	3	.54	10	1.79
14	20	06.11.60	1600	2000	NIGHT	4	0	105	E	14	2	4	.63	1	.16	24	3.75	6	.94	35	5.47
14	21	06.11.60	2100	0030	NIGHT	3	2	070	E	18	3	4	.71	1	.18	4	.71	3	.54	12	2.14
14	7	04.11.60	0020	0320	NIGHT	3	2	105	W	36	2	9	1.61	3	.54	7	1.25	6	1.07	25	4.46
16	12	27.11.60	1650	2020	NIGHT	3	2	088	W	09	4	7	1.25	0	0	24	4.29	5	.89	36	4.83
16	17	28.11.60	1900	2215	NIGHT	3	1	080	W	14	3	12	2.31	2	.38	4	.77	7	1.35	25	4.81
16	22	29.11.60	1830	2215	NIGHT	3	3	080	W	14	5	19	3.17	2	.33	4	.67	5	.83	30	5.00
16	26	30.11.60	1945	2330	NIGHT	3	3	080	W	14	2	25	4.17	0	0	5	.83	5	.83	35	5.83
16	51	05.12.60	1745	2115	NIGHT	3	2	078	E	09	2	6	1.07	0	.18	3	.54	0	0	10	1.79
16	55	06.12.60	1645	2045	NIGHT	4	0	083	E	09	2	6	.94	0	0	2	.31	2	.31	10	1.56
16	13	27.11.60	2115	0045	NIGHT	3	2	088	E	09	4	8	1.43	1	.18	6	1.07	5	.89	20	3.57
16	23	30.11.60	2315	0315	NIGHT	4	0	080	E	14	5	25	3.91	1	.16	5	.78	9	1.41	40	6.25
16	27	01.12.60	2200	0200	NIGHT	4	0	078	W	05	2	17	2.66	3	.47	8	1.25	7	1.09	35	5.47
16	48	05.12.60	0020	0350	NIGHT	3	2	078	W	14	2	24	4.29	2	.36	7	1.25	4	.71	37	6.61
16	53	06.12.60	0340	0755	NIGHT	4	1	078	E	00	0	8	1.18	1	.16	5	.74	6	.88	20	2.94
16	58	06.12.60	0245	0645	NIGHT	4	0	078	E	05	2	20	3.13	1	.16	5	.78	4	.63	30	4.69
16	24	06.12.60	0430	0815	DAY	3	3	078	E	00	0	17	2.83	1	.17	11	1.83	7	1.17	36	6.00
16	54	06.12.60	0715	1045	DAY	3	2	080	W	05	2	1	.18	1	.18	3	.54	1	.18	6	1.07
16	29	01.12.60	0950	1300	DAY	4	0	080	W	14	4	6	.94	0	0	9	1.41	5	.78	20	3.13
16	49	05.12.60	0900	1230	DAY	3	2	078	E	09	1	5	.89	1	.18	3	.54	2	.31	7	1.09
16	16	28.11.60	1430	1815	DAY	3	3	105	W	14	3	0	0	0	0	3	.50	3	.54	12	2.14
16	21	29.11.60	1320	1720	DAY	4	0	080	E	14	5	0	0	0	0	2	.31	5	.83	8	1.35
16	25	30.11.60	1445	1845	DAY	4	0	080	E	14	4	4	0	0	0	1	.16	3	.47	5	.78
16	50	05.12.60	1330	1700	DAY	3	2	080	W	09	2	0	0	0	0	3	.54	5	.89	4	.63
17	14	12.01.61	2245	0145	NIGHT	3	0	095	W	18	0	4	.83	1	.21	4	.83	1	.21	10	2.08
17	15	12.01.61	0300	0700	NIGHT	4	0	080	W	36	4	10	1.56	1	.16	5	.78	4	.63	20	3.13
19	41	20.02.61	0900	1300	DAY	4	0	110	W	18	2	0	0	0	.16	15	2.34	0	0	16	2.50
19	38	19.02.61	1500	1900	DAY	4	0	130	W	18	2	7	1.09	1	.16	5	.78	2	.31	15	2.34
19	42	20.02.61	1345	1745	DAY	4	0	110	W	18	3	0	0	0	.16	10	1.56	4	.63	15	2.34
24	18	14.06.61	2000	2400	NIGHT	4	0	060	W	25	4	4	.63	0	0	3	.47	5	.78	12	1.88

R L O C K 11

TRIP HAUL	DATE	TIME NET SHOT HAULED	TIME CODE	HAUL DURN HH Q	WATER DEPTH (FDM)	DIRN OF TRAWL	WIND DIRN FORCE	REDFISH BSKTS	CMT/ HOUR	FLATHEAD BSKTS	CMT/ HOUR	JACKASS BSKTS	CMT/ HOUR	MIXED BSKTS	CMT/ HOUR	TOTAL BSKTS	CMT/ HOUR			
5	26	08.05.60	1800	2200	NIGHT	4 0	090	W	27	3	28	4.38	2	.31	27	4.22	43	6.72	100	15.63
5	30	09.05.60	1845	2115	NIGHT	4 2	090	E	32	6	0	0	0	0	0	0	0	0	0	0
5	22	07.05.60	2120	0120	NIGHT	4 0	095	W	18	3	38	5.94	2	.31	20	3.13	30	4.69	90	14.06
5	23	08.05.60	0225	0625	NIGHT	4 0	093	E	18	2	20	3.13	1	.16	13	2.03	16	2.50	50	7.81
5	27	09.05.60	0045	0320	NIGHT	2 2	090	E	32	4	28	7.00	1	.25	17	4.25	4	1.00	50	12.50
5	19	07.05.60	0415	0815	DAY	4 0	095	W	00	0	22	3.44	1	.16	23	3.59	44	6.88	90	14.06
5	24	08.05.60	0730	1130	DAY	4 0	093	W	00	0	5	.78	1	.16	35	5.47	19	2.97	60	9.38
5	20	07.05.60	0940	1340	DAY	4 0	095	E	18	2	18	2.81	2	.31	6	.94	4	.63	30	4.59
5	28	09.05.60	1040	1515	DAY	2 2	090	W	32	5	2	.50	0	0	1	.25	2	.50	5	1.25
5	21	07.05.60	1445	1845	DAY	4 0	095	W	32	2	4	.63	1	.16	20	3.13	5	.78	30	4.69
5	29	09.05.60	1445	1735	DAY	2 3	090	W	32	5	1	.23	0	0	2	.45	2	.45	5	1.14
6	5	22.05.60	0800	1115	DAY	3 1	083	W	32	6	2	.38	1	.19	16	3.08	6	1.15	25	4.81
6	6	22.05.60	1215	1615	DAY	4 0	083	W	27	6	2	.31	1	.16	12	1.88	5	.78	20	3.13
7	5	11.06.60	1940	2240	NIGHT	3 0	085	W	27	5	11	2.29	5	1.04	20	4.17	4	.83	40	8.33
7	9	12.06.60	1645	2045	NIGHT	4 0	088	W	27	7	8	1.09	4	.63	29	4.53	0	0	40	6.25
7	11	13.06.60	1800	2200	NIGHT	4 0	088	E	27	8	7	1.25	2	.31	17	2.66	3	.47	30	4.89
7	6	12.06.60	0100	0500	NIGHT	4 0	088	E	27	5	3	.47	5	.78	33	5.16	39	6.09	80	12.50
7	7	12.06.60	0620	1020	DAY	4 0	088	W	27	5	15	2.34	8	1.25	20	3.13	17	2.66	60	9.38
7	8	12.06.60	1120	1420	DAY	3 0	088	W	27	7	10	2.08	5	1.04	35	7.29	10	2.08	60	12.50
7	10	13.06.60	1350	1720	DAY	3 2	088	E	27	8	1	.18	0	0	4	.71	5	.89	10	1.79
8	24	17.07.60	2300	0330	NIGHT	4 2	088	W	27	6	10	1.39	5	.69	1	.14	4	.56	20	3.78
8	25	18.07.60	0430	0830	DAY	4 0	088	W	23	6	10	1.56	6	.94	4	.63	5	.78	25	3.91
8	26	18.07.60	1000	1400	DAY	4 0	088	E	23	6	10	1.56	6	.94	6	.94	4	.63	26	4.00
8	20	16.07.60	1300	1700	DAY	4 0	088	W	27	4	1	.16	4	.63	18	2.81	4	.63	27	4.22
9	7	01.08.60	2015	0045	NIGHT	4 2	088	W	36	2	7	.97	3	.42	12	1.67	28	3.89	50	6.94
9	8	02.08.60	0200	0630	NIGHT	4 2	088	W	36	3	11	1.53	3	.42	13	1.81	13	1.81	40	5.56
11	6	08.09.60	1800	2200	NIGHT	4 0	090	W	00	0	14	2.19	1	.16	8	1.25	25	3.91	48	7.50
11	7	09.09.60	2300	0245	NIGHT	3 3	090	W	00	0	12	2.00	0	0	4	.67	30	5.00	46	7.67
11	8	09.09.60	0400	0800	DAY	4 0	070	W	36	2	6	.94	0	0	4	.63	10	1.56	20	3.13
11	22	12.09.60	0630	1000	DAY	3 2	090	E	14	4	0	0	1	.18	4	.71	24	4.29	29	5.18
11	23	12.09.60	1200	1530	DAY	3 2	070	W	14	5	1	.18	1	.18	6	1.07	2	.36	10	1.79
11	32	14.09.60	1015	1345	DAY	3 2	090	W	18	2	1	.18	0	0	3	.54	0	0	4	.71
12	50	30.09.60	1830	2100	NIGHT	2 2	090	W	00	0	2	.50	1	.25	7	1.75	2	.50	12	3.00
12	51	30.09.60	2200	0045	NIGHT	2 3	085	E	36	2	7	1.59	1	.23	16	3.64	4	.91	28	6.36
12	52	01.10.60	0145	0530	NIGHT	3 3	085	E	36	2	4	.67	1	.17	7	1.17	4	.91	16	2.67
12	28	26.09.60	0415	0815	DAY	4 0	088	W	00	0	0	0	1	.16	0	0	19	2.97	20	3.13
12	53	01.10.60	0630	1030	DAY	4 0	090	W	36	2	4	.63	3	.47	34	5.31	9	1.41	50	7.81
12	29	26.09.60	0930	1330	DAY	4 0	085	W	00	0	0	0	0	0	0	0	6	.94	6	.94
12	49	30.09.60	1045	1415	DAY	3 2	090	E	00	0	4	.71	2	.36	16	2.86	6	1.07	28	5.00
12	54	01.10.60	1200	1545	DAY	3 3	090	E	36	3	2	.33	2	.33	33	5.50	13	2.17	50	8.33

13	85	18.10.60	0525	0910	DAY	3	3	080	W	14	2	3	.50	1	.17	2	.33	2	.33	2	.33	8	1.33
14	22	07.11.60	0130	0530	NIGHT	4	4	090	E	18	4	4	.63	1	.16	4	.63	3	.47	3	.47	12	1.88
14	4	03.11.60	0830	1230	DAY	4	14	100	W	00	0	14	2.19	1	.16	54	8.44	11	1.72	80	12.50		
14	5	03.11.60	1515	1845	DAY	3	2	100	W	00	0	2	.36	2	.36	12	2.14	9	1.61	25	4.46		
16	56	06.12.60	2145	0045	NIGHT	3	0	085	E	09	2	8	.83	0	0	1	.21	3	.63	8	1.67		
16	14	28.11.60	0145	0500	NIGHT	3	1	088	E	09	2	7	1.54	0	0	7	1.35	5	.96	20	3.85		
16	57	06.12.60	0130	0430	NIGHT	3	0	085	E	09	3	14	2.92	5	0	4	.21	5	1.04	20	4.17		
16	10	27.11.60	0815	1130	DAY	3	1	095	W	05	2	3	.58	0	0	4	.77	3	.58	10	1.92		
16	15	28.11.60	0545	0900	DAY	3	1	093	W	14	2	2	.38	0	0	2	.38	2	.38	6	1.15		
16	11	27.11.60	1215	1545	DAY	3	2	090	W	09	3	4	.71	0	0	3	.54	5	.89	12	2.14		
17	10	10.01.61	1700	2030	NIGHT	3	2	180	W	23	5	1	.18	0	.36	4	.71	3	.54	10	1.79		
17	13	11.01.61	1815	2115	NIGHT	3	0	095	W	18	0	5	.63	1	.21	4	.83	7	1.46	15	3.13		
17	31	15.01.61	1845	2145	NIGHT	3	0	085	E	14	4	5	1.04	0	0	4	.83	2	.42	11	2.29		
17	11	11.01.61	2230	0230	NIGHT	4	0	200	W	16	0	0	0	0	0	0	0	5	.78	5	.78		
17	28	13.01.61	2400	0330	NIGHT	3	2	090	W	14	3	12	2.14	1	.18	5	.89	12	2.14	30	5.36		
17	29	13.01.61	0340	0740	NIGHT	4	0	085	E	14	4	10	1.56	1	.16	4	.63	17	2.66	32	5.00		
17	12	11.01.61	0930	1300	DAY	3	2	090	W	14	0	0	0	0	0	0	0	0	0	0	0	0	
17	30	15.01.61	0900	1230	DAY	3	2	090	W	14	4	5	.89	0	0	4	.71	11	1.96	20	3.57		
18	20	31.01.61	0930	1330	DAY	4	0	080	E	18	2	5	.78	1	.16	4	.63	2	.31	12	1.88		
18	21	31.01.61	1420	1820	DAY	4	0	075	E	14	3	5	.47	1	.16	3	.47	3	.47	10	1.56		
19	6	12.02.61	1745	2100	NIGHT	3	1	080	W	14	3	15	2.88	2	.38	10	1.92	13	2.50	40	7.69		
19	7	12.02.61	2220	0120	NIGHT	3	0	080	W	14	4	20	4.17	1	.21	15	3.13	9	1.88	45	9.38		
19	34	18.02.61	2000	2400	NIGHT	4	0	120	W	14	3	4	.63	3	.47	10	1.56	7	1.09	24	3.75		
19	35	19.02.61	0045	0445	NIGHT	4	0	125	E	18	2	3	.47	4	.63	11	1.72	10	1.56	28	4.38		
19	40	20.02.61	0300	0700	NIGHT	4	0	110	W	18	2	3	.47	2	.31	8	1.25	7	1.09	20	3.13		
19	36	19.02.61	0530	0930	DAY	4	0	120	W	18	2	6	.94	3	.47	8	1.25	7	1.09	24	3.75		
19	32	18.02.61	1000	1400	DAY	4	0	120	W	14	4	6	.94	0	0	4	.63	1	.16	12	1.88		
19	37	19.02.61	1030	1430	DAY	4	0	115	W	18	2	0	0	2	.31	11	1.72	2	.31	15	2.34		
19	33	18.02.61	1500	1900	DAY	4	0	110	W	14	3	0	0	0	0	8	1.25	2	.51	12	1.88		
24	16	14.06.61	0945	1345	DAY	4	0	070	W	36	3	3	.47	0	.31	3	.47	5	.78	10	1.56		
24	17	14.06.61	1500	1900	DAY	4	0	065	W	25	2	5	.47	0	.31	2	.31	5	.78	10	1.56		
30	42	22.10.61	2000	2330	NIGHT	3	2	085	MSW	36	3	21	3.75	5	.89	4	.71	5	.89	35	6.25		
30	40	23.10.61	0100	0400	NIGHT	3	0	085	W	23	5	0	0	0	0	0	0	0	0	0	0	0	
30	43	23.10.61	0100	0430	NIGHT	3	2	085	ENE	36	3	14	2.50	1	.18	4	.71	8	1.43	27	4.82		
30	47	24.10.61	0300	0700	NIGHT	4	0	085	E	23	4	10	1.56	1	.16	4	.63	15	2.34	30	4.69		
30	44	23.10.61	0530	0900	DAY	3	2	085	W	23	4	10	1.79	1	.18	1	.18	13	2.32	25	4.46		
30	40	22.10.61	1000	1330	DAY	3	2	100	MSW	36	3	0	0	1	.18	4	.71	5	.89	10	1.79		
30	45	23.10.61	1100	1500	DAY	4	0	085	E	23	5	2	.31	2	.31	4	.63	2	.31	10	1.56		
31	12	06.11.61	2100	2400	NIGHT	3	0	083	E	23	3	4	.83	3	.63	5	1.04	8	1.67	20	4.17		

