

**BASS BASIN  
"ORGANIC ANALYSIS OF CORES"**

**Esso Production Research Co., 1967**

**OR - 019**

SUMMARY OF ORGANIC ANALYSIS OF SAMPLES FROM THE BASS BASIN

By Esso Production Research Co.

The following tables summarize the analysis of samples from the Bass Basin carried out by Esso Production Research Company.

The tables given indicate organic analysis of -

- (i) Core samples from Bass-1
- (ii) Core samples from Bass-2
- (iii) Core samples from Bass-3
- (iv) Cuttings from Bass-1 (including gas at top of cans).  
Tables I-A to I-C
- (v) Cuttings from Bass-2 (including gas at top of cans).  
Tables II-A to II-C

ORGANIC ANALYSIS OF CORES FROM

ESSO BASS-1 WELL

EPR No.	Depth feet	Age	% Total Organic Matter	C8-C14 ppm	C8-C14 as % of T. O. M.
66-ES2	3911	Oligocene	0.48	22	0.5
	4429		0.92	45	0.5
	4858		1.01	46	0.5
66-ES2	5397	Eocene	2.45	267	1.1
	5882		4.42	239	0.5

005003

SAMPLE DESCRIPTIONS AND ANALYTICAL RESULTS

CORE SAMPLES FROM ESSO BASS-2 WELL

EPR No.	Core No.	Depth feet	Age	Lithology	GSA Color Code	% Total Organic Matter	ppm C15+ Hydrocarbons ppm	ppm C8-C14 Hydrocarbons	C15+ as % of T. O. M.	C8-C14 as % T O. M.	ppm C4-C7 Hydrocarbons
54012-A	2	3050	Oligocene	Mudstone, pale brown and med. dark grey, very silty & sandy, calcareous.	10YR 5/2 N4	0.61	89	65	1.5	1.1	0.1
54012-B	4	3800	Upper Eocene	Claystone, dark to medium grey, thin discontinuous laminae of silt.	N3-N5	2.04	179	483	0.9	2.4	Trace *
54012-C	4	3822	Upper Eocene	Claystone, olive black to brownish grey, silty, small lenses of fine sand, resembles oil-stained sand.	5Y 2/1 5YR 4/1	2.11	218	491	1.0	2.3	1.3
54013-A	5	4138	Upper Eocene	Siltstone, dark grey to olive grey, argillaceous, irregular silt & clay laminae, abundant carbonized plant fragments.	N3-5Y 4/1	5.00	583	266	1.2	0.5	4.5
54013-B	5	4141	Upper Eocene	Siltstone, olive grey & pale yellowish brown, clay & silt laminae, carbonized films on partings.	5Y 4/1 10 YR 6/2	3.90	515	312	1.3	0.8	2.4 *
54013-C	8	5075	Paleocene	Shale, med. to med. dark grey, a few thin silt laminae, trace pyrite.	N4-N5	2.03	250	173	1.2	0.9	5.1

\* Values are possibly low because these cans were punctured during shipment, allowing the samples to dry partially.

005004

ORGANIC ANALYSIS OF FOUR CORES FROM

ESSO BASS-3 WELL

EPR No.	Depth Feet	Core No.	Age	Lithology	GSA Color Code	% Total Organic Matter	C15+ Hydrocarbons ppm	C4-C7 ppm	C8-C14 ppm	C15+ as % of T.O.M.	C8-C14 as % of T.O.M.
53957-A	3997-4022	3	Oligocene	Marl, med. light gray; fine skeletal debris (forams) in clay matrix, poorly cemented, porous.	N6	0.70	44	0.3	120	0.6	1.7
53957-B	4516-4539	4	Oligocene	Shale, brownish black; some areas on fracture surfaces have a resinous luster.	5YR-2/1	2.77	257	12.5	192	0.9	0.7
53958	5009-5039	5	Upper Eocene	Siltstone, olive grey; numerous very thin dark anastomosing argillaceous partings.	5Y - 4/1	2.95	258	4.4	196	0.9	0.7
53959	6924	10	Eocene Paleocene	Claystone, olive grey; scattered carbonized plant remains.	5Y-4/1	2.60	184	25.9	223	0.7	0.9

