Schlee JEAN A ~~EscolleArenas~~ S.W. Puerto Rico
JENA 90-2 Cabo Rojo
Nov. 11-18, 1990 MAYAGUEZ.
SAMPLE LOG SHEETS

104759

location	our ID	instit. ID	ot	latitude	longitude	institu	shi	crui
SW shelf		QPR 45				USGS	Jea	
SW shelf		QPR 46		18°08.35N	67°12.58W	USGS	Jea	
SW shelf		QPR 47		18°07.22N	67°12.50W	USGS	Jea	
SW shelf		QPR 48		18°07.43N	67°14.05W	USGS	Jea	
SW shelf		QPR 49		18°08.65N	67°13.71W	USGS	Jea	
SW shelf		QPR 50		18°09.37N	67°13.42W	USGS	Jea	
SW shelf		QPR 51		18°10.27N	67°13.25W	USGS	Jea	
SW shelf		QPR 52		18°11.04N	67°14.05W	USGS	Jea	
SW shelf		QPR 53		18°11.74N	67°14.85W	USGS	Jea	
SW shelf		QPR 54		18°08.80N	67°16.38W	USGS	Jea	
SW shelf		QPR 55		18°10.36N	67°14.06W	USGS	Jea	
SW shelf		QPR 56				USGS	Jea	
SW shelf		QPR 57		18°08.53N	67°15.62W	USGS	Jea	
SW shelf		QPR 58		18°08.79N	67°17.20W	USGS	Jea	
SW shelf		QPR 59		18°09.07N	67°18.38W	USGS	Jea	
SW shelf		QPR 60		18°09.00N	67°19.53W	USGS	Jea	
SW shelf		QPR 61		18°09.90N	67°20.96W	USGS	Jea	
SW shelf		QPR 62		18°10.63N	67°20.62W	USGS	Jea	
SW shelf		QPR 63		18°10.09N	67°19.42W	USGS	Jea	
SW shelf		QPR 64		18°10.27N	67°17.98W	USGS	Jea	
SW shelf		QPR 65		18°10.70N	67°16.67W	USGS	Jea	
SW shelf		* QPR 66	—	18 11.18N	67 15.53W	USGS	Jea	213348/129365
SW shelf		QPR 67		18°13.32N	67°13.79W	USGS	Jea	
SW shelf		QPR 68		18°14.82N	67°13.96W	USGS	Jea	
SW shelf		QPR 69		18°14.68N	67°15.03W	USGS	Jea	
SW shelf		QPR 70		18°13.16N	67°15.15W	USGS	Jea	
SW shelf		QPR 71		18°13.82N	67°14.49W	USGS	Jea	
SW shelf		QPR 72		18°12.65N	67°12.14W	USGS	Jea	
SW shelf		QPR 73		18°09.21N	67°12.08W	USGS	Jea	
SW shelf		QPR 74		18°06.14N	67°12.97W	USGS	Jea	
SW shelf		QPR 75		18°05.40N	67°13.80W	USGS	Jea	
SW shelf		QPR 76		18°06.46N	67°13.82W	USGS	Jea	
SW shelf		QPR 77		18°05.12N	67°15.02W	USGS	Jea	
SW shelf		QPR 78		18°05.97N	67°15.18W	USGS	Jea	
SW shelf		QPR 79		18°07.08N	67°15.17W	USGS	Jea	
SW shelf		QPR 80		18°11.03N	67°13.13W	USGS	Jea	
SW shelf		QPR 81		18°00.18N	67°13.02W	USGS	Jea	
SW shelf		QPR 82		18°00.10N	67°13.50W	USGS	Jea	
SW shelf		QPR 83		18°01.42N	67°13.98W	USGS	Jea	
SW shelf		QPR 84		18°01.94N	67°14.82W	USGS	Jea	
SW shelf		QPR 85	A	18°00.84N	67°15.94W	USGS	Jea	
SW shelf		QPR 85	B			USGS	Jea	
SW shelf		QPR 86		18°01.96N	67°16.32W	USGS	Jea	