B L O C K 20

TRIP	HAUL	DATE	TIME NET SMT HAULED	TIME CODE	HAUL HR 2	WATER DEPTH (FM)	DURN OF TRAWL	DURN	WIND	REDFISH BSKTS	FLATHEAD CMT/ BSKTS HOUR	JACKASS CMT/ BSKTS HOUR	MIXED CMT/ BSKTS HOUR	TOTAL BSKTS HOUR						
6	3	21-05-60	2110 0040	NIGHT	3 2	088	W	32	5	10	1.79	0	0	5	.89	5	.89	20	3.57	
7	21	16-06-60	1910 2010	NIGHT	4 0	105	W	23	6	0	0	.63	0	0	0	.63	0	.63	5	.78
7	12	15-06-60	2305 0305	NIGHT	4 0	088	E	27	8	12	1.68	4	.63	30	4.69	4	.63	50	7.81	
7	22	16-06-60	2115 0115	NIGHT	4 0	085	E	23	7	4	.63	4	.63	10	1.56	7	1.09	25	3.91	
7	13	14-06-60	0340 0740	NIGHT	4 0	088	E	27	8	4	.63	4	.63	33	5.16	4	.63	45	7.03	
7	7	11-06-60	0500 0815	DAY	3 1	088	W	27	2	4	.77	2	.38	15	2.88	69	13.27	90	17.31	
7	3	11-06-60	0915 1300	DAY	3 3	088	E	27	5	0	0	0	.63	11	1.83	5	.83	20	3.33	
7	14	14-06-60	0910 1310	DAY	4 1	088	W	27	3	1	.16	4	.63	4	.63	6	.94	15	2.34	
7	4	11-06-60	1410 1830	DAY	4 1	085	W	27	3	10	1.47	10	1.47	14	2.06	6	.88	40	5.88	
7	15	14-06-60	1400 1600	DAY	4 0	088	E	27	8	12	1.88	0	0	40	6.25	8	1.25	60	9.38	
8	21	16-07-60	1900 2300	NIGHT	4 0	088	E	27	4	13	2.03	4	.63	4	.63	2	.31	23	3.59	
8	32	20-07-60	1700 2030	NIGHT	3 2	110	W	00	0	0	0	0	.56	1	.14	3	.42	12	1.67	
8	33	20-07-60	2015 0015	NIGHT	4 0	088	W	00	0	0	0	0	.89	0	0	0	0	0	0	0
8	8	20-07-60	2130 0130	NIGHT	4 0	088	E	00	0	2	.31	4	.63	1	.16	3	.47	10	1.56	
8	22	17-07-60	0030 0500	NIGHT	4 2	080	W	27	7	1	.16	4	.56	2	.31	3	.47	10	1.56	
8	29	20-07-60	0110 0540	NIGHT	4 2	085	E	18	2	4	.56	6	.83	2	.28	3	.42	15	2.08	
8	19	16-07-60	0540 0940	DAY	4 0	088	W	32	4	0	0	0	.31	16	2.50	7	1.09	25	3.91	
8	30	20-07-60	0740 1140	DAY	4 0	088	W	18	1	1	.16	6	.94	1	.16	8	1.25	16	2.50	
8	27	18-07-60	1500 1900	DAY	4 0	088	E	23	5	10	1.56	6	.94	3	.47	9	1.41	28	4.38	
8	31	20-07-60	1200 1600	DAY	4 0	088	E	00	0	0	0	0	.31	0	0	3	.47	5	.78	
9	3	31-07-60	2045 0115	NIGHT	4 2	088	E	36	3	18	2.50	2	.28	10	1.39	20	2.78	50	6.94	
9	4	01-08-60	0230 0700	NIGHT	4 2	088	E	36	3	5	.69	3	.42	12	.28	40	5.56	50	6.94	
9	5	31-07-60	1045 1445	DAY	4 0	088	W	36	3	13	2.03	2	.31	11	1.72	14	2.19	40	6.25	
9	1	01-08-60	1115 1345	DAY	2 2	088	W	36	2	0	0	0	.75	12	3.00	5	1.25	20	5.00	
9	2	31-07-60	1530 1930	DAY	4 0	085	W	36	3	2	.31	1	.16	5	.78	42	6.56	50	7.81	
9	6	01-08-60	1445 1915	DAY	4 2	088	W	36	2	1	.14	2	.28	2	.28	10	1.39	15	2.08	
11	24	12-09-60	1400 2300	NIGHT	4 0	095	E	14	5	8	1.25	1	.16	4	.63	15	2.34	28	4.38	
11	3	08-09-60	0210 0610	NIGHT	4 0	090	W	18	2	13	2.03	0	0	7	1.09	25	3.91	45	7.03	
11	25	13-09-60	2400 0400	NIGHT	4 0	090	E	14	5	8	1.25	1	.16	4	.63	30	4.69	43	6.72	
11	30	14-09-60	0030 0400	NIGHT	3 2	085	W	00	0	3	.54	1	.18	5	.89	14	2.50	23	4.11	
11	31	14-09-60	0530 0915	DAY	3 3	070	W	18	2	4	.67	0	0	8	1.33	29	4.83	41	6.83	
12	26	25-09-60	1730 2130	NIGHT	4 0	085	W	18	2	10	1.56	2	.31	3	.47	11	1.72	25	3.91	
12	55	01-10-60	1745 2030	NIGHT	2 3	090	W	05	3	3	.68	5	1.14	36	8.18	16	3.64	60	13.64	
12	27	26-09-60	2300 0300	NIGHT	4 0	085	W	00	0	0	0	0	.63	2	.31	17	1.09	22	3.44	
12	56	02-10-60	2245 0215	NIGHT	3 2	090	E	00	0	3	.54	4	.71	10	1.79	3	.54	20	3.57	
12	57	02-10-60	0315 0700	NIGHT	3 3	090	W	00	0	7	1.17	3	.50	9	1.50	6	1.00	25	4.17	



13	83	17,10,60	2010	2340	NIGHT	3 2	095	W	00	0	1	.18	1	.18	3	.54	3	.54	8	1.43
13	1	22,10,60	2400	0330	NIGHT	3 2	085	E	09	3	4	.54	1	.18	4	.71	7	1.25	15	2.68
13	84	18,10,60	0045	0415	NIGHT	3 2	090	W	00	0	0	.71	0	0	2	.36	4	.71	10	1.79
14	25	07,11,60	1645	2015	NIGHT	3 2	105	E	18	5	6	1.07	1	.18	19	3.39	4	.71	30	5.56
14	3	03,11,60	0315	0715	NIGHT	4 0	100	W	18	2	7	1.09	2	.31	11	1.72	10	1.56	30	4.69
16	7	26,11,60	1900	2230	NIGHT	3 2	088	W	00	0	10	1.79	1	.18	7	1.25	12	2.14	30	5.36
16	8	26,11,60	2315	0245	NIGHT	3 2	088	E	09	2	7	1.25	6	.36	5	.89	6	1.07	20	3.57
16	9	27,11,60	0400	0730	NIGHT	3 2	086	W	05	2	6	1.07	1	.18	5	.89	4	.71	16	2.86
16	6	26,11,60	1330	1700	DAY	3 2	085	W	00	0	1	.18	0	0	2	.36	7	1.25	10	1.79
17	21	15,01,61	1745	2015	NIGHT	2 2	085	W	18	3	2	.50	0	0	6	1.50	12	3.00	20	5.00
17	22	14,01,61	1900	2200	NIGHT	3 0	090	W	14	3	11	2.29	1	.21	5	1.04	23	4.79	40	8.53
17	22	13,01,61	2215	0115	NIGHT	3 0	090	E	14	4	6	1.25	1	.21	10	2.08	3	.63	20	4.17
17	23	14,01,61	0215	0515	NIGHT	3 0	080	W	14	4	11	2.29	1	.21	10	2.08	18	3.75	40	8.53
17	24	14,01,61	0650	0950	DAY	3 0	090	E	14	3	16	3.33	1	.21	10	2.08	23	4.79	50	10.42
17	8	10,01,61	0510	1210	DAY	4 0	110	W	23	4	6	.94	0	0	4	.63	5	.78	15	2.34
17	9	10,01,61	1230	1500	DAY	2 2	150	W	23	4	2	.50	0	0	2	.50	6	1.50	10	2.50
17	19	13,01,61	0930	1230	DAY	3 0	085	E	18	2	5	1.04	1	.21	20	4.17	4	.83	30	6.25
17	25	14,01,61	1100	1400	DAY	3 0	090	W	14	3	11	2.29	1	.21	6	1.25	17	3.54	35	7.29
17	20	13,01,61	1300	1600	DAY	3 0	075	W	18	2	5	1.04	0	0	4	.83	6	1.25	15	3.13
17	26	14,01,61	1430	1730	DAY	3 0	085	E	14	3	15	3.13	1	.21	10	2.08	4	.83	30	6.25
18	17	30,01,61	1930	2230	NIGHT	3 0	090	W	36	1	16	3.33	4	.83	12	2.50	12	2.50	44	9.17
18	22	31,01,61	1920	2200	NIGHT	2 3	090	E	14	3	18	4.09	3	.68	10	2.27	13	3.41	46	10.45
18	12	29,01,61	2000	2400	NIGHT	4 0	095	E	36	2	10	1.56	2	.31	5	.78	3	.47	20	3.13
18	23	01,02,61	2400	0330	NIGHT	3 2	090	E	14	4	15	2.68	2	.36	6	1.07	2	.36	25	4.46
18	13	30,01,61	0045	0345	NIGHT	3 0	100	W	36	2	15	3.13	1	.21	6	1.25	0	0	22	4.58
18	16	31,01,61	2400	0400	NIGHT	4 0	087	E	36	2	20	3.13	5	.78	6	1.94	9	1.41	40	6.25
18	14	30,01,61	0530	0830	DAY	3 0	080	E	36	2	25	5.21	1	.21	5	1.04	9	1.88	40	8.53
18	19	31,01,61	0500	0800	DAY	4 0	087	W	36	1	10	1.56	3	.47	10	1.56	2	.31	25	3.91
18	15	30,01,61	0945	1315	DAY	3 2	080	E	36	1	5	.89	0	0	5	.89	5	.89	15	2.68
18	24	01,02,61	0900	1300	DAY	4 0	070	W	18	3	12	1.88	2	.31	7	1.09	4	.63	25	3.91
18	16	30,01,61	1400	1800	DAY	4 0	085	W	36	1	12	1.88	0	0	2	.31	1	.16	15	2.34
18	25	01,02,61	1400	1800	DAY	4 0	075	W	18	3	15	2.34	0	0	1	.16	0	0	16	2.50
19	10	13,02,61	1800	2100	NIGHT	3 0	080	E	09	4	0	0	0	0	0	0	0	0	0	0
19	25	16,02,61	1930	2230	NIGHT	3 0	100	E	14	3	9	1.88	1	.21	7	1.46	3	.63	20	4.17
19	47	21,02,61	1830	2300	NIGHT	4 2	080	W	27	4	4	.56	1	.14	3	.42	7	.97	15	2.08
19	8	13,02,61	0230	0600	NIGHT	3 2	075	E	09	4	5	.89	5	.89	4	.71	4	.71	15	2.68
19	17	13,02,61	0300	0700	NIGHT	4 0	085	E	14	5	24	3.75	5	.78	5	.78	5	.78	35	5.47
19	30	18,02,61	0030	0330	NIGHT	3 0	095	E	14	5	5	1.04	1	.21	4	.83	2	.42	12	2.50
19	3	12,02,61	0430	0800	DAY	3 2	100	E	09	5	5	.89	1	.18	5	.89	4	.71	15	2.68
19	31	16,02,61	0515	0915	DAY	4 0	090	E	14	5	5	.78	1	.16	5	.78	0	0	11	1.72
19	4	12,02,61	0900	1230	DAY	3 2	090	W	09	4	10	1.79	1	.18	10	1.79	4	.71	25	4.46
19	23	15,02,61	0800	1230	DAY	4 2	085	W	14	5	4	.56	0	0	2	.28	2	.28	8	1.11
19	18	15,02,61	1000	1330	DAY	3 2	125	W	14	2	0	0	0	0	0	0	0	0	0	0
19	24	15,02,61	1330	1730	DAY	4 0	080	E	14	4	4	.63	1	.16	4	.63	3	.47	12	1.88
19	24	16,02,61	1500	1900	DAY	4 0	150	W	14	3	1	.16	1	.16	10	1.56	3	.47	15	2.34
19	46	21,02,61	1400	1730	DAY	3 2	100	W	27	4	11	1.96	2	.36	6	1.07	1	.18	20	3.57