005005



TABLE I-B ESSO BASS-1

C<sub>1</sub>-C<sub>4</sub> HYDROCARBON ANALYSES - CUTTINGS ONLY

SAMPLE NUMBER	R	DEPTH	GAS CONCENTRATION (VOLUME GAS PER MILLION VOLUMES CUTTINGS)							GAS COMPOSITION (PERCENT)										NOTES
			METHANE (C <sub>1</sub> )	ETHANE (C <sub>2</sub> )	PROPANE (C <sub>3</sub> )	ISO-BUTANE (iC <sub>4</sub> )	NORMAL BUTANE (nC <sub>4</sub> )	WET (C <sub>2</sub> -C <sub>4</sub> )	TOTAL (C <sub>1</sub> -C <sub>4</sub> )	TOTAL GAS					WET GAS					
										C <sub>2</sub> -C <sub>4</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	iC <sub>4</sub>	nC <sub>4</sub>	C <sub>2</sub>	C <sub>3</sub>	iC <sub>4</sub>	nC <sub>4</sub>	
53706A	7	900	31.12	1.95	1.33	1.98	2.19	7.45	38.57	19.3155	81.	5.	3.	5.	6.	26.18	27.29.			
53706B	7	1000	34.69	2.19	3.31	2.82	3.99	12.31	47.00	26.1915	74.	5.	7.	6.	8.	18.27	23.32.			
53706C	7	1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	0.	0.	0.	0.	0.	0.	0.	0.	*BC*	
53706D	7	1200	41.44	2.17	0.85	0.46	0.35	3.83	45.23	8.4678	91.	5.	2.	1.	1.	57.22	12.9.			
53706E	7	1300	46.87	2.46	0.77	0.52	0.10	3.85	50.72	7.5907	92.	5.	2.	1.	0.	63.20	14.3.			
53706F	7	1400	40.50	3.11	1.03	0.41	0.37	4.92	45.42	10.8322	89.	7.	2.	1.	1.	63.21	8.8.			
53706G	7	1500	45.15	3.60	1.12	0.79	0.60	6.11	51.26	11.9196	88.	7.	2.	2.	1.	59.18	13.10.			
53706H	7	1600	41.02	2.52	0.88	0.61	0.43	4.84	45.86	10.5539	90.	6.	2.	1.	1.	60.18	13.9.			
53706I	7	1700	49.35	2.82	0.98	1.05	0.74	5.59	54.94	10.1747	90.	5.	2.	2.	1.	50.18	19.13.			
53706J	7	1800	92.50	3.10	1.42	1.36	0.63	6.51	89.01	7.3138	92.	3.	2.	2.	1.	47.22	21.10.			
53706K	7	1900	11484.00	1.77	0.34	0.28	0.31	2.70	11990.70	0.0225	100.	0.	0.	0.	0.	66.13	10.11.			
53706L	7	2000	26220.00	0.44	0.32	0.29	0.51	1.56	26221.56	0.0059	100.	0.	0.	0.	0.	28.21	19.32.			
53706M	7	2100	9780.00	4.16	0.77	0.20	0.17	5.30	9785.30	0.0542	100.	0.	0.	0.	0.	78.15	4.3.			
53706N	7	2200	3480.00	0.53	0.09	0.05	0.08	0.75	3480.75	0.0215	100.	0.	0.	0.	0.	70.12	7.11.			
53707A	7	2300	1426.50	0.44	0.89	0.34	0.39	2.06	1428.56	0.1442	100.	0.	0.	0.	0.	21.43	17.19.			
53707B	7	2400	325.50	1.33	0.93	1.22	1.23	4.71	330.21	1.4264	100.	0.	0.	0.	0.	28.20	26.26.			
53707C	7	2500	38.92	1.56	0.51	0.20	0.16	2.43	41.35	5.8767	95.	4.	1.	0.	0.	64.21	8.7.			
