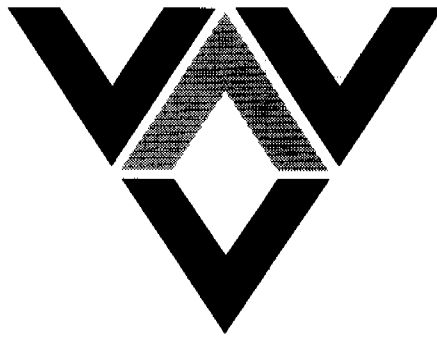


PR 90-119

8/8

Velocity Data



SYNTHETIC SEISMOGRAMS

BALDWIN #1

EP 12

Northern Territory

for

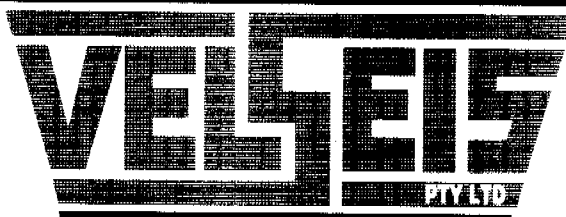
PACIFIC OIL & GAS PTY LTD

recorded by

VELOCITY DATA PTY. LTD.

processed by

BARCODE NO: PO 1147



Integrated Seismic Technologies

Brisbane, Australia
July 5, 1990

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Synthetic Seismogram Displays

SUMMARY

Synthetic seismograms have been produced for the Baldwin #1 well, EP 12, Northern Territories for Pacific Oil & Gas Pty Ltd.

These seismograms have been computed using a combination of check shot, sonic and density data. Velocity Data Pty Ltd acquired the check shot data and Century provided the other wireline services.

The sonic data was calibrated using the checkshot information. Reflection coefficients were derived from combinations of calibrated sonic and density data and then convolved with a number of wavelets to produce the synthetic seismogram. A number of trials were conducted and the most appropriate wavelets selected, a total of six seismograms accompany this report.

GENERAL INFORMATION

Name of Well	:	Balwin #1
Location	:	EP 12
Coordinates	:	Latitude 022 15' 47.30" Longitude 136 02' 18.14"
Velocity Survey	:	Velocity Data Pty Ltd
Wireline Logging	:	Century Unit 7741
Elevation of KB	:	349.0 metres above sea level
Elevation of Ground	:	345.0 metres above sea level
Elevation of Datum	:	337.0 metres above sea level
Casing depth	:	318.0 metres below KB
Borehole total depth	:	1117.3 metres below KB
Bit size	:	4.35 inches

CHECK SHOT DATA

Recorded by : Velocity Data Pty Ltd
Date : 1st February 1990.
Energy source : AN-60
Shot Location : Mud pit
Charge Size : 0.5 (125 grm) sticks
Average Shot Depth : 0.7 metres
Average Shot Offset : 32.5 metres
Number of shots used : 11
Number of levels recorded : 10

SONIC DATA

Recorded by : Century
Date : 31st January 1990.
Top logged interval : 127.9 metres below KB
Bottom logged interval : 1117.3 metres below KB
Logging units : Microseconds/metre
Comments : The sonic log was calibrated to check shot data from 127.9 metres down. The hole was cased to 318.0 metres.

DENSITY DATA

Recorded by : Century
Top logged interval : 96.4 metres below KB
Bottom logged interval : 1117.3 metres below KB
Logging units : Grams/cc

Calibration of Sonic Log - Method

Sonic times were adjusted to checkshot times using a linear correction of the sonic transit times.

These differences arise as the sonic tool measures the local velocity characteristics of the formation with a high frequency signal, whereas the downhole geophone records the bulk velocity character using a signal of significantly lower frequency.

Calibration of Sonic Log - Results

The discrepancies between shot and sonic interval velocities were generally small. The largest adjustment was 18.97 μ sec/metre on the interval 893 to 951 metres below KB.

In aggregate, the shot and sonic interval times differed by 1.0 msec over the logged portion of the well.

CALIBRATION OF DENSITY DATA

The density data is calibrated using the adjusted and integrated sonic time.

REFLECTION COEFFICIENT GENERATION

Reflection coefficients were generated from a combination of sonic and density data, as noted on the display. The display shows that the sonic data set has been extended to 1500.0 metres the reason for this is to maximize the range of the synthetic. Failure to extend the sonic in this fashion would be to truncate the synthetic by one half wavelength of the wavelet being convolved with the reflection coefficient series.

MULTIPLES

Only the primary response of the reflection coefficient series has been generated.

WAVELETS

Six wavelets were convolved with the reflection coefficient series to produce the seismograms:

- 1) Band Pass 10-40 Hz, Zero phase, Reverse Polarity.
- 2) Band Pass 10-55 Hz, Zero phase, Reverse Polarity.
- 3) Band Pass 10-70 Hz, Zero phase, Reverse Polarity.
- 4) Ricker 40 Hz, Zero Phase, Reverse Polarity.
- 5) Ricker 60 Hz, Zero Phase, Reverse Polarity.
- 6) Ricker 80 Hz, Zero Phase, Reverse Polarity.

The term reverse above converts the seismogram to the SEG convention - a positive reflection coefficient generates a trough

SEISMOGRAM DISPLAYS

The final displays show the contributing logs in schematic form, with time and depth scales. The seismogram is displayed for each wavelet, against two-way time below the check shot datum. Trace amplitudes are normalised against their maxima. A sub datum two-way time of 40.0 msec for the start of the sonic was taken from the check shot results.