B L O C K 20

TRIP	HAUL	DATE	TIME NET SHOT HAULED	TIME CODE	HAUL BURN HR Q	WATER DEPTH (F)	DIRN OF TRAWL	DIRN	WIND	DIRN FORCE	BSKTS	REDFISH CWT/ HOUR	FLATHEAD CWT/ BSKTS HOUR	JACKASS CWT/ BSKTS HOUR	MIXED CWT/ BSKTS HOUR	TOTAL CWT/ BSKTS HOUR
22	21	21.04.61	0100 0500	NIGHT	4 0	075	E	05	5	2	31	2	.31	5	.78	10 1.56
22	18	20.04.61	0600 0900	DAY	4 0	080	W	36	3	12	1.88	2	.31	2	.31	20 3.13
22	22	21.04.61	0600 1000	DAY	4 0	070	E	05	5	3	.47	1	.16	6	.94	15 2.34
22	19	20.04.61	1000 1400	DAY	4 0	083	W	07	4	3	.47	1	.16	3	.47	10 1.56
22	20	20.04.61	1500 1900	DAY	4 0	085	E	05	3	3	.47	1	.16	3	.47	10 1.56
24	13	13.06.61	2000 2320	NIGHT	3 1	090	W	05	2	3	.58	5	.96	5	.96	17 3.27
24	23	16.06.61	1700 2100	NIGHT	4 0	080	E	23	6	7	1.09	3	.47	7	1.09	20 3.13
24	24	17.06.61	2045 0445	NIGHT	4 0	083	E	23	6	7	1.09	1	.16	10	1.56	25 3.91
24	14	14.06.61	0030 0400	NIGHT	3 2	085	W	36	2	3	.54	5	.89	2	.36	15 2.68
24	24	17.06.61	0045 0445	NIGHT	4 0	080	W	36	2	4	.63	4	.63	6	.94	20 3.13
24	15	14.06.61	0045 0900	DAY	4 0	085	W	36	2	3	.47	2	.31	3	.47	12 1.88
24	20	15.06.61	0530 0930	DAY	4 0	080	W	25	3	7	1.09	1	.16	6	.94	20 3.13
24	25	17.06.61	0530 0930	DAY	4 0	080	E	23	6	6	.94	2	.31	10	1.56	21 3.28
24	26	17.06.61	1030 1430	DAY	4 0	100	W	23	6	3	.47	1	.16	5	.78	10 1.56
24	27	17.06.61	1545 1945	DAY	4 0	075	E	23	6	4	.63	1	.16	5	.78	15 2.34
26	37	31.07.61	1800 2200	NIGHT	4 0	085	W	23	3	4	.63	6	.94	5	.78	25 3.91
26	41	01.06.61	2000 2330	NIGHT	3 2	095	E	23	3	3	.54	6	1.07	8	1.43	20 3.57
26	38	01.06.61	0500 0930	DAY	3 2	095	W	23	3	10	1.79	12	2.14	8	1.43	40 7.14
27	7	13.08.61	1620 2020	NIGHT	4 0	080	W	09	2	5	.78	4	.63	16	2.50	40 6.25
27	8	15.08.61	1730 2100	NIGHT	3 2	080	E	23	5	5	.89	1	.18	16	2.86	35 6.25
27	9	15.08.61	2215 0130	NIGHT	3 1	080	E	23	3	5	.96	1	.19	10	1.92	20 3.85
27	14	17.08.61	2045 2400	NIGHT	3 1	078	W	00	0	0	1.73	1	.18	6	1.15	25 4.81
27	18	18.08.61	2030 2400	NIGHT	3 2	080	E	27	3	14	2.50	1	.18	16	2.86	35 6.25
27	15	18.08.61	0100 0430	NIGHT	3 2	078	W	05	3	9	1.61	1	.18	6	1.07	25 4.46
27	19	19.08.61	0300 0430	NIGHT	4 0	080	W	05	4	7	1.09	1	.16	10	1.56	22 3.44
27	16	18.08.61	0500 0830	DAY	3 2	078	W	05	3	6	1.07	1	.16	6	1.07	20 3.57
27	20	19.08.61	0515 0910	DAY	4 0	078	E	27	4	12	1.88	1	.16	4	.63	30 4.69
27	6	13.06.61	1100 1500	DAY	4 0	083	W	14	3	0	0	0	0	5	.78	20 3.13
27	1	19.08.61	1018 1415	DAY	4 0	080	W	23	3	0	0	0	0	0	0	0 0
27	17	18.08.61	1500 2000	DAY	5 0	080	E	05	3	2	.25	1	.13	6	.75	15 1.88
28	20	06.09.61	2000 2330	NIGHT	3 2	090	W	05	4	6	1.07	1	.18	2	.36	12 2.14
28	24	08.09.61	0445 0930	NIGHT	4 0	110	W	14	4	0	.16	0	0	15	2.34	20 3.13
28	25	08.09.61	0530 0930	DAY	4 0	115	E	14	4	0	0	2	.31	14	2.19	20 3.13
28	18	06.09.61	1130 1500	DAY	3 2	095	W	23	2	6	1.07	3	.54	7	1.25	20 3.57
28	19	06.09.61	1600 1900	DAY	3 0	100	W	05	3	7	1.46	1	.21	4	.83	15 3.13

30	31	20.10.61	1630	1930	NIGHT	3 0	085	M	27	5	12	2.50	2	.42	5	1.04	1	.21	20	4.17
30	32	20.10.61	2000	2300	NIGHT	3 0	085	M	27	5	0	0	0	0	0	0	0	0	0	0
30	30	21.10.61	2000	2300	NIGHT	3 0	095	M	09	3	21	4.38	2	.42	4	.83	8	1.67	35	7.29
30	29	20.10.61	2400	0230	NIGHT	2 2	083	M	27	5	14	3.50	1	.25	5	1.25	10	2.50	30	7.50
30	33	21.10.61	0330	0400	NIGHT	3 2	090	M	27	3	26	4.64	5	.89	6	1.07	0	0	37	6.61
30	38	22.10.61	0500	0530	NIGHT	3 2	096	E	05	3	12	2.14	2	.36	4	.71	12	2.14	30	5.36
30	34	21.10.61	0500	0600	DAY	3 0	090	E	27	3	15	3.13	2	.42	4	.83	0	0	21	4.38
30	39	22.10.61	0600	0930	DAY	3 2	097	M	05	3	2	.36	2	.36	4	.71	2	.36	10	1.79
30	24	18.10.61	1030	1330	DAY	3 0	080	M	07	4	10	2.08	1	.21	4	.83	5	1.04	20	4.17
30	48	24.10.61	0800	1200	DAY	4 0	085	E	23	4	5	.78	2	.31	5	.78	3	.47	15	2.34
30	36	21.10.61	1500	1830	DAY	3 2	095	E	09	3	4	.71	2	.36	4	.71	5	.89	15	2.68
30	49	24.10.61	1300	1700	DAY	4 0	085	E	23	4	2	.31	1	.16	4	.63	3	.47	10	1.56
31	9	06.11.61	0430	0730	DAY	3 0	095	M	23	3	6	1.25	1	.21	5	1.04	8	1.67	20	4.17
31	10	06.11.61	0415	1130	DAY	3 1	095	M	23	3	0	0	3	.58	13	2.50	9	1.73	25	4.81
31	14	07.11.61	0500	0830	DAY	3 2	085	E	23	2	4	.71	1	.18	4	.71	3	.54	12	2.14
31	11	06.11.61	1500	1900	DAY	4 0	095	M	23	3	0	0	2	.31	8	1.25	15	2.34	25	3.91
31	15	07.11.61	1300	1630	DAY	3 2	090	M	23	2	5	.89	4	.71	12	2.14	16	2.86	37	6.61

B L O C K 21

TRIP MAUL	DATE	TIME NET SHOT HAULED	TIME CODE	HAUL DURN HR 3	WATER DEPTH (FMI)	DIRN OF TRAWL	DIRN	WIND DIRN	WIND FORCE	BSKTS	REDFISH CWT/ HOUR	FLATHEAD CWT/ BSKTS HOUR	JACKASS CWT/ BSKTS HOUR	MIXED CWT/ BSKTS HOUR	TOTAL CWT/ BSKTS HOUR		
6	2	21.05.60	1230	1630	DAY	4	0	088	W	36	4	0	0	4	.63	10	1.56
7	18	15.06.60	1950	2350	NIGHT	4	0	093	E	23	4	5	.78	18	2.81	30	4.69
7	19	16.06.60	0100	0500	NIGHT	4	0	085	W	23	4	4	.63	4	.63	15	2.34
7	16	15.06.60	1040	1440	DAY	4	0	088	E	23	6	15	2.34	30	4.69	60	9.38
7	17	15.06.60	1950	1850	DAY	3	0	088	W	23	6	4	.83	30	6.25	40	8.33
8	4	11.07.60	1710	2110	NIGHT	4	0	088	E	23	6	2	.31	10	1.56	15	2.34
8	8	13.07.60	1745	2145	NIGHT	4	0	088	W	18	4	2	.31	15	2.34	30	4.69
8	17	13.07.60	1800	2200	NIGHT	4	0	088	W	32	2	0	.31	30	4.69	40	6.25
8	19	13.07.60	2245	0245	NIGHT	4	0	080	E	18	4	3	.47	6	.94	45	7.03
8	8	11.07.60	0115	0415	NIGHT	3	0	088	W	27	6	10	2.08	60	12.50	80	16.67
8	18	15.07.60	2400	0415	NIGHT	4	1	088	W	32	3	14	2.06	7	1.03	25	3.68
8	2	11.07.60	0640	1040	DAY	4	0	088	E	27	6	12	1.88	30	4.69	80	12.50
8	6	13.07.60	0900	0900	DAY	4	0	088	E	23	6	8	1.25	25	3.91	50	7.81
8	3	11.07.60	1150	1550	DAY	4	0	088	W	27	5	0	.63	20	3.13	6	.94
8	7	13.07.60	1300	1700	DAY	4	0	088	W	23	4	2	.31	6	.94	10	1.56
11	29	13.09.60	2000	2330	NIGHT	3	2	095	W	00	0	4	.71	16	2.86	5	.89
11	2	07.09.60	2100	0100	NIGHT	4	0	090	W	18	2	8	1.25	0	0	75	11.72
11	4	08.09.60	0710	1110	DAY	4	0	070	W	18	2	4	.63	0	0	15	2.34
11	26	13.09.60	0610	1010	DAY	4	0	090	E	14	5	6	.94	1	.16	4	.63
11	1	07.09.60	1500	1930	DAY	4	2	090	W	18	2	0	0	4	.56	60	8.33
12	60	02.10.60	1700	2100	NIGHT	4	0	095	W	00	0	3	.47	65	10.16	10	1.56
12	61	02.10.60	2200	0200	NIGHT	4	0	095	E	23	2	7	1.09	12	1.88	3	.47
12	24	25.09.60	0700	1100	DAY	4	0	075	W	23	3	0	1	2	.51	7	1.09
12	58	02.10.60	0810	1040	DAY	2	2	070	E	00	0	1	.25	4	1.00	7	1.75
12	25	25.09.60	1200	1630	DAY	4	2	070	W	23	2	0	0	0	0	0	0
12	59	02.10.60	1200	1600	DAY	4	0	095	E	00	0	2	.31	26	4.06	5	.78
13	3	22.10.60	0715	1045	DAY	3	2	085	E	09	2	3	.54	6	1.07	1	.18
13	80	17.10.60	0930	0930	DAY	4	0	093	E	18	2	11	1.72	13	2.03	10	1.56
13	81	17.10.60	1020	1420	DAY	4	0	095	W	00	0	1	.16	6	.94	3	.54
13	82	17.10.60	1540	1910	DAY	3	2	085	W	00	0	1	.18	2	.36	3	.54
14	2	02.11.60	2245	0215	NIGHT	3	2	100	W	18	2	14	2.50	7	1.25	6	1.07
14	26	07.11.60	2130	0115	NIGHT	3	3	075	E	18	5	2	.33	4	.67	4	.67
14	27	08.11.60	0215	0615	NIGHT	4	0	090	E	18	5	9	1.41	6	.94	4	.63
15	8	18.11.60	1725	2000	NIGHT	2	2	070	W	27	3	0	0	0	0	0	0
15	9	18.11.60	2100	2330	NIGHT	2	2	090	W	27	2	5	1.25	17	4.25	5	1.25