53707D	7	2600	83.25	0.88	0.47	0.32	0.14	1.81	85.06	2.1279	98.	1.	1.	0.	0.	48.26	18.8.			
53707E	7	2700	3323.44	0.88	0.22	0.10	0.04	1.24	3324.68	0.0373	100.	0.	0.	0.	0.	71.18	8.3.			
53707F	7	2800	98.10	0.35	0.25	0.10	0.16	0.86	98.96	0.8690	100.	0.	0.	0.	0.	40.29	12.19.			
53707G	7	3200	380.40	0.71	0.70	0.16	0.34	1.91	382.31	0.4996	100.	0.	0.	0.	0.	37.37	8.18.			
53707H	7	3300	1094.40	0.64	0.76	0.23	0.36	1.99	1096.39	0.1815	100.	0.	0.	0.	0.	32.38	12.18.			
53707I	7	3500	48.82	0.28	0.35	0.09	0.19	0.91	49.73	1.8299	98.	1.	1.	0.	0.	31.38	10.21.			
53707J	7	3600	55.05	0.35	0.21	0.05	0.15	0.76	55.81	1.3618	99.	1.	0.	0.	0.	45.28	7.20.			
53707K	7	3700	192.60	0.44	1.34	0.64	1.15	3.57	196.17	1.8198	98.	0.	1.	0.	1.	12.38	18.32.			
53707L	7	3800	51.90	1.64	0.85	0.74	0.24	3.47	55.37	6.2669	94.	3.	2.	1.	0.	48.24	21.7.			
53707M	7	3900	90.75	1.52	0.77	0.31	0.33	2.93	93.68	3.1277	97.	2.	1.	0.	0.	52.26	11.11.			
53707N	7	4000	53.02	0.80	0.79	0.81	0.38	2.78	55.80	4.9821	96.	1.	1.	1.	1.	29.28	29.14.			
53707O	7	4100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	0.	0.	0.	0.	0.	0.	0.	0.	*BC*	
53707P	7	4200	251.10	0.61	0.45	0.12	0.23	1.41	252.51	0.5584	100.	0.	0.	0.	0.	43.32	9.16.			
53707Q	7	4300	510.60	2.21	1.74	1.20	1.19	6.34	516.94	1.2264	100.	0.	0.	0.	0.	35.27	19.19.			
53707R	7	4500	6225.00	2.12	3.18	2.96	2.91	11.17	6236.17	0.1791	100.	0.	0.	0.	0.	19.29	26.26.			
53707S	7	4600	359.00	0.88	0.83	0.40	0.40	2.51	361.91	0.6935	100.	0.	0.	0.	0.	35.33	16.16.			
53707T	7	4700	7275.00	3.54	1.84	1.41	2.07	8.86	7283.86	0.1216	100.	0.	0.	0.	0.	40.21	16.23.			
53707U	7	4800	166.50	2.83	4.84	6.18	3.91	17.76	184.26	9.6386	90.	2.	3.	3.	2.	16.27	35.22.			
53707V	7	4900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	0.	0.	0.	0.	0.	0.	0.	0.	*BC*	
53707W	7	5000	508.00	3.54	12.72	25.30	15.52	57.08	565.88	10.0869	90.	1.	2.	4.	3.	6.22	45.27.			
53707X	7	5100	2235.00	4.20	2.68	2.95	3.66	13.49	2248.49	0.6060	100.	0.	0.	0.	0.	31.20	22.27.			
53707Y	7	5200	450.00	1.24	2.25	1.86	2.97	8.32	458.32	1.8153	99.	0.	0.	0.	1.	15.27	22.36.			
53707Z	7	5300	549.75	6.90	4.27	4.27	3.82	19.26	569.01	3.3848	96.	1.	1.	1.	1.	36.22	22.20.			
53708A	7	5400	446.50	7.08	4.02	8.80	7.66	27.56	476.06	5.7892	94.	1.	1.	2.	2.	26.15	31.28.			