location	our ID	instit. ID	ot	latitude	longitude	institu	shi	crui
SW shelf		QPR 87		18°02.17N	67°13.24W	USGS	Jea	
SW shelf		QPR 88		18°03.22N	67°13.24W	USGS	Jea	
SW shelf		QPR 89		18°04.27N	67°13.33W	USGS	Jea	
SW shelf		QPR 90		18°04.09N	67°14.83W	USGS	Jea	
SW shelf		QPR 91		18°02.95N	67°15.22W	USGS	Jea	
SW shelf		QPR 92		18°03.34N	67°16.36W	USGS	Jea	
SW shelf		QPR 93		18°03.45N	67°16,78W	USGS	Jea	
SW shelf		QPR 94		18°14.83N	67°10.49W	USGS	sta	
SW shelf		QPR 95		18°14.12N	67°10.41W	USGS	sta	
SW shelf		QPR 96		18°11.42N	67°09.68W	USGS	sta	
SW shelf		QPR 97		18°10.25N	67°10.95W	USGS	sta	
SW shelf		QPR 98		18°09.52N	67°10.73W	USGS	sta	
SW shelf		QPR 99		18°08.84N	67°10.68W	USGS	sta	
SW shelf		QPR 100		18°08.23N	67°11.22W	USGS	sta	
SW shelf		QPR 101				USGS	sta	
SW shelf		QPR 102		18°00,32N	67°15.06W	USGS	Jea	
SW shelf		QPR 103		18°00.15N	67°17.00W	USGS	Jea	
SW shelf	(1)	QPR 104	—	18°00.17N	67°18.76W	USGS	Jea	194344 63004
SW shelf	(3)	QPR 105	—	18°00.73N	67°19.73W	USGS	Jea	188743 66421
SW shelf		QPR 106		18°00.18N	67°20.78W	USGS	Jea	
SW shelf		QPR 107		18°00.43W	67°21.41W	USGS	Jea	
SW shelf		QPR 108		18°01.82N	67°20.93W	USGS	Jea	
SW shelf		QPR 109		18°02.43N	67°20.23W	USGS	Jea	
SW shelf	(4)	QPR 110	—	18°01.42N	67°20.14W	USGS	Jea	186390 70608
SW shelf	(2)	QPR 111	—	18°01.31N	67°18.71W	USGS	Jea	194666 69902
SW shelf		QPR 112		18°01.17N	67°17,18W	USGS	Jea	
SW shelf		QPR 113		18°02.15N	67°18.68W	USGS	Jea	
SW shelf		QPR 114		18°01.78N	67°17.70W	USGS	Jea	
SW shelf		QPR 115		18°03.58N	67°17.83W	USGS	Jea	
SW shelf		QPR 116		18°08.38N	67°18.77W	USGS	Jea	
SW shelf		QPR 117		18°07.47N	67°18.47W	USGS	Jea	
SW shelf		QPR 118		18°07.08N	67°17.00W	USGS	Jea	
SW shelf		QPR 119		18°07.32N	67°16.38W	USGS	Jea	
SW shelf		QPR 120		18°06.52N	67°17.64W	USGS	Jea	
SW shelf		QPR 121		18°05.25N	67°17.78W	USGS	Jea	
SW shelf		QPR 122		18°03.95N	67°18.88W	USGS	Jea	
SW shelf		QPR 123		18°03.04N	67°19.40W	USGS	Jea	
SW shelf	(5)	QPR 124	—	18°02.66N	67°21.97W	USGS	Jea	175832 78165
SW shelf		QPR 125		18°04.47N	67°22.22W	USGS	Jea	
SW shelf		QPR 126		18°03.72N	67°20.52W	USGS	Jea	
SW shelf		QPR 127		18°04.93N	67°19.15W	USGS	Jea	
SW shelf		QPR 128		18°05.87N	67°18.72W	USGS	Jea	
SW shelf		QPR 129		18°06.79N	67°18.88W	USGS	Jea	

18° 0.5 (7 11.0 239289 6480

cation	our ID	instit. ID	ot	latitude	longitude	institu	shi	crui	
N shelf		QPR 130		18°07..66N	67°19.48W	USGS	Jea		
[illegible]helf		QPR 131		18°08.62N	67°20.40W	USGS	Jea		
N shelf		QPR 132		18°14.35N	67°16.81W	USGS	Jea	206033	148765
N shelf		QPR 133		18°11.53N	67°17.77W	USGS	Jea	200401	131725
N shelf		QPR 134		18°10.64N	67°18.77W	USGS	Jea		
N shelf		QPR 135		18°11.14N	67°19.69W	USGS	Jea		
N shelf		QPR 136		18°11.30N	67°21.22W	USGS	Jea		
N shelf		QPR 137		18°07.09N	67°21.08W	USGS	Jea		
N shelf		QPR 138		18°06.48N	67°20.00W	USGS	Jea		
N shelf		QPR 139		18°05.60N	67°20.24W	USGS	Jea		
N shelf		QPR 140		18°04.60N	67°20.00W	USGS	Jea		
N shelf		QPR 141		18°04.12N	67°18.10W	USGS	Jea		
N shelf		QPR 142		18°05.51N	67°21.23W	USGS	Jea		
N shelf		QPR 143		18°06.14N	67°22.23W	USGS	Jea		
N shelf		QPR 144		18°07.52N	67°22.06W	USGS	Jea		
N shelf		QPR 145		18°08.88N	67°21.79W	USGS	Jea		
N shelf		QPR 146		18°09.53N	67°21.50W	USGS	Jea		
N shelf		QPR 147		18°10.92N	67°21.93W	USGS	Jea		
N shelf		QPR 148		18°11.93N	67°21.80W	USGS	Jea		
N shelf		QPR 149		18°12.85N	67°22.24W	USGS	Jea		
W shelf		QPR 150		18°14.46N	67°21.94W	USGS	Jea		
W shelf		QPR 151		18°13.33N	67°21.05W	USGS	Jea	181482	142710
W shelf		QPR 152		18°14.15N	67°20.12W	USGS	Jea	186885	142646
W shelf		QPR 153		18°12.75N	67°19.79W	USGS	Jea	188752	139164
W shelf		QPR 154		18°11.98N	67°19.05W	USGS	Jea	193009	134483
W shelf		QPR 155		18°13.07N	67°18.53W	USGS	Jea	196049	141065
W shelf		QPR 156		18°14.40N	67°18.27W	USGS	Jea	197581	146928
W shelf		QPR 157		18°13.17N	67°16.95W	USGS	Jea	205190	141627
W shelf		QPR 158		18°12.19N	67°15.95W	USGS	Jea	210947	135670
W shelf		QPR 159		18°14.84N	67°29.27W	USGS	Jea		
W shelf		QPR 160		18°12.78N	67°28.82W	USGS	Jea		
W shelf		QPR 161		18°11.35N	67°28.33W	USGS	Jea	139310	130953
W shelf		QPR 162		18°11.48N	67°25.72W	USGS	Jea	154412	131655
W shelf		QPR 163		18°10.85N	67°23.50W	USGS	Jea	167234	127774
W shelf		QPR 164		18°12.24N	67°23.22W	USGS	Jea	168897	136178
W shelf		QPR 165		18°14.91N	67°23.68W	USGS	Jea	166321	152350
W shelf		QPR 166		18°13.95N	67°25.17W	USGS	Jea	157674	146586
W shelf		QPR 167		18°13.15N	67°25.25W	USGS	Jea	157185	141747
W shelf		QPR 168		18°05.20N	67°26.24W	USGS	Jea	151195	93667
W shelf		QPR 169		18°06.15N	67°27.85W	USGS	Jea	141909	99468
W shelf		QPR 170		18°05.38N	67°24.93W	USGS	Jea	158783	94715
W shelf		QPR 171		18°04.85N	67°23.98W	USGS	Jea	164265	91479
W shelf		QPR 172		18°04.50N	67°22.70W	USGS	Jea	171663	89322