16	1	25.11.60	1940	2215	NIGHT	2	3	095	W	09	2	4	.91	1	.23	9	2.05	6	1.36	20	4.55
16	2	26.11.60	2300	0145	NIGHT	2	3	100	W	09	2	2	.45	0	0	0	0	3	.68	5	1.14
16	3	26.11.60	0230	0900	NIGHT	2	2	088	W	14	2	9	2.25	1	.25	4	1.00	4	1.00	18	4.50
16	4	26.11.60	0600	0900	DAY	3	0	090	E	00	0	2	.42	0	0	5	1.04	7	1.46	14	2.92
16	5	26.11.60	0950	1250	DAY	3	0	098	W	00	0	2	.42	0	0	2	.42	4	.83	8	1.67
17	6	10.01.61	2230	0200	NIGHT	3	2	095	W	27	4	2	.36	0	0	4	.71	4	.71	10	1.79
17	7	10.01.61	0315	0715	NIGHT	4	0	100	W	27	3	8	1.25	0	0	12	1.88	5	.78	25	3.91
18	8	26.01.61	2400	2400	NIGHT	4	0	080	W	32	6	7	1.09	2	.31	4	.63	2	.31	15	2.34
18	9	29.01.61	0400	0800	DAY	4	0	085	W	32	5	8	1.25	1	.16	5	.78	6	.94	20	3.13
19	1	11.02.61	1700	2000	NIGHT	3	0	200	W	09	4	5	1.04	0	0	3	.63	0	0	8	1.67
19	20	15.02.61	1900	2300	NIGHT	4	0	080	E	14	4	5	.78	2	.31	4	.63	4	.63	15	2.34
19	11	13.02.61	2200	0100	NIGHT	3	0	080	E	09	4	20	4.17	1	.21	7	1.46	12	2.50	40	8.33
19	12	14.02.61	0245	0400	NIGHT	3	1	080	E	09	4	8	1.94	2	.38	7	1.35	13	2.50	30	5.77
19	21	16.02.61	2400	0400	NIGHT	4	0	085	W	14	3	10	1.56	1	.16	4	.63	5	.78	20	3.13
19	22	16.02.61	0440	0840	DAY	4	0	083	W	14	3	7	1.09	1	.16	4	.63	3	.47	15	2.34
19	44	21.02.61	0400	0800	DAY	4	0	110	W	32	3	3	.16	2	.31	7	1.09	4	.63	14	2.19
19	45	21.02.61	0900	1300	DAY	4	0	095	W	27	4	6	.94	1	.16	5	.78	3	.47	15	2.34
22	17	19.04.61	1930	2400	NIGHT	4	2	095	W	23	3	1	.14	2	.28	3	.42	2	.28	8	1.11
22	24	21.04.61	1800	2200	NIGHT	4	0	080	E	23	6	5	.78	2	.31	5	.78	3	.47	15	2.34
22	25	21.04.61	2300	0230	NIGHT	3	2	080	W	23	5	30	5.36	1	.18	3	.54	1	.18	35	6.25
22	30	24.04.61	0500	0830	DAY	3	2	083	W	23	3	14	2.50	1	.18	6	1.07	0	0	21	3.75
22	23	21.04.61	1100	1500	DAY	4	0	085	E	23	5	2	.31	1	.16	5	.78	2	.31	10	1.56
22	31	24.04.61	1800	1400	DAY	4	0	085	E	23	3	2	.31	0	0	6	.94	2	.31	10	1.56
22	16	19.04.61	1430	1830	DAY	4	0	085	W	23	3	1	.16	0	0	5	.78	4	.63	10	1.56
24	19	13.06.61	2400	0400	NIGHT	4	0	080	W	25	4	6	.94	0	0	5	.78	9	1.41	20	3.13
24	11	13.06.61	0930	1330	DAY	4	0	083	W	05	4	0	0	2	.31	3	.47	5	.78	10	1.56
24	12	13.06.61	1900	1900	DAY	4	0	083	W	05	3	0	0	2	.31	3	.47	5	.78	10	1.56
25	11	03.07.61	1945	2345	NIGHT	4	0	095	W	27	5	4	.63	1	.16	4	.63	3	.47	12	1.88
25	19	05.07.61	1945	2330	NIGHT	3	3	100	E	18	3	2	.33	11	1.83	4	.67	3	.50	20	3.33
25	24	06.07.61	1945	2345	NIGHT	4	0	090	E	18	3	2	.31	9	1.41	3	.47	11	1.72	25	3.91
25	28	07.07.61	1600	2000	NIGHT	4	0	090	W	14	3	5	.47	3	.47	4	.63	15	2.34	25	3.91
25	29	07.07.61	2045	2400	NIGHT	3	1	080	E	14	2	4	.77	3	.58	4	.77	2	.88	3	.77
25	12	04.07.61	0030	0430	NIGHT	4	0	085	W	27	4	4	.63	5	.78	4	.63	2	.31	15	2.34
25	20	06.07.61	0045	0415	NIGHT	3	2	093	E	18	3	4	.71	11	1.96	4	.71	6	1.07	25	4.46
25	25	07.07.61	0030	0430	NIGHT	4	0	095	W	18	3	2	.31	11	1.96	4	.63	8	1.25	25	3.91
25	21	06.07.61	0515	0915	DAY	4	0	093	W	18	3	4	.63	17	2.66	4	.63	8	1.25	33	5.16
25	26	07.07.61	0530	0930	DAY	4	0	093	E	14	3	3	.47	5	.78	3	.47	9	1.41	20	3.13
25	17	05.07.61	0930	1330	DAY	4	0	090	W	20	5	2	.31	5	.78	4	.63	1	.16	12	1.88
25	22	06.07.61	2000	1400	DAY	4	0	093	W	18	3	28	4.38	8	1.25	12	1.88	50	7.81	50	3.13
25	27	07.07.61	1030	1450	DAY	4	0	097	E	14	3	3	.47	5	.78	8	1.25	20	3.13	20	3.13
25	18	05.07.61	1430	1830	DAY	4	0	095	W	18	4	1	.16	1	.16	1	.16	3	.47	6	.94
25	23	06.07.61	1445	1845	DAY	4	0	093	W	18	3	0	0	22	3.44	5	.78	7	1.09	34	5.31

B L O C K 21

TRIP MAUL	DATE	TIME NET SHOT HAULED	TIME CODE	HAUL DURN HR Q	WATER DEPTH (FM)	DIRN OF TRAWL	DIRN FORCE	WIND	REDFISH BSKTS	REDFISH CWT/ HOUR	FLATHEAD BSKTS HOUR	FLATHEAD CWT/ HOUR	JACKASS BSKTS HOUR	JACKASS CWT/ HOUR	MIXED BSKTS HOUR	MIXED CWT/ HOUR	TOTAL BSKTS HOUR	TOTAL CWT/ BSKTS HOUR
26	20	25.07.61	2030 0130	NIGHT	5 0	090	E 23	3	3	.38	20	2.50	8	1.00	9	1.13	40	5.00
26	42	02.08.61	2400 0430	NIGHT	4 0	095	E 14	4	4	.47	6	.94	7	1.09	9	1.41	25	3.91
26	43	02.08.61	0500 0900	DAY	4 0	095	W 14	4	6	.63	7	1.09	6	1.09	5	.78	25	3.91
26	44	02.08.61	1000 1400	DAY	4 0	100	E 14	4	4	.63	7	1.09	6	1.09	8	1.25	25	3.91
26	19	25.07.61	1545 2000	DAY	4 1	090	W 23	3	3	.44	9	1.32	4	.59	4	.59	20	2.94
26	36	31.07.61	1330 1700	DAY	3 2	085	W 23	3	3	.54	2	.36	3	.54	2	.36	10	1.79
26	45	02.08.61	1500 1900	DAY	4 0	100	W 14	4	3	.47	4	.63	5	.78	13	2.03	25	3.91
27	13	17.08.61	1700 2000	NIGHT	3 0	080	W 00	0	6	1.25	1	.21	6	1.25	7	1.46	20	4.17
27	7	13.08.61	0045 0445	NIGHT	4 0	080	W 23	2	2	.94	2	.31	4	.63	8	1.25	20	3.13
27	10	17.08.61	0245 0615	NIGHT	3 2	080	E 00	0	7	1.25	2	.36	10	1.79	11	1.96	30	5.136
27	5	13.08.61	0530 0930	DAY	4 0	083	W 14	3	6	.94	1	.16	2	.31	11	1.72	20	3.13
27	11	17.08.61	0115 1115	DAY	4 0	080	W 00	0	6	.94	1	.16	7	1.09	1	.16	15	2.34
27	12	17.08.61	1200 1600	DAY	4 0	080	E 00	0	1	.16	1	.16	7	1.09	6	.94	15	2.34
28	22	07.09.61	1600 2000	NIGHT	4 0	095	E 05	4	4	.63	1	.16	4	.63	11	1.72	20	3.13
28	28	08.09.61	2000 2400	NIGHT	4 0	085	E 14	3	2	.31	2	.31	7	1.09	14	2.19	25	3.91
28	16	06.09.61	0030 0430	NIGHT	4 0	083	W 23	3	1	.16	1	.16	6	1.09	7	1.09	15	2.34
28	17	06.09.61	0515 0915	DAY	4 0	090	W 23	4	2	.31	1	.16	4	.63	8	1.25	15	2.34
28	21	07.09.61	1100 1500	DAY	4 0	075	E 05	5	1	.16	1	.16	2	.31	6	.94	10	1.56
28	26	08.09.61	1030 1430	DAY	4 0	125	E 14	3	1	.16	1	.16	6	.94	7	1.09	15	2.34
28	27	08.09.61	1530 1930	DAY	4 0	075	W 14	3	1	.16	2	.31	6	.94	11	1.72	20	3.13
30	20	17.10.61	1600 2000	NIGHT	4 0	080	W 27	2	5	.78	1	.16	5	.78	9	1.41	20	3.13
30	26	18.10.61	1945 2345	NIGHT	4 0	085	E 27	4	26	4.06	2	.31	5	.78	3	.47	36	5.63
30	50	24.10.61	1745 2145	NIGHT	4 0	090	E 23	4	7	1.09	2	.31	6	.94	10	1.56	25	3.91
30	21	17.10.61	2100 2400	NIGHT	3 0	085	W 27	2	10	2.08	1	.21	4	.83	15	3.13	30	6.25
30	22	18.10.61	0030 0400	NIGHT	3 2	085	E 27	2	15	2.68	2	.36	5	.89	3	.54	25	4.46
30	27	19.10.61	0145 0515	NIGHT	3 2	085	W 27	5	10	1.79	1	.18	4	.71	10	1.79	25	4.46
30	51	25.10.61	2400 0400	NIGHT	4 0	095	E 23	4	13	2.03	2	.31	9	1.41	12	1.88	36	5.63
30	23	18.10.61	0930 0815	DAY	3 3	085	W 07	4	9	1.50	2	.33	7	1.17	7	1.17	25	4.17
30	25	18.10.61	1500 1900	DAY	4 0	085	E 07	4	2	.31	1	.16	5	.78	12	1.88	20	3.13
31	20	08.11.61	1715 2015	NIGHT	3 0	095	E 23	2	11	2.39	2	.42	4	.83	3	.63	20	4.17
31	21	08.11.61	2100 2400	NIGHT	3 0	095	W 23	2	4	.83	1	.28	3	.63	7	1.46	15	3.13
31	26	10.11.61	2000 0030	NIGHT	4 2	085	E 23	2	10	1.39	2	.21	4	.63	12	1.67	28	3.89
31	17	08.11.61	0100 0430	NIGHT	3 2	095	E 23	2	5	.89	2	.36	5	.89	8	1.43	20	3.57
31	22	08.11.61	0330 0530	NIGHT	4 0	090	E 23	2	9	1.41	2	.31	5	.78	4	.63	20	3.13
31	18	08.11.61	0930 0930	DAY	4 0	090	W 23	2	2	.31	0	.00	2	.31	4	.63	10	1.56
31	23	09.11.61	0600 1000	DAY	4 0	090	E 23	2	3	.47	1	.16	4	.63	7	1.09	15	2.34
31	19	08.11.61	1030 1430	DAY	4 0	085	E 23	2	2	.47	0	.00	6	.94	3	.47	12	1.88
31	24	09.11.61	1100 1430	DAY	3 2	140	E 23	2	3	.54	0	.00	0	.00	2	.36	5	.89
31	25	09.11.61	1530 1915	DAY	3 3	080	W 23	2	4	.67	2	.33	3	.50	1	.17	10	1.67

B L O C K 22

TRIP MAUL	DATE	TIME NET SHOT HAULED	TIME CODE	HAUL DURN HR Q	WATER DEPTH (FM)	DIRN OF TRAWL	DIRN FORCE	WIND	REDFISH BSKTS	REDFISH CWT/ HOUR	FLATHEAD BSKTS HOUR	FLATHEAD CWT/ HOUR	JACKASS BSKTS HOUR	JACKASS CWT/ HOUR	MIXED BSKTS HOUR	MIXED CWT/ HOUR	TOTAL BSKTS HOUR	TOTAL CWT/ BSKTS HOUR
7	1	11.05.60	0030 0330	NIGHT	3 0	150	W 27	2	0	0	0	0	5	1.04	2	.42	7	1.46

B L O C K 30

TRIP MAUL	DATE	TIME NET SHOT HAULED	TIME CODE	HAUL DURN HR Q	WATER DEPTH (Fm)	DIRN OF TRAWL	DIRN FORCE	WIND	REDFISH BSKTS	REDFISH CMT/ HOUR	FLATHEAD BSKTS	FLATHEAD CMT/ HOUR	JACKASS BSKTS	JACKASS CMT/ HOUR	MIXED BSKTS	MIXED CMT/ HOUR	TOTAL BSKTS	TOTAL CMT/ HOUR
6	1	21.05.60	0810	1110	088	W	36	4	1	.21	0	0	6	1.25	3	.63	10	2.08
8	5	12.07.60	2345	0345	088	E	23	6	10	1.56	4	.63	30	4.69	16	2.50	60	9.38
8	13	14.07.60	2000	2400	088	E	00	0	0	0	2	.31	3	.47	15	2.34	20	3.13
8	14	15.07.60	0140	0540	088	W	00	0	4	.63	2	.31	1	.16	3	.47	10	1.56
8	10	14.07.60	0400	0800	088	E	18	4	7	1.09	4	.63	48	7.50	21	3.28	80	12.50
8	15	15.07.60	0640	1040	088	W	27	2	0	.78	2	.31	3	.47	10	1.56	20	3.13
8	11	14.07.60	0915	1315	088	E	18	3	5	.78	8	1.25	60	9.38	7	1.09	80	12.50
8	16	15.07.60	1200	1630	088	W	27	2	0	0	4	.56	0	0	11	1.53	15	2.08
11	27	13.09.60	1130	1530	068	E	18	3	0	0	1	.16	4	.63	26	4.06	31	4.84
11	28	13.09.60	1600	1900	090	E	18	2	3	.63	0	0	6	1.25	21	4.38	30	6.25
12	65	03.10.60	1930	2330	090	E	23	4	5	.78	3	.47	15	2.34	2	.31	25	3.91
12	66	08.10.60	0830	0415	090	E	23	4	8	1.33	2	.33	8	1.33	2	.33	20	3.33
12	62	03.10.60	0420	0820	095	W	23	2	6	.94	2	.31	26	4.06	6	.94	40	6.25
12	63	03.10.60	0940	1340	095	E	23	3	0	0	2	.31	26	4.06	7	1.09	35	5.47
12	64	03.10.60	1430	1830	095	W	23	4	0	0	1	.16	25	3.91	4	.63	30	4.69
13	74	12.10.60	1615	2015	093	E	00	0	9	1.41	3	.47	11	1.72	7	1.09	30	4.69
13	75	12.10.60	2130	0130	080	W	18	2	1	.16	1	.16	3	.47	5	.78	10	1.56
13	76	16.10.60	0230	0615	095	E	27	2	13	2.17	3	.50	15	2.50	4	.67	35	5.83
13	79	17.10.60	0830	0430	098	W	23	3	4	.63	1	.16	11	1.72	4	.63	20	3.13
13	73	15.10.60	1100	1430	090	W	09	2	14	2.50	1	.18	21	3.75	9	1.61	45	8.04
13	77	16.10.60	0810	1210	095	W	27	3	0	0	2	.31	3	.47	3	.47	8	1.25
13	78	16.10.60	1310	1710	095	E	27	5	50	7.81	2	.31	30	4.69	8	1.25	90	14.06
14	1	02.11.60	1800	2200	085	W	18	2	5	.78	2	.31	5	.78	8	1.25	20	3.13
14	28	08.11.60	0715	1100	105	E	18	4	4	.67	1	.17	12	2.00	13	2.17	30	5.00
14	29	08.11.60	1215	1615	105	E	18	4	7	1.09	1	.16	7	1.09	0	0	15	2.34
15	3	17.11.60	0645	2015	095	W	23	2	17	3.04	0	0	11	1.96	4	.71	32	5.71
15	5	18.11.60	0230	0500	095	W	27	2	25	6.25	1	.25	6	1.50	4	1.00	36	9.00
15	6	18.11.60	0600	0900	100	E	27	3	0	0	0	0	4	.83	1	.21	5	1.04
15	2	17.11.60	1200	1530	088	W	23	2	3	.54	0	0	7	1.25	2	.66	12	2.14
17	5	09.01.61	1810	2130	090	W	27	4	2	.38	0	0	4	.77	4	.77	10	1.92