53708B	7	5500	6187.50	24.78	56.22	81.84	47.06	209.90	6397.40	3.2810	97.	0.	1.	1.	1.	12.27	39.22.			
53708C	7	5600	4062.00	70.80	180.58	216.65	83.44	551.47	4613.47	11.9535	87.	2.	4.	5.	2.	13.33	39.15.			
53708D	7	5700	14480.00	339.84	1233.34	627.75	232.52	2433.45	20913.45	11.6358	88.	2.	6.	3.	1.	14.50	26.10.			
53708E	7	5800	11796.00	339.84	855.00	386.88	133.31	1715.03	13511.03	12.6936	87.	-3.	6.	3.	1.	20.49	23.8.			
53708F	7	5900	5622.00	21.24	62.11	83.77	48.72	215.84	5837.84	3.6973	97.	0.	1.	1.	1.	10.29	38.23.			
53708G	7	6000	4740.30	334.18	919.12	563.81	263.05	2080.16	6820.16	30.5002	70.	5.	13.	8.	4.	16.44	27.13.			
53708H	7	6100	108.62	63.01	338.17	254.15	144.24	799.57	1108.19	72.1510	26.	6.	30.	23.	13.	8.42	32.18.			
53708I	7	6200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	0.	0.	0.	0.	0.	0.	0.	0.	*BC*	
53708J	7	6300	988.50	42.48	817.52	1136.83	656.35	2653.18	3641.68	72.8559	27.	1.	22.	32.	18.	2.31	42.25.			
53708K	7	6400	615.00	35.40	313.00	436.28	226.92	1011.60	1626.60	62.1911	38.	2.	19.	27.	14.	3.31	44.22.			
53708L	7	6500	2688.00	591.84	1603.12	1046.25	488.92	3730.13	6418.13	58.1186	42.	9.	25.	16.	8.	16.43	29.13.			
53708M	7	6570	23976.00	2237.28	3058.85	1511.81	714.86	7522.80	31498.80	23.8828	76.	7.	10.	5.	2.	30.40	20.10.			
53708N	7	6700	4338.00	22.12	66.35	64.82	53.26	206.55	43586.55	0.4739	100.	0.	0.	0.	0.	11.32	31.26.			
53708O	7	6800	32880.00	212.40	666.90	433.75	204.16	1517.21	34397.21	4.4109	95.	1.	2.	1.	1.	14.44	29.13.			
53708P	7	6900	4780.00	523.92	1272.24	755.90	324.36	2876.42	43676.42	6.5857	93.	1.	3.	2.	1.	18.45	26.11.			
53708Q	7	7000	1571.25	47.26	222.30	143.96	66.78	480.30	2051.55	23.4116	77.	2.	11.	7.	3.	10.46	30.14.			
53708R	7	7100	30670.00	658.44	684.00	329.59	149.46	1821.49	32421.49	5.6182	95.	2.	2.	1.	0.	36.38	18.8.			
53708S	7	7300	9360.00	2315.16	1378.94	461.28	143.10	4298.48	12638.48	36.0111	66.	18.	11.	4.	1.	54.32	11.3.			
53708T	7	7400	1248.00	4.78	12.48	25.37	7.03	49.66	1297.66	3.8269	96.	0.	1.	2.	1.	10.25	51.14.			
53708U	7	7500	6480.00	1064.83	715.74	322.00	65.13	2167.70	8647.70	25.0668	75.	12.	8.	4.	1.	49.33	15.3.			
53708V	7	7600	24690.00	2002.31	1628.77	648.02	165.68	4444.78	29134.78	15.2559	84.	7.	6.	2.	1.	44.37	15.4.			