n	our ID	instit. ID	ot	latitude	longitude	institu	shi	crui	
elf		QPR 173	—	18°06.45N	67°22.10W	USGS	Jea	175196	101105
elf		QPR 174	—	18°07.95N	67°22.10W	USGS	Jea	175243	110182
el		QPR 175	—	18°09.10N	67°22.09W	USGS	Jea	175336	117142
elf		QPR 176	—	18°09.75N	67°22.90W	USGS	Jea	170670	121099
elf		QPR 177	—			USGS	Jea		
elf		QPR 178	—	18°06.82N	67°26.44W	USGS	Jea	150092	103477
elf		QPR 179		18°06.46N	67°25.30W	USGS	Jea		
elf		QPR 180	—	18°06.37N	67°24.10W	USGS	Jea	163619	100681
elf		QPR 181	—	18°06.05N	67°23.04W	USGS	Jea	169744	98712
elf		QPR 182	—	18°07.60N	67°23.27W	USGS	Jea	168461	108099
elf		QPR 183	—	18°09.20N	67°24.05W	USGS	Jea	163999	117806
elf		QPR 184	—	18°14.80N	67°27.55W	USGS	Jea	143939	151806
elf		QPR 185	—	18°12.99N	67°27.40W	USGS	Jea	144745	140847
elf		QPR 186	—	18°11.78N	67°26.95W	USGS	Jea	147307	133510
elf		QPR 187	—	18°10.03N	67°27.38W	USGS	Jea	144760	122933
elf		QPR 188		18°09.90N	67°29.52W	USGS	Jea		
elf		QPR 189		18°08.14N	67°29.15W	USGS	Jea		
elf		QPR 190	—	18°08.74N	67°27.20W	USGS	Jea	145758	115121
elf		QPR 191	—	18°10.65N	67°25.98W	USGS	Jea	152880	126641
elf		QPR 192	—	18°08.76N	67°25.40W	USGS	Jea	156174	115185
elf		QPR 193	—	18°07.75N	67°24.69W	USGS	Jea	160249	109050
el		QPR 194	—	18°04.56N	67°28.89W	USGS	Jea	135835	89880
elf		QPR 195	—	18°04.22N	67°26.80W	USGS	Jea	147921	87754
elf		QPR 196		18°02.55N	67°26.80W	USGS	Jea		
elf		QPR 197		18°04.13N	67°25.15W	USGS	Jea		
elf	7	QPR 198	—	18°03.50N	67°23.39W	USGS	Jea	167637	83291
elf	1	QPR 199	—	18°02.27N	67°23.02W	USGS	Jea	169741	75836
elf		QPR 200		18°00.93N	67°23.95W	USGS	Jea		
elf		QPR 201		18°01.32N	67°26.80W	USGS	Jea		
elf	8	QPR 202	—	~~18°06.37N~~	~~67°24.49W~~	USGS	Jea	161362	100693
elf		QPR 203		17° 56.21N	67°19.41W	USGS	Jea		
elf		QPR 204		17°53.30N	67°20.61W	USGS	Jea		
elf		QPR 205		17°55.98N	67°21.76W	USGS	Jea		
elf		QPR 206		17°57.16N	67°21.34W	USGS	Jea		
elf		QPR 207		17°57.58N	67°20.30W	USGS	Jea		
elf		QPR 208		17°57.52N	67°18.70W	USGS	Jea		
elf		QPR 209		17°57.54N	67°17.33W	USGS	Jea		
elf		QPR 210		17°58.71N	67°17.46W	USGS	Jea		
elf		QPR 211		17°59.18N	67°19.06W	USGS	Jea		
elf		QPR 212		17°59.15N	67° 20.60W	USGS	Jea		
el		QPR 213		17°58.91N	67°21.82W	USGS	Jea		
elf		QPR 214		18°00.10N	67°22.84W	USGS	Jea		
elf		QPR 215		17°56.97N	67°18.14W	USGS	Jea		
		202		18°02.8	67°24.8			161189	79089

