

COMPANY CITIES SERVICE OIL COMPANY
WELL HEGBERG MP NO. 221

FOR THE INTERVAL 30. TO 520.

SDEP=	30.00	EDEP=	520.00	GMIN=	-10.00	GMAX=	96.00
DSH =	2.62	NSH =	30.00	A =	0.62	M =	2.15
RW =	0.11	RSH =	2.00	SIRR=	40.00	BFT =	70.00
CALD=	9.00	GCUR=	1.00	DF =	1.00	DG =	2.65
NF =	100.00	LCOR=	-4.00	TF =	189.00	TM =	55.50
TSH =	100.00	CP =	1.00	SHCT=	40.00	SHDF=	0.
SSP =	45.00	XXXX=	0.	PMAX=	25.00	SRHM=	0.50
N =	2.00	RMF =	0.13	GRAD=	1.00	SWOP=	3.00
CALM=	15.00						

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COMPANY CITIES SERVICE OIL COMPANY
WELL HEGBERG MP NO. 21

FOR THE INTERVAL 521. TO 730.

SDEP=	30.00	EDEP=	730.00	GMIN=	56.00	GMAX=	135.00
DSH =	2.62	NSH =	30.00	A =	0.62	M =	2.15
RW =	0.11	RSH =	2.00	SIRR=	40.00	BFT =	70.00
CALD=	9.00	GCUR=	3.70	DF =	1.00	DG =	2.65
NF =	100.00	LCOR=	-4.00	TF =	189.00	TM =	55.50
TSH =	100.00	CP =	1.00	SHCT=	0.40	SHDF=	0.
SSP =	45.00	XXXX=	0.	PMAX=	30.00	SRHM=	0.50
N =	2.00	RMF =	0.13	GRAD=	1.00	SWOP=	3.00
CALM=	15.00						

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CITIES SERVICE OIL COMPANY
HEGBERG MP NO. 21

DEPTH	PERM. INDEX	WATER SAT. %	POROSITY %	DENSITY HYDROCARBON GM/CC	CLAY %	CUM. POR. FEET	CUM. HYCARB FEET
30.0	114	100	24.7	1.0	0	.25	.00
31.0	170	100	27.0	1.0	0	.52	.00
32.0	205	100	28.2	1.0	0	.80	.00
33.0	22	100	16.9	1.0	37	.97	.00
34.0	18	100	16.3	1.0	33	1.13	.00
35.0	19	100	16.4	1.0	28	1.30	.00
36.0	23	100	17.2	1.0	26	1.47	.00
37.0	30	100	18.2	1.0	23	1.65	.00
38.0	33	100	18.6	1.0	23	1.83	.00
39.0	36	100	19.0	1.0	19	2.03	.00
40.0	41	100	19.6	1.0	17	2.22	.00
41.0	49	100	20.4	1.0	16	2.43	.00
42.0	61	100	21.5	1.0	17	2.64	.00
43.0	77	100	22.6	1.0	17	2.87	.00
44.0	95	100	23.7	1.0	18	3.10	.00
45.0	104	100	24.2	1.0	17	3.34	.00
46.0	116	100	24.8	1.0	17	3.59	.00
47.0	122	100	25.1	1.0	17	3.84	.00
48.0	119	100	25.0	1.0	17	4.09	.00
49.0	116	100	24.8	1.0	17	4.34	.00
50.0	126	100	25.3	1.0	17	4.59	.00
51.0	114	100	24.7	1.0	18	4.84	.00
52.0	109	100	24.5	1.0	19	5.09	.00
53.0	112	100	24.6	1.0	18	5.33	.00
54.0	114	100	24.7	1.0	18	5.58	.00
55.0	132	100	25.5	1.0	18	5.83	.00
56.0	152	100	26.4	1.0	19	6.10	.00
57.0	152	100	26.3	1.0	17	6.36	.00
58.0	147	100	26.2	1.0	17	6.62	.00
59.0	143	100	26.0	1.0	17	6.88	.00
60.0	140	100	25.9	1.0	17	7.14	.00
61.0	136	100	25.7	1.0	16	7.40	.00
62.0	129	100	25.4	1.0	18	7.65	.00
63.0	121	100	25.0	1.0	18	7.90	.00
64.0	112	100	24.6	1.0	15	8.15	.00
65.0	77	100	22.6	1.0	0	8.38	.00
66.0	75	100	22.4	1.0	0	8.60	.00
67.0	71	100	22.2	1.0	0	8.82	.00
68.0	91	100	23.5	1.0	17	9.06	.00
69.0	89	100	23.3	1.0	19	9.29	.00
70.0	89	100	23.3	1.0	20	9.52	.00
71.0	106	100	24.3	1.0	20	9.77	.00
72.0	106	100	24.3	1.0	20	10.01	.00
73.0	95	100	23.7	1.0	19	10.25	.00
74.0	90	100	23.4	1.0	19	10.48	.00
75.0	88	100	23.3	1.0	18	10.71	.00
76.0	91	100	23.5	1.0	21	10.95	.00
77.0	77	100	22.6	1.0	21	11.17	.00
78.0	53	100	20.8	1.0	18	11.38	.00
79.0	27	100	17.8	1.0	23	11.56	.00

