

Directional Survey Calculations	Measured Depth (ft)	Sub-Sea Incl. (deg)	Vertical Azim. (ft)	True Vert Depth (ft)	Northings (+) Southings (-) (ft)	Eastings (+) Westings (-) (ft)	Vert Section (ft)	DLS deg/100' (deg)	FNL	FSL	FWL	FEL
SHL	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5084	204	3315	1980
BHL	9321	88.70	358.20	4792.93	4750.20	-26.27	4750.27	0.00	334	4954	3316	1976
Miss Entry	4986	68.70	1.00	4789.64	426.91	-17.16	427.01	8.15	4657	631	3301	1994
Top Perf	5682	90.20	1.42	4858.66	1113.83	0.83	1113.81	1.37	3970	1317	3322	1972
Bottom Perf	9250	88.48	358.25	4791.21	4679.26	-24.07	4679.32	1.35	404	4883	3318	1974

Survey Points		X	Y		X	Y	m
NW Corner XY Coord	2103336	132131		Surface XY	2106680	127073	North Line slope 0.007749
SW Corner XY Coord	2103366	126840					East Line slope -0.0064333
NE Corner XY Coord	2108627	132172					South Line slope 0.0088763
SE Corner XY Coord	2108661	126887					West Line slope -0.00567

Measured Depth (ft)	Sub-Sea Incl. (deg)	Vertical Azim. (ft)	True Vert Depth (ft)	Northings (+) Southings (-) (ft)	Eastings (+) Westings (-) (ft)	Vert Section (ft)	DLS deg/100' (deg)	FNL	FSL	FWL	FEL	
0	0.0	0	0	0	0	0	0	5084	204	3315	1980	
240	0.20	166.60	240.00	0	0	-0.41	0.08	5084	203	3315	1980	
487	0.10	166.60	487.00	-1	0	-1.04	0.04	5085	203	3316	1980	
757	0.30	166.60	757.00	-2	0	-1.96	0.07	5086	202	3316	1979	
859	0.20	166.60	859.00	-2	1	-2.39	0.10	5086	201	3316	1979	
1317	1.00	187.30	1316.97	-7	0	-7.13	0.18	5091	196	3316	1980	
1789	0.70	168.90	1788.92	-14	0	-14.04	0.09	5098	190	3316	1980	
2264	0.70	192.20	2263.88	-20	0	-19.73	0.06	5104	184	3315	1980	
2741	0.60	183.70	2740.85	-25	-1	-25.06	0.03	5109	179	3315	1981	
3215	0.80	152.80	3214.82	-30	1	-30.49	0.09	5114	173	3316	1979	
3688	0.60	130.80	3687.78	-35	4	-35.07	0.07	5119	169	3319	1976	
4069	0.40	133.10	4068.77	-37	7	-37.29	0.05	5121	166	3322	1973	
4101	0.20	88.60	4100.77	-37	7	-37.37	0.92	5121	166	3322	1973	
4132	1.60	338.50	4131.76	-37	7	-36.97	5.42	5121	167	3322	1973	
4165	4.00	344.20	4164.72	-35	6	-35.43	7.31	5119	168	3321	1974	
4197	6.60	350.60	4196.58	-32	6	-32.53	8.32	5116	171	3321	1974	
4228	9.20	352.70	4227.29	-28	5	-28.31	8.44	5112	175	3320	1975	
4260	11.70	350.40	4258.75	-23	4	-22.57	7.92	5106	181	3319	1976	
4292	14.40	348.20	4289.92	-15	3	-15.47	8.58	5099	188	3318	1977	
4323	17.60	348.00	4319.72	-7	1	-7.10	10.32	5091	196	3316	1979	
4355	19.80	348.60	4350.03	3	-1	2.96	6.90	5081	207	3314	1981	
4387	22.80	350.50	4379.84	14	-3	14.41	9.62	5070	218	3312	1983	
4418	25.70	352.70	4408.10	27	-5	27.01	9.80	5057	231	3310	1985	
4449	27.50	353.80	4435.82	41	-7	40.81	6.02	5043	244	3309	1986	
4481	29.00	355.70	4464.01	56	-8	55.90	5.46	5028	260	3308	1987	