\*B\* = CUTTINGS NOT ANALYZED

\*C\* = AIR SPACE GAS NOT RUN

\*BC\* = NO ANALYSES RUN





TABLE II-B ESSO BASS-2

C<sub>1</sub>-C<sub>4</sub> HYDROCARBON ANALYSES - CUTTINGS ONLY

SAMPLE NUMBER	R	DEPTH	GAS CONCENTRATION (VOLUME GAS PER MILLION VOLUMES CUTTINGS)						GAS COMPOSITION (PERCENT)								NOTES			
			METHANE (C <sub>1</sub> )	ETHANE (C <sub>2</sub> )	PROPANE (C <sub>3</sub> )	ISO-BUTANE (iC <sub>4</sub> )	NORMAL BUTANE (nC <sub>4</sub> )	WET (C <sub>2</sub> -C <sub>4</sub> )	TOTAL (C <sub>1</sub> -C <sub>4</sub> )	TOTAL GAS					WET GAS					
										C <sub>2</sub> -C <sub>4</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	iC <sub>4</sub>	nC <sub>4</sub>	C <sub>2</sub>		C <sub>3</sub>	iC <sub>4</sub>	nC <sub>4</sub>
53711A	7	2330	85.50	17.57	14.19	1.06	5.15	32.97	118.47	27.8298	72.11	12.1	1.4	38.43	3.16					
53711B	7	2500	45.50	1.55	0.81	0.14	0.41	2.91	47.91	6.0739	94.3	2.0	0.1	53.28	5.14					
53711C	7	2700	43.50	1.26	0.51	0.08	0.24	2.09	45.59	4.5843	95.3	1.0	0.1	61.24	4.11					
53711D	7	2900	37.30	1.24	0.53	0.13	0.24	2.14	38.44	5.5671	95.3	1.0	0.1	58.25	5.11					
53711E	7	3100	77.25	2.57	0.84	0.25	0.37	4.03	81.28	4.9582	96.3	1.0	0.0	64.21	6.9					
53711F	7	3130	34.99	1.28	0.79	0.14	0.12	1.83	36.82	4.9701	96.3	1.0	0.0	69.16	8.7					
53711G	7	3200	51.70	1.55	0.82	0.24	0.44	3.45	54.45	6.3361	93.4	2.0	0.1	56.74	7.13					
53711H	7	3300	47.10	2.32	0.92	0.35	0.36	3.95	51.05	7.7375	91.5	2.1	1.1	59.23	9.9					
53711I	7	3400	175.00	2.48	1.55	1.59	1.48	7.48	183.28	4.0812	96.1	1.1	1.1	33.26	21.20					
53711J	7	3500	157.50	7.21	1.67	2.02	1.60	7.50	165.00	4.5455	96.1	1.1	1.1	36.22	27.21					
53711K	7	3700	114.50	2.71	3.27	6.04	6.38	17.90	132.50	13.5094	86.2	2.2	5.5	12.16	34.36					
53711L	7	3700	1406.25	4.16	6.74	12.48	7.15	30.53	1436.78	2.1249	99.0	0.1	0.0	14.22	41.23					
53711M	7	3830	538.80	6.19	14.38	15.96	8.16	44.69	583.49	7.6591	93.1	2.3	1.1	14.32	36.13					
53711N	7	4000	92.70	4.08	7.97	12.09	5.63	29.77	122.47	24.3080	75.3	7.10	5.1	14.27	40.17					
537120	7	4200	195.50	244.26	807.12	352.66	116.71	1520.75	1715.75	88.6347	11.14	47.21	7.1	16.53	23.0					
537120	7	4400	417.75	566.40	1564.99	654.72	219.42	3005.53	3423.28	87.7968	12.17	46.19	6.1	19.52	22.7					
537120	7	4400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	0.0	0.0	0.0	0.0	0.0					*BC*
537120	7	4500	1800.00	385.15	1083.46	519.31	178.08	2166.00	3966.00	54.6142	46.10	27.13	4.1	18.50	24.0					
537121	7	4500	614.25	1264.49	3310.56	1002.91	445.20	6023.16	6637.41	90.7456	9.19	50.15	7.1	21.55	17.7					
537121	7	4700	210.62	87.61	181.26	157.17	80.29	506.33	724.95	69.8434	30.12	25.22	11.1	17.36	31.16					
537121	7	4900	252.00	30.31	120.25	83.42	49.13	291.11	543.11	53.6006	46.6	24.15	9.1	10.44	29.17					
537121	7	4900	352.50	31.24	183.65	116.62	85.86	417.37	769.87	54.2130	46.4	24.15	11.1	7.44	28.21					
537121	7	5000	300.00	26.64	169.63	219.85	79.50	495.62	795.62	62.2936	38.3	21.28	10.1	5.34	45.16					
537122	7	5100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	0.0	0.0	0.0	0.0	0.0					*BC*
537122	7	5100	247.50	161.55	868.68	414.41	313.55	1758.59	2006.09	87.6626	12.8	43.21	16.1	9.49	24.18					
537122	7	5100	542.50	78.23	282.15	140.80	98.58	599.76	1132.26	52.9702	47.7	25.12	9.1	13.48	23.16					
537122	7	5400	794.40	357.61	1223.11	571.95	351.07	2643.74	3438.14	76.8945	23.12	38.17	10.1	15.50	22.13					
537124	7	5500	1617.17	380.47	3514.05	1425.22	1013.62	6833.46	8450.65	80.8631	19.10	42.17	12.1	13.51	21.15					
537130	7	5700	205.50	5.75	50.36	56.08	37.13	149.32	354.82	42.0833	58.2	14.16	10.1	4.34	37.25					
537130	7	5900	259.50	73.01	69.08	78.12	55.89	226.10	485.60	46.5610	53.5	14.16	12.1	10.31	34.25					
537130	7	7700	3420.00	1500.00	1778.40	691.92	176.49	4147.77	7567.77	54.8084	46.20	23.9	2.1	36.43	17.4					

