



Global
GeoChemistry
Corporation

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FACSIMILE TRANSMISSION COVER SHEET

RECEIVED

1:26 pm, Apr 30, 2009

Alameda County
Environmental Health

Date: 8-16-96

TO: MR. DAVE DEWITT

ATTENTION: UNOCAL

FAX NO.: ~~714-577-2367~~

No. of Pages: _____ (including transmittal page)

Confirmation: YES NO

FROM: [Signature]

NOTES: Results

510
277
2309

faxcov.drw

FILE #	<u>5043</u>	SS	<u>X</u>	BP	_____
RPT	<u>QM</u>	_____	TRANSMITTAL	_____	_____
1	<u>2</u>	<u>2</u>	<u>4</u>	<u>2</u>	<u>6</u> X

August 14, 1996

Date sampled: 7/31/96
Date analyzed: 8/9/96
Method: GC/PID (EPA 602/8020)

BTEX data for a product sample submitted by Unocal

Sample ID	GGC ID	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Total BTEX
		$\mu\text{g/ml} = \text{ppm}$				
Method Blank:		<5	<5	<5	<5	-
MW-6	3573-1	6290	49600	14500	73800	144190
MW-6	3573-1D	6270	50000	15500	74200	145970

D: Duplicate Analysis

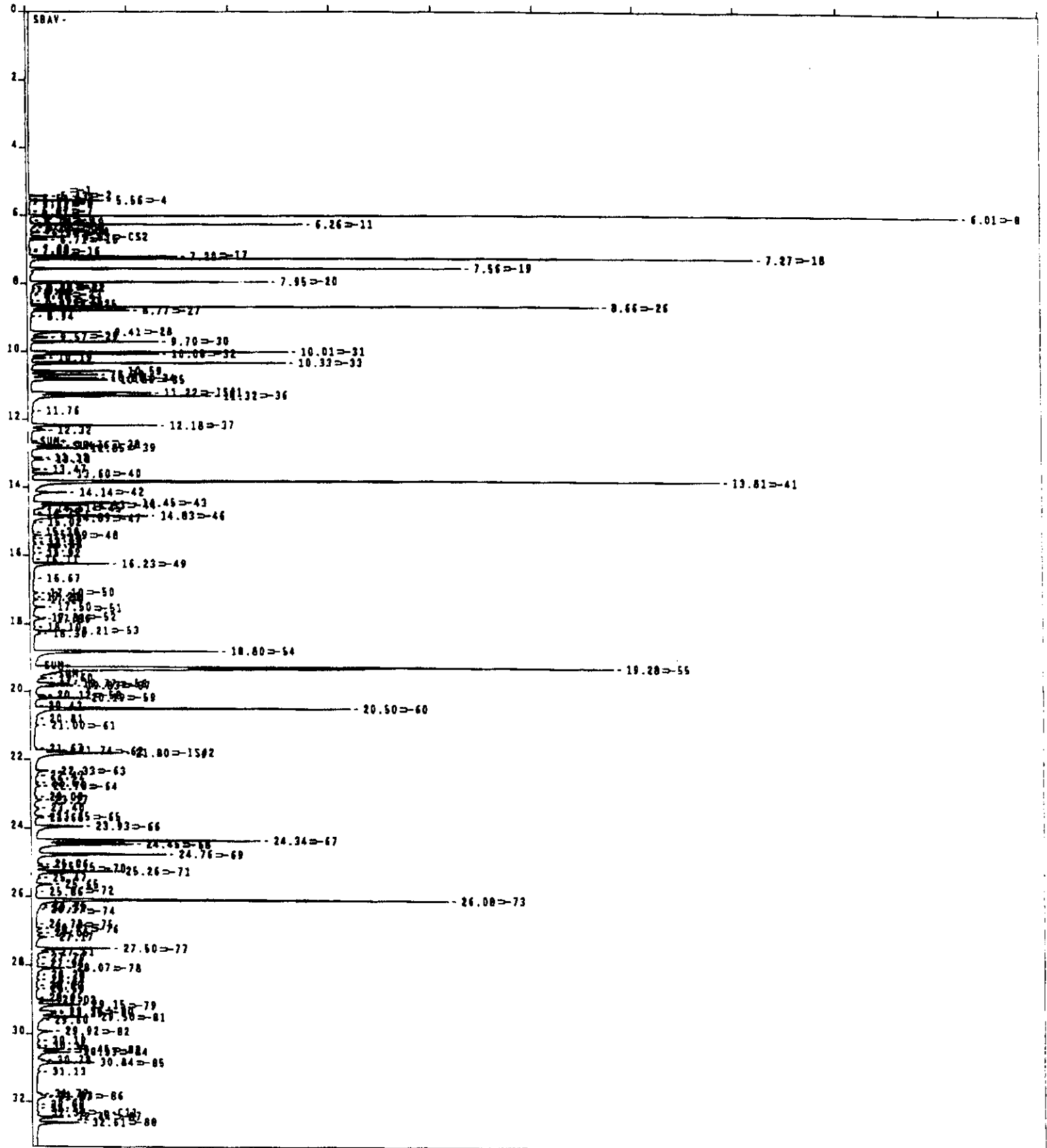
3573BTEX.TBL

Supervisor

File=E:\DATA7\C344215.09R Date printed=08-14-1996 Time= 10:14:00

Sample Name=3573-1 (0.50ml sample + IS3-009)