R L O C K 30

TRIP	HAUL	DATE	TIME NET SHOT HAULED	TIME CODE	HAUL BURN HR	WATER DEPTH (FM)	DIRN OF TRAWL	DIRN	WIND FORCE	BSKTS	REDFISH CWT/ HOUR	FLATHEAD CWT/ HOUR	JACKASS CWT/ HOUR	MIXED CWT/ BSKTS	TOTAL BSKTS	TOTAL CWT/ BSKTS				
18	2	26.01.61	1800	2200	NIGHT	4 0	085	W	36	2	9	1.41	2	.31	10	1.56	19	2.97	40	6.25
18	3	27.01.61	1945	2330	NIGHT	3 3	075	W	27	5	4	.67	1	.17	2	.53	3	.50	10	1.67
18	7	27.01.61	2300	0230	NIGHT	3 2	075	E	27	2	7	1.25	3	.54	6	1.07	4	.71	20	3.57
18	4	27.01.61	0345	0745	NIGHT	4 0	090	W	05	3	10	1.56	4	1.07	8	1.25	3	.47	25	3.91
18	5	27.01.61	0945	1315	DAY	3 2	085	W	05	3	25	4.46	6	1.07	6	1.07	13	2.32	50	8.93
18	1	26.01.61	1330	1700	DAY	3 2	090	W	09	3	4	.71	1	.18	2	.36	13	2.32	20	3.57
18	6	27.01.61	1445	1845	DAY	4 0	095	E	32	4	4	.63	1	.16	3	.47	2	.31	10	1.56
19	29	17.02.61	2000	2400	NIGHT	4 0	095	W	14	4	7	1.09	1	.16	7	1.09	10	1.56	25	3.91
19	13	14.02.61	0700	1030	DAY	3 2	080	E	09	4	7	1.25	1	.18	5	.89	7	1.25	20	3.57
19	26	17.02.61	0500	0900	DAY	4 0	105	E	18	2	4	.63	1	.16	16	2.50	6	.94	27	4.22
19	14	14.02.61	1115	1515	DAY	4 0	080	E	09	5	5	.78	1	.16	5	.78	1	.16	12	1.88
19	27	17.02.61	1000	1400	DAY	4 0	105	E	18	2	4	.63	1	.16	9	1.41	0	0	14	2.19
19	20	17.02.61	1500	1900	DAY	4 0	080	W	18	3	4	.63	1	.16	4	.63	1	.16	10	1.56
21	36	01.04.61	2045	2400	NIGHT	3 1	083	W	09	2	10	1.92	2	.38	8	1.54	5	.96	25	4.81
21	37	02.04.61	0100	0500	NIGHT	4 0	083	E	09	2	12	1.88	3	.47	10	1.56	0	0	25	3.91
21	38	02.04.61	0600	1000	DAY	4 0	083	E	09	2	12	1.88	1	.16	12	1.88	0	0	25	3.91
21	32	31.03.61	1500	1900	DAY	4 0	090	W	09	4	20	3.13	1	.16	0	0	39	6.09	60	9.38
21	35	01.04.61	1500	1830	DAY	3 2	083	W	09	2	10	1.79	2	.36	20	3.57	3	.54	35	6.25
22	12	18.04.61	1600	2000	NIGHT	4 0	083	W	11	5	1	.16	1	.16	5	.78	3	.47	10	1.56
22	28	23.04.61	1930	2330	NIGHT	4 0	083	W	23	5	3	.47	1	.16	5	.78	1	.16	10	1.56
22	13	18.04.61	2030	2400	NIGHT	3 2	110	W	11	4	1	.18	1	.18	4	.71	1	.18	7	1.25
22	33	24.04.61	1930	0030	NIGHT	5 0	090	E	23	3	6	.75	1	.13	4	.50	4	.50	15	1.88
22	14	19.04.61	0100	0430	NIGHT	4 2	115	E	11	4	2	.36	1	.16	5	.89	7	1.25	15	2.88
22	29	24.04.61	0030	0430	NIGHT	4 0	083	W	23	5	3	.47	1	.16	5	.78	3	.47	12	1.88
22	15	19.04.61	0530	0930	DAY	4 0	080	W	23	3	1	.16	1	.16	5	.94	2	.31	10	1.56
22	32	24.04.61	1500	1900	DAY	4 0	085	E	23	3	5	.78	1	.16	5	.78	1	.16	12	1.88
24	32	18.06.61	1700	2100	NIGHT	4 0	080	E	23	6	7	1.09	2	.31	5	.78	1	.16	15	2.34
24	9	18.06.61	0030	0430	NIGHT	4 0	080	W	05	4	3	.47	2	.31	5	.78	5	.78	15	2.34
24	29	18.06.61	0145	0545	NIGHT	4 0	080	E	23	6	5	.78	3	.47	5	.78	7	1.09	20	3.13
24	10	13.06.61	0530	0930	DAY	4 0	080	W	05	4	4	.63	3	.47	3	.47	5	.78	15	2.34
24	30	18.06.61	0600	1000	DAY	4 0	080	W	23	6	4	.63	4	.63	4	.63	6	.94	15	2.34
24	31	18.06.61	1100	1500	DAY	4 0	080	W	23	6	0	0	2	.31	6	.94	4	.63	12	1.88
25	15	05.07.61	2400	0830	NIGHT	3 2	085	E	27	5	4	.71	1	.18	4	.71	3	.54	12	2.14
25	30	08.07.61	0100	0545	NIGHT	4 3	085	W	00	0	5	.66	1	.13	3	.39	11	1.45	20	2.63
25	16	05.07.61	0430	0830	DAY	4 0	085	E	20	5	3	.47	3	.47	4	.63	2	.31	12	1.88
25	31	08.07.61	0700	1100	DAY	4 0	087	W	00	0	5	.78	1	.16	6	.94	3	.47	15	2.34



26	33	30,07,61	1600	2000	NIGHT	4 0	095	W	27	5	3	.47	4	.63	5	.78	18	2,81	30	4,69
26	12	24,07,61	2400	0345	NIGHT	3 3	085	W	29	4	4	.67	3	.50	5	.83	3	.50	15	2,50
26	15	24,07,61	2045	0045	NIGHT	4 0	085	E	23	6	2	.63	10	1,56	5	.78	11	1,72	30	4,69
26	16	25,07,61	0215	0600	NIGHT	3 3	085	W	23	5	2	.33	7	1,17	4	.67	7	1,17	20	3,33
26	21	26,07,61	0200	0530	NIGHT	3 2	090	W	23	3	3	.54	15	2,68	5	.78	9	1,61	30	5,36
26	13	24,07,61	0430	0830	DAY	4 0	085	W	27	5	4	.63	17	2,66	5	.78	4	.63	30	4,69
26	17	25,07,61	0630	1030	DAY	4 0	085	E	23	5	3	.47	4	.63	4	.63	4	.63	15	2,34
26	22	26,07,61	0630	1030	DAY	4 0	090	W	23	3	3	.31	9	1,41	4	.63	12	1,88	27	4,22
26	18	22,07,61	1100	1500	DAY	4 0	090	W	23	3	1	.16	8	1,25	4	.63	12	.31	15	2,34
26	23	26,07,61	1230	1630	DAY	4 0	085	E	23	3	0	0	1	.16	1	.16	2	.31	4	.63
27	2	12,08,61	1600	2000	NIGHT	4 0	100	W	23	2	1	.16	1	.16	2	.31	2	.31	6	.94
27	3	12,08,61	2045	2400	NIGHT	3 1	083	W	23	2	4	.77	2	.38	1	.19	13	2,50	20	3,85
27	22	20,08,61	1100	1500	DAY	4 0	077	E	23	5	0	0	2	.31	5	.78	8	1,25	15	2,34
28	15	05,09,61	1945	2345	NIGHT	4 0	090	W	23	3	4	.63	2	.31	4	.63	5	.78	15	2,34
28	23	07,09,61	2030	2400	NIGHT	3 2	100	E	05	4	2	.36	1	.18	6	1,07	6	1,07	15	2,68
29	33	30,09,61	2030	2330	NIGHT	3 0	080	W	25	4	3	.63	0	0	4	.83	3	.63	10	2,08
29	24	29,09,61	0015	0415	NIGHT	4 0	085	W	05	3	7	1,09	1	.16	3	.47	19	2,97	30	4,69
29	34	01,10,61	0100	0500	NIGHT	4 0	075	E	23	4	6	.94	1	.16	2	.31	16	2,50	25	3,91
30	17	17,10,61	0030	0400	NIGHT	3 2	080	W	09	4	3	.54	1	.18	4	.71	12	2,14	20	3,57
30	18	17,10,61	0700	1045	DAY	3 3	078	W	09	4	1	.17	0	0	4	.67	7	1,17	12	2,00
30	52	25,10,61	0500	0900	DAY	4 0	090	E	23	4	6	.94	2	.31	5	.78	7	1,09	20	3,13
30	19	17,10,61	1130	1515	DAY	3 3	078	W	27	2	3	.50	2	.33	4	.67	1	.17	10	1,67
31	8	05,11,61	1930	2330	NIGHT	4 0	083	W	23	3	4	.63	2	.31	4	.63	5	.78	15	2,34
31	4	05,11,61	0100	0430	NIGHT	3 2	085	W	14	3	4	.71	1	.18	4	.71	3	.54	12	2,14
31	27	10,11,61	0130	0530	NIGHT	4 0	085	E	23	2	9	1,41	1	.16	3	.47	7	1,09	20	3,13
31	5	05,11,61	0530	0830	DAY	3 0	080	W	14	3	2	.42	1	.21	4	.83	5	1,04	12	2,50
31	28	10,11,61	0600	1000	DAY	4 0	088	E	00	0	1	.16	3	.47	3	.47	1	.16	5	.78
31	6	05,11,61	1030	1330	DAY	3 0	080	W	23	4	1	.21	2	.42	3	.63	4	.83	10	2,08
31	7	05,11,61	1430	1830	DAY	4 0	083	E	23	4	5	.78	2	.31	3	.47	5	.78	15	2,34

B L O C K 31

TRIP MAUL	DATE	TIME NET SHOT HAULED	TIME CODE	HAUL DURN HR Q	WATER DEPTH (FMT)	DIRN OF TRAWL	DIRN FORCE	WIND	REDFISH BSKTS	CWT/ HOUR	FLATHEAD BSKTS	CWT/ HOUR	JACKASS BSKTS	CWT/ HOUR	MIXED BSKTS	CWT/ HOUR	TOTAL BSKTS	
12	67	04.10.60	0545	0945	4 0	095	E	23	2	.31	1	.16	7	1.09	2	.31	12	1.88
12	68	04.10.60	1045	1415	3 2	095	E	23	2	.71	1	.18	19	3.39	6	1.07	30	5.36
12	69	04.10.60	1515	1845	3 2	095	W	23	2	.54	1	.18	7	1.25	4	.71	15	2.68
14	30	08.11.60	1715	2045	3 2	075	E	18	2	.71	0	0	3	.54	3	.54	10	1.79
14	34	09.11.60	1645	2030	3 3	110	E	07	3	.50	1	.17	25	4.17	1	.17	30	5.00
14	31	08.11.60	2200	0200	4 0	070	E	18	2	.47	0	0	1	.16	1	.16	5	.78
14	32	09.11.60	0300	0700	4 0	095	E	18	2	.94	1	.16	3	.47	5	.78	15	2.34
14	33	09.11.60	0800	1130	3 2	085	N	09	2	0	3	.54	10	1.79	2	.36	15	2.68
17	1	08.01.61	2345	0245	3 0	050	W	00	0	.21	2	.42	1	.21	2	.42	6	1.56
17	3	09.01.61	0830	1230	4 0	080	W	27	3	.16	1	.16	4	.63	4	.63	10	1.56
19	15	14.02.61	1645	2245	4 0	080	E	09	5	.78	0	0	5	.78	0	0	10	1.56
19	16	14.02.61	2200	0200	4 0	085	E	14	5	1.56	0	0	3	.47	0	0	13	2.03
21	28	30.03.61	1930	2330	4 0	083	W	23	3	1.63	0	0	4	.63	16	2.50	120	18.75
21	29	31.03.61	0130	0430	3 0	083	E	09	2	1.28	1	.21	5	1.04	4	.83	80	16.67
21	33	01.04.61	0345	0745	4 0	083	E	09	4	3.91	1	.16	3	.47	1	.16	30	4.69
21	30	31.03.61	0430	0830	4 0	083	W	09	3	6.25	0	0	5	.78	0	0	45	7.03
21	31	31.03.61	1000	1400	4 0	083	W	09	4	1.56	1	.16	3	.47	0	0	14	2.19
21	34	01.04.61	0900	1230	3 2	085	W	09	4	1.79	1	.18	4	.71	0	0	15	2.68
21	39	02.04.61	1500	1900	4 0	080	E	36	3	2.34	1	.16	5	.78	9	1.41	30	4.69
22	8	17.04.61	1930	2330	4 0	075	W	11	4	1.56	1	.16	7	1.09	2	.31	20	3.13
22	9	18.04.61	0130	0500	3 2	078	E	11	4	1.79	1	.18	0	0	3	.54	14	2.50
22	34	25.04.61	0130	0530	4 0	085	E	23	3	1.88	1	.16	6	.94	1	.16	20	3.13
22	10	18.04.61	0630	1030	4 0	080	W	11	4	.63	1	.16	6	.94	1	.16	12	1.88
22	35	25.04.61	0615	0915	3 0	075	E	23	2	1.04	1	.21	5	1.04	1	.21	12	2.50
22	11	18.04.61	1115	1500	3 3	085	W	11	4	1.17	1	.17	7	1.17	1	.17	10	1.67
22	26	23.04.61	0830	1230	4 0	080	W	23	5	.63	1	.16	5	.78	0	0	10	1.56
22	27	23.04.61	1330	1730	4 0	083	W	23	5	.47	0	0	6	.94	1	.16	10	1.56
24	33	19.06.61	2000	0200	4 0	095	E	23	5	.94	2	.31	5	.78	4	.63	17	2.66
25	33	08.07.61	1815	2130	3 1	080	E	00	0	1.15	2	.38	4	.77	0	0	12	2.31
25	34	08.07.61	2245	0230	3 3	080	W	32	4	.50	3	.50	4	.67	5	.83	15	2.50
25	47	11.07.61	2100	0100	4 0	087	W	32	5	.47	7	1.09	4	.63	1	.16	15	2.34
25	48	12.07.61	0200	0600	4 0	085	W	32	5	.31	7	1.09	2	.31	4	.63	15	2.34