The check shot datum that was chosen 337.0m ASL is the base of a low velocity weathering layer.

In the initial processing phase the seismic data was corrected to this same layer using a weathering velocity of 881 m/sec. The final sequence of processing corrected the seismic to a new datum 400m ASL using a replacement velocity of 3924 m/sec. We therefore expect a total static of:

$$-(W/VW) + (HND/RV)$$

$$-(8/881) + (63/3924) = 6.9 \text{ msec} \quad \text{That is } 13.8 \text{ msec TWT}$$

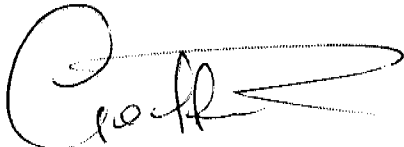
W = Depth of weathering below ground
 VW = Velocity of weathering layer
 HND = Height of New Datum (400) above weathering base
 RV = Replacement Velocity used in processing sequence

This is as per seismic section.

Now the correction to tie the synthetic to the seismic is calculated as follows:

$$(63/3924) = 16.05\text{msec} \quad \text{That is } 32.1 \text{ msec TWT}$$

The synthetic should be aligned to the seismic using this shift.



Geoffrey Bell.
 Geophysical Analyst.

TABLE 1.

Time-Depth curve values

Page 1.

Well : BALDWIN #1

Survey units : METRES

Calibrated sonic interval velocities used from 138.0 to 1104.0

Client : PACIFIC OIL & GAS PTY LIMITED

Datum : 337.0

Datum Depth	One-way time(ms)	-----VELOCITIES-----			Datum Depth	One-way time(ms)	-----VELOCITIES-----		
		Average	RMS	Interval			Average	RMS	Interval
2.0	0.4	4513	4513	4513	82.0	20.4	4016	4077	4760
4.0	0.9	4417	4418	4325	84.0	20.8	4031	4092	4761
6.0	1.4	4320	4323	4139	86.0	21.3	4045	4106	4762
8.0	1.9	4220	4225	3945	88.0	21.7	4059	4120	4762
10.0	2.4	4114	4123	3738	90.0	22.1	4073	4133	4763
12.0	3.0	4000	4014	3514	92.0	22.5	4086	4145	4763
14.0	3.6	3877	3899	3274	94.0	22.9	4098	4157	4764
16.0	4.3	3755	3785	3078	96.0	23.4	4110	4169	4764
18.0	4.9	3646	3683	2960	98.0	23.8	4121	4180	4764
20.0	5.6	3555	3596	2900	100.0	24.2	4133	4191	4765
22.0	6.3	3482	3526	2888	102.0	24.6	4143	4202	4765
24.0	7.0	3427	3471	2923	104.0	25.0	4154	4212	4766
26.0	7.7	3391	3434	3009	106.0	25.5	4164	4221	4767
28.0	8.3	3373	3414	3164	108.0	25.9	4174	4231	4768
30.0	8.9	3375	3412	3391	110.0	26.3	4183	4240	4769
32.0	9.4	3389	3425	3617	112.0	26.7	4192	4249	4771
34.0	10.0	3411	3446	3816	114.0	27.1	4201	4257	4773
36.0	10.5	3439	3474	3988	116.0	27.6	4210	4266	4776
38.0	11.0	3470	3506	4134	118.0	28.0	4219	4274	4780
40.0	11.4	3502	3540	4256	120.0	28.4	4227	4282	4784
42.0	11.9	3535	3575	4357	122.0	28.8	4235	4290	4790
44.0	12.3	3568	3610	4439	124.0	29.2	4243	4297	4798
46.0	12.8	3601	3645	4505	126.0	29.6	4251	4305	4807
48.0	13.2	3632	3679	4559	128.0	30.1	4259	4312	4819
50.0	13.6	3663	3712	4602	130.0	30.5	4267	4320	4835
52.0	14.1	3693	3744	4636	132.0	30.9	4275	4328	4855
54.0	14.5	3722	3774	4663	134.0	31.3	4283	4335	4881
56.0	14.9	3749	3803	4684	136.0	31.7	4291	4343	4915
58.0	15.4	3776	3831	4701	138.0	32.2	4286	4353	4958
60.0	15.8	3801	3857	4715	140.0	32.7	4277	4344	3739
62.0	16.2	3825	3882	4725	142.0	33.2	4281	4347	4537
64.0	16.6	3848	3906	4733	144.0	33.6	4287	4353	4817
66.0	17.1	3870	3929	4740	146.0	34.0	4292	4357	4664
68.0	17.5	3891	3951	4745	148.0	34.4	4300	4365	4984
70.0	17.9	3911	3971	4749	150.0	34.8	4307	4371	4881
72.0	18.3	3931	3991	4752	152.0	35.3	4311	4374	4601
74.0	18.7	3949	4010	4755	154.0	35.7	4313	4376	4516
76.0	19.2	3967	4028	4757	156.0	36.2	4313	4375	4305
78.0	19.6	3984	4045	4758	158.0	36.6	4321	4383	5072
80.0	20.0	4000	4061	4759	160.0	37.0	4326	4387	4749