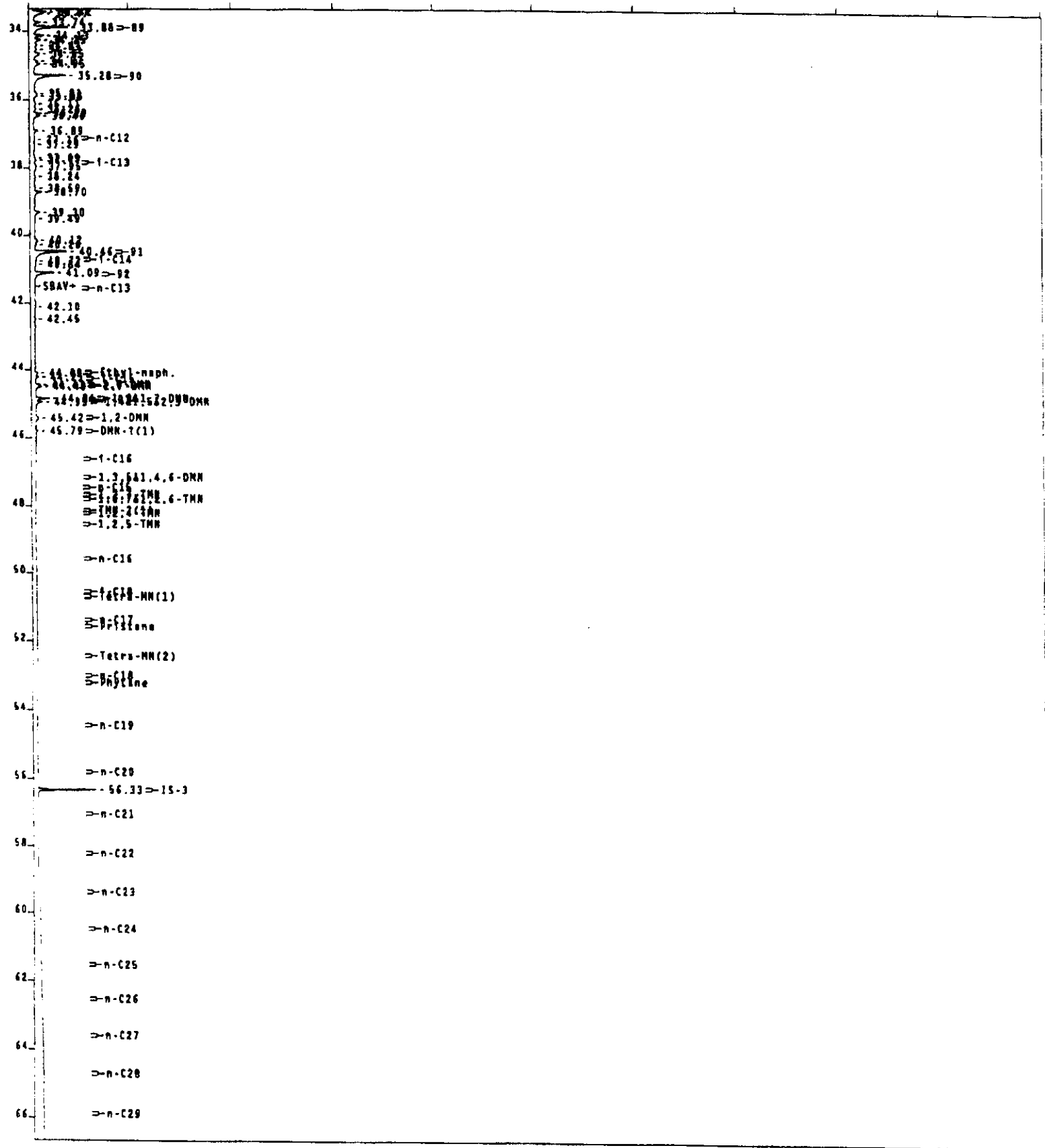
0.0 to 33.332 min. Low Y=7.779 High Y=576.288 mv Span=570.509



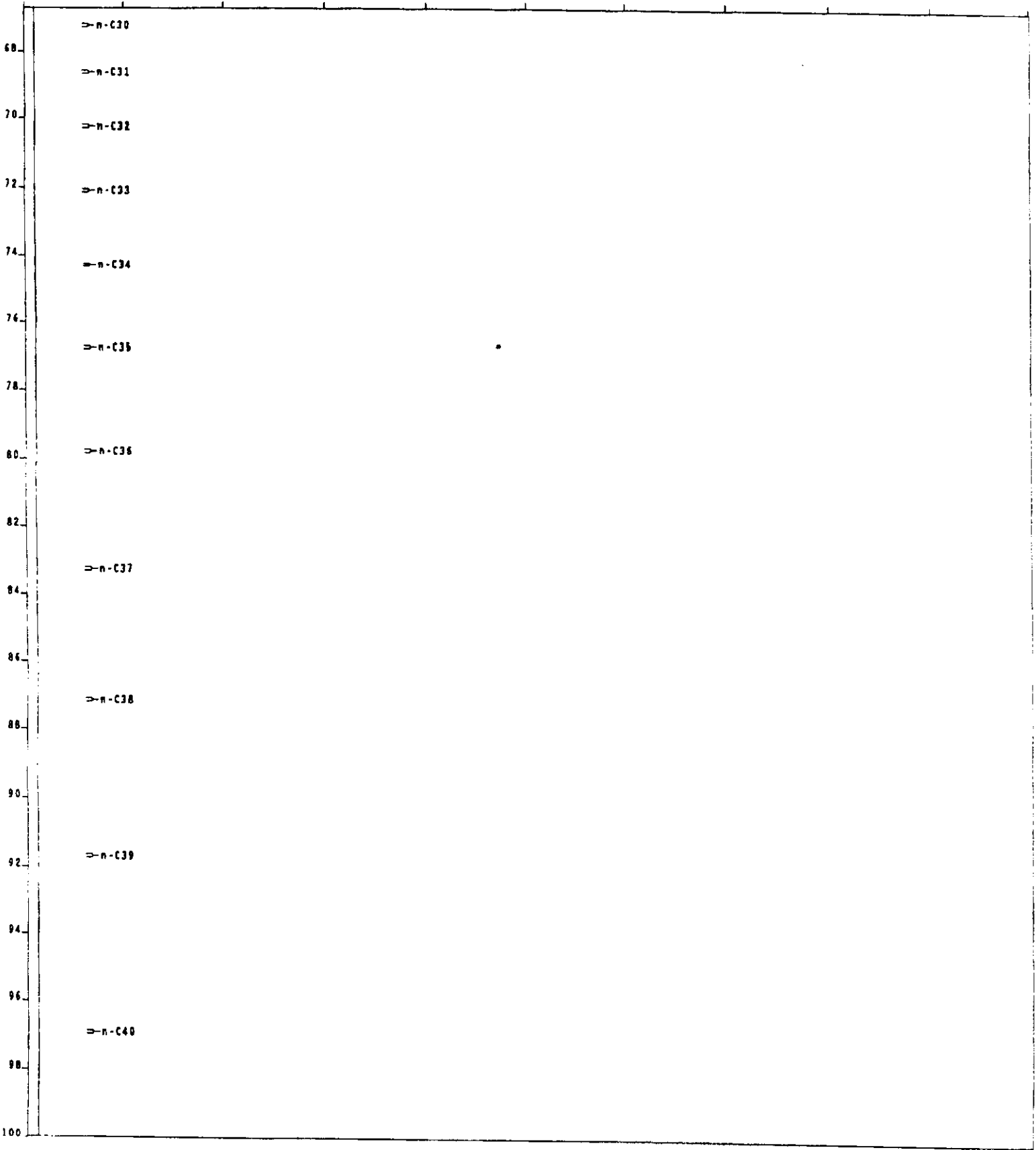
File=E:\DATA7\C344215.09R Date printed=08-14-1996 Time= 10:16:47

Sample Name=3573-1 (0.50ml sample + IS3-009)

