

**Table OA5. Extraction and column chromatography data of oil seeps, oil stains, and oils.**

Sample#	Column Chromatography									Oil/Bitumen Extraction							Comments
	Sat/Arom	Sats	HC	Sats	Arom	NSO	Asph	Volit	Start Wt.	Extract	Rock Wt.	Extract Wt.	Technique	Time	Solvent	Sulfur	
	wt%	wt%	(mg)	(mg)	(mg)	(mg)	wt %	(mg)		(ppm-rock)	(g)	(mg)		(hrs)		Reaction	
1	1.7	43	69	21.41	12.53	10.47	5.11	na	58.87	10665	50.0	533.25	Soxhlet	24	CHCl3	minor	1
2	1.4	40	68	19.42	13.47	8.52	6.89	na	54.55	9883	50.0	494.13	Soxhlet	24	CHCl3	moderate	2
3	1.7	52	84	19.83	11.90	4.38	1.85	14.5	47.47	na	na	na	na	na	na	na	3
4	1.0	37	75	12.85	13.37	3.59	5.15	23.4	46.58	na	na	na	na	na	na	na	4
5	1.2	32	59	11.20	9.28	8.31	6.04	na	42.26	31899	36.0	1148.38	Soxhlet	24	CHCl3	moderate	2
6	1.7	46	72	1.91	1.10	1.10	0.07	na	5.13	5534	1.0	5.70	Soxhlet	24	DCM	small	
7	1.8	51	80	21.81	12.06	7.97	0.69	na	42.60	8610	24.7	213.00	Soxhlet	24	DCM	small	
8	1.4	47	81	17.10	12.37	5.05	1.71	14.2	45.06	na	na	na	na	na	na	na	
9	2.5	58	82	4.96	2.02	1.53	0.00	na	7.56	4773	1.8	8.40	Soxhlet	24	DCM	small	
10	1.3	39	68	2.47	1.86	1.33	0.67	na	6.66	2671	2.8	7.40	Soxhlet	24	DCM	small	
11	1.1	26	49	9.30	8.33	7.03	11.56	na	35.91	12521	4.8	59.85	Soxhlet	24	DCM	small	
12	1.7	48	77	18.09	10.88	8.18	0.45	na	38.61	12113	19.9	241.30	Soxhlet	24	DCM	small	
13	2.4	54	77	4.63	1.97	1.87	0.14	na	9.09	610	16.6	10.10	Soxhlet	24	DCM	small	
14	1.3	34	59	2.96	2.21	2.47	1.14	na	9.48	7315	1.6	11.85	Soxhlet	24	DCM	small	
15	1.1	40	77	4.95	4.65	2.76	0.17	na	13.26	3683	6.0	22.10	Soxhlet	24	DCM	small	
16	1.4	42	72	13.86	9.74	8.45	0.69	na	35.71	16607	6.7	111.60	Soxhlet	24	DCM	small	
17	1.4	48	82	22.54	15.87	6.52	1.63	14.6	57.70	na	na	na	na	na	na	na	
18	2.2	44	64	29.20	13.37	14.34	10.02	na	66.93			66.93	Soak	24	CHCl3		5
19	2.9	8	11	3.15	1.07	3.79	30.26	na	53.07	9192	156.9	1442.25	Soxhlet	24	CHCl3	none	6
20	1.2	27	48	21.92	17.72	35.59	7.28	na	89.03	4979	50.8	252.92	Soak	48	CHCl3		7
21	0.6	22	57	7.53	12.44	10.71	4.33	na	47.96	7875	165.5	1303.38	Soxhlet	24	CHCl3	trace	6
23	1.5	18	30	7.78	5.11	6.41	23.64	na	51.12	13567	47.1	639.00	Soak	1	CHCl3		
24	1.6	49	80	18.27	11.30	6.02	1.46	na	40.70	402	1265.3	508.75	Soak	1	CHCl3		
25	2.7	67	91	34.23	12.76	4.23	0.17	na	54.09	24631	54.9	1352.25	Soak	1	CHCl3		
26	2.5	61	85	32.80	12.88	7.30	0.71	na	60.04	30018	50.0	1500.88	Soak	1	CHCl3		
27	3.4	66	86	47.81	13.95	9.68	0.79	na	75.33			280.25	Soak	1.5	CHCl3		
28	4.2	23	28	10.63	2.53	7.96	25.85	na	54.91			156.00	Ultrasonic	0.2	CHCl3		8
29	3.4	73	94	36.59	10.63	2.77	0.30	2.4	56.49	na	na	na	na	na	na	na	9
30	2.7	66	90	27.91	10.24	3.15	1.14	19.0	51.86	na	na	na	na	na	na	na	
43	2.8	48	65	24.83	9.02	13.85	4.15	na	51.39	571	127.9	73.00	Soxhlet	24	CHCl3	none	

**Comments**

- 1 - Minor additional extraction.
- 2 - Soxhlet didn't cycle properly; minor addnl extraction.
- 3 - A drop of asph splashed out during asph removal
- 4 - Slight amount of asph spilled in cap
- 5 - Original PPM Bitumen not taken. Fractions based on 100%.
- 6 - Soxhlet didn't cycle properly.
- 7 - This sample appeared lean.
- 8 - Bitumen total weight does not represent the total amount
- 9 - Unorthodox column chromatography.