Well : BALDWIN #1

Client : PACIFIC OIL & GAS PTY LIMITED

Survey units : METRES

Datum : 337.0

Calibrated sonic interval velocities used from 138.0 to 1104.0

Datum Depth	One-way time(ms)	-----VELOCITIES-----			Datum Depth	One-way time(ms)	-----VELOCITIES-----		
		Average	RMS	Interval			Average	RMS	Interval
162.0	37.3	4338	4400	5522	242.0	54.2	4467	4518	5544
164.0	37.8	4338	4399	4326	244.0	54.6	4472	4524	5238
166.0	38.2	4341	4402	4661	246.0	55.0	4474	4526	4795
168.0	38.7	4346	4407	4817	248.0	55.4	4479	4530	5098
170.0	39.1	4353	4413	4956	250.0	55.8	4482	4534	4977
172.0	39.5	4354	4413	4442	252.0	56.2	4488	4539	5287
174.0	39.9	4357	4416	4657	254.0	56.6	4491	4543	4979
176.0	40.3	4364	4423	5129	256.0	57.0	4495	4546	4962
178.0	40.8	4362	4420	4119	258.0	57.3	4499	4550	5134
180.0	41.3	4357	4415	4021	260.0	57.7	4503	4553	5038
182.0	41.8	4358	4415	4427	262.0	58.1	4507	4558	5213
184.0	42.2	4361	4417	4590	264.0	58.5	4511	4562	5082
186.0	42.6	4364	4420	4690	266.0	58.9	4517	4567	5364
188.0	43.0	4370	4425	4995	268.0	59.3	4521	4572	5267
190.0	43.5	4371	4427	4534	270.0	59.6	4528	4579	5671
192.0	43.9	4370	4425	4236	272.0	60.0	4535	4587	5747
194.0	44.4	4373	4427	4693	274.0	60.4	4539	4590	5078
196.0	44.8	4376	4429	4650	276.0	60.8	4541	4592	4848
198.0	45.2	4376	4430	4435	278.0	61.2	4545	4596	5231
200.0	45.7	4372	4425	3953	280.0	61.5	4552	4604	5833
202.0	46.2	4373	4426	4561	282.0	61.9	4555	4606	4890
204.0	46.6	4376	4428	4695	284.0	62.3	4561	4613	5762
206.0	47.0	4385	4437	5428	286.0	62.6	4566	4618	5268
208.0	47.4	4388	4440	4795	288.0	63.0	4569	4621	5108
210.0	47.8	4389	4441	4516	290.0	63.4	4573	4625	5201
212.0	48.3	4389	4440	4302	292.0	63.8	4577	4629	5345
214.0	48.7	4391	4442	4672	294.0	64.1	4584	4636	5740
216.0	49.1	4399	4450	5413	296.0	64.5	4590	4642	5652
218.0	49.5	4405	4456	5200	298.0	64.9	4592	4645	5029
220.0	49.8	4414	4466	5693	300.0	65.3	4593	4645	4730
222.0	50.3	4416	4468	4682	302.0	65.7	4593	4645	4597
224.0	50.7	4418	4470	4674	304.0	66.1	4598	4650	5536
226.0	51.1	4418	4469	4416	306.0	66.5	4599	4651	4710
228.0	51.5	4425	4476	5266	308.0	67.0	4600	4651	4689
230.0	51.9	4430	4482	5197	310.0	67.3	4604	4655	5362
232.0	52.3	4436	4487	5209	312.0	67.7	4606	4657	5015
234.0	52.7	4443	4494	5375	314.0	68.2	4605	4656	4393
236.0	53.1	4448	4500	5235	316.0	68.6	4608	4658	5124
238.0	53.4	4454	4506	5244	318.0	68.9	4616	4668	6382
240.0	53.8	4459	4511	5171	320.0	69.3	4617	4668	4782

TABLE 1.

Time-Depth curve values

Page 3.