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CITIES SERVICE OIL COMPANY
HEGBERG MP NO. 21

DEPTH	PERM. INDEX MD	WATER SAT. %	POROSITY %	DENSITY HYDROCARBON GM/CC	CLAY %	CUM. POR. FEET	CUM. HYCARB FEET
80.0	7	100	13.1	1.0	28	11.69	.00
81.0	3	100	10.5	1.0	34	11.80	.00
103.0	2	100	9.8	1.0	27	13.02	.00
104.0	3	100	10.9	1.0	20	13.13	.00
105.0	4	100	11.4	1.0	22	13.24	.00
106.0	3	100	10.8	1.0	30	13.35	.00
121.0	0	100	6.8	1.0	26	14.40	.00
122.0	0	100	6.9	1.0	24	14.47	.00
123.0	0	100	6.9	1.0	25	14.54	.00
124.0	0	100	6.4	1.0	37	14.60	.00
125.0	0	100	4.5	1.0	38	14.65	.00
126.0	0	100	6.1	1.0	37	14.71	.00
127.0	0	100	6.2	1.0	36	14.77	.00
128.0	0	100	6.3	1.0	36	14.84	.00
129.0	0	100	6.4	1.0	36	14.90	.00
130.0	0	100	6.3	1.0	37	14.96	.00
131.0	0	100	6.2	1.0	39	15.02	.00
135.0	4	100	11.6	1.0	34	15.45	.00
136.0	2	100	10.0	1.0	29	15.55	.00
137.0	4	100	11.4	1.0	24	15.67	.00
141.0	10	100	14.3	1.0	23	16.04	.00
142.0	9	100	13.7	1.0	21	16.18	.00
143.0	7	100	13.0	1.0	20	16.31	.00
144.0	7	100	13.2	1.0	19	16.44	.00
145.0	7	100	13.1	1.0	27	16.57	.00
148.0	3	100	10.8	1.0	36	16.89	.00
149.0	4	100	11.4	1.0	33	17.01	.00
154.0	73	100	22.4	1.0	27	17.82	.00
155.0	73	100	22.6	1.0	25	18.05	.00
156.0	78	100	22.7	1.0	23	18.28	.00
157.0	76	100	22.5	1.0	21	18.50	.00
158.0	68	100	21.9	1.0	23	18.72	.00
159.0	62	100	21.5	1.0	25	18.94	.00
160.0	53	100	21.2	1.0	24	19.15	.00
161.0	53	100	21.2	1.0	25	19.36	.00
162.0	65	100	21.7	1.0	22	19.58	.00
163.0	59	100	21.2	1.0	20	19.79	.00
164.0	34	100	18.8	1.0	20	19.93	.00
165.0	13	100	15.2	1.0	19	20.13	.00
166.0	6	100	12.7	1.0	17	20.26	.00
167.0	3	100	11.0	1.0	17	20.37	.00
168.0	3	100	10.5	1.0	24	20.47	.00
169.0	2	100	9.5	1.0	29	20.57	.00
170.0	1	100	8.9	1.0	30	20.66	.00