33.333 to 66.667 min. Low Y=7.779 High Y=576.288 mv Span=670.509



File=E:\DATA7\C344215.09R Date printed=08-14-1996 Time= 10:19:40
Sample Name=J573-1 (0.50ml sample + IS3-009)
66.667 to 100.0 min. Low Y=7.779 High Y=578.288 mv Span=570.509



```

***** Gas Chromatography by Global GeoChemistry *****
*
* TODAY'S DATE....08-14-1996          TIME.....10:22:40
* RAW DATA FILE NAME..E:\DATA7\C344215.09R
* SAMPLE NAME.....3573-1 (0.50ml sample + IS3-009)
* DATE TAKEN..Aug 3, 1996 04:06:38
* METHOD FILE.....!!E:\DATA7\U344215I.MET
* METHOD:..Whole Oil Analysis
* CALIBRATION FILE...!!E:\DATA7\U344215I.CALCAL. FILE VERSION...-3
* INSTRUMENT..... HP6890 FID--FID          OPERATOR.... Y. Hiramine
* RUN TIME..... 100
* AREA REJECT..... 0          COM PORT.... 7
* SAMPLE WEIGHT... 1          DIL Factor.. 2
* Amount Injected 1          Int Std Amt . 1
* HEADING 1..GC method 1
* HEADING 2..
* FORMAT FILE..C:\DIRECT\UNOCAL.FMT
*****
    
```

***** PEAKS DETECTED IN THIS CHROMATOGRAM *****

Peak #	Ret Time (min)	Peak Name	Peak Area	Peak Height	Amount (ug)
0	5.260	1	0	0	0.000
1	5.427	2	10424	11119	0.924
2	5.515	3	1091	969	0.097
3	5.555	4	43097	42259	3.819
4	5.602	5	1763	954	0.156
5	5.673	6	857	559	0.076
6	5.875	7	790	561	0.070
8	6.011	8	539605	522492	47.818
9	6.150	9	2880	1341	0.255
10	6.213	10	4096	2829	0.363
11	6.257	11	182895	154448	16.208
12	6.349	12	9874	3551	0.875
13	6.442	13	4065	1790	0.360
0	6.471	DCM	0	0	0.000
14	6.498	14	11778	6038	1.044
15	6.630	CS2	39301	23436	3.483
16	6.713	15	12815	10681	1.136
18	7.043	16	995	722	0.088
20	7.200	17	139379	83384	12.351
21	7.271	18	517088	408589	45.823
22	7.561	19	316579	243205	28.054
23	7.950	20	207044	134129	18.348
24	8.089	21	4872	1986	0.432
25	8.136	22	7053	2810	0.625
28	8.330	23	2057	622	0.182
29	8.488	24	3666	1643	0.325
30	8.593	25	14174	9505	1.256
31	8.663	26	474710	320857	42.067
32	8.766	27	90052	56023	7.980
34	9.412	28	100278	40344	8.886
35	9.573	29	20661	9857	1.831
36	9.704	30	122537	72240	10.859
37	10.011	31	238183	145300	21.107
38	10.076	32	128219	72346	11.362
40	10.335	33	251339	143878	22.273
43	10.802	34	66823	38026	5.922
44	10.855	35	81552	43378	7.227
45	11.223	IS#1	148201	67811	13.133

46	11.316	36	226457	101092	20.068
48	12.180	37	147600	70575	13.080
50	12.760	38	48780	17851	4.323
51	12.850	39	62373	26597	5.527
55	13.600	40	39886	18422	3.535
56	13.810	41	867584	388438	76.883
57	14.143	42	66491	19943	5.892
58	14.448	43	114040	55144	10.106
59	14.526	44	58895	26600	5.219
60	14.606	45	30118	7109	2.669
62	14.830	46	131321	65396	11.637
63	14.885	47	54782	18245	4.855
66	15.391	48	12223	5426	1.083
73	16.228	49	120084	43181	10.641
75	17.095	50	6138	2717	0.544
78	17.504	51	15507	6678	1.374
79	17.813	52	8279	3510	0.734
82	18.212	53	36960	16103	3.275
84	18.798	54	296988	103728	26.318
85	19.281	55	1288571	326713	114.189
87	19.768	56	44365	19864	3.932
88	19.825	57	61318	21764	5.434
89	20.119	58	12721	5464	1.127
90	20.194	59	61162	24531	5.420
92	20.496	60	440813	177639	39.064
94	20.996	61	5392	2085	0.478
96	21.736	62	44079	17961	3.906
97	21.799	IS#2	196161	49670	17.383
98	22.326	63	26530	7898	2.351
101	22.777	64	10018	3087	0.888
105	23.654	65	13124	5318	1.163
107	23.932	66	107056	27156	9.487
108	24.342	67	321497	126867	28.490
109	24.453	68	195690	55494	17.342
110	24.760	69	223255	73816	19.784
112	25.153	70	30811	8070	2.730
113	25.264	71	147292	44024	13.053
116	25.862	72	4752	1079	0.421
117	26.082	73	605415	232474	53.650
120	26.372	74	10493	1686	0.930
121	26.780	75	2594	667	0.230
122	26.911	76	14278	3553	1.265
125	27.497	77	112458	42441	9.966
129	28.070	78	62411	16370	5.531
136	29.148	79	75821	23446	6.719
137	29.352	80	24045	10104	2.131
139	29.496	81	77102	28281	6.833
141	29.919	82	32641	9013	2.893
144	30.448	83	41179	15389	3.649
145	30.534	84	70440	19324	6.242
147	30.839	85	98666	28630	8.743
150	31.831	86	15128	5612	1.341
154	32.317	n-C11	4752	1553	0.421
155	32.444	87	48630	15399	4.309
156	32.607	88	69054	23804	6.119
160	33.883	89	74158	20215	6.572
168	35.276	90	87642	19015	7.767
0	37.096	n-C12	0	0	0.000
0	37.828	i-C13	0	0	0.000
188	40.457	91	82353	19100	7.298

189	40.734	i-C14	4204	953	0.373
191	41.086	92	43697	11512	3.872
0	41.544	n-C13	0	0	0.000
194	44.089	Ethyl-naph.	5592	1378	0.496
195	44.214	i-C15	3875	1753	0.343
196	44.431	2,6-DMN	3443	1930	0.305
197	44.486	2,7-DMN	4784	2068	0.424
198	44.841	1,3&1,7-DMN	19971	8035	1.770
0	44.870	n-C14	0	0	0.000
199	44.948	1,4&1,5&2,3-DMN	8610	3411	0.763
200	45.415	1,2-DMN	10373	1803	0.919
201	45.793	DMN-?(1)	4170	1329	0.369
0	46.593	i-C16	0	0	0.000
0	47.140	1,3,5&1,4,6-DMN	0	0	0.000
0	47.444	n-C15	0	0	0.000
0	47.650	1,2,7-TMN	0	0	0.000
0	47.780	1,6,7&1,2,6-TMN	0	0	0.000
0	48.120	TMN-?(1)	0	0	0.000
0	48.210	1,2,4-TMN	0	0	0.000
0	48.530	1,2,5-TMN	0	0	0.000
0	49.568	n-C16	0	0	0.000
0	50.550	i-C18	0	0	0.000
0	50.680	Tetra-MN(1)	0	0	0.000
0	51.381	n-C17	0	0	0.000
0	51.562	Pristane	0	0	0.000
0	52.437	Tetra-MN(2)	0	0	0.000
0	52.994	n-C18	0	0	0.000
0	53.205	Phytane	0	0	0.000
0	54.447	n-C19	0	0	0.000
0	55.799	n-C20	0	0	0.000
202	56.329	IS-3	56275	33609	4.987
0	57.030	n-C21	0	0	0.000
0	58.230	n-C22	0	0	0.000
0	59.370	n-C23	0	0	0.000
0	60.470	n-C24	0	0	0.000
0	61.510	n-C25	0	0	0.000
0	62.530	n-C26	0	0	0.000
0	63.580	n-C27	0	0	0.000
0	64.690	n-C28	0	0	0.000
0	65.880	n-C29	0	0	0.000
0	67.190	n-C30	0	0	0.000
0	68.600	n-C31	0	0	0.000
0	70.220	n-C32	0	0	0.000
0	72.090	n-C33	0	0	0.000
0	74.280	n-C34	0	0	0.000
0	76.760	n-C35	0	0	0.000
0	79.780	n-C36	0	0	0.000
0	83.250	n-C37	0	0	0.000
0	87.150	n-C38	0	0	0.000
0	91.680	n-C39	0	0	0.000
0	96.900	n-C40	0	0	0.000