Well : BALDWIN #1

Client : PACIFIC OIL & GAS PTY LIMITED

Survey units : METRES

Datum : 337.0

Calibrated sonic interval velocities used from 138.0 to 1104.0

Datum Depth	One-way time(ms)	-----VELOCITIES-----			Datum Depth	One-way time(ms)	-----VELOCITIES-----		
		Average	RMS	Interval			Average	RMS	Interval
322.0	69.6	4623	4675	5938	402.0	83.8	4795	4856	6153
324.0	70.0	4628	4681	5615	404.0	84.2	4799	4860	5848
326.0	70.4	4630	4682	4917	406.0	84.5	4803	4864	5756
328.0	70.8	4631	4682	4728	408.0	84.9	4808	4869	6057
330.0	71.2	4635	4687	5449	410.0	85.2	4813	4876	6290
332.0	71.6	4638	4689	5135	412.0	85.5	4819	4881	6228
334.0	72.0	4640	4691	5080	414.0	85.8	4823	4886	5866
336.0	72.4	4644	4695	5418	416.0	86.2	4827	4890	5919
338.0	72.7	4647	4698	5239	418.0	86.4	4837	4903	6224
340.0	73.1	4651	4703	5523	420.0	86.7	4843	4909	6432
342.0	73.5	4655	4706	5310	422.0	87.1	4847	4914	5996
344.0	73.8	4660	4711	5643	424.0	87.4	4852	4919	6316
346.0	74.2	4664	4716	5570	426.0	87.7	4857	4925	6219
348.0	74.6	4667	4718	5262	428.0	88.0	4862	4930	6138
350.0	74.8	4678	4732	7744	430.0	88.4	4866	4934	5983
352.0	75.2	4681	4736	5374	432.0	88.7	4869	4937	5571
354.0	75.5	4687	4742	5913	434.0	89.1	4871	4939	5415
356.0	75.9	4692	4747	5812	436.0	89.4	4875	4943	5923
358.0	76.2	4698	4753	6062	438.0	89.8	4880	4948	6030
360.0	76.5	4704	4760	6129	440.0	90.1	4884	4952	5936
362.0	76.9	4705	4761	4888	442.0	90.4	4889	4958	6556
364.0	77.3	4708	4765	5490	444.0	90.7	4894	4963	6270
366.0	77.7	4713	4769	5618	446.0	91.0	4900	4970	6772
368.0	78.0	4715	4772	5305	448.0	91.5	4898	4967	4384
370.0	78.4	4719	4775	5533	450.0	91.8	4902	4972	6123
372.0	78.8	4723	4779	5543	452.0	92.1	4908	4979	6780
374.0	79.1	4729	4786	6144	454.0	92.4	4914	4986	6753
376.0	79.4	4734	4791	5971	456.0	92.7	4920	4992	6722
378.0	79.8	4740	4797	6128	458.0	93.0	4925	4999	6719
380.0	80.1	4743	4801	5512	460.0	93.3	4930	5003	6120
382.0	80.5	4748	4806	5814	462.0	93.7	4933	5006	5794
384.0	80.8	4753	4811	5973	464.0	94.0	4936	5009	5836
386.0	81.2	4755	4814	5312	466.0	94.3	4943	5017	7150
388.0	81.5	4760	4818	5772	468.0	94.6	4949	5025	7112
390.0	81.8	4766	4825	6367	470.0	94.8	4956	5032	7145
392.0	82.2	4771	4830	5987	472.0	95.1	4962	5039	7089
394.0	82.5	4777	4836	6247	474.0	95.4	4966	5044	6306
396.0	82.8	4782	4842	6034	476.0	95.8	4971	5049	6314
398.0	83.2	4784	4844	5316	478.0	96.1	4975	5053	6246
400.0	83.5	4790	4850	6201	480.0	96.4	4979	5057	6003

TABLE 1.

Time-Depth curve values

Page 4.

Well : BALDWIN #1

Client : PACIFIC OIL & GAS PTY LIMITED

Survey units : METRES

Datum : 337.0

Calibrated sonic interval velocities used from 138.0 to 1104.0

Datum Depth	One-way time(ms)	-----VELOCITIES-----			Datum Depth	One-way time(ms)	-----VELOCITIES-----		
		Average	RMS	Interval			Average	RMS	Interval
482.0	96.7	4984	5063	6590	562.0	111.1	5057	5130	5611
484.0	97.0	4990	5069	6975	564.0	111.5	5059	5132	5684
486.0	97.3	4995	5075	6792	566.0	111.8	5061	5134	5834
488.0	97.6	5000	5081	6653	568.0	112.2	5063	5136	5725
490.0	98.0	5002	5083	5622	570.0	112.5	5065	5138	5734
492.0	98.3	5004	5085	5526	572.0	112.9	5067	5140	5620
494.0	98.7	5007	5087	5621	574.0	113.3	5068	5141	5434
496.0	99.0	5008	5088	5299	576.0	113.6	5070	5143	5644
498.0	99.4	5008	5088	5088	578.0	114.0	5072	5144	5575
500.0	99.8	5008	5087	5014	580.0	114.3	5074	5146	5825
502.0	100.2	5010	5089	5432	582.0	114.7	5076	5148	5606
504.0	100.6	5010	5088	5057	584.0	115.0	5077	5149	5556
506.0	101.0	5009	5088	4929	586.0	115.4	5079	5151	5639
508.0	101.4	5010	5088	5053	588.0	115.7	5080	5152	5460
510.0	101.8	5011	5089	5384	590.0	116.1	5081	5153	5521
512.0	102.2	5012	5090	5340	592.0	116.4	5085	5156	6266
514.0	102.5	5014	5091	5390	594.0	116.8	5086	5157	5522
516.0	102.9	5016	5093	5598	596.0	117.1	5089	5160	6011
518.0	103.2	5017	5094	5446	598.0	117.5	5091	5163	6116
520.0	103.6	5020	5096	5775	600.0	117.8	5095	5166	6275
522.0	103.9	5023	5100	5995	602.0	118.1	5097	5169	5994
524.0	104.3	5024	5100	5263	604.0	118.5	5099	5170	5531
526.0	104.7	5025	5101	5438	606.0	118.8	5102	5173	6236
528.0	105.0	5026	5103	5411	608.0	119.1	5104	5175	5957
530.0	105.4	5028	5103	5315	610.0	119.5	5106	5178	5976
532.0	105.8	5029	5105	5569	612.0	119.8	5109	5180	6016
534.0	106.1	5033	5108	6076	614.0	120.1	5112	5183	6166
536.0	106.4	5036	5112	6284	616.0	120.4	5114	5186	5964
538.0	106.8	5039	5115	5906	618.0	120.8	5116	5188	5928
540.0	107.1	5040	5116	5443	620.0	121.1	5119	5190	5896
542.0	107.5	5041	5116	5235	622.0	121.5	5121	5192	5897
544.0	107.9	5042	5117	5376	624.0	121.8	5123	5194	5888
546.0	108.2	5045	5119	5722	626.0	122.1	5125	5196	5833
548.0	108.6	5046	5121	5580	628.0	122.5	5127	5198	5900
550.0	109.0	5047	5122	5374	630.0	122.8	5129	5200	5801
552.0	109.3	5050	5124	5702	632.0	123.2	5131	5202	5792
554.0	109.7	5051	5125	5531	634.0	123.5	5133	5203	5743
556.0	110.1	5052	5126	5218	636.0	123.9	5134	5205	5736
558.0	110.4	5053	5127	5413	638.0	124.2	5135	5206	5505
560.0	110.8	5055	5129	5731	640.0	124.6	5137	5207	5746

