

DEPT. NAT. RES. & ENV.
PE906658

WELL NAME:	YONA NO. 1	PEP100	ONSHORE	OTWAY BASIN	VICTORIA	AUSTRALIA				
LOCATION:	39.5755LAT/143.0326E						DATE:	7TH JULY	1988	
DEPTH	VSHGRG	NDPHI-	ARCHIE	SXO=1	SXO-SW	NETPAY	SUMFOR	NETPAY	SUMFOR	
TERT'Y	SC/HC	SW-46	ORIENTS	(Movable Gas)	SG*PHI	AVGGIP	SG*PHI	RECGAS		
1300.200	.162	.212	.439	.920	.481	.119	.119	.102	.102	
1300.400	.115	.262	.340	.703	.443	.173	.292	.116	.218	
1300.599	.102	.292	.289	.638	.348	.207	.500	.101	.320	
1300.800	.099	.206	.270	.649	.370	.206	.706	.106	.426	
1301.000	.082	.267	.259	.687	.428	.198	.904	.114	.541	
1301.200	.058	.254	.222	.676	.453	.198	1.102	.115	.656	
1301.400	.030	.256	.153	.511	.358	.217	1.319	.091	.748	
1301.599	.020	.245	.070	.236	.138	.221	1.540	.033	.782	
1301.800	.022	.275	.090	.290	.199	.205	1.746	.045	.827	
1302.000	.017	.218	.100	.709	.608	.196	1.942	.132	.960	
1302.200	.014	.217	.121	.707	.586	.190	2.133	.127	1.087	
1302.400	.015	.216	.143	.379	.235	.185	2.318	.050	1.130	
1302.599	.010	.212	.156	.619	.463	.179	2.498	.098	1.237	
1302.800	.010	.205	.167	.067	.699	.170	2.668	.143	1.380	
1303.000	.013	.191	.217	1.000	.783	.149	2.810	.149	1.530	
1303.200	.009	.179	.340	1.000	.659	.118	2.936	.118	1.648	
1303.400	.006	.185	.353	1.000	.646	.119	3.056	.119	1.767	
1303.599	.007	.204	.313	1.000	.686	.140	3.196	.140	1.908	
1303.800	.011	.211	.215	1.000	.784	.165	3.362	.165	2.074	
1304.000	.014	.209	.191	.990	.009	.171	3.534	.169	2.244	
1304.200	.014	.216	.114	1.000	.005	.191	3.725	.191	2.435	
1304.400	.014	.226	.071	1.000	.928	.210	3.735	.210	2.645	
1304.599	.012	.237	.059	1.000	.940	.223	4.158	.223	2.868	
1304.800	.011	.238	.063	1.000	.936	.223	4.382	.223	3.092	
1305.000	.013	.230	.096	1.000	.903	.208	4.590	.208	3.300	
1305.200	.015	.227	.153	1.000	.846	.192	4.782	.192	3.492	
1305.400	.017	.234	.172	.940	.768	.193	4.976	.180	3.672	
1305.599	.017	.240	.149	.853	.704	.204	5.101	.169	3.841	
1305.800	.012	.231	.080	.891	.810	.212	5.393	.187	4.029	
1306.000	.007	.224	.041	.926	.884	.215	5.609	.198	4.228	
1306.200	.009	.223	.034	1.000	.965	.215	5.825	.215	4.444	
1306.400	.010	.220	.034	1.000	.965	.213	6.038	.213	4.657	
1306.599	.010	.221	.036	.963	.927	.213	6.252	.205	4.863	
1306.800	.012	.221	.043	.740	.897	.211	6.464	.190	5.062	
1307.000	.014	.218	.056	.912	.856	.206	6.670	.187	5.249	
1307.200	.015	.220	.066	.903	.837	.206	6.877	.184	5.434	
1307.400	.013	.227	.073	.824	.750	.211	7.088	.171	5.605	
1307.599	.010	.236	.094	.766	.672	.214	7.302	.159	5.764	
1307.800	.014	.241	.126	.799	.672	.210	7.513	.162	5.927	
1308.000	.026	.244	.165	.846	.680	.203	7.717	.166	6.093	
1308.200	.034	.256	.163	.829	.665	.214	7.931	.170	6.264	
1308.400	.027	.260	.129	.721	.591	.226	8.158	.154	6.418	
1308.599	.020	.251	.080	.775	.694	.231	8.389	.175	6.593	
1308.800	.017	.241	.061	.845	.784	.226	8.616	.189	6.782	
1309.000	.016	.236	.052	.940	.887	.224	8.840	.210	6.992	
1309.200	.016	.232	.055	.765	.909	.219	9.059	.211	7.204	
1309.400	.016	.222	.062	.754	.891	.208	9.268	.198	7.402	
1309.599	.017	.205	.075	.943	.867	.189	9.458	.177	7.580	
1309.800	.018	.183	.099	.954	.854	.164	9.622	.156	7.737	
1310.000	.024	.139	.186	1.000	.813	.129	9.752	.129	7.867	
1312.599	.239	.191	.440	1.000	.559	.107	9.860	.107	7.974	
1312.800	.106	.262	.238	.936	.697	.199	10.059	.183	8.157	
1313.000	.076	.264	.227	.906	.678	.204	10.263	.179	8.336	
1313.200	.071	.258	.224	.910	.693	.200	10.464	.179	8.516	
1313.400	.056	.266	.189	.829	.639	.215	10.680	.170	8.686	
1314.599	.005	.285	.041	.654	.612	.273	12.209	.175	9.656	
1314.800	.003	.280	.030	.675	.645	.271	12.481	.180	9.837	
1315.000	.005	.261	.036	.697	.661	.251	12.732	.172	10.010	
1315.200	.008	.240	.055	.860	.813	.227	12.960	.195	10.205	
1315.400	.010	.222	.073	.850	.777	.206	13.166	.173	10.378	
1315.599	.012	.219	.080	.806	.725	.201	13.368	.159	10.538	
1315.800	.012	.218	.086	.808	.722	.199	13.567	.157	10.696	
1316.000	.011	.208	.095	.842	.746	.188	13.756	.155	10.851	
1316.200	.010	.196	.104	.882	.777	.175	13.932	.152	11.004	
1316.400	.009	.190	.111	.910	.799	.169	14.101	.152	11.156	
1316.599	.010	.171	.121	.709	.787	.168	14.269	.150	11.307	
1316.800	.013	.203	.130	.881	.750	.176	14.446	.152	11.459	
1317.000	.014	.222	.133	.795	.661	.192	14.638	.147	11.606	
1317.200	.015	.239	.123	.747	.624	.209	14.848	.149	11.756	
1317.400	.014	.250	.121	.737	.616	.220	15.069	.154	11.910	
1317.599	.013	.267	.123	.719	.596	.229	15.298	.156	12.067	
1317.800	.013	.270	.142	.788	.646	.231	15.530	.174	12.241	
1318.000	.017	.272	.170	.707	.536	.225	15.756	.146	12.387	
1318.200	.020	.276	.197	.780	.591	.221	15.977	.163	12.551	
1318.400	.022	.273	.204	.789	.584	.217	16.195	.159	12.711	
1318.599	.023	.272	.181	.684	.502	.223	16.418	.136	12.848	
1318.800	.020	.272	.140	.690	.542	.232	16.650	.148	12.996	
1319.000	.020	.276	.136	.786	.650	.238	16.889	.179	13.175	
1319.200	.026	.276	.153	.786	.633	.234	17.123	.175	13.351	
1319.400	.036	.278	.166	.818	.652	.231	17.355	.181	13.532	
1319.599	.048	.278	.178	.768	.590	.228	17.584	.164	13.696	
1319.800	.056	.278	.183	.758	.567	.227	17.811	.157	13.854	
1320.000	.057	.281	.195	.757	.561	.226	18.037	.157	14.012	
1320.200	.058	.284	.195	.748	.553	.228	18.266	.157	14.169	
1320.400	.058	.289	.183	.715	.532	.236	18.502	.154	14.323	
1320.599	.049	.295	.147	.723	.575	.251	18.754	.170	14.494	
1320.800	.035	.298	.130	.697	.566	.259	19.013	.160	14.662	
1321.000	.023	.298	.124	.748	.624	.261	19.275	.186	14.849	
1321.200	.019	.295	.123	.627	.504	.259	19.534	.149	14.998	
1321.400	.020	.285	.126	.656	.530	.249	19.784	.151	15.150	
1321.599	.026	.268	.142	.741	.590	.230	20.014	.161	15.311	
1321.800	.038	.231	.208	.770	.582	.182	20.197	.134	15.445	
1322.000	.083	.168	.415	1.000	.584	.098	20.296	.098	15.544	
1323.400	.213	.198	.460	1.000	.539	.107	20.403	.107	15.651	
1323.599	.164	.209	.446	1.000	.553	.116	20.520	.116	15.768	
1323.800	.124	.202	.449	1.000	.550	.111	20.631	.111	15.879	
1324.000	.097	.198	.452	1.000	.547	.108	20.739	.108	15.987	
1324.200	.092	.205	.450	1.000	.549	.113	20.852	.113	16.100	
1324.400	.104	.211	.443	1.000	.556	.117	20.970	.117	16.218	
1324.599	.118	.205	.464	1.000	.535	.109	21.088	.109	16.328	
MEANS:	4%	24%	17%			0.200761905		0.155504762		
						20.08%		15.55%		