26	26	27	27	07	.61	1630	2030	NIGHT	4	0	095	E	32	4	3	.47	22	3.44	3	.47	17	2.66	45	7.03	
26	28	27	07	.61	1630	2030	NIGHT	4	0	095	W	32	5	3	.16	3	.78	5	.47	3	.77	8	1.25	17	2.66
26	28	27	07	.61	1630	2030	NIGHT	4	0	095	W	32	4	3	.47	3	.47	3	.47	3	.47	1	1.16	10	1.56
26	25	27	07	.61	0100	0500	NIGHT	4	0	095	E	32	4	7	1.09	18	2.81	6	.94	6	.94	9	1.41	40	6.25
26	29	28	07	.61	0200	0500	NIGHT	3	0	095	E	32	5	3	.63	7	1.46	3	.63	3	.63	2	.42	15	3.13
26	26	27	07	.61	0545	0945	DAY	4	0	095	W	32	6	3	.63	7	1.46	3	.63	3	.63	9	1.41	25	3.91
26	30	28	07	.61	0645	1045	DAY	4	0	095	E	32	5	3	.47	10	1.56	3	.47	3	.47	7	1.09	25	3.91
26	31	28	07	.61	1130	1530	DAY	4	0	095	E	32	5	0	0	13	2.03	5	.78	2	.31	6	.94	16	2.50
27	23	20	08	.61	1600	2000	NIGHT	4	0	083	E	23	4	1	.16	3	.47	3	.47	0	0	8	1.25	12	1.88
27	24	20	08	.61	2030	2400	NIGHT	3	2	095	E	23	3	5	.89	4	.71	4	.71	5	.89	11	1.96	25	4.46
28	29	09	09	.61	0045	0445	NIGHT	4	0	080	E	14	3	1	.16	3	.47	3	.47	6	.94	10	1.56	20	3.13
28	30	09	09	.61	0645	0945	DAY	3	0	085	E	14	3	1	.16	3	.47	3	.47	6	.94	10	1.56	20	3.13
28	13	05	09	.61	1000	1400	DAY	4	0	083	W	23	4	0	0	0	0	0	0	5	.78	0	0	5	.78
28	14	05	09	.61	1500	1900	DAY	4	0	070	W	23	3	3	.47	1	.16	1	.16	3	.47	3	.47	10	1.56
29	37	01	10	.61	1700	2100	NIGHT	4	0	080	W	23	3	3	.47	1	.16	1	.16	5	.78	6	.94	15	2.34
29	23	28	09	.61	2000	2400	NIGHT	4	0	083	W	05	3	4	.63	0	0	0	0	2	.31	14	2.19	20	3.13
29	38	01	10	.61	2200	0200	NIGHT	4	0	085	E	23	3	4	.63	1	.16	1	.16	5	.78	10	1.56	20	3.13
29	39	02	10	.61	0300	0700	NIGHT	4	0	090	E	23	3	3	.47	2	.31	2	.31	6	.94	9	1.41	20	3.13
29	25	29	09	.61	0500	0900	DAY	4	0	085	E	27	3	0	0	2	.31	2	.31	4	.63	4	.63	10	1.56
29	35	01	10	.61	0600	1000	DAY	4	0	077	E	23	4	0	.63	2	.31	2	.31	6	.94	3	.47	15	2.34
29	26	29	09	.61	1000	1400	DAY	4	0	065	E	27	3	0	0	1	.16	1	.16	4	.63	6	.94	10	1.56
29	31	30	09	.61	1030	1430	DAY	4	0	085	W	23	6	0	0	1	.16	1	.16	4	.63	5	.78	10	1.56
29	36	01	10	.61	1100	1500	DAY	4	0	095	W	23	3	1	.16	1	.16	1	.16	4	.63	4	.63	10	1.56
29	32	30	09	.61	1530	1930	DAY	4	0	085	W	25	5	1	.16	1	.16	1	.16	2	.31	4	.63	8	1.25
30	16	16	10	.61	2100	2400	NIGHT	3	0	080	W	14	3	3	.63	1	.21	1	.21	3	.63	21	4.38	28	5.83
30	4	14	10	.61	0015	0415	NIGHT	4	0	065	W	20	4	4	.63	1	.16	1	.16	6	.94	4	.63	15	2.34
30	8	15	10	.61	0030	0430	NIGHT	4	0	080	E	20	4	4	.63	1	.16	1	.16	3	.47	12	1.88	20	3.13
30	15	16	10	.61	1030	1430	DAY	4	0	080	W	14	3	1	.16	1	.16	1	.16	1	.16	2	.31	5	.78
31	30	10	11	.61	1630	2030	NIGHT	4	0	075	E	00	0	4	.63	1	.16	1	.16	2	.31	3	.47	10	1.56
31	3	04	11	.61	2030	2400	NIGHT	3	2	090	W	16	3	3	.54	1	.18	1	.18	2	.36	4	.71	10	1.79
31	31	11	11	.61	2130	0130	NIGHT	4	0	085	E	09	3	5	.78	2	.31	2	.31	3	.47	5	.78	15	2.34
31	29	10	11	.61	1130	1530	DAY	4	0	110	E	00	0	0	0	0	0	0	0	3	.47	2	.31	5	.78
31	2	04	11	.61	1600	1900	DAY	3	0	100	W	14	3	0	0	1	.21	1	.21	1	.21	1	.21	3	.63



25	5	02.07.61	0900	1300	DAY	4	0	080	M	23	5	1	.16	1	.47	3	.47	3	.47	8	1.25
25	36	09.07.61	0830	1300	DAY	4	2	080	M	32	4	6	.63	2	.42	4	.42	4	.42	15	2.08
25	45	11.07.61	1000	1400	DAY	4	0	110	E	32	4	0	.00	3	1.09	5	.78	5	.78	15	2.34
25	6	02.07.61	1415	1830	DAY	4	1	085	W	27	6	2	.29	1	.45	3	.45	3	.45	10	1.47
25	37	09.07.61	1430	1930	DAY	5	0	085	E	32	4	11	1.38	1	.38	3	.38	3	.38	20	2.50
26	11	23.07.61	1930	2300	NIGHT	3	2	085	M	29	4	4	.71	3	.54	5	.89	2	.36	14	2.50
26	10	23.07.61	1430	1830	DAY	4	0	080	M	29	4	0	.00	7	1.09	4	.63	4	.63	15	2.34
27	25	21.08.61	2230	0230	NIGHT	4	0	083	M	27	4	12	1.88	5	.78	6	.94	17	2.66	40	6.25
27	25	21.08.61	0930	0430	NIGHT	4	0	095	E	27	3	2	.31	4	.63	9	1.41	15	2.34	30	4.69
27	26	21.08.61	0900	0900	DAY	4	0	085	E	27	3	6	.94	7	1.09	9	1.41	8	1.25	30	4.69
27	30	22.08.61	0400	0800	DAY	4	0	083	E	27	4	6	.94	5	.78	6	.94	8	1.25	25	3.91
28	33	09.09.61	2000	2400	NIGHT	4	0	090	E	11	4	4	.63	2	.31	4	.63	5	.78	15	2.34
28	12	05.09.61	0400	0800	DAY	4	0	083	M	23	5	3	.47	1	.16	4	.63	12	1.88	20	3.13
28	31	09.09.61	1030	1430	DAY	4	0	085	E	14	4	7	1.09	3	.47	5	.78	0	.00	15	2.34
28	32	09.09.61	1500	1900	DAY	4	0	085	M	11	4	3	.47	1	.16	4	.63	7	1.09	15	2.34
29	8	25.09.61	2000	2400	NIGHT	4	0	083	E	00	0	9	1.41	2	.31	5	.78	4	.63	20	3.13
29	13	26.09.61	2000	2400	NIGHT	4	0	083	E	14	3	3	.47	3	.47	3	.47	21	3.28	30	4.69
29	18	29.09.61	2000	2400	NIGHT	4	0	080	W	09	4	3	.47	4	.63	5	.78	15	2.34	25	3.91
29	47	03.10.61	2000	2400	NIGHT	4	0	080	E	23	5	2	.00	2	.31	4	.63	4	.63	10	1.56
29	9	26.09.61	0930	0430	NIGHT	4	0	083	E	00	5	3	.47	1	.16	2	.31	12	1.88	18	2.81
29	14	27.09.61	0930	0430	NIGHT	4	0	083	M	14	4	5	.78	2	.31	7	1.09	16	2.50	30	4.69
29	19	28.09.61	0930	0430	NIGHT	4	0	083	E	05	4	5	.78	3	.47	5	.78	17	2.66	30	4.69
29	29	30.09.61	0930	0430	NIGHT	4	0	085	E	25	5	5	.78	2	.31	6	.94	17	2.66	30	4.69
29	15	27.09.61	0500	0900	DAY	4	0	083	M	14	3	5	.78	2	.31	5	.78	19	1.41	20	3.13
29	20	28.09.61	0515	0915	DAY	4	0	083	E	09	4	4	.78	2	.31	6	.94	7	1.09	25	3.91
29	30	30.09.61	0530	0930	DAY	4	0	085	M	05	6	5	.78	2	.31	6	.94	7	1.09	20	3.13
29	44	03.10.61	0530	0930	DAY	4	0	110	M	23	4	3	.47	1	.16	4	.63	11	1.72	18	2.81
29	6	25.09.61	1015	1415	DAY	4	0	070	M	00	0	1	.16	2	.31	5	.78	4	.63	10	1.56
29	11	26.09.61	1100	1430	DAY	3	2	075	E	14	3	0	.00	2	.36	4	.71	4	.71	10	1.79
29	16	27.09.61	1000	1400	DAY	4	0	097	E	09	4	0	.00	2	.36	4	.71	4	.71	12	1.88
29	40	02.10.61	0800	1200	DAY	4	0	098	E	23	3	4	.63	0	.00	3	.47	3	.47	6	.94
29	45	03.10.61	1000	1400	DAY	4	0	115	M	20	4	0	.00	0	.00	3	.47	3	.47	10	1.56
29	7	25.09.61	1515	1915	DAY	4	0	075	M	00	0	0	.00	2	.31	4	.63	4	.63	8	1.25
29	17	27.09.61	1500	1900	DAY	4	0	080	M	14	3	0	.00	2	.31	4	.63	4	.63	10	1.56
29	12	27.09.61	1443	1845	DAY	4	0	080	M	09	4	5	.78	2	.31	5	.78	3	.47	10	1.56
29	22	28.09.61	1500	1900	DAY	4	0	083	M	05	3	4	.63	2	.31	8	1.25	5	.78	20	3.13
29	27	28.09.61	1500	1900	DAY	4	0	070	E	27	3	4	.63	1	.16	3	.47	3	.47	10	1.56
29	41	02.10.61	1500	1900	DAY	4	0	075	E	25	3	0	.31	2	.31	4	.63	6	.94	12	1.88
29	46	03.10.61	1500	1900	DAY	4	0	070	E	23	4	2	.31	2	.31	4	.63	4	.63	12	1.88
30	3	13.10.61	2000	2330	NIGHT	3	2	060	M	23	2	3	.54	0	.00	4	.71	8	1.43	15	2.68
30	15	16.10.61	0930	0430	NIGHT	4	0	083	E	20	4	1	.16	1	.16	2	.31	5	.78	10	1.56
30	14	15.10.61	0530	0930	DAY	4	0	083	E	20	4	3	.47	1	.16	4	.63	7	1.09	15	2.34
30	19	16.10.61	0530	0930	DAY	4	0	075	M	14	3	2	.31	2	.31	1	.16	3	.47	10	1.56
30	10	15.10.61	1930	1430	DAY	4	0	083	E	14	3	0	.00	2	.31	5	.78	3	.47	10	1.56
30	2	13.10.61	1500	1900	DAY	4	0	065	M	23	2	1	.16	1	.16	4	.63	0	.00	6	.94
31	32	11.11.61	0230	0630	NIGHT	4	0	080	E	09	3	9	1.41	2	.31	3	.47	4	.63	15	2.34
31	33	11.11.61	0715	1115	DAY	4	0	080	E	09	3	0	.00	0	.00	3	.47	4	.63	7	1.09
31	1	04.11.61	1100	1400	DAY	4	3	120	M	14	3	0	.00	0	.00	1	.21	4	.63	5	1.04