Field Log Sheet

STATION QPR 133

Jean A

CRUISE 90-2 DATE JD 318 SHIP Jean A

GENERAL AREA deep water seaward of Mayaguez

EQUIPMENT Shipek bottom grab

METHOD OF POSITIONING Mini ranger

	LATITUDE	LONGITUDE	TIME	SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	2004019	2004019	1808Z	135 fathoms	?
START UP	1317259	1317259	1319679		

WIND	SEA	SWELL	CLOUDS	WATER
FROM / WF NW	FROM N / <1 M	FROM / M	5 /10	FOREL ? % YEL / SECCHI ? M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	trace L	V fine grained brown sand
2	0 L	trace yellow clay
3	trace L	V fine grained light brown sand
4	L	

LITHOLOGY:

BIOLOGY:

PHOTOS: B&W / COL. none EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT

SAMPLES: ORIGINAL MATERIAL

FORAMS IN ROSE BENGAL

BIOLOGY > IMM

OTHER

OTHER

OBSERVER JS

Field Log Sheet

STATION QPR 154

CRUISE 90-2 DATE JD 318 SHIP Jean A

GENERAL AREA Deep water seaward of Mayaguez

EQUIPMENT Shipek bottom grab

METHOD OF POSITIONING Mini reniger

	LATITUDE 1	LONGITUDE 2	TIME	DEPTH (M) SONIC (UNCOR)	WIRE
ON BOTTOM	193371 ~~[illegible]~~	193274	1909 (1) 1923 (2)	161 fathoms	°
START UP	~~1317256~~ 134494	134389		off chart	

WIND	SEA	SWELL	CLOUDS	WATER
FROM ____ WF ____	FROM ____ ____ M	FROM ____ ____ M	____ /10	FOREL ____ % YEL SECCHI ____ M

RESULTS:

DROP NO.	VOLUME		REMARKS
1	Sm fract	L	light brown, vfg silty sand
2	Small "	L	" " " " " "
3		L	
4		L	

LITHOLOGY: probably bedrock with a dusting of fine silty sand

BIOLOGY:

PHOTOS: B&W COL. EXPOSURES: ____ PREV. + ____ STA. + ____ DECK = ____ TOTAL

MISC:

BT ____

SAMPLES: ORIGINAL MATERIAL ____

FORAMS IN ROSE BENGAL ____

BIOLOGY > IMM ____

OTHER ____

OTHER

OBSERVER Schlee

Field Log Sheet

STATION QPR 066

CRUISE 90-2 DATE JD 318 SHIP Sean A

GENERAL AREA Deep shelf off Mayaguez

EQUIPMENT Shipek Bottom scoper

METHOD OF POSITIONING Miniranger

	LATITUDE	LONGITUDE	TIME	SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	213656		2111	~40 fathoms	°
START UP	129343				

WIND	SEA	SWELL	CLOUDS	WATER
FROM WF	FROM M	FROM M	/10	FOREL % YEL SECCHI M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	small frac L	
2	L	
3	L	
4	L	

LITHOLOGY: med - fine grained foram terrigenous sand

BIOLOGY: forams (?)

PHOTOS: B&W None
COL.

EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC: one orange paint chip from sampler

BT

SAMPLES: ORIGINAL MATERIAL

FORAMS IN ROSE BENGAL

BIOLOGY > IMM

OTHER

OTHER

OBSERVER Schlee

Field Log Sheet

STATION QPR 155

CRUISE 90-2 DATE JD 319 SHIP Jean A

GENERAL AREA Slope W of Mayaguez again

EQUIPMENT Shipek bottom grab

METHOD OF POSITIONING Mini ranger

	LATITUDE (1)	LONGITUDE	TIME	SONIC (UNCOR) DEPTH (M)	WIRE DEPTH (M)
ON BOTTOM	195306		1352 (1)	~800'	°
START UP	140269				

WIND	SEA	SWELL	CLOUDS	WATER
FROM WF	FROM M	FROM M	/10	FOREL % YEL SECCHI M

RESULTS:

DROP NO.	VOLUME	REMARKS
(1)	~~Small frost~~	light brn sandy silt - bottom surface coating over bed rock
2	L	
3	L	
4	L	

LITHOLOGY: very little as 2 or 3 cc of sediment left in hemi shell. Hard bottom ~~no sediment~~

BIOLOGY:

PHOTOS: B&W COL. EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT

SAMPLES: ORIGINAL MATERIAL

FORAMS IN ROSE BENGAL

BIOLOGY > IMM

OTHER

OTHER

OBSERVER JS

Field Log Sheet

STATION QPR
165

CRUISE 90-2 DATE JD 319 SHIP Jean A

GENERAL AREA Bank of Mayaguez

EQUIPMENT Shipek Bottom Grab

METHOD OF POSITIONING GPS

	LATITUDE	LONGITUDE	TIME	SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	18°14.8468	67°23.727	1502		°
START UP					

WIND	SEA	SWELL	CLOUDS	WATER
FROM WF	FROM M	FROM M	/10	FOREL % YEL SECCHI M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	1/5 L	Coral fragments
2	L	
3	L	
4	L	

LITHOLOGY: hard bottom

BIOLOGY: Coral encrustation + red algae

PHOTOS: B&W COL. EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT

SAMPLES: ORIGINAL MATERIAL

FORAMS IN ROSE BENGAL

BIOLOGY > IMM

OTHER

OTHER

OBSERVER

Field Log Sheet

STATION QPR 166

CRUISE 90-2 DATE JD 319 SHIP Jean A

GENERAL AREA Deep Water Bank off Mayaguez

EQUIPMENT Shipek Bottom Grab

METHOD OF POSITIONING Miniranger again

	LATITUDE	LONGITUDE	TIME	SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	157230 ϕ		1527		°
START UP	146547 ϕ				