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HEGGERG MP NO. 21

DEPTH	PERM. INDEX MD	WATER SAT. %	POROSITY %	DEN- HYDROCARBON GM/CC	CLAY %	CUM. POR. FEET	CUM. HYCARB FEET
171.0	1	100	8.9	1.0	23	20.75	.00
172.0	2	100	9.8	1.0	19	20.84	.00
189.0	0	100	5.3	1.0	26	21.90	.00
190.0	0	100	6.0	1.0	20	21.96	.00
191.0	0	100	6.4	1.0	19	22.02	.00
192.0	1	100	7.6	1.0	18	22.10	.00
193.0	1	100	8.9	1.0	17	22.19	.00
194.0	1	100	8.8	1.0	19	22.28	.00
199.0	0	100	6.6	1.0	32	22.62	.00
200.0	1	100	7.9	1.0	31	22.70	.00
201.0	0	100	5.7	1.0	30	22.76	.00
202.0	0	100	5.2	1.0	28	22.81	.00
203.0	0	100	5.6	1.0	23	22.87	.00
204.0	0	100	6.2	1.0	23	22.93	.00
205.0	0	100	7.1	1.0	20	23.00	.00
206.0	1	100	8.8	1.0	16	23.09	.00
207.0	3	100	10.4	1.0	14	23.19	.00
208.0	6	100	12.4	1.0	16	23.32	.00
222.0	1	100	8.4	1.0	37	24.22	.00
223.0	1	100	7.6	1.0	33	24.29	.00
224.0	1	100	7.7	1.0	30	24.37	.00
240.0	0	100	6.7	1.0	31	25.30	.00
259.0	1	100	8.0	1.0	35	26.20	.00
260.0	1	100	9.2	1.0	31	26.29	.00
271.0	2	100	9.8	1.0	36	26.90	.00
272.0	1	100	9.0	1.0	26	26.99	.00
273.0	3	100	10.5	1.0	28	27.09	.00
281.0	1	100	7.9	1.0	36	27.49	.00
282.0	1	100	8.6	1.0	31	27.57	.00
283.0	1	100	8.6	1.0	30	27.66	.00
289.0	1	100	8.2	1.0	26	28.10	.00
290.0	2	100	9.6	1.0	19	28.20	.00
291.0	3	100	10.7	1.0	17	28.31	.00
292.0	5	100	11.9	1.0	16	28.43	.00
293.0	5	100	12.1	1.0	32	28.55	.00
305.0	1	100	7.7	1.0	34	29.22	.00
306.0	1	100	8.6	1.0	29	29.30	.00
307.0	1	100	9.0	1.0	23	29.39	.00
308.0	3	100	10.6	1.0	20	29.50	.00
309.0	4	100	11.4	1.0	19	29.61	.00
310.0	4	100	11.7	1.0	21	29.73	.00

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DEPTH	PERM. INDEX	WATER SAT. %	POROSITY %	DENSITY HYDROCARBON GM/CC	CLAY %	CUM. POR. FEET	CUM. HYCARB FEET
311.0	4	100	11.4	1.0	23	29.84	.00
312.0	3	100	10.8	1.0	25	29.95	.00
313.0	2	100	9.6	1.0	26	30.05	.00
314.0	1	100	8.9	1.0	27	30.14	.00
330.0	0	100	6.8	1.0	38	30.97	.00
331.0	0	100	5.7	1.0	28	31.03	.00
332.0	0	100	4.5	1.0	24	31.07	.00
339.0	0	100	6.5	1.0	19	31.35	.00
340.0	0	100	6.0	1.0	20	31.41	.00
341.0	0	100	6.0	1.0	19	31.47	.00
342.0	0	100	6.2	1.0	16	31.53	.00
343.0	0	100	5.7	1.0	15	31.59	.00
344.0	0	100	5.2	1.0	17	31.64	.00
345.0	0	100	5.6	1.0	20	31.70	.00
347.0	0	100	6.9	1.0	17	31.82	.00
348.0	1	100	1.0	13	31.90	.00	
349.0	1	100	7.6	1.0	15	31.97	.00
359.0	9	100	13.9	1.0	35	32.56	.00
360.0	6	100	12.8	1.0	37	32.69	.00
361.0	7	100	13.0	1.0	31	32.82	.00
362.0	7	100	13.1	1.0	26	32.95	.00
363.0	7	100	13.1	1.0	26	33.06	.00
364.0	6	100	12.4	1.0	29	33.21	.00
365.0	0	100	6.9	1.0	29	33.28	.00
366.0	0	100	6.4	1.0	28	33.34	.00
367.0	0	100	6.7	1.0	23	33.41	.00
368.0	1	100	7.5	1.0	17	33.48	.00
369.0	1	100	8.8	1.0	16	33.57	.00
385.0	1	100	8.4	1.0	26	34.23	.00
395.0	5	100	12.2	1.0	37	34.98	.00
398.0	5	100	11.9	1.0	32	35.26	.00
399.0	4	100	11.5	1.0	31	35.37	.00
402.0	1	100	7.3	1.0	27	35.62	.00
403.0	1	100	7.4	1.0	25	35.69	.00
404.0	0	100	7.0	1.0	27	35.76	.00
405.0	0	100	6.2	1.0	24	35.82	.00
406.0	0	100	5.7	1.0	25	35.88	.00
412.0	1	100	8.0	1.0	25	36.15	.00
413.0	1	100	9.1	1.0	16	36.25	.00
414.0	2	100	9.9	1.0	13	36.34	.00
415.0	3	100	10.7	1.0	13	36.45	.00