Well : BALDWIN #1

Survey units : METRES

Calibrated sonic interval velocities used from 138.0 to 1104.0

Client : PACIFIC OIL & GAS PTY LIMITED

Datum : 337.0

Datum Depth	One-way time(ms)	-----VELOCITIES-----			Datum Depth	One-way time(ms)	-----VELOCITIES-----		
		Average	RMS	Interval			Average	RMS	Interval
642.0	124.9	5139	5210	6005	722.0	139.2	5188	5254	5358
644.0	125.3	5141	5211	5659	724.0	139.5	5189	5254	5507
646.0	125.6	5143	5212	5764	726.0	139.9	5189	5254	5197
648.0	126.0	5145	5215	5995	728.0	140.3	5190	5254	5386
650.0	126.3	5147	5216	5812	730.0	140.6	5190	5255	5377
652.0	126.6	5149	5219	6179	732.0	141.0	5191	5256	5550
654.0	127.0	5151	5221	5969	734.0	141.3	5193	5257	5829
656.0	127.3	5153	5223	5735	736.0	141.7	5194	5258	5699
658.0	127.6	5155	5225	5900	738.0	142.1	5195	5259	5599
660.0	128.0	5156	5226	5557	740.0	142.4	5196	5260	5691
662.0	128.4	5157	5226	5489	742.0	142.8	5198	5261	5723
664.0	128.7	5158	5227	5554	744.0	143.1	5199	5262	5611
666.0	129.1	5160	5229	5912	746.0	143.5	5200	5264	5784
668.0	129.4	5162	5231	5966	748.0	143.8	5201	5264	5597
670.0	129.7	5164	5233	5746	750.0	144.2	5202	5265	5566
672.0	130.1	5166	5234	5844	752.0	144.5	5203	5266	5763
674.0	130.4	5167	5236	5652	754.0	144.9	5204	5267	5467
676.0	130.8	5168	5236	5434	756.0	145.2	5205	5268	5555
678.0	131.1	5170	5239	6151	758.0	145.6	5206	5269	5775
680.0	131.5	5170	5239	5201	760.0	146.0	5207	5270	5618
682.0	131.9	5171	5240	5636	762.0	146.3	5208	5270	5493
684.0	132.3	5172	5240	5237	764.0	146.7	5209	5272	5777
686.0	132.6	5172	5240	5387	766.0	147.0	5210	5273	5660
688.0	133.0	5172	5240	5229	768.0	147.4	5211	5273	5605
690.0	133.4	5173	5240	5195	770.0	147.7	5212	5274	5580
692.0	133.8	5174	5241	5557	772.0	148.1	5213	5275	5687
694.0	134.1	5174	5241	5497	774.0	148.4	5215	5276	5752
696.0	134.5	5175	5242	5454	776.0	148.8	5216	5278	5807
698.0	134.9	5175	5242	5251	778.0	149.1	5217	5279	5874
700.0	135.2	5176	5242	5301	780.0	149.5	5219	5281	5845
702.0	135.6	5176	5242	5326	782.0	149.8	5220	5282	5852
704.0	136.0	5178	5244	5749	784.0	150.2	5221	5282	5484
706.0	136.3	5179	5245	5579	786.0	150.5	5222	5284	5777
708.0	136.7	5180	5246	5637	788.0	150.9	5223	5284	5660
710.0	137.0	5181	5247	5671	790.0	151.2	5225	5286	5792
712.0	137.4	5183	5248	5810	792.0	151.5	5226	5287	5919
714.0	137.7	5184	5249	5614	794.0	151.9	5227	5288	5795
716.0	138.1	5185	5250	5638	796.0	152.2	5229	5290	5755
718.0	138.4	5187	5252	5917	798.0	152.6	5230	5291	5943
720.0	138.8	5188	5253	5676	800.0	152.9	5232	5292	5831

TABLE 1.

Time-Depth curve values

Page 6.