B L O C K 41

TRIP HAUL	DATE	TIME NET SHOT HAULED	TIME CODE	HAUL DURN HR Q	WATER DEPTH (FTH)	DIRN OF TRAWL	DIRN	WIND FORCE	REDFISH BSKTS	REDFISH CMT/ HOUR	FLATHEAD BSKTS	FLATHEAD CMT/ HOUR	JACKASS BSKTS	JACKASS CMT/ HOUR	MIXED BSKTS	MIXED CMT/ HOUR	TOTAL BSKTS	TOTAL CMT/ BSKTS		
13	7	23.10.60	0845	1045	4	0	075	E	14	2	0	0	0	0	0	0	20	3.13	20	3.13
20	27	12.03.61	1840	2040	4	0	085	E	09	3	10	1.56	1	.16	6	.94	0	0	17	2.66
20	36	14.03.61	1700	2100	4	0	110	W	23	2	10	4.57	1	.16	3	.54	0	0	14	2.19
20	23	11.03.61	2100	2400	3	0	086	W	11	4	20	4.17	0	0	2	.42	0	0	22	4.58
20	24	13.03.61	2100	0015	3	1	085	E	09	3	15	2.88	0	0	5	.96	0	0	20	3.85
20	24	12.03.61	0100	0450	3	2	083	W	11	3	100	17.86	1	.16	5	.89	0	0	106	18.93
20	33	14.03.61	0130	0530	4	0	083	W	23	2	30	4.89	1	.16	6	.94	0	0	37	5.78
20	35	12.03.61	0930	0900	4	2	084	E	07	3	20	3.57	0	0	5	.89	0	0	26	4.64
20	34	14.03.61	0600	1000	4	0	085	E	23	2	14	2.19	0	0	6	.94	0	0	20	3.13
20	26	12.03.61	1100	1500	4	0	075	W	07	3	10	1.56	0	0	6	.94	0	0	16	2.50
20	35	14.03.61	1200	1600	4	0	110	W	23	2	5	.78	1	.16	6	.94	0	0	12	1.88
21	4	24.03.61	1930	2300	3	2	083	W	14	3	40	7.14	1	.18	4	.71	0	0	45	8.04
21	8	25.03.61	1830	2000	3	2	080	W	14	4	3	1.54	1	.18	3	.54	3	.54	10	1.79
21	17	27.03.61	1830	2200	3	2	083	W	05	5	19	3.39	1	.18	11	1.96	0	0	31	5.54
21	5	25.03.61	2400	0300	3	0	083	E	14	4	30	6.25	0	0	4	.83	0	0	34	7.08
21	9	25.03.61	2100	2400	3	0	083	E	14	4	20	4.17	0	0	2	.42	3	.63	25	5.21
21	18	27.03.61	2300	0300	4	0	083	E	05	6	0	0	1	.16	5	.78	14	2.19	20	3.13
21	47	04.04.61	2030	2400	3	2	085	E	09	2	20	3.57	1	.18	6	1.07	0	0	27	4.82
21	10	26.03.61	0100	0400	3	2	083	E	14	4	40	8.33	0	0	4	.83	1	.21	45	9.36
21	15	27.03.61	0100	0430	3	2	085	E	05	3	20	3.57	1	.18	6	1.07	1	.18	28	5.00
21	19	28.03.61	0400	0730	3	2	087	W	09	5	23	4.11	1	.18	6	1.07	0	0	30	5.56
21	6	25.03.61	0900	0900	4	0	080	W	14	4	49	7.66	1	.16	6	1.07	0	0	56	8.75
21	11	26.03.61	0700	1000	4	0	083	W	18	4	0	0	0	0	8	1.67	2	.42	10	2.08
21	24	29.03.61	0400	0800	4	0	100	E	18	3	16	2.50	0	0	4	.63	0	0	20	3.13
21	7	25.03.61	1130	1500	3	2	080	E	14	3	7	1.25	0	0	7	1.25	6	1.07	20	3.57
21	16	27.03.61	0945	1315	3	2	087	E	05	4	1	1.18	1	.18	3	.54	5	.89	10	1.79
21	20	28.03.61	0800	1300	5	0	075	E	09	4	10	1.25	0	0	12	1.50	3	.58	25	3.13
21	25	29.03.61	1000	1330	3	2	095	E	18	3	0	0	0	0	5	.89	0	0	5	.89
21	46	08.04.61	1500	1900	4	0	085	E	09	2	5	.78	0	0	5	.78	0	0	10	1.56
22	38	26.04.61	0500	0900	4	0	100	E	09	4	4	.63	1	.16	6	.94	1	.16	12	1.88
22	7	16.04.61	0930	1330	4	0	075	E	09	4	0	0	0	0	8	1.25	0	0	8	1.25
23	17	08.05.61	0230	0100	3	1	083	W	14	3	7	1.46	1	.21	5	1.04	2	.42	15	3.13
23	18	09.05.61	0100	0500	4	0	085	E	14	4	15	2.34	1	.16	3	.47	6	.94	25	4.81
23	15	08.05.61	0630	1030	4	0	085	E	05	2	12	1.88	1	.16	5	.78	7	1.09	25	3.91
23	19	08.05.61	0600	1000	4	0	085	W	14	4	10	1.56	1	.16	2	.31	7	1.09	20	3.13
23	16	08.05.61	1130	1530	4	0	085	W	05	2	6	.94	0	0	4	.63	0	0	10	1.56

24	39	20.06.61	1800	2200	NIGHT	4 0	100	W	23	4	5	.78	1	.16	4	.63	30	4.69	40	6.25
24	37	19.06.61	2100	0100	NIGHT	4 0	075	E	23	4	4	1.09	2	.31	3	.47	4	.63	16	2.50
24	5	12.06.61	0420	0820	DAY	4 0	078	W	36	4	5	.78	2	.31	5	.78	3	.47	15	2.34
24	6	12.06.61	0945	1345	DAY	4 0	080	W	36	4	0	0	1	.16	4	.63	2	.31	7	1.09
25	39	10.07.61	0100	0500	NIGHT	4 0	110	W	32	4	4	.63	2	.31	7	1.09	2	.31	15	2.34
25	4	02.07.61	0400	0800	DAY	4 0	080	W	23	5	12	1.88	1	.16	4	.63	3	.47	20	3.13
26	6	22.07.61	2000	2300	NIGHT	3 0	080	W	18	3	6	1.25	4	.83	4	.83	16	3.33	30	6.25
26	7	23.07.61	0015	0345	NIGHT	3 2	083	E	18	3	4	.71	6	1.07	3	.54	12	2.14	25	4.46
26	8	23.07.61	0445	0845	DAY	4 0	083	W	18	3	4	.63	2	.31	4	.63	10	1.56	20	3.13
26	9	23.07.61	0930	1330	DAY	4 0	083	W	29	4	0	0	1	.16	4	.63	3	.47	6	.94
27	28	21.08.61	1800	2200	NIGHT	4 0	083	W	27	4	12	1.88	2	.31	5	.78	16	2.50	35	5.47
27	35	23.08.61	0945	1245	DAY	3 3	080	E	18	3	2	.42	2	.42	4	.83	2	.42	10	2.08
27	36	23.08.61	1330	1715	DAY	3 3	070	E	00	0	1	.17	1	.16	4	.63	0	0	6	1.00
28	46	12.09.61	1600	2000	NIGHT	4 0	075	W	23	4	1	.16	1	.16	7	1.09	11	1.72	20	3.13
28	47	12.09.61	2030	0130	NIGHT	5 0	077	E	23	4	2	.25	1	.33	5	.63	12	1.50	20	2.50
28	48	12.09.61	0115	0515	NIGHT	4 0	075	W	23	3	0	.47	0	0	7	1.09	10	1.56	20	3.13
28	43	13.09.61	0300	0700	NIGHT	4 0	080	W	23	4	2	.31	1	.16	6	.94	9	1.41	18	2.81
28	10	04.09.61	0500	0900	DAY	4 0	083	W	27	4	1	.16	2	.31	4	.63	8	1.25	15	2.94
28	44	12.09.61	0630	1030	DAY	4 0	080	W	23	3	4	.63	1	.16	6	.94	9	1.41	20	3.13
28	35	10.09.61	1000	1400	DAY	4 0	080	E	14	3	2	.31	1	.16	7	1.09	5	.78	15	2.34
28	45	12.09.61	1100	1500	DAY	4 0	080	E	23	3	4	.63	0	0	5	.78	1	.16	10	1.56
28	36	10.09.61	1500	1900	DAY	4 0	080	E	11	3	0	0	1	.16	4	.63	5	.78	10	1.56
29	3	24.09.61	2000	2400	NIGHT	4 0	075	W	00	0	5	.78	0	0	4	.63	6	.94	15	2.34
29	42	02.10.61	2000	2400	NIGHT	4 0	075	E	23	3	2	.31	2	.47	3	.47	9	1.41	15	2.34
29	4	25.09.61	0045	0445	NIGHT	4 0	080	W	00	0	6	.94	2	.31	1	.16	21	3.28	30	4.69
29	43	03.10.61	0030	0430	NIGHT	4 0	087	W	23	3	2	.31	1	.16	1	.16	6	.94	10	1.56
29	48	04.10.61	0100	0500	NIGHT	4 0	075	E	23	5	4	.63	1	.16	4	.63	8	1.25	17	2.66
29	5	25.09.61	0530	0930	DAY	4 0	080	E	00	0	1	.16	2	.31	4	.63	8	1.25	15	2.34
29	49	04.10.61	0600	1000	DAY	4 0	075	E	23	5	6	.94	1	.16	3	.47	15	2.34	25	3.91
30	12	16.10.61	2000	2400	NIGHT	4 0	083	W	14	3	4	.63	2	.31	4	.63	10	1.56	20	3.13
30	1	13.10.61	1000	1400	DAY	4 0	070	W	23	3	0	0	1	.16	1	.16	3	.47	3	.47
30	11	15.10.61	1530	1930	DAY	4 0	083	E	14	3	1	.16	1	.16	2	.31	6	.94	10	1.56
31	35	11.11.61	1700	2100	NIGHT	4 0	085	E	09	4	0	0	0	0	0	0	0	0	0	0
31	38	12.11.61	1600	2000	NIGHT	4 0	095	E	00	0	7	1.09	1	.16	5	.78	7	1.09	20	3.13
31	39	12.11.61	2030	0130	NIGHT	5 0	095	W	05	3	2	.88	2	.25	4	.50	7	.88	20	2.50
31	40	13.11.61	0230	0630	NIGHT	4 0	095	E	05	3	6	.94	1	.16	3	.47	5	.78	15	2.34
31	41	13.11.61	0730	1130	DAY	4 0	085	W	05	3	3	.47	1	.16	9	1.41	7	1.09	20	3.13
31	37	12.11.61	1000	1400	DAY	4 0	100	E	00	0	0	0	1	.16	6	.94	6	.94	10	1.56
31	34	11.11.61	1200	1600	DAY	4 0	070	E	09	4	0	0	0	0	3	.47	5	.78	8	1.25
31	42	13.11.61	1215	1600	DAY	3 3	050	E	05	3	0	0	2	.33	5	.83	5	.83	-12	2.00

B L O C K 50

TRIP	HAUL	DATE	TIME NET SHOT HAULED	TIME CODE	HAUL DURN HR Q	WATER DEPTH (FPM)	DIRN OF TRAWL	DIRN	WIND FORCE	BSKTS	REDFISH CWT/ HOUR	FLATHEAD CWT/ HOUR	JACKASS CWT/ HOUR	MIXED CWT/ HOUR	TOTAL CWT/ BSKTS HOUR
13	9	23.10.60	1645	2015	NIGHT	3 2	073	E	14	3	0	0	1	.18	3 .54
13	8	23.10.60	1145	1545	DAY	4 0	090	E	14	3	0	0	1	.18	5 .78
20	3	06.03.61	1700	2000	NIGHT	3 0	105	E	05	2	10	2.08	0	0	21 4.38
20	8	07.03.61	1630	2000	NIGHT	3 2	085	W	18	2	10	1.79	0	0	20 3.57
20	18	10.03.61	1800	2100	NIGHT	3 0	085	E	11	6	10	2.08	0	0	13 2.71
20	22	11.03.61	1600	2000	NIGHT	4 0	080	W	11	4	25	3.91	0	0	31 4.84
20	31	13.03.61	1600	2000	NIGHT	4 0	085	W	23	3	20	3.13	0	0	25 3.91
20	40	15.03.61	1700	2100	NIGHT	4 0	083	E	36	3	26	4.06	0	0	32 5.00
20	4	06.03.61	2100	0015	NIGHT	3 1	095	W	03	2	45	8.65	0	0	50 9.62
20	9	07.03.61	2130	0045	NIGHT	3 1	085	W	18	2	150	28.85	0	0	166 31.92
20	32	13.03.61	2130	2400	NIGHT	2 2	085	W	23	2	25	6.25	0	0	31 7.75
20	5	07.03.61	0130	0500	NIGHT	3 2	080	E	05	2	40	7.14	0	0	46 8.21
20	10	08.03.61	0330	0630	NIGHT	3 0	085	E	18	3	50	10.42	0	0	59 12.20
20	15	09.03.61	0200	0500	NIGHT	3 0	083	W	09	3	100	20.83	0	0	105 21.88
20	1	06.03.61	0800	1100	DAY	3 0	075	W	14	3	10	2.08	0	0	12 2.50
20	6	07.03.61	0630	1000	DAY	3 2	080	W	05	2	30	5.36	0	0	36 6.43
20	11	08.03.61	0730	1100	DAY	3 2	085	W	18	3	20	3.57	0	0	26 4.64
20	16	09.03.61	0630	0930	DAY	3 0	083	E	11	4	15	3.13	0	0	18 3.75
20	29	13.03.61	0630	1030	DAY	4 0	083	E	18	3	6	.94	0	0	15 2.34
20	2	06.03.61	1200	1530	DAY	3 2	090	W	05	2	6	1.07	0	0	11 1.96
20	7	07.03.61	1100	1530	DAY	4 2	090	E	05	2	10	1.39	0	0	10 1.89
20	17	09.03.61	1030	1400	DAY	3 2	080	W	11	5	10	1.79	0	0	16 2.66
20	21	11.03.61	1000	1400	DAY	4 0	080	W	11	4	15	2.34	0	0	17 2.66
20	30	13.03.61	1130	1530	DAY	4 0	083	E	23	3	4	.63	0	0	8 1.25
20	12	08.03.61	1215	1630	DAY	4 1	085	E	18	3	10	1.47	0	0	15 2.21
21	1	24.03.61	0500	0900	DAY	4 0	070	W	14	3	3	.47	0	0	7 1.09
21	48	04.04.61	0500	0900	DAY	4 0	085	E	09	2	5	.78	0	0	9 1.41
21	2	24.03.61	1000	1300	DAY	3 0	075	W	14	3	0	0	0	0	5 1.04
21	3	24.03.61	1400	1800	DAY	4 0	080	W	14	3	0	0	0	0	6 .94
23	8	06.05.61	1600	2000	NIGHT	4 0	090	E	36	3	6	.94	0	0	12 1.88
23	13	08.05.61	2230	0130	NIGHT	3 0	085	W	05	2	10	2.08	0	0	20 4.17
23	6	06.05.61	0600	1000	DAY	4 0	083	W	36	4	10	1.56	0	0	20 3.13
23	7	06.05.61	1100	1500	DAY	4 0	080	E	36	3	0	0	0	0	6 .94
24	3	11.06.61	1945	2345	NIGHT	4 0	080	W	36	3	7	1.09	0	0	15 2.34
24	4	12.06.61	2400	0330	NIGHT	3 2	085	W	36	4	5	.89	0	0	12 2.14