Table 2
NET PAY
SUMMARY -
IONA No 1

(1255 to 1381m)
CUT-OFFS
Sw ≤ .5
φ ≥ .15
Vsh ≤ .3

21 M NET PAY
IN gross zone
1300.1 M to
1324.7 M

0.5 M net pay
(per cut offs)
m zone
1335.5 to 1335.9
discounted as
(a) isolated and
(b) relatively wet
(Sw = 49+%)

Re: (Sxo - Sw) vs Trapped G.
Annotated recovery
factors were
normalised to
log depths (CORE
DEPTH minus 2.6m =
log depth per core
photo correlation
to logs)
In every case,
(Sxo - Sw) is optimistic.

The average Δ
for log recovery vs
core recovery factors
is ~ .15 (significant!)
Recovery Factor =
 $\frac{(Sxo - Sw)}{(1 - Sw)} \times \phi$
77.44%

Vshgrc TERT'Y =
GR SHALE where
100 = 100% clean
100 = 100% shale
if 1 fm model (young,
uncompacted rocks) used

NDPHI SC/HC =
Density Neutron Crossplot
phi corrected for shale
and hydrocarbons

Sxo is that of Archie;
reset to 1 where
> 1.

(1 - Sxo) = residual gas
(1 - Sw) = gas saturation
Sw - (1 - Sxo) = movable
gas
simplifies to (Sxo - Sw)