WIND	SEA	SWELL	CLOUDS	WATER
FROM WF	FROM M	FROM M	/10	FOREL % YEL SECCHI M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	small fractions	encrusting coral & sponges
2	L	
3	L	
4	L	

LITHOLOGY: encrusting coral with

BIOLOGY: attach orange sponges

PHOTOS: B&W COL. EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT

SAMPLES: ORIGINAL MATERIAL

FORAMS IN ROSE BENGAL

BIOLOGY > IMM

OTHER

OTHER

OBSERVER

Field Log Sheet

STATION QPR 162

CRUISE 90-2 DATE JD 319 SHIP Jean A

GENERAL AREA outer shelf Mayaguez

EQUIPMENT Shipek Bottom Grab

METHOD OF POSITIONING F Miniranger

	LATITUDE (1)	LONGITUDE	TIME	DEPTH (M) SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	153776		1600 (1)		°
START UP	131418				

WIND	SEA	SWELL	CLOUDS	WATER
FROM ____ WF ____	FROM ____ ____ M	FROM ____ ____ M	____ /10	FOREL ____ % YEL SECCHI ____ M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	Small L fraction	calcareous sand on hd bottom
2	L	
3	L	
4	L	

LITHOLOGY: med - c. g calc sd - calc algae lt brown

BIOLOGY: calc organisms -- forams coralline algae et

PHOTOS: B&W COL. EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT ____

SAMPLES: ORIGINAL MATERIAL ____

FORAMS IN ROSE BENGAL ____

BIOLOGY > IMM ____

OTHER ____

OTHER

OBSERVER JS

Field Log Sheet

STATION QPR 176

CRUISE 90-2 DATE JD 319 SHIP Jean A

GENERAL AREA Shelf off Mayaguez

EQUIPMENT Shipek bottom grab

METHOD OF POSITIONING Minirangen

	LATITUDE	LONGITUDE	TIME	DEPTH (M) SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	170455		1638Z		°
START UP	121132				

WIND	SEA	SWELL	CLOUDS	WATER
FROM ____ WF ____	FROM ____ M	FROM ____ M	____ /10	FOREL ____ % YEL SECCHI ____ M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	1/20 L	light gray calcareous foram sand
2	L	
3	L	
4	L	

LITHOLOGY: lt gray med grained foram sand

BIOLOGY: encrusting surface sponges, pelecypod shell, algae

PHOTOS: B&W COL. EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT ____

SAMPLES: ORIGINAL MATERIAL ____

FORAMS IN ROSE BENGAL ____

BIOLOGY > IMM ____

OTHER ____

OTHER

OBSERVER JS

Field Log Sheet

STATION QPR 175

CRUISE 90-2 DATE JD 319 SHIP Jean A

GENERAL AREA Shelf of Mayaguez

EQUIPMENT Shipek bottom sampler

METHOD OF POSITIONING Mini ranger

	LATITUDE	LONGITUDE	TIME	DEPTH (M) SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	175336 ϕ		1654		°
START UP	117146 ϕ				

WIND	SEA	SWELL	CLOUDS	WATER
FROM ____ WF ____	FROM ____ ____ M	FROM ____ ____ M	____ /10	FOREL ____ % YEL SECCHI ____ M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	1/20 L	same ~~ft~~ gray calc sand with 1 sea fan
2	L	
3	L	
4	L	

LITHOLOGY: Bedrock with thin veneer of calc med gr foram sd

BIOLOGY: 1 branching soft sea fan 5-8 cm high

PHOTOS: B&W COL. EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT ____

SAMPLES: ORIGINAL MATERIAL ____

FORAMS IN ROSE BENGAL ____

BIOLOGY > IMM ____

OTHER ____

OTHER

OBSERVER JS

Field Log Sheet

STATION QPR 174

CRUISE 90-2 DATE JD 319 SHIP Jean A

GENERAL AREA Shelf of West P. Rico

EQUIPMENT Shipek bottom grab

METHOD OF POSITIONING Miniranger (F)

	LATITUDE	LONGITUDE	TIME	SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	1753750		1713Z		°
START UP	110121 ϕ				

WIND	SEA	SWELL	CLOUDS	WATER
FROM lt variable	FROM Calm	FROM	2 /10	FOREL % YEL
WF	M	M		SECCHI M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	~~10~~ L	of gray calc sd over bedrock
2	L	
3	L	
4	L	

LITHOLOGY: med-crs calc sd

BIOLOGY: living Halimeda & Halimeda plates hold fast, encrusting algae

PHOTOS: B&W COL. EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT

SAMPLES: ORIGINAL MATERIAL

FORAMS IN ROSE BENGAL

BIOLOGY > IMM

OTHER

OTHER

OBSERVER JS

Field Log Sheet

STATION QPR 182

CRUISE 90-2 DATE JD 319 SHIP Jean A

GENERAL AREA Shelf – Western Puerto Rico

EQUIPMENT Shipek bottom grab

METHOD OF POSITIONING Minirangers

	LATITUDE	LONGITUDE	TIME	SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	168469ϕ		1728Z		°
START UP	108196ϕ				