Group Group Amount Group Percent
 0 988.4495 100.0000%

TOTAL AREA DETECTED = 1.220885E+07

Checked by _____ Date _____

Date sampled:7/31/96
 Date analyzed:8/9/96
 Method: GC/ECD

EDC, EDB and organic lead speciation data for a product sample
 submitted by Unocal

Sample ID	GGC ID	EDC	EDB	TML	TMEL	DMDEL	MTEL	TEL
		$\mu\text{g/ml}$						
Method Blank		<0.5	<0.5	<5	<5	<5	<5	<5
MW-6	3573-1	<0.5	<0.5	115	10	8	22	103
MW-6	3573-1D	<0.5	<0.5	105	11	8	26	98

D: Duplicate Analysis
 EDC: Ethylene Dichloride
 TML: Tetramethyl Lead
 EDB: Ethylene Dibromide
 TMEL: Trimethylethyl Lead
 DMDEL: Dimethyldiethyl Lead
 MTEL: Methyltriethyl Lead
 TEL: Tetraethyl Lead

 Supervisor

RECEIVED

August 14, 1996

Date sampled: 7/31/96
Date analyzed: 8/9/96
Method: GC/PID (EPA 602/8020)

AUG 14 1996

BTEX data for a product sample submitted by Unocal

Sample ID	GGC ID	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Total BTEX
		µg/ml				
Method Blank:		<5	<5	<5	<5	-
MW-6	3573-1	6290	49600	14500	73800	144190
MW-6	3573-1D	6270	50000	15500	74200	145970

D: Duplicate Analysis

3573BTEX.TBL

Ru Po Lee
Supervisor

FILE #	5043	SB	X	BP		
RPT	QM	TRANSMITTAL				
1	2	3	4	5	6	X

Date sampled: 7/31/96
Date analyzed: 8/9/96
Method: GC/ECD

EDC, EDB and organic lead speciation data for a product sample
submitted by Unocal

Sample ID	GGC ID	EDC	EDB	TML	TMEL	DMDEL	MTEL	TEL
		µg/ml						
Method Blank		<0.5	<0.5	<5	<5	<5	<5	<5
MW-6	3573-1	<0.5	<0.5	115	10	8	22	103
MW-6	3573-1D	<0.5	<0.5	105	11	8	26	98

D: Duplicate Analysis
EDC: Ethylene Dichloride
TML: Tetramethyl Lead
EDB: Ethylene Dibromide
TMEL: Trimethylethyl Lead
DMDEL: Dimethyldiethyl Lead
MTEL: Methyltriethyl Lead
TEL: Tetraethyl Lead

Ru-Po Lee

Supervisor

Surrogate Recovery

Sample ID	GGC ID	α,α,α -trifluorotoluene Recovery (%)
Method Blank		90
MW-6	3573-1	95
MW-6	3573-1D	91

Quality control data for BTEX analysis

Sample ID	GGC ID	Benzene	Toluene	Ethyl- benzene	m,p- Xylenes	o- Xylene	Acceptance Limit
		Retention Time (min)					
Standard BTEX		6.71	9.41	11.88	12.10	12.65	
MW-6	3573-1	6.70	9.41	11.87	12.10	12.64	±0.5
MW-6	3573-1D	6.70	9.41	11.87	12.09	12.64	±0.5

ND: Not Detected

Quality control data for EDC, EDB and organic lead analysis

Sample ID	GGC ID	EDC	EDB	TML	TMEL	DMDEL	MTEL	TEL	Acceptance Limit
		Retention Time (min)							
Standard EDC, EDB and organic lead		3.95	5.95	5.47	7.67	10.61	13.95	17.41	
MW-6	3573-1	ND	ND	5.47	7.73	10.69	14.02	17.48	±0.5
MW-6	3573-1D	ND	ND	5.47	7.72	10.71	14.05	17.50	±0.5

Instrument calibration control for BTEX analysis

Analytes	RF	RF _D	% Difference	Acceptance Limit (%)
Benzene	658	621	-5.6	±10
Toluene	650	607	-6.6	±10
Ethylbenzene	512	477	-6.8	±10
m,p-Xylenes	597	565	-5.4	±10
o-Xylene	354	345	-2.5	±10

Instrument calibration control for EDB, EDC and TEL analysis

Analytes	RF	RF _D	% Difference	Acceptance Limit (%)
EDB	2304	2440	5.9	±10
EDC	42555	46690	9.7	±10
TEL	994	993	-0.1	±10

RF = Linear response factor from 3 point calibration.

RF_D = Daily response factor from calibration check standards.

EDB: Ethylene Dibromide

EDC: Ethylene Dichloride

TEL: Tetraethyl Lead

August 15, 1996

Date sampled: 7/31/96
Date analyzed: 8/9/96
Method: ASTM D4815

Oxygenate data for a product sample submitted by Unocal

Sample ID	GGC ID	Methanol	Ethanol	tert-Butanol	MTBE	ETBE	TAME
		$\mu\text{g/ml}$					
Method Blank:		ND	ND	ND	ND	ND	ND
MW-6	3573-1	ND	ND	ND	ND	ND	915
MW-6	3573-1D	ND	ND	ND	ND	ND	906
Detection Limit:		200	100	50	50	300	300

ND: Not Detected
D: Duplicate Analysis
MTBE: Methyl tert-Butyl Ether
ETBE: Ethyl tert-Butyl Ether
TAME: tert-Amyl Methyl Ether

3573OXY.TBL


Supervisor

August 15, 1996

Date analyzed: 8/9/96

Quality control data for oxygenate analysis

Sample ID	GGC ID	Methanol	Ethanol	tert-Butanol	MTBE	ETBE	1,2-DME (internal std.)	TAME	Acceptance Limit
		Retention Time (min)							
Standard oxygenate		2.91	3.48	4.67	6.29	8.94	10.43	12.39	
MW-6	3573-1	ND	ND	ND	ND	ND	10.36	12.34	±0.5
MW-6	3573-1D	ND	ND	ND	ND	ND	10.31	12.33	±0.5

ND: Not Detected

August 15, 1996

Date analyzed: 8/9/96

Instrument calibration control for oxygenate analysis

Analytes	RF	%RSD	Acceptance Limit (%)
Methanol	1.22	6.9	± 10
Ethanol	0.93	3.5	± 10
tert-Butanol	0.54	2.4	± 10
MTBE	0.65	2.1	± 10
ETBE	0.61	2.0	± 10
TAME	0.57	1.7	± 10

RF = Linear response factor from 5 point calibration.