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DEPTH	PERM. INDEX	WATER SAT.	POROSITY %	DENSITY HYDROCARBON GM/CC	CLAY %	CUM. POR. FEET	CUM. HYCARB FEET
416.0	3	100	10.8	1.0	16	36.56	.00
417.0	3	100	10.5	1.0	17	36.66	.00
418.0	6	100	12.6	1.0	19	36.79	.00
419.0	10	100	14.4	1.0	26	36.93	.00
421.0	12	100	14.9	1.0	35	37.22	.00
430.0	0	100	5.8	1.0	30	37.67	.00
431.0	0	100	6.2	1.0	29	37.73	.00
432.0	0	100	5.2	1.0	33	37.79	.00
433.0	0	100	4.9	1.0	29	37.84	.00
434.0	0	100	5.0	1.0	26	37.89	.00
435.0	0	100	4.1	1.0	26	37.93	.00
436.0	0	100	5.2	1.0	23	37.98	.00
437.0	0	100	7.0	1.0	23	38.05	.00
438.0	1	100	7.9	1.0	28	38.13	.00
439.0	1	100	8.5	1.0	31	38.21	.00
440.0	1	100	9.0	1.0	31	38.30	.00
441.0	3	100	10.5	1.0	28	38.41	.00
442.0	4	3	1.0	21 38.52		.00	
443.0	12	100	14.7	1.0	15	38.67	.00
444.0	43	100	19.8	1.0	3	38.86	.00
445.0	59	100	21.2	1.0	14	39.08	.00
446.0	37	100	19.1	1.0	24	39.27	.00
447.0	17	100	16.0	1.0	27	39.43	.00
448.0	6	100	12.5	1.0	30	39.55	.00
449.0	1	100	7.5	1.0	35	39.63	.00
460.0	0	100	5.2	1.0	26	40.26	.00
461.0	0	100	5.3	1.0	24	40.31	.00
462.0	0	100	5.3	1.0	22	40.36	.00
463.0	0	100	6.1	1.0	23	40.42	.00
487.0	2	100	9.9	1.0	23	41.82	.00
494.0	5	100	11.9	1.0	33	42.32	.00
495.0	5	100	12.3	1.0	31	42.44	.00
496.0	4	100	11.7	1.0	37	42.56	.00
527.0	1	100	8.0	1.0	26	44.13	.00
528.0	1	100	8.1	1.0	23	44.21	.00
529.0	1	100	8.2	1.0	20	44.29	.00
530.0	1	100	8.6	1.0	19	44.38	.00
531.0	3	100	11.1	1.0	19	44.49	.00
532.0	1	100	8.2	1.0	25	44.57	.00
535.0	1	100	8.3	1.0	29	44.80	.00
536.0	1	100	8.2	1.0	27	44.88	.00
537.0	1	100	8.1	1.0	22	44.96	.00
538.0	3	100	11.1	1.0	9	45.07	.00