WIND	SEA	SWELL	CLOUDS	WATER
FROM ____ WF ____	FROM ____ M	FROM ____ M	____ /10	FOREL ____ % YEL SECCHI ____ M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	1/20 L	grey calc sand, with sponges algae & encrusting organisms
2	L	
3	L	
4	L	

LITHOLOGY: Wodl sorted med – c.g. calc foram sand

BIOLOGY: branching sponge (?), halimeda; red filamentous algae

PHOTOS: B&W COL. EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT ____

SAMPLES: ORIGINAL MATERIAL ____

FORAMS IN ROSE BENGAL ____

BIOLOGY > IMM ____

OTHER ____

OTHER

OBSERVER ____

Field Log Sheet

STATION QPR 192

CRUISE 902 DATE JD 39 SHIP Sean A

GENERAL AREA Shelf off western Puerto Rico

EQUIPMENT Shipek bottom grab

METHOD OF POSITIONING Miniranger

	LATITUDE	LONGITUDE	TIME	SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	156144		1756Z		°
START UP	115251				

WIND	SEA	SWELL	CLOUDS	WATER
FROM ____ WF ____	FROM ____ M	FROM ____ M	____ /10	FOREL ____ % YEL SECCHI ____ M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	1 L	Calc fine sandy gr gravel
2	L	
3	L	
4	L	

LITHOLOGY: light grayish yellow sandy calcarious gravelly mud, mod sorting

BIOLOGY: Halimeda, forams, red algae, shell frags

PHOTOS: B&W COL. EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT ____

SAMPLES: ORIGINAL MATERIAL ____

FORAMS IN ROSE BENGAL ____

BIOLOGY > IMM ____

OTHER ____

OTHER

OBSERVER JS

Field Log Sheet

STATION QPR 190

CRUISE 90-2 DATE JD 319 SHIP Jean A

GENERAL AREA Slope of western Puerto Rico

EQUIPMENT Shipek bottom grab

METHOD OF POSITIONING minirangers

	LATITUDE	LONGITUDE	TIME	SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	1457880		1834		°
START UP	1151230				

WIND	SEA	SWELL	CLOUDS	WATER
FROM WF	FROM M	FROM M	/10	FOREL % YEL SECCHI M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	0 L	
2	L	
3	L	
4	L	

LITHOLOGY: hard bottom – no sample

BIOLOGY:

PHOTOS: B&W COL. EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT

SAMPLES: ORIGINAL MATERIAL

FORAMS IN ROSE BENGAL

BIOLOGY > IMM

OTHER

OTHER

OBSERVER JS

Field Log Sheet

STATION QPR 169

CRUISE 90-2 DATE JD 319 SHIP Jean A

GENERAL AREA Western slope off W Puerto Rico

EQUIPMENT Shipek

METHOD OF POSITIONING Mini ranger

	LATITUDE	LONGITUDE	TIME	SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	141700		1913		°
START UP	99845				

WIND	SEA	SWELL	CLOUDS	WATER
FROM N	FROM	FROM 3-5' from N	3 /10	FOREL % YEL
WF 1	M	M		SECCHI M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	0 L	no sample
2	L	
3	L	trace calc sd
4	L	

LITHOLOGY: hard bottom deep water < 1/2 cc

BIOLOGY:

PHOTOS: B&W COL. EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT

SAMPLES: ORIGINAL MATERIAL

FORAMS IN ROSE BENGAL

BIOLOGY > IMM

OTHER

OTHER

OBSERVER

Field Log Sheet

STATION QPR 168

CRUISE 90-2 DATE JD 319 SHIP Vean A

GENERAL AREA Shelf off western P. Rico

EQUIPMENT Shipek bottom grab

METHOD OF POSITIONING Mini Ranger

	LATITUDE	LONGITUDE	TIME	DEPTH (M) SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	151242 ϕ		1947	~50 fath	°
START UP	937250				

WIND	SEA	SWELL	CLOUDS	WATER
FROM WF	FROM M	FROM M	/10	FOREL % YEL SECCHI M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	~~1/20~~ L	lt gray calc m.g sd
2	L	few
3	L	
4	L	

LITHOLOGY: m.g sd over bedrock shell frags foram

BIOLOGY:

PHOTOS: B&W COL. EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT

SAMPLES: ORIGINAL MATERIAL

FORAMS IN ROSE BENGAL

BIOLOGY > IMM

OTHER

OTHER

OBSERVER Schlee

Field Log Sheet

STATION QPR 170

CRUISE 90-2 DATE JD 319 SHIP Jean A

GENERAL AREA shelf off Western Puerto Rico

EQUIPMENT Shipek bottom grab

METHOD OF POSITIONING Minirangers

	LATITUDE	LONGITUDE	TIME	DEPTH (M) SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	158906Ø		2007Z		°
START UP	948280				

WIND	SEA	SWELL	CLOUDS	WATER
FROM ____	FROM ____	FROM ____	____ /10	FOREL ____ % YEL
WF ____	____ M	____ M		SECCHI ____ M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	½ l. L	– mg calc sd.
2	L	
3	L	
4	L	

LITHOLOGY: med-c.g calc foram sd over bedrock

BIOLOGY: 1/2 small sponge alive

PHOTOS: B&W COL. EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT ____

SAMPLES: ORIGINAL MATERIAL ____

FORAMS IN ROSE BENGAL ____

BIOLOGY > IMM ____

OTHER ____

OTHER

OBSERVER Schlee

Field Log Sheet

STATION QPR 171

CRUISE 90-2 DATE JD 319 SHIP Jean A

GENERAL AREA shelf 1/ Western Puerto Rico

EQUIPMENT Shipek bottom grab

METHOD OF POSITIONING Mini Ranger

	LATITUDE	LONGITUDE	TIME	DEPTH (M) SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	164138 ϕ		2022Z		°
START UP	91313 ϕ				