MTBE: Methyl tert-Butyl Ether

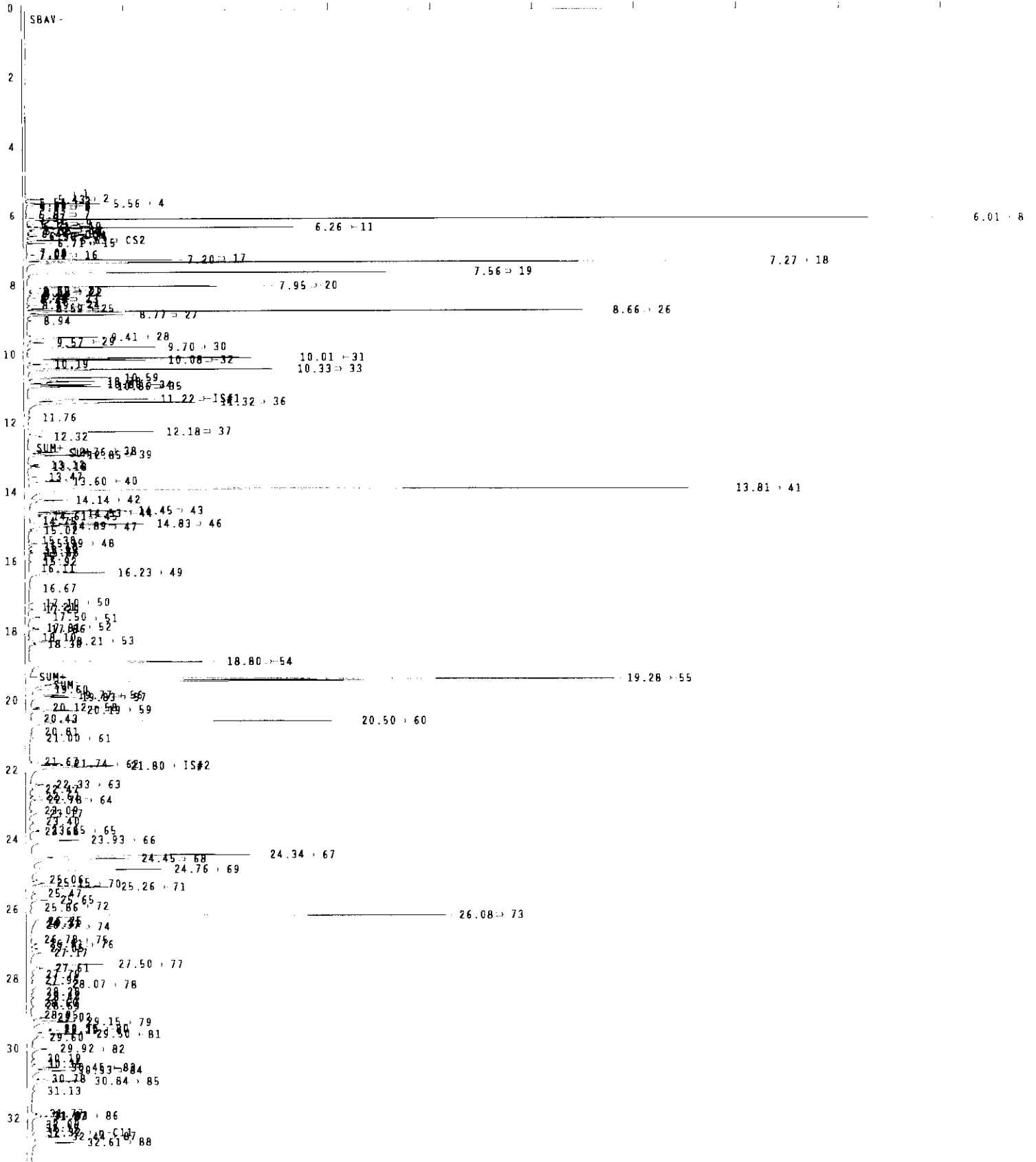
ETBE: Ethyl tert-Butyl Ether

TAME: tert-Amyl Methyl Ether

Calibration file: TXYG221Z.CAL

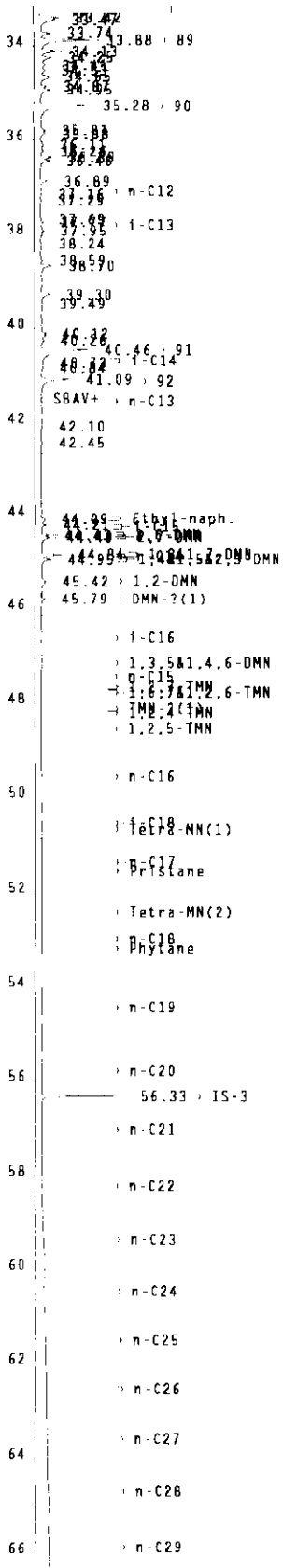
Sample Name=3573-1 (0.50ml sample + IS3-009)

0.0 to 33.333 min. Low Y=7.779 High Y=578.288 mv Span=570.509



Sample Name=3573-1 (0.50ml sample + IS3-009)