Well : BALDWIN #1

Client : PACIFIC OIL & GAS PTY LIMITED

Survey units : METRES

Datum : 337.0

Calibrated sonic interval velocities used from 138.0 to 1104.0

Datum Depth	One-way time(ms)	-----VELOCITIES-----			Datum Depth	One-way time(ms)	-----VELOCITIES-----		
		Average	RMS	Interval			Average	RMS	Interval
802.0	153.3	5233	5294	5883	882.0	167.6	5263	5321	5882
804.0	153.6	5234	5295	5900	884.0	168.0	5263	5321	5346
806.0	153.9	5235	5296	5693	886.0	168.3	5264	5322	5696
808.0	154.3	5236	5297	5670	888.0	168.7	5265	5323	5586
810.0	154.7	5237	5298	5622	890.0	169.0	5265	5323	5481
812.0	155.0	5238	5298	5450	892.0	169.4	5266	5324	5734
814.0	155.4	5239	5299	5547	894.0	169.7	5269	5326	6670
816.0	155.7	5239	5299	5503	896.0	170.0	5270	5327	5745
818.0	156.1	5240	5300	5576	898.0	170.4	5271	5328	5648
820.0	156.5	5241	5301	5690	900.0	170.7	5272	5329	5808
822.0	156.8	5242	5302	5649	902.0	171.2	5270	5327	4599
824.0	157.2	5243	5302	5541	904.0	171.5	5270	5327	5375
826.0	157.5	5244	5303	5669	906.0	171.9	5270	5328	5367
828.0	157.9	5244	5304	5663	908.0	172.3	5271	5328	5376
830.0	158.2	5245	5305	5665	910.0	172.6	5272	5328	5732
832.0	158.6	5246	5305	5609	912.0	173.0	5272	5329	5387
834.0	159.0	5247	5306	5452	914.0	173.3	5273	5329	5709
836.0	159.3	5248	5306	5624	916.0	173.7	5273	5329	5367
838.0	159.7	5248	5307	5624	918.0	174.1	5273	5330	5402
840.0	160.0	5250	5308	5781	920.0	174.4	5274	5331	5879
842.0	160.4	5251	5309	5713	922.0	174.8	5275	5331	5368
844.0	160.7	5252	5311	6042	924.0	175.2	5274	5330	5104
846.0	161.0	5253	5312	5761	926.0	175.6	5274	5330	5258
848.0	161.4	5255	5313	5891	928.0	176.0	5274	5330	5177
850.0	161.7	5256	5314	5831	930.0	176.4	5274	5329	5085
852.0	162.1	5257	5315	5691	932.0	176.7	5274	5330	5681
854.0	162.4	5259	5317	6159	934.0	177.1	5275	5331	5671
856.0	162.7	5260	5318	5849	936.0	177.4	5277	5333	6236
858.0	163.1	5260	5318	5538	938.0	177.7	5278	5333	5616
860.0	163.5	5262	5319	5762	940.0	178.0	5279	5335	6311
862.0	163.8	5263	5321	5784	942.0	178.4	5282	5337	6513
864.0	164.2	5262	5319	4863	944.0	178.7	5283	5339	6252
866.0	164.6	5262	5319	5252	946.0	179.0	5285	5341	6547
868.0	165.0	5262	5319	5341	948.0	179.3	5287	5343	6295
870.0	165.4	5261	5319	5024	950.0	179.6	5289	5345	6166
872.0	165.7	5263	5321	6436	952.0	180.0	5290	5346	6125
874.0	166.1	5262	5319	4554	954.0	180.3	5292	5348	6346
876.0	166.6	5259	5317	4343	956.0	180.6	5294	5350	6048
878.0	167.0	5259	5316	5097	958.0	180.9	5295	5350	5781
880.0	167.2	5262	5320	7295	960.0	181.3	5295	5350	5317

TABLE 1.

Time-Depth curve values

Page 7.