WIND	SEA	SWELL	CLOUDS	WATER
FROM WF	FROM M	FROM M	/10	FOREL % YEL SECCHI M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	1/30 L	calc gr ~~calc sd~~ over bed rock
2	L	
3	L	
4	L	

LITHOLOGY: med grain mod sorted calc foram sand probably over bedrock

BIOLOGY: Gorgonia fan brown glove coral stalk
Sponge - encrusting algae

PHOTOS: B&W
COL.

EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT

SAMPLES: ORIGINAL MATERIAL

FORAMS IN ROSE BENGAL

BIOLOGY > IMM

OTHER

OTHER

OBSERVER Schlee

Field Log Sheet

STATION QPR 172

CRUISE 90-2 DATE JD 319 SHIP Jean A

GENERAL AREA shelf - W. Puerto Rico

EQUIPMENT Shipek Bottom Grab

METHOD OF POSITIONING Mini ranger

	LATITUDE	LONGITUDE	TIME	DEPTH (M) SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	171653Ø		2035Z		___ °
START UP	893140				

WIND	SEA	SWELL	CLOUDS	WATER
FROM ___	FROM ___	FROM ___	___ /10	FOREL ___ % YEL
WF ___	___ M	___ M		SECCHI ___ M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	3/4 L	
2	___ L	
3	___ L	
4	___ L	

of calc shell sand

LITHOLOGY: med-co gr calc shell chert [illegible]

BIOLOGY: Small Shell valves 2-3 mm

PHOTOS: B&W COL. EXPOSURES: ___ PREV. + ___ STA. + ___ DECK = ___ TOTAL

MISC:

BT ___

SAMPLES: ORIGINAL MATERIAL ___

FORAMS IN ROSE BENGAL ___

BIOLOGY > IMM ___

OTHER ___

OTHER

OBSERVER Schlee

Field Log Sheet

STATION QPR 104

CRUISE 90-2 DATE JD 320 SHIP Jean A

GENERAL AREA Shelf off W. Puerto Rico

EQUIPMENT Shipek Bottom Grab

METHOD OF POSITIONING Minirranger

	LATITUDE	LONGITUDE	TIME	DEPTH (M) SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	1944405		1244		°
START UP	626840				

WIND	SEA	SWELL	CLOUDS	WATER
FROM ____ WF ____	FROM ____ M	FROM ____ M	____ /10	FOREL ____ % YEL SECCHI ____ M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	1/10 L	of encrusting coral
2	L	
3	L	
4	L	

LITHOLOGY: Hard bottom

BIOLOGY: Encrusting Agaricia coral

PHOTOS: B&W COL. EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT ____

SAMPLES: ORIGINAL MATERIAL ____

FORAMS IN ROSE BENGAL ____

BIOLOGY > IMM ____

OTHER ____

OTHER

OBSERVER Sihler Webb

Field Log Sheet

STATION QPR 111

CRUISE 90-2 DATE JD 320 SHIP Jean A

GENERAL AREA Shelf off Western Puerto Rico

EQUIPMENT Shipek bottom Grab

METHOD OF POSITIONING Muniranger

	LATITUDE	LONGITUDE	TIME	DEPTH (M) SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	194657		1306		°
START UP	69867				

WIND	SEA	SWELL	CLOUDS	WATER
FROM ____ WF ____	FROM ____ ____ M	FROM ____ ____ M	____ /10	FOREL ____ % YEL SECCHI ____ M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	3/4 L	
2	L	
3	L	
4	L	

LITHOLOGY: v cg ~~calc~~ sand - lt yellowish gray ~~granule sized frags~~

BIOLOGY: [illegible] mollusca shell frags [illegible] forams, echinoderm spicules [illegible]

PHOTOS: B&W COL. EXPOSURES: ____ PREV. + ____ STA. + ____ DECK = ____ TOTAL

MISC:

BT ____

SAMPLES: ORIGINAL MATERIAL ____

FORAMS IN ROSE BENGAL ____

BIOLOGY > IMM ____

OTHER ____

OTHER

OBSERVER Schlee Wolff

Field Log Sheet

STATION QPR 105

CRUISE 90-2 DATE JD 320 SHIP Jean A

GENERAL AREA Shelf off western Puerto Rico

EQUIPMENT Shipek bottom grab

METHOD OF POSITIONING Miniranger

	LATITUDE	LONGITUDE	TIME	DEPTH (M) SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	188744Ø		1324		°
START UP	66494Ø				

WIND	SEA	SWELL	CLOUDS	WATER
FROM WF	FROM M	FROM M	/10	FOREL % YEL SECCHI M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	trace L	
2	L	
3	L	
4	L	

LITHOLOGY: Hard bottom encrusting organisms, no penetration

BIOLOGY: Acropora cervicornis, Homotrema, Sponge, 1 gastropod

PHOTOS: B&W COL. EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT

SAMPLES: ORIGINAL MATERIAL

FORAMS IN ROSE BENGAL

BIOLOGY > IMM

OTHER

OTHER

OBSERVER JS, RW

Field Log Sheet

STATION OPR 110

CRUISE 90-2 DATE JD 320 SHIP Sea A

GENERAL AREA shelf - western Puerto Rico

EQUIPMENT Shipek bottom grab

METHOD OF POSITIONING Minirange

	LATITUDE	LONGITUDE	TIME	SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	1862810		1337		°
START UP	707110				

WIND	SEA	SWELL	CLOUDS	WATER
FROM ____ WF ____	FROM ____ M	FROM ____ M	____ /10	FOREL ____ % YEL SECCHI ____ M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	1/4 L	calc sand
2	L	
3	L	
4	L	

LITHOLOGY: med - c g sand calc

BIOLOGY: dead coral frags
Halimeda
shell frags

PHOTOS: B&W
COL.

EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT ____

SAMPLES: ORIGINAL MATERIAL ____

FORAMS IN ROSE BENGAL ____

BIOLOGY > IMM ____

OTHER ____

OTHER

OBSERVER ____

Field Log Sheet

STATION QPR 124

CRUISE 90-2 DATE JD 320 SHIP Jean A

GENERAL AREA Shelf off western Puerto Rico

EQUIPMENT Shipek bottom grab

METHOD OF POSITIONING Miniranger

	LATITUDE	LONGITUDE	TIME	SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	175684 b		1359		°
START UP	781659 d				

WIND	SEA	SWELL	CLOUDS	WATER
FROM WF	FROM M	FROM M	/10	FOREL % YEL SECCHI M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	3/4 L	calc sand
2	L	
3	L	
4	L	

LITHOLOGY: f to m-g. calc sand - well sorted

BIOLOGY: foram mollusk frags, encrusted concretion with worm tubes coralline algae

PHOTOS: B&W COL. EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT

SAMPLES: ORIGINAL MATERIAL

FORAMS IN ROSE BENGAL

BIOLOGY > IMM

OTHER

OTHER

OBSERVER Schlee-Wolff

Field Log Sheet

STATION QPR 199

CRUISE 90-2 DATE SD 320 SHIP Jean A

GENERAL AREA Shelf off Western Puerto Rico

EQUIPMENT Shipek grab

METHOD OF POSITIONING Minirangler

	LATITUDE	LONGITUDE	TIME	DEPTH (M) SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	169792		1417		°
START UP	75907				

WIND	SEA	SWELL	CLOUDS	WATER
FROM ____ WF ____	FROM ____ ____ M	FROM ____ ____ M	____ /10	FOREL ____ % YEL SECCHI ____ M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	3/4 L	Calc sand
2	L	
3	L	
4	L	

LITHOLOGY: nodules up to 20 mm with med-c.g. calca sand

BIOLOGY: Coralline algae forams, Halimeda, mollusk fragment bryozoans pelecypod + oyster Homotrema frags; serpulid worm tubes

PHOTOS: B&W COL. EXPOSURES: ____ PREV. + ____ STA. + ____ DECK = ____ TOTAL

MISC:

BT ____

SAMPLES: ORIGINAL MATERIAL ____

FORAMS IN ROSE BENGAL ____

BIOLOGY > IMM ____

OTHER ____

OTHER

OBSERVER Schlee-Webb

Field Log Sheet

STATION QPR 198

CRUISE 90-2 DATE JD 320 SHIP Jean A

GENERAL AREA shelf off W. Puerto Rico

EQUIPMENT Shipek, Hom grab

METHOD OF POSITIONING Ranger

	LATITUDE	LONGITUDE	TIME	SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	167638Φ		1434		°
START UP	83381Φ				

WIND	SEA	SWELL	CLOUDS	WATER
FROM ____ WF ____	FROM ____ ____ M	FROM ____ ____ M	____ /10	FOREL ____ % YEL SECCHI ____ M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	1/20 L	calc sand with sponge
2	L	
3	L	
4	L	

LITHOLOGY: med grained calc sand - 5-6 cc

BIOLOGY: sponge fragment, shell fragments

PHOTOS: B&W COL. EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT ____

SAMPLES: ORIGINAL MATERIAL ____

FORAMS IN ROSE BENGAL ____

BIOLOGY > IMM ____

OTHER ____

OTHER

OBSERVER Schlee-Webb

Field Log Sheet

STATION QPR 202

CRUISE 90-2 DATE JD 320 SHIP Jean A

GENERAL AREA upper slope off western Puerto Rico

EQUIPMENT Shipek bottom grab

METHOD OF POSITIONING Miniranger

	LATITUDE	LONGITUDE	TIME	DEPTH (M) SONIC (UNCOR)	DEPTH (M) WIRE
ON BOTTOM	161069		1458	~13 fath	°
START UP	79066				

WIND	SEA	SWELL	CLOUDS	WATER
FROM ____ WF ____	FROM ____ M	FROM ____ M	____ /10	FOREL ____ % YEL SECCHI ____ M

RESULTS:

DROP NO.	VOLUME	REMARKS
1	trace L	calc sand
2	L	
3	L	
4	L	

LITHOLOGY: hard bottom

BIOLOGY: Gorgonia or black coral, sponges, worms

PHOTOS: B&W COL. EXPOSURES: PREV. + STA. + DECK = TOTAL

MISC:

BT ____

SAMPLES: ORIGINAL MATERIAL ____

FORAMS IN ROSE BENGAL ____

BIOLOGY > IMM ____

OTHER ____

OTHER

OBSERVER E Klee-Webb