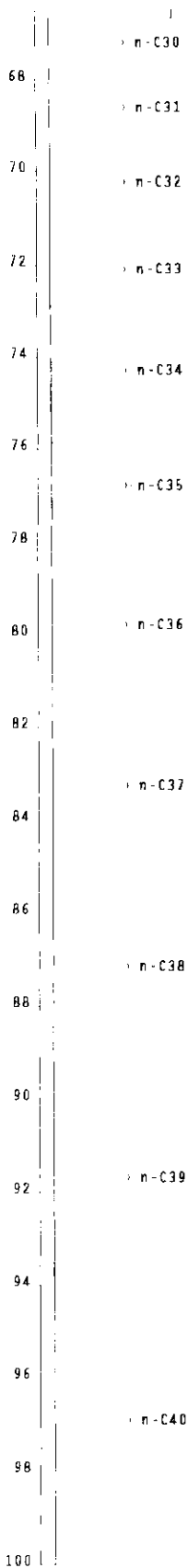
33.333 to 66.667 min. Low Y=7.779 High Y=578.288 mv Span=570.509



File=E:\DATA7\C344215.09R Date printed=08-11-1996 Time= 10:19:40

Sample Name=3573-1 (0.50ml sample + IS3-009)

66.667 to 100.0 min. Low Y=7.779 High Y=578.288 mv Span=570.509



```

***** Gas Chromatography by Global GeoChemistry *****
*
* TODAY'S DATE...08-14-1996          TIME....10:22:40
* RAW DATA FILE NAME..E:\DATA7\C344215.09R
* SAMPLE NAME....3573-1 (0.50ml sample + IS3-009)
* DATE TAKEN..Aug 3, 1996  04:06:38
* METHOD FILE.....!!E:\DATA7\U344215I.MET
* METHOD:..Whole Oil Analysis
* CALIBRATION FILE...!!E:\DATA7\U344215I.CALCAL. FILE VERSION...-3
* INSTRUMENT..... HP6890 FID--FID          OPERATOR.... Y. Hiramine
* RUN TIME..... 100
* AREA REJECT..... 0          COM PORT.... 7
* SAMPLE WEIGHT... 1          DIL Factor.. 2
* Amount Injected 1          Int Std Amt . 1
* HEADING 1..GC method 1
* HEADING 2..
* FORMAT FILE..C:\DIRECT\UNOCAL.FMT
*****

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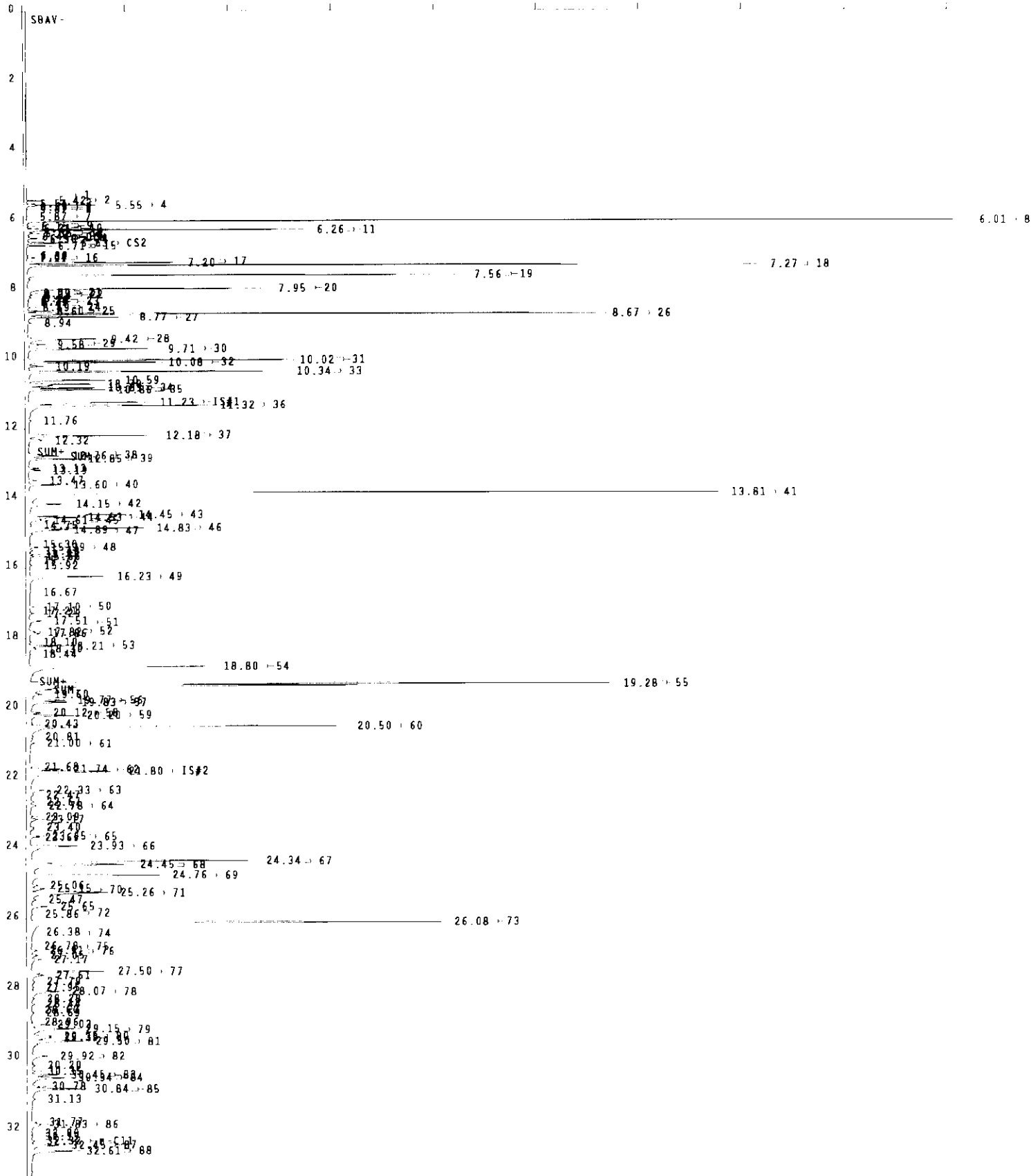
***** PEAKS DETECTED IN THIS CHROMATOGRAM *****

Peak #	Ret Time (min)	Peak Name	Peak Area	Peak Height	Amount (ug)
0	5.260	1	0	0	0.000
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4	5.602	5	1763	954	0.156
5	5.673	6	857	559	0.076
6	5.875	7	790	561	0.070
8	6.011	8	539605	522492	47.818
9	6.150	9	2880	1341	0.255
10	6.213	10	4096	2829	0.363
11	6.257	11	182895	154448	16.208
12	6.349	12	9874	3551	0.875
13	6.442	13	4065	1790	0.360
0	6.471	DCM	0	0	0.000
14	6.498	14	11778	6038	1.044
15	6.630	CS2	39301	23436	3.483
16	6.713	15	12815	10681	1.136
18	7.043	16	995	722	0.088
20	7.200	17	139379	83384	12.351
21	7.271	18	517088	408589	45.823
22	7.561	19	316579	243205	28.054
23	7.950	20	207044	134129	18.348
24	8.089	21	4872	1986	0.432
25	8.136	22	7053	2810	0.625
28	8.330	23	2057	622	0.182
29	8.488	24	3666	1643	0.325
30	8.593	25	14174	9505	1.256
31	8.663	26	474710	320857	42.067
32	8.766	27	90052	56023	7.980
34	9.412	28	100278	40344	8.886
35	9.573	29	20661	9857	1.831
36	9.704	30	122537	72240	10.859
37	10.011	31	238183	145300	21.107
38	10.076	32	128219	72346	11.362
40	10.335	33	251339	143878	22.273
43	10.802	34	66823	38026	5.922
44	10.855	35	81552	43378	7.227
45	11.223	IS#1	148201	67811	13.133