Well : BALDWIN #1

Client : PACIFIC OIL & GAS PTY LIMITED

Survey units : METRES

Datum : 337.0

Calibrated sonic interval velocities used from 138.0 to 1104.0

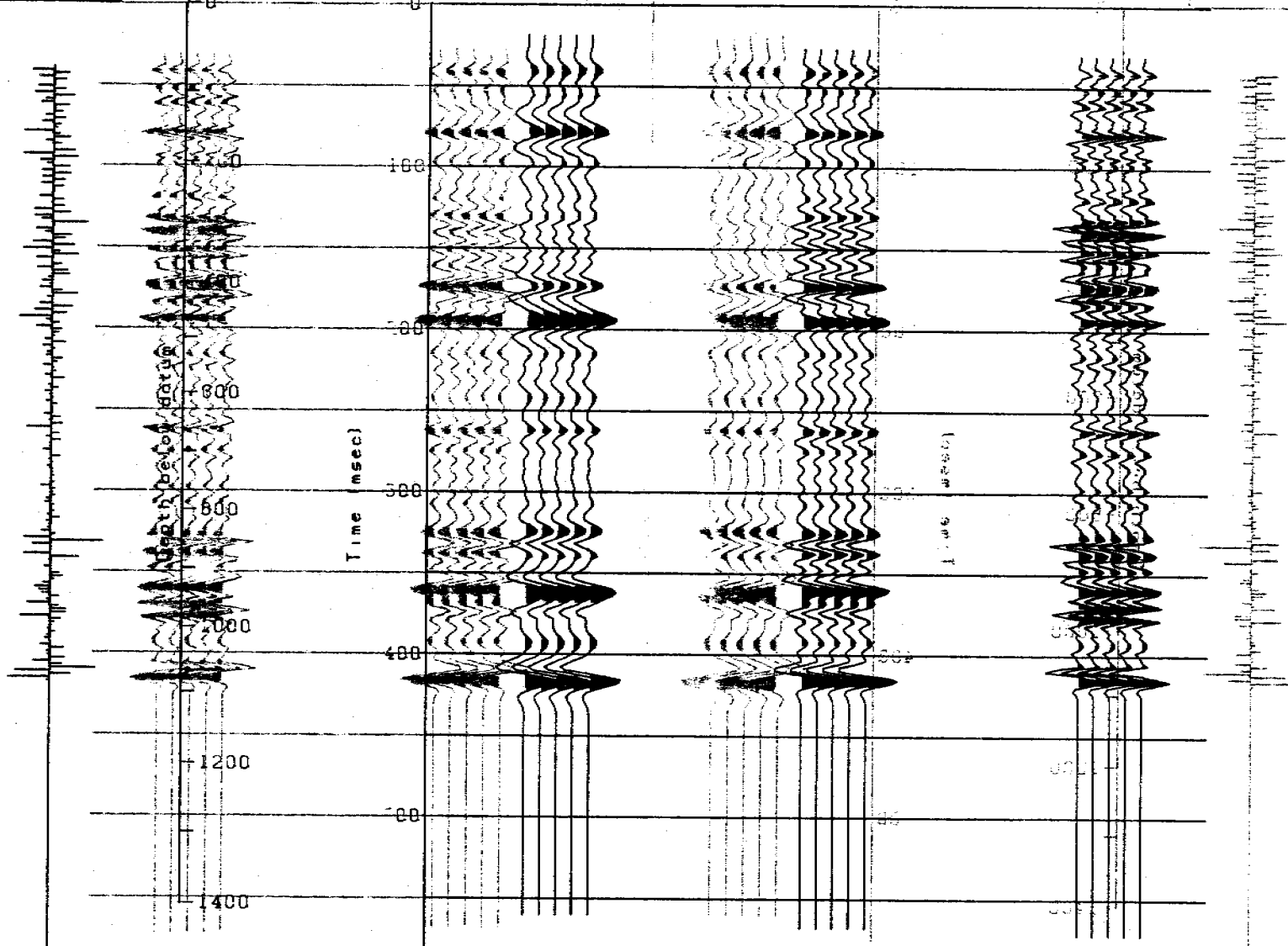
Datum Depth	One-way time(ms)	-----VELOCITIES-----			Datum Depth	One-way time(ms)	-----VELOCITIES-----		
		Average	RMS	Interval			Average	RMS	Interval
962.0	181.7	5294	5350	5105	1034.0	195.9	5278	5332	5927
964.0	182.1	5294	5350	5259	1036.0	196.3	5277	5331	4943
966.0	182.5	5293	5348	4726	1038.0	196.7	5277	5330	4956
968.0	182.9	5293	5348	5378	1040.0	197.1	5276	5329	4784
970.0	183.2	5293	5349	5504	1042.0	197.6	5274	5327	4407
972.0	183.6	5294	5349	5551	1044.0	198.0	5273	5327	5059
974.0	184.0	5294	5349	5187	1046.0	198.4	5272	5326	4914
976.0	184.4	5293	5348	5040	1048.0	198.8	5271	5324	4611
978.0	184.8	5293	5348	5275	1050.0	199.2	5270	5324	4866
980.0	185.2	5291	5346	4571	1052.0	199.6	5271	5325	5868
982.0	185.6	5292	5347	5521	1054.0	200.0	5271	5324	5090
984.0	186.1	5289	5344	4160	1056.0	200.4	5270	5323	4908
986.0	186.4	5290	5345	5900	1058.0	200.8	5269	5323	4991
988.0	186.7	5292	5347	6576	1060.0	201.2	5269	5322	4902
990.0	187.1	5291	5346	4651	1062.0	201.6	5268	5321	4851
992.0	187.5	5290	5345	4820	1064.0	202.0	5267	5320	4885
994.0	188.0	5288	5343	4796	1066.0	202.4	5266	5319	4837
996.0	188.3	5290	5345	5964	1068.0	202.8	5267	5320	5819
998.0	188.7	5289	5344	5099	1070.0	203.1	5267	5320	5336
1000.0	189.0	5290	5344	5559	1072.0	203.5	5267	5319	4939
1002.0	189.5	5288	5342	4351	1074.0	203.9	5268	5321	6205
1004.0	189.9	5286	5340	4484	1076.0	204.3	5267	5319	4630
1006.0	190.3	5286	5340	5283	1078.0	204.6	5268	5320	5815
1008.0	190.8	5284	5339	4578	1080.0	205.0	5268	5320	5410
1010.0	191.2	5283	5338	4851	1082.0	205.4	5269	5321	5635
1012.0	191.6	5282	5336	4671	1084.0	205.7	5269	5321	5567
1014.0	192.0	5281	5336	5056	1086.0	206.0	5271	5324	6940
1016.0	192.4	5282	5336	5443	1088.0	206.4	5272	5325	5753
1018.0	192.7	5282	5337	5669	1090.0	206.7	5273	5325	5635
1020.0	193.1	5282	5336	5107	1092.0	207.1	5274	5326	5815
1022.0	193.5	5280	5335	4634	1094.0	207.4	5275	5327	5757
1024.0	194.0	5279	5334	4773	1096.0	207.8	5276	5328	5863
1026.0	194.4	5278	5332	4698	1098.0	208.0	5278	5330	6867
1028.0	194.8	5278	5332	5436	1100.0	208.4	5279	5331	5962
1030.0	195.2	5278	5332	5073	1102.0	208.8	5278	5331	4928
1032.0	195.6	5277	5331	4745	1104.0	209.2	5277	5330	4825

Sonic log
260 90

Density log
2.0 4.0

Refl. coeffs
-0.3 0.3

27900 1.152
0.0 0.0



1
400
Zero phase

2
400
40Hz
Zero phase

3
400
60Hz
Zero phase

4
400
80Hz
Zero phase

SYNTHETIC SEISMOGRAM

BALDWIN #1

COMPANY - PACIFIC OIL & GAS PTY LIMITED
AREA - HUCKITTA, EP12

- 1 Primaries only
- 2 Primaries only
- 3 Primaries only

Reflection coeffs. calculated
from SONIC / SONIC & DENSITY data.



SYNTHETIC SEISMOGRAM

BALDWIN #1

COMPANY - PACIFIC OIL & GAS PTY LIMITED
 AREA - HUCKITTA, EP12

- ① Primaries only
- ② Primaries only
- ③ Primaries only

Reflection coeffs. calculated
 from SONIC / SONIC & DENSITY data.