\*B\* = CUTTINGS NOT ANALYZED

\*C\* = AIR SPACE GAS NOT RUN

\*BC\* = NO ANALYSES RUN

TABLE II-C ESSO BASS-2

C<sub>1</sub>-C<sub>4</sub> HYDROCARBON ANALYSES - CUTTINGS AND AIR SPACE

SAMPLE NUMBER	R	DEPTH	GAS CONCENTRATION (VOLUME GAS PER MILLION VOLUMES CUTTINGS)							GAS COMPOSITION (PERCENT)								NOTES
			METHANE	ETHANE	PROPANE	ISO-BUTANE (iC <sub>4</sub> )	NORMAL BUTANE (nC <sub>4</sub> )	WET	TOTAL	TOTAL GAS					WET GAS			
			(C <sub>1</sub> )	(C <sub>2</sub> )	(C <sub>3</sub> )	(iC <sub>4</sub> )	(nC <sub>4</sub> )	(C <sub>2</sub> -C <sub>4</sub> )	(C <sub>1</sub> -C <sub>4</sub> )	C <sub>2</sub> -C <sub>4</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	iC <sub>4</sub>	nC <sub>4</sub>	C <sub>2</sub>	C <sub>3</sub>	
53711A	7	2300	88.64	13.25	15.39	1.54	5.25	35.48	124.12	28.5852	72.11	12.1	4.	37.44	4.15.			
53711B	7	2600	447.95	7.39	3.61	0.91	1.32	13.23	460.28	2.8743	97.2	1.0	0.0	56.27	7.10.			
53711C	7	2700	523.50	8.25	4.34	1.62	1.64	15.85	539.35	2.9387	97.2	1.0	0.0	53.27	10.10.			
53711D	7	2800	111.57	8.28	2.57	1.02	1.55	13.42	124.99	10.7369	89.7	7.2	1.1	61.19	8.12.			
53711E	7	2900	3642.75	45.11	14.56	7.04	4.63	71.34	3753.59	1.9006	99.1	0.0	0.0	64.20	10.6.			
53711F	7	3100	413.12	11.84	9.47	5.09	2.48	28.88	442.20	6.5310	93.3	2.1	1.1	40.33	18.9.			
53711G	7	3200	383.93	5.56	2.91	1.50	1.36	11.33	395.26	2.8665	98.1	1.0	0.0	49.26	13.12.			
53711H	7	3300	190.20	8.13	4.85	3.02	2.25	18.25	208.45	8.7551	92.4	2.1	1.1	44.77	17.12.			
53711I	7	3400	1108.56	21.62	27.23	23.84	11.07	83.76	3192.32	2.6238	97.1	1.1	0.0	26.33	28.13.			
53711J	7	3500	1338.10	27.50	30.17	26.73	12.73	97.13	3435.43	2.8273	97.1	1.1	0.0	28.31	28.13.			
53711K	7	3700	1053.27	11.73	23.67	25.94	13.53	74.87	1128.14	6.6366	94.1	2.2	1.1	16.32	34.18.			
53711L	7	3700	15190.25	12.70	38.44	32.59	13.90	97.63	16287.88	0.5994	100.0	0.0	0.0	13.40	33.14.			
53711M	7	3800	11644.80	47.09	92.10	75.90	21.84	286.93	13721.73	2.0911	97.1	1.1	0.0	34.32	26.8.			