46	11.316	36	226457	101092	0.068
48	12.180	37	147600	70575	13.080
50	12.760	38	48780	17851	4.323
51	12.850	39	62373	26597	5.527
55	13.600	40	39886	18422	3.535
56	13.810	41	867584	388438	76.883
57	14.143	42	66491	19943	5.892
58	14.448	43	114040	55144	10.106
59	14.526	44	58895	26600	5.219
60	14.606	45	30118	7109	2.669
62	14.830	46	131321	65396	11.637
63	14.885	47	54782	18245	4.855
66	15.391	48	12223	5426	1.083
73	16.228	49	120084	43181	10.641
75	17.095	50	6138	2717	0.544
78	17.504	51	15507	6678	1.374
79	17.813	52	8279	3510	0.734
82	18.212	53	36960	16103	3.275
84	18.798	54	296988	103728	26.318
85	19.281	55	1288571	326713	114.189
87	19.768	56	44365	19864	3.932
88	19.825	57	61318	21764	5.434
89	20.119	58	12721	5464	1.127
90	20.194	59	61162	24531	5.420
92	20.496	60	440813	177639	39.064
94	20.996	61	5392	2085	0.478
96	21.736	62	44079	17961	3.906
97	21.799	IS#2	196161	49670	17.383
98	22.326	63	26530	7898	2.351
101	22.777	64	10018	3087	0.888
105	23.654	65	13124	5318	1.163
107	23.932	66	107056	27156	9.487
108	24.342	67	321497	126867	28.490
109	24.453	68	195690	55494	17.342
110	24.760	69	223255	73816	19.784
112	25.153	70	30811	8070	2.730
113	25.264	71	147292	44024	13.053
116	25.862	72	4752	1079	0.421
117	26.082	73	605415	232474	53.650
120	26.372	74	10493	1686	0.930
121	26.780	75	2594	667	0.230
122	26.911	76	14278	3553	1.265
125	27.497	77	112458	42441	9.966
129	28.070	78	62411	16370	5.531
136	29.148	79	75821	23446	6.719
137	29.352	80	24045	10104	2.131
139	29.496	81	77102	28281	6.833
141	29.919	82	32641	9013	2.893
144	30.448	83	41179	15389	3.649
145	30.534	84	70440	19324	6.242
147	30.839	85	98666	28630	8.743
150	31.831	86	15128	5612	1.341
154	32.317	n-C11	4752	1553	0.421
155	32.444	87	48630	15399	4.309
156	32.607	88	69054	23804	6.119
160	33.883	89	74158	20215	6.572
168	35.276	90	87642	19015	7.767
0	37.096	n-C12	0	0	0.000
0	37.828	i-C13	0	0	0.000
188	40.457	91	82353	19100	7.298

Sample Name=3573-1 Dup. (0.50ml sample + IS3-009)

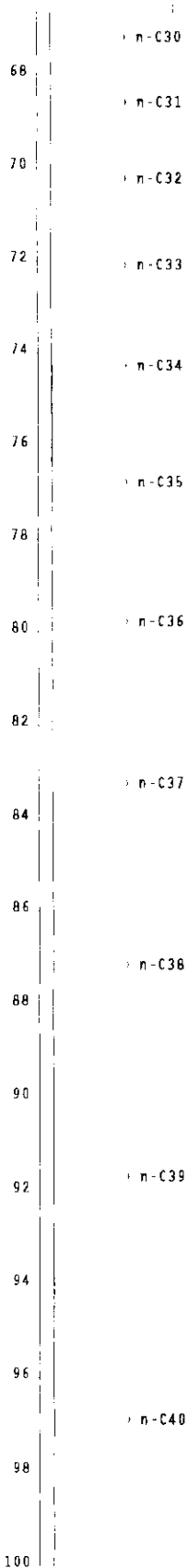
0.0 to 33.333 min. Low Y=7.781 High Y=573.215 mv Span=565.434



File=E:\DATA7\C344215.10R Date printed=08 ..-1996 Time= 10:28:39

Sample Name=3573-1 Dup. (0.50ml sample + IS3-009)

66.667 to 100.0 min. Low Y=7.781 High Y=573.215 mv Span=565.434