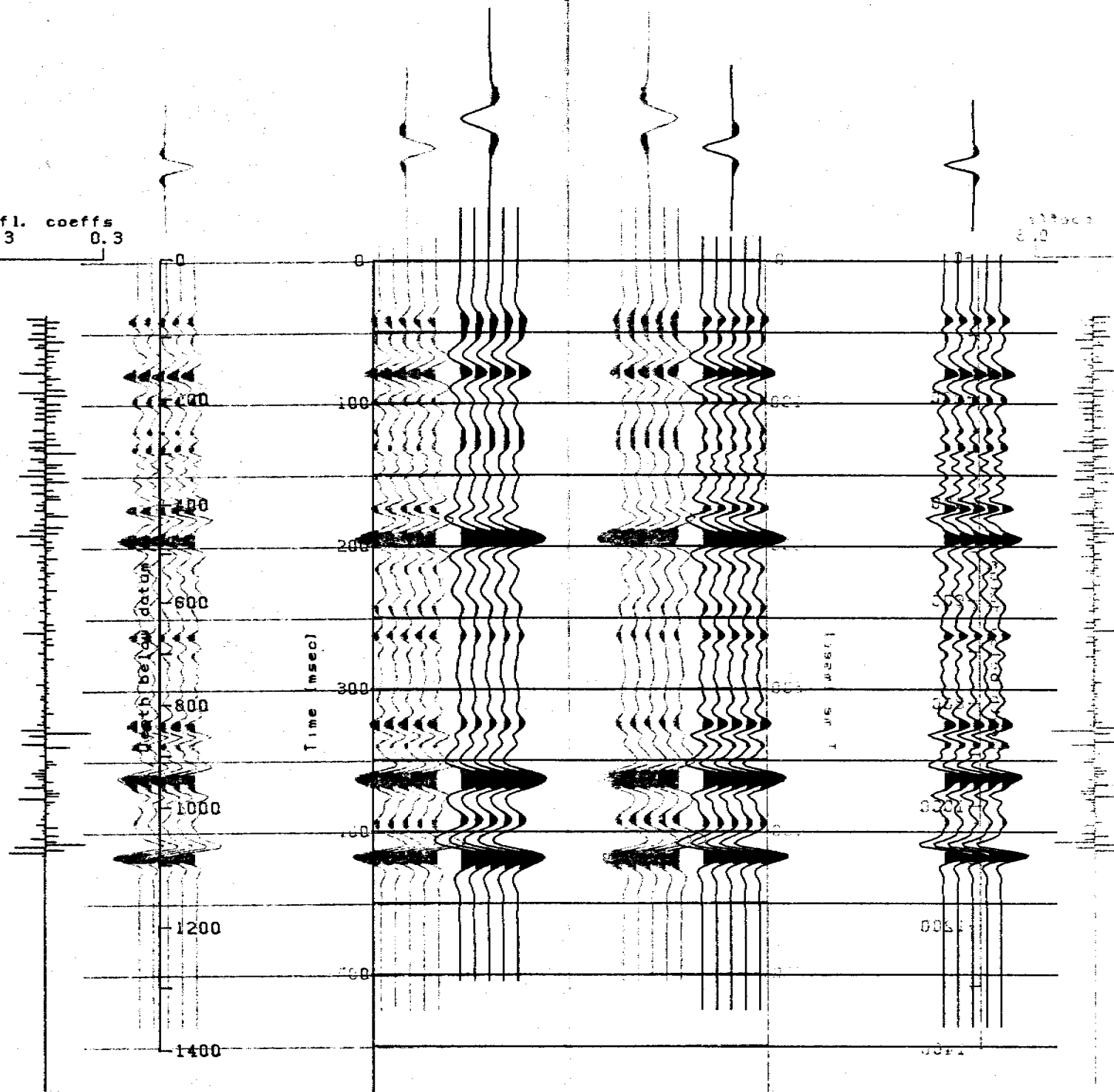
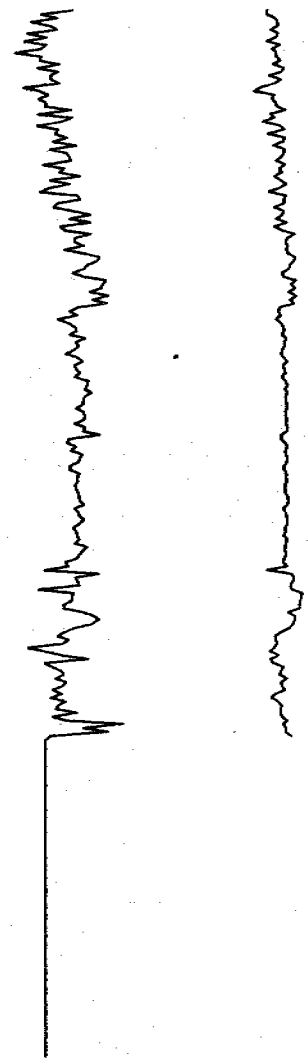


Sonic log
280 90

Density log
2.0 4.0

Refl. coeffs
-0.3 0.3

Time (msec)



⑤
SP07-01
Sonic log

③ ①
SP08-0110-40Hz
Sonic log Zero phase

① ②
SP08-0110-55Hz
Sonic log Zero phase

③
10-70Hz
Zero phase