53711N	7	4000	325.74	69.40	102.02	65.45	16.99	253.86	579.60	43.7992	56.12	18.11	3.	27.40	26.7.			
53712A	7	4200	3370.00	2259.45	3285.65	1363.98	290.77	7199.85	9578.85	75.1640	25.24	34.14	3.	31.46	19.4.			
53712B	7	4300	3840.93	4008.07	5317.49	2205.55	495.02	12026.13	17867.06	67.3089	33.22	30.12	3.	33.45	18.4.			
53712C	7	4400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	0.0	0.0	0.0	0.0	0.0			*BC*
53712D	7	4500	2199.49	419.35	1117.32	530.58	180.06	2247.31	4445.80	50.5491	49.9	25.12	4.	19.49	24.8.			
53712E	7	4600	13486.25	8202.89	10559.59	3539.21	997.25	23298.94	36786.19	63.3361	37.22	29.10	3.	35.46	15.4.			
53712F	7	4700	1377.69	1325.89	1854.96	917.52	264.58	4062.95	5440.64	74.6778	25.19	34.17	5.	25.45	21.7.			
53712G	7	4800	632.70	210.85	506.16	272.16	106.52	1115.69	1717.39	64.9643	35.12	29.17	6.	19.45	26.10.			
53712H	7	4900	1937.56	301.11	837.63	455.36	186.87	1780.97	3718.53	47.8945	52.8	23.12	5.	17.47	26.10.			
53712I	7	5100	1031.70	615.70	1489.54	825.80	259.17	3190.21	4270.21	74.7085	25.14	35.19	6.	19.47	26.8.			
53712J	7	5100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	0.0	0.0	0.0	0.0	0.0			*BC*
53712K	7	5300	3075.42	1344.79	2844.31	1297.65	637.28	6094.03	9170.45	66.4529	34.15	31.14	7.	22.47	21.10.			
53712L	7	5300	675.91	131.02	369.42	180.87	110.44	791.75	1467.66	53.9464	46.9	25.12	8.	17.46	23.14.			
53712M	7	5400	973.42	464.67	1400.92	608.98	361.55	2836.12	3809.94	74.4400	26.12	37.16	9.	16.50	21.13.			
53712N	7	5500	3640.21	2506.46	5801.97	2444.32	1338.96	12091.71	18771.92	64.4138	36.13	31.13	7.	21.46	20.11.			
53713A	7	5700	327.62	6.34	55.88	60.36	38.18	160.76	488.38	32.9170	68.1	11.12	8.	4.35	37.24.			
53713B	7	5900	2129.50	33.40	217.41	225.08	119.42	615.31	2744.81	22.4172	78.1	9.8	4.	5.39	37.19.			
53713C	7	7700	3810.00	1859.68	4118.25	1640.52	282.49	7900.94	11710.94	67.4663	33.16	35.14	2.	24.51	21.4.			

\*B\* = CUTTINGS NOT ANALYZED \*C\* = AIR SPACE GAS NOT RUN \*BC\* = NO ANALYSES RUN