4513	31.00	357.60	4491.72	72	-9	71.87	6.92	5012	275	3307	1988	
4544	32.50	358.00	4518.08	88	-10	88.18	4.89	4996	292	3306	1989	
4576	34.50	357.40	4544.76	106	-10	105.83	6.34	4978	309	3306	1989	
4607	37.20	356.30	4569.89	124	-11	123.96	8.95	4960	328	3305	1990	
4639	40.00	355.60	4594.89	144	-13	143.88	8.86	4940	347	3303	1992	
4670	43.40	356.50	4618.04	164	-14	164.46	11.14	4919	368	3302	1993	
4702	46.90	356.60	4640.60	187	-15	187.11	10.94	4897	391	3301	1994	
4734	50.20	357.40	4661.78	211	-17	211.06	10.48	4873	415	3300	1995	
4765	52.50	358.40	4681.14	235	-18	235.26	7.84	4849	439	3299	1996	
4797	55.10	359.00	4700.04	261	-18	261.08	8.26	4823	465	3299	1996	
4828	57.70	359.70	4717.19	287	-18	286.89	8.60	4797	491	3298	1996	
4860	59.70	0.20	4733.82	314	-18	314.24	6.39	4770	518	3299	1996	
4891	61.10	0.70	4749.13	341	-18	341.19	4.73	4743	545	3299	1996	
4923	63.20	0.60	4764.08	369	-18	369.47	6.57	4714	573	3299	1995	
4954	66.10	0.80	4777.35	397	-18	397.48	9.37	4686	601	3300	1995	
4986	68.70	1.00	4789.64	427	-17	427.01	8.15	4657	631	3301	1994	
5017	70.50	1.30	4800.45	456	-17	456.06	5.88	4628	660	3301	1993	
5049	72.70	1.00	4810.55	486	-16	486.41	6.93	4597	690	3302	1993	
5081	74.70	0.90	4819.53	517	-15	517.11	6.26	4567	721	3303	1992	
5112	76.40	1.00	4827.27	547	-15	547.12	5.49	4537	751	3303	1991	
5144	77.80	1.10	4834.41	578	-14	578.31	4.39	4506	782	3304	1990	
5175	79.00	1.40	4840.64	609	-14	608.66	3.99	4475	812	3305	1990	
5207	80.30	1.80	4846.39	640	-13	640.12	4.24	4444	844	3306	1989	
5238	82.00	2.00	4851.16	671	-12	670.73	5.52	4413	874	3307	1987	
5270	83.60	2.00	4855.17	702	-11	702.45	5.00	4381	906	3309	1986	
5302	84.90	2.00	4858.38	734	-10	734.26	4.06	4350	938	3310	1985	
5333	86.20	1.50	4860.78	765	-9	765.14	4.49	4319	969	3311	1984	
Top of Tangent @ 5353'	5365	87.90	1.30	4862.43	797	-8	797.08	5.35	4287	1001	3312	1983
	5396	88.60	1.40	4863.38	828	-7	828.05	2.28	4256	1032	3313	1982
	5428	89.60	1.30	4863.88	860	-6	860.04	3.14	4224	1064	3314	1981
	5460	90.50	1.50	4863.85	892	-6	892.02	2.88	4192	1096	3315	1980
	5492	91.40	1.60	4863.32	924	-5	924.00	2.83	4160	1128	3316	1979
Btm of Tangent @ 5553'	5523	92.40	1.90	4862.29	955	-4	954.96	3.37	4129	1159	3317	1977
	5555	92.10	1.90	4861.04	987	-3	986.91	0.94	4097	1191	3318	1976
	5587	91.50	1.70	4860.03	1019	-2	1018.87	1.98	4065	1222	3319	1975
	5679	90.20	1.40	4858.67	1111	1	1110.81	1.45	3973	1314	3322	1972
	5710	90.20	1.60	4858.56	1142	2	1141.79	0.65	3942	1345	3323	1971
	5742	89.20	2.00	4858.73	1174	3	1173.77	3.37	3910	1377	3325	1970
	5773	89.10	2.30	4859.19	1205	4	1204.73	1.02	3879	1408	3326	1968
	5805	88.90	1.90	4859.74	1237	5	1236.70	1.40	3847	1440	3327	1967