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DEPTH	PERM. INDEX MD	WATER SAT. %	POROSITY %	DENSITY HYDROCARBON GM/CC	CLAY %	CUM. POR. FEET	CUM. HYCARB FEET
539.0	5	100	12.0	1.0	5	45.19	.00
540.0	1	100	8.6	1.0	15	45.28	.00
545.0	1	100	7.9	1.0	33	45.62	.00
546.0	1	100	8.0	1.0	29	45.70	.00
547.0	1	100	7.9	1.0	22	45.78	.00
548.0	1	100	7.9	1.0	19	45.86	.00
549.0	123	75	25.3	1.0	5	46.11	.06
550.0	102	78	24.1	1.0	5	46.35	.12
551.0	76	82	22.5	1.0	7	46.53	.16
552.0	67	84	21.9	1.0	7	46.80	.19
553.0	38	99	19.2	1.0	10	46.99	.19
554.0	1	100	8.2	1.0	16	47.07	.19
555.0	1	100	8.2	1.0	28	47.15	.19
561.0	0	100	5.6	1.0	40	47.41	.19
562.0	0	100	6.0	1.0	30	47.47	.19
563.0	1	100	7.9	1.0	17	47.55	.19
564.0	12	100	14.8	1.0	15	47.70	.19
565.0	13	100	15.0	1.0	15	47.85	.19
566.0	1	100	8.1	1.0	17	47.93	.19
567.0	1	100	8.1	1.0	16	48.01	.19
568.0	6	100	12.5	1.0	14	48.13	.19
569.0	1	100	8.3	1.0	15	48.22	.19
570.0	1	100	8.4	1.0	18	48.30	.19
571.0	2	100	9.6	1.0	8	48.40	.19
572.0	2	100	9.9	1.0	3	48.50	.19
573.0	5	100	12.1	1.0	1	48.62	.19
579.0	2	100	9.7	1.0	32	49.02	.19
580.0	1	100	9.2	1.0	21	49.11	.19
581.0	1	100	7.4	1.0	15	49.18	.19
582.0	1	100	7.5	1.0	4	49.26	.19
583.0	1	100	8.7	1.0	1	49.34	.19
584.0	2	100	9.7	1.0	2	49.44	.19
585.0	2	100	9.6	1.0	4	49.54	.19
586.0	2	100	10.2	1.0	4	49.64	.19
588.0	12	100	14.7	1.0	3	49.90	.19
589.0	1	100	8.3	1.0	19	49.98	.19
590.0	1	100	8.1	1.0	26	50.06	.19
591.0	1	100	7.9	1.0	28	50.14	.19
592.0	1	100	7.9	1.0	27	50.22	.19
593.0	1	100	8.0	1.0	26	50.30	.19
594.0	1	100	8.0	1.0	20	50.38	.19
595.0	0	100	6.8	1.0	13	50.45	.19
596.0	1	100	7.5	1.0	8	50.52	.19
597.0	1	100	8.8	1.0	8	50.61	.19
598.0	2	100	9.9	1.0	11	50.71	.19
599.0	2	100	10.0	1.0	18	50.81	.19