```

***** Gas Chromatography by Global GeoChemistry *****
*
* TODAY'S DATE...08-14-1996          TIME....10:31:38
* RAW DATA FILE NAME..E:\DATA7\C344215.10R
* SAMPLE NAME....3573-1 Dup. (0.50ml sample + IS3-009)
* DATE TAKEN..Aug 3, 1996 06:00:00
* METHOD FILE.....!!E:\DATA7\U344215J.MET
* METHOD:..Whole Oil Analysis
* CALIBRATION FILE...!!E:\DATA7\U344215J.CALCAL. FILE VERSION...-3
* INSTRUMENT..... HP6890 FID--FID          OPERATOR.... Y. Hiramine
* RUN TIME..... 100
* AREA REJECT..... 0          COM PORT.... 7
* SAMPLE WEIGHT... 1          DIL Factor.. 2
* Amount Injected 1          Int Std Amt . 1
* HEADING 1..GC method 1
* HEADING 2..
* FORMAT FILE..C:\DIRECT\UNOCAL.FMT
*****

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***** PEAKS DETECTED IN THIS CHROMATOGRAM *****

Peak #	Ret Time (min)	Peak Name	Peak Area	Peak Height	Amount (ug)
0	5.260	1	0	0	0.000
1	5.425	2	10412	11155	0.923
2	5.512	3	1073	968	0.095
3	5.553	4	42882	42297	3.800
4	5.601	5	1882	953	0.167
5	5.672	6	851	575	0.075
6	5.873	7	736	555	0.065
7	6.009	8	534513	519272	47.367
8	6.148	9	2738	1326	0.243
9	6.211	10	4039	2797	0.358
10	6.256	11	180756	153027	16.018
11	6.348	12	9797	3515	0.868
12	6.440	13	3952	1769	0.350
0	6.471	DCM	0	0	0.000
13	6.497	14	11827	5960	1.048
14	6.629	CS2	38888	23320	3.446
15	6.712	15	12770	10584	1.132
18	7.069	16	1124	700	0.100
19	7.200	17	137200	82175	12.158
20	7.271	18	509022	402488	45.108
21	7.561	19	311417	238888	27.597
22	7.951	20	203449	131391	18.029
23	8.090	21	5034	1963	0.446
24	8.138	22	6995	2771	0.620
27	8.331	23	1994	629	0.177
28	8.490	24	3599	1608	0.319
29	8.595	25	13921	9305	1.234
30	8.665	26	465887	315498	41.286
31	8.768	27	88443	55045	7.838
33	9.416	28	98165	39354	8.699
34	9.577	29	20379	9680	1.806
35	9.707	30	120113	70705	10.644
36	10.015	31	232864	142818	20.636
37	10.080	32	126152	70960	11.179
39	10.339	33	246269	140988	21.824
42	10.806	34	65462	37295	5.801
43	10.860	35	79915	42592	7.082
44	11.228	IS#1	143913	65804	12.753

45	11.321	36	221630	98991	11.640
47	12.184	37	144424	68999	12.798
49	12.765	38	47634	17451	4.221
50	12.854	39	61015	25951	5.407
54	13.604	40	37668	17904	3.338
55	13.814	41	840911	380035	74.519
56	14.147	42	59474	19119	5.270
57	14.452	43	108057	53271	9.576
58	14.529	44	54192	25433	4.802
59	14.609	45	25667	6337	2.275
61	14.833	46	124367	62920	11.021
62	14.889	47	46360	16947	4.108
64	15.394	48	11039	5173	0.978
70	16.231	49	116339	41824	10.310
72	17.097	50	6062	2663	0.537
75	17.506	51	15186	6505	1.346
76	17.815	52	7942	3362	0.704
79	18.213	53	36296	15756	3.216
82	18.800	54	288028	100069	25.524
83	19.282	55	1284053	319602	113.789
85	19.770	56	35386	17549	3.136
86	19.827	57	49344	19860	4.373
87	20.121	58	12473	5349	1.105
88	20.196	59	59571	23924	5.279
90	20.497	60	429373	172334	38.050
92	20.996	61	5152	2020	0.457
94	21.737	62	42608	17394	3.776
95	21.801	IS#2	190799	47530	16.908
96	22.327	63	25809	7625	2.287
99	22.778	64	9640	2998	0.854
103	23.655	65	12688	5182	1.124
105	23.933	66	104019	26174	9.218
106	24.342	67	316607	122972	28.057
107	24.454	68	190310	53759	16.865
108	24.761	69	217623	71561	19.285
110	25.154	70	30203	7861	2.676
111	25.265	71	143336	42648	12.702
114	25.863	72	4568	1046	0.405
115	26.082	73	606410	226185	53.738
116	26.375	74	9731	1577	0.862
117	26.780	75	2780	661	0.246
118	26.911	76	13989	3428	1.240
121	27.498	77	109137	41170	9.671
125	28.071	78	60653	15736	5.375
132	29.149	79	73980	22596	6.556
133	29.354	80	23700	9720	2.100
135	29.497	81	84260	27516	7.467
136	29.920	82	31722	8674	2.811
139	30.448	83	40068	14931	3.551
140	30.535	84	68597	18727	6.079
142	30.840	85	95887	27738	8.497
145	31.831	86	31972	5429	2.833
148	32.318	n-C11	4622	1495	0.410
149	32.445	87	47359	14952	4.197
150	32.608	88	66995	23113	5.937
153	33.883	89	71927	19569	6.374
161	35.277	90	85120	18311	7.543
0	37.096	n-C12	0	0	0.000
0	37.828	i-C13	0	0	0.000
181	40.457	91	79088	18218	7.009



KAPREALIAN ENGINEERING
INCORPORATED

CHAIN OF CUSTODY

A3573

SAMPLER JOHN GIDDINGS		SITE NAME & ADDRESS UNOCAL 3/5 5043 449 HEGENBERGER RD. OAKLAND, CA						ANALYSES REQUESTED					TURN AROUND TIME:		
WITNESSING AGENCY								FINGERPRINT							REMARKS
SAMPLE ID NO.	DATE	TIME	SOIL	PROD WATER	GRAB	COMP	NO. OF CONT.		SAMPLING LOCATION						
M: 5	7/31/96			X			2		PRODUCT IN WELL	*					
(-1)															
Relinquished by: (Signature)		Date/Time	Received by: (Signature)		The following MUST BE completed by the laboratory accepting samples for analysis:										
<i>[Signature]</i>		7/31/96	<i>[Signature]</i>		1. Have all samples received for analysis been stored in ice?										
Relinquished by: (Signature)		Date/Time	Received by: (Signature)		2. Will samples remain refrigerated until analyzed?										
<i>[Signature]</i>		8/1/96 11:00	<i>[Signature]</i>		3. Did any samples received for analysis have head space?										
Relinquished by: (Signature)		Date/Time	Received by: (Signature)		4. Were samples in appropriate containers and properly packaged?										
<i>[Signature]</i>			<i>[Signature]</i>												
Relinquished by: (Signature)		Date/Time	Received by: (Signature)		Signature _____ Title _____ Date _____										
<i>[Signature]</i>			<i>[Signature]</i>												



Inchcape Testing Services

Caleb Brett

REPORT OF ANALYSIS

Vessel : ---
 Port/Terminal : ---
 Client Reference : GGW2180
 Our Reference : LA/96-26071
 Date Sample Taken : ---
 Date Submitted : 08/05/96
 Date tested : 08/05/96
 Sample Designated As: ---
 Drawn By : AS SUBMITTED
 Representing : A3573-1

 Lab Reference : 96-5794

TEST	METHOD	RESULT	UNITS
Sulfur, Total:	D 5453	108	ppm


 ITS - Caleb Brett



GGC W.O. # AB573



GLOBAL GEOCHEMISTRY CORPORATION
CHAIN OF CUSTODY RECORD

Client Name: CANFDENTIK
Address: GGC 6919 STON AVE.
CANDOCK PARK, CA 91303

P.O. Project: 2180
Phone # 918
992 4103

STA. No. DATE TIME CO. # GRAB. *Type of sample Station Location Pre-serveative No. of Con-lainers

AB573-1 8-2-96 12:00 1 1 0 COX 1

REMARKS
ASTM D 1555
PARALLEL
FOR GGC

Relinquished by (Print Name & Signature): <u>[Signature]</u>	Date: <u>8-2-96</u>	Time: <u>12:00</u>	Received by (Print Name & Signature):	Date:	Time:
Relinquished by (Print Name & Signature):	Date:	Time:	Received by (Print Name & Signature):	Date:	Time:
Received by GGC:	Date:	Time:	Remarks:	Date:	Time:

Samples are discarded 30 days after results are reported unless other arrangements are made
Hazardous samples will be returned to client or disposed of at CLIENTS expense.
* Sample type W: water S: Soil SL: Sludge O: Other