26	1	22-07-61	2400	0300	NIGHT	3	0	100	W	07	3	4	.83	2	.42	1	.21	3	.63	10	2.08
26	2	22-07-61	0345	0645	NIGHT	3	0	090	E	07	3	7	1.46	2	.42	4	.83	2	.42	15	3.13
26	3	22-07-61	0730	1030	DAY	3	0	080	W	07	3	10	2.08	0	0	4	.83	6	1.25	20	4.17
26	4	22-07-61	1115	1430	DAY	3	1	075	W	18	3	0	0	1	.19	4	.77	2	.38	7	1.35
27	37	23-08-61	1800	2200	NIGHT	4	0	075	E	00	0	6	.94	2	.31	7	1.09	10	1.56	25	3.91
27	38	24-08-61	2400	0400	NIGHT	4	0	078	E	00	0	7	1.09	1	.16	8	1.25	14	2.19	30	4.69
28	8	03-09-61	2000	2400	NIGHT	4	0	080	W	05	3	1	.16	3	.47	5	.78	6	.94	15	2.34
28	37	10-09-61	2000	2400	NIGHT	4	0	085	E	11	3	3	.47	1	.16	7	1.09	8	1.25	19	2.97
28	42	11-09-61	2030	2400	NIGHT	3	2	075	W	23	3	2	.36	0	0	3	.54	12	2.14	17	3.04
28	9	04-09-61	0045	0415	NIGHT	3	2	083	W	00	0	4	.71	1	.18	4	.71	1	.18	10	1.79
28	38	11-09-61	0100	0400	NIGHT	3	0	083	W	11	3	2	.42	1	.21	4	.83	8	1.67	15	3.13
28	1	02-09-61	0600	0900	DAY	3	0	070	W	00	0	4	.83	5	1.04	4	.83	2	.42	15	3.13
28	39	11-09-61	0445	0845	DAY	4	0	090	E	11	3	4	.63	1	.16	6	.94	9	1.41	20	3.13
28	41	11-09-61	1430	1830	DAY	4	0	080	W	11	3	3	.47	1	.16	4	.63	7	1.09	15	2.54
29	1	24-09-61	1030	1400	DAY	3	2	065	W	14	3	0	0	1	.18	3	.54	0	0	4	.71
29	2	24-09-61	1500	1900	DAY	4	0	070	SW	27	2	0	0	1	.16	4	.63	0	0	5	.78
31	43	13-11-61	1700	2000	NIGHT	3	0	080	E	05	4	4	.83	1	.21	4	.83	6	1.25	15	3.13
31	44	14-11-61	2100	0100	NIGHT	4	0	085	E	23	3	3	.47	1	.16	3	.47	3	.47	10	1.56
31	45	14-11-61	0400	0800	DAY	4	0	075	E	23	4	4	.63	2	.31	4	.63	2	.31	12	1.88

B L O C K 51

TRIP HAUL	DATE	TIME NET SHOT HAULED	TIME CODE	HAUL DURN HR	WATER DEPTH (FTH)	DIRN OF TRAWL	WIND DIRN	WIND FORCE	REDFISH BSKTS	REDFISH CWT/ HOUR	FLATHEAD BSKTS	FLATHEAD CWT/ HOUR	JACKASS BSKTS	JACKASS CWT/ HOUR	MIXED BSKTS	MIXED CWT/ HOUR	TOTAL BSKTS	TOTAL CWT/ HOUR
12	04.10.60	2000	NIGHT	3	080	E	23	4	4	.71	1	.18	6	1.07	4	.71	15	2.68
12	05.10.60	1100	DAY	4	090	E	23	2	0	0	0	0	2	.31	3	.47	5	.78
20	08.03.61	1730	NIGHT	3	080	E	09	3	20	3.57	1	.18	5	.89	0	0	26	4.64
20	08.03.61	2200	NIGHT	3	083	W	09	3	26	5.42	1	.21	5	1.04	0	0	32	6.67
20	16.03.61	2300	NIGHT	4	083	E	36	3	30	4.69	1	.16	4	.63	0	0	35	5.47
20	11.03.61	0300	NIGHT	4	080	E	11	5	10	1.56	0	0	0	0	0	0	10	1.56
23	05.05.61	1700	NIGHT	4	085	E	36	4	10	1.56	4	.63	5	.78	12	1.88	31	4.84
23	05.05.61	2245	NIGHT	2	085	E	36	3	6	1.50	2	.50	4	1.00	3	.75	15	3.75
23	06.05.61	2045	NIGHT	3	085	E	05	3	9	1.50	1	.17	4	.67	4	.67	18	3.00
23	06.05.61	0215	NIGHT	3	085	W	36	3	12	2.31	1	.19	5	.96	2	.38	20	3.85
23	07.05.61	0120	NIGHT	3	085	E	05	3	9	1.50	1	.17	3	.50	2	.33	15	2.50
23	05.05.61	0600	DAY	3	080	W	36	4	10	2.08	1	.21	5	1.04	24	5.00	40	8.33
23	07.05.61	0600	DAY	4	080	W	05	3	4	.63	1	.16	5	.78	2	.31	12	1.88
23	05.05.61	1100	DAY	4	080	W	36	4	0	0	1	.16	5	.78	6	.94	12	1.88
23	07.05.61	1100	DAY	4	075	E	05	3	1	.16	1	.16	4	.63	4	.63	10	1.56
24	11.06.61	1445	DAY	3	070	E	36	3	7	1.35	1	.19	3	.58	1	.19	12	2.31
25	01.07.61	1600	NIGHT	4	083	W	32	6	2	.31	1	.16	4	.63	3	.47	10	1.56
25	01.07.61	1100	DAY	3	080	W	32	3	0	0	1	.18	2	.36	4	.71	7	1.25
28	02.09.61	2000	NIGHT	4	090	E	05	3	3	.47	4	.63	5	.78	3	.47	15	2.34
28	03.09.61	0100	NIGHT	4	100	E	05	3	3	.47	2	.31	6	.94	4	.63	15	2.34
28	03.09.61	0600	DAY	4	105	W	05	3	6	.94	4	.63	7	1.09	3	.47	20	3.13
28	03.09.61	1045	DAY	4	110	W	05	3	0	0	1	.16	3	.47	1	.16	5	.78
28	03.09.61	1600	DAY	3	080	W	05	3	0	0	1	.21	4	.83	5	1.04	10	2.08
31	14.11.61	1000	DAY	4	070	E	23	4	0	0	1	.16	5	.78	4	.63	10	1.56

B L O C K 7 0

TRIP HAUL	DATE	TIME NET SHOT HAULED	TIME CODE	HAUL DURN HR Q	WATER DEPTH (FPM)	DIRN OF TRAWL	DIRN FORCE	WIND	REDFISH BSKTS	REDFISH CWT/ HOUR	FLATHEAD BSKTS	FLATHEAD CWT/ HOUR	JACKASS BSKTS	JACKASS CWT/ HOUR	MIXED BSKTS	MIXED CWT/ HOUR	TOTAL BSKTS	TOTAL CWT/ HOUR
11 15	10-09-60	1745	2115	NIGHT	3 2	090	W	27	4	.71	0	0	2	.36	30	5.36	36	6.43
11 16	11-09-60	2240	0210	NIGHT	3 2	075	W	00	0	.89	0	0	3	.54	24	4.29	32	5.71
11 17	11-09-60	0310	0710	NIGHT	4 0	090	E	14	2	1.56	1	.16	3	.47	10	1.56	24	3.75
11 37	15-09-60	0930	1300	DAY	3 2	090	W	18	5	.54	1	.18	6	1.07	12	.36	12	2.14
11 14	10-09-60	1310	1640	DAY	3 2	095	W	27	2	1.07	0	0	6	1.07	10	1.79	22	3.93
11 38	15-09-60	1415	1715	DAY	3 0	090	W	18	8	.63	1	.21	5	1.04	2	.42	11	2.89
13 93	19-10-60	1830	2130	NIGHT	3 0	078	W	11	4	7.08	1	.21	22	4.58	3	.63	60	12.50
13 98	20-10-60	1800	2145	NIGHT	3 3	070	E	09	4	.83	1	.17	5	.83	4	.67	15	2.50
13 94	19-10-60	2230	0230	NIGHT	4 0	078	E	09	4	.78	0	0	10	1.56	5	.78	20	3.13
13 99	21-10-60	2400	0315	NIGHT	3 1	075	E	09	4	.96	1	.19	5	.96	4	.77	15	2.88
13 95	20-10-60	0330	0715	NIGHT	3 3	075	E	09	4	3.67	2	.33	7	1.17	4	.67	35	5.93
13 90	19-10-60	0500	0830	DAY	3 2	080	W	09	3	.89	1	.18	5	.89	19	3.39	30	5.96
13 91	19-10-60	0830	1300	DAY	3 2	080	E	09	3	.71	1	.18	1	.18	14	2.50	20	3.57
13 96	20-10-60	0815	1215	DAY	4 0	075	W	09	4	1.56	1	.16	10	1.56	9	1.41	30	4.69
13 92	19-10-60	1400	1730	DAY	3 2	078	W	09	3	1.79	2	.36	10	1.79	28	5.00	50	8.93
13 97	20-10-60	1315	1645	DAY	3 2	075	W	09	4	.89	2	.36	5	.89	38	6.79	50	8.93

B L O C K 7 1

TRIP HAUL	DATE	TIME NET SHOT HAULED	TIME CODE	HAUL DURN HR Q	WATER DEPTH (FPM)	DIRN OF TRAWL	DIRN FORCE	WIND	REDFISH BSKTS	REDFISH CWT/ HOUR	FLATHEAD BSKTS	FLATHEAD CWT/ HOUR	JACKASS BSKTS	JACKASS CWT/ HOUR	MIXED BSKTS	MIXED CWT/ HOUR	TOTAL BSKTS	TOTAL CWT/ HOUR
11 13	10-09-60	0750	1130	DAY	4 0	090	W	32	2	.63	1	.16	6	.94	6	.94	17	2.66
11 36	15-09-60	0500	0815	DAY	3 1	075	W	18	4	.19	0	0	4	.77	10	1.92	15	2.88
13 89	19-10-60	0040	0355	NIGHT	3 1	075	W	09	3	2.69	3	.58	20	3.85	13	2.50	50	9.62
13 0	21-10-60	0430	0730	DAY	3 0	085	E	09	5	.63	0	0	2	.42	5	1.04	10	2.08

DIVISION OF FISHERIES AND OCEANOGRAPHY  
TECHNICAL PAPERS

1. BLACKBURN, M., and RAYNER, G. W. (1951).—Pelagic fishing experiments in Australian waters.
2. HOUSTON, T. W. (1954).—Commercial trawling tests in the Great Australian Bight, 1949–52.
3. BLACKBURN, M., and DOWNIE, R. J. (1955).—The occurrence of oily pilchards in New South Wales waters.
4. WEATHERLEY, A. H. (1958).—Tasmanian farm dams in relation to fish culture.
5. DUNSTAN, D. J. (1959).—The barramundi *Lates calcarifer* (Bloch) in Queensland waters.
6. JITTS, H. R. (1959).—Measurements of light penetration in the Tasman Sea, 1955–57.
7. ROCHFORD, D. J. (1959).—The primary external water masses of the Tasman and Coral seas.
8. WYRTKI, K. (1960).—The surface circulation in the Coral and Tasman seas.
9. HUMPHREY, G. F. (1960).—The concentration of plankton pigments in Australian waters.
10. NEWELL, B. S. (1961).—Hydrology of south-east Australian waters: Bass Strait and New South Wales tuna fishing area.
11. HAMON, B. V. (1961).—The structure of the East Australian Current.
12. WISELY, B., and PURDAY, C. (1961).—An algal mass-culture unit for feeding marine invertebrate larvae.
13. THOMPSON, J. M. (1962).—The tagging and marking of marine animals in Australia.
14. WOOD, E. J. F. (1963).—Dinoflagellates in the Australian region. II. Recent collections.
15. HAMON, B. V. (1963).—Australian tide recorders.
16. THOMPSON, J. M. (1963).—A bibliography of systematic references to the grey mullets (Mugilidae).
17. WOOD, E. J. F. (1963).—Dinoflagellates in the Australian region. III. Further collections.
18. DYSON, N., JITTS, H. R., and SCOTT, B. D. (1965).—Techniques for measuring oceanic primary production using radioactive carbon.
19. TRANTER, D. J. (1966).—The Australian Clarke–Bumpus sampler and calibration tank.
20. WISELY, B. (1966).—Application details and sea-trial results of an antifouling and anticorrosion system.
21. CASTILLEJO, F. F. de (1966).—Non-seasonal variations in the hydrological environment off Port Hacking, Sydney.
22. HYND, J. S., and ROBINS, J. P. (1967).—Tasmanian tuna survey. Report of first operational period.
23. HIGHLEY, E. (1967).—Oceanic circulation patterns off the east coast of Australia.
24. KESTEVEN, G. L., and STARK, A. E. (1967).—Demersal fish stocks of the Great Australian Bight as estimated from the results of operations of F.V. *Southern Endeavour*.
25. KIRKWOOD, L. F. (1967).—Inorganic phosphate, organic phosphorus, and nitrate in Australian waters.
26. HYND, J. S. (1968).—Report on a survey for yellowfin tuna, *Thunnus albacares* (Bonnaterre), in Queensland waters.
27. HIGHLEY, E., and STARK, A. E. (1968).—The Great Australian Bight and trawling tests of F.V. *Southern Endeavour*.