537.0

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DEPTH	PERM. INDEX MD	WATER SAT. %	POROSITY %	DENSITY HYDROCARBON GM/CC	CLAY %	CUM. POR. FEET	CUM. HYCARB FEET
600.0	3	100	10.5	1.0	17	50.91	.19
601.0	4	100	11.4	1.0	18	51.03	.19
602.0	3	100	10.6	1.0	21	51.13	.19
603.0	2	100	9.3	1.0	15	51.23	.19
604.0	0	100	6.6	1.0	8	51.29	.19
605.0	1	100	7.4	1.0	1	51.37	.19
606.0	1	100	8.1	1.0	3	51.45	.19
607.0	1	100	8.1	1.0	5	51.53	.19
608.0	1	100	8.4	1.0	6	51.61	.19
609.0	1	100	8.8	1.0	9	51.70	.19
610.0	2	100	10.2	1.0	10	51.80	.19
611.0	3	100	11.0	1.0	15	51.91	.19
612.0	3	100	10.9	1.0	20	52.02	.19
613.0	3	100	10.5	1.0	27	52.13	.19
614.0	2	100	9.5	1.0	34	52.22	.19
617.0	2	100	9.9	1.0	29	52.51	.19
618.0	2	100	9.6	1.0	14	52.61	.19
619.0	2	100	9.9	1.0	8	52.71	.19
620.0	5	100	12.4	1.0	2	52.83	.19
630.0	1	100	7.7	1.0	36	53.32	.19
631.0	2	100	10.0	1.0	29	53.42	.19
632.0	1	100	8.5	1.0	18	53.51	.19
633.0	1	100	8.3	1.0	13	53.59	.19
634.0	1	100	8.9	1.0	11	53.68	.19
635.0	2	100	9.4	1.0	12	53.77	.19
636.0	2	100	9.4	1.0	13	53.87	.19
637.0	2	100	9.4	1.0	16	53.96	.19
638.0	2	100	10.0	1.0	12	54.06	.19
639.0	1	100	8.4	1.0	16	54.14	.19
640.0	1	100	8.3	1.0	26	54.23	.19
651.0	1	100	7.9	1.0	24	54.78	.19
652.0	1	100	7.6	1.0	11	54.86	.19
653.0	2	100	10.3	1.0	14	54.96	.19
654.0	3	100	10.8	1.0	27	55.07	.19
656.0	2	100	10.2	1.0	28	55.26	.19
657.0	3	100	10.5	1.0	20	55.37	.19
658.0	4	100	11.7	1.0	11	55.48	.19
659.0	11	99	14.6	1.0	7	55.63	.19
660.0	99	56	23.9	.7	2	55.87	.30
661.0	127	52	25.3	.9	4	56.12	.42
662.0	127	53	25.3	.9	3	56.33	.54
663.0	122	54	25.1	.9	2	56.63	.65
664.0	117	53	24.8	.9	2	56.87	.76
665.0	125	60	25.2	.3	2	57.13	.86
666.0	145	59	26.1	.3	3	57.39	.97
667.0	163	53	26.8	.7	5	57.65	1.08

OWLL

CITIES SERVICE OIL COMPANY
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DEPTH	PERM. INDEX MD	WATER SAT. %	POROSITY %	DENSITY HYDROCARBON GM/CC	CLAY %	CUM. POR. FEET	CUM. HYCARB FEET
668.0	168	61	27.0	.7	4	57.92	1.19
669.0	159	65	26.6	.8	4	58.19	1.23
670.0	146	69	26.1	.8	4	58.45	1.36
671.0	123	73	25.1	1.0	5	58.70	1.43
672.0	102	75	24.1	1.0	8	58.94	1.49
673.0	102	72	24.1	1.0	15	59.19	1.56
674.0	100	70	24.0	1.0	22	59.43	1.63
675.0	96	69	23.8	1.0	22	59.66	1.70
676.0	89	70	23.4	1.0	20	59.90	1.77
677.0	83	72	22.9	1.0	20	60.13	1.84
678.0	77	73	22.6	1.0	23	60.35	1.90
679.0	42	85	19.7	1.0	30	60.55	1.93
702.0	1	100	7.6	1.0	37	61.76	1.93
703.0	1	100	8.2	1.0	15	61.84	1.93
708.0	2	100	9.8	1.0	36	62.23	1.93
709.0	1	100	7.6	1.0	35	62.31	1.93
725.0	11	100	14.6	1.0	0	63.15	1.93
726.0	11	100	14.6	1.0	0	63.29	1.93
727.0	11	100	14.5	1.0	0	63.44	1.93
728.0	11	100	14.5	1.0	0	63.58	1.93
729.0	11	100	14.6	1.0	0	63.73	1.93
730.0	11	100	14.5	1.0	0	63.88	1.93

OWLL

CITIES SERVICE OIL COMPANY
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	GR	POR	RT	RXD	SKD	RJS	SH
540.	100.3	6.6	2.7	6.1	100.0	0.	100.0
541.	115.9	6.4	2.2	2.9	100.0	0.	100.0
542.	116.9	5.9	1.3	3.2	100.0	0.	100.0
543.	113.4	6.6	1.8	3.1	100.0	0.	100.0
544.	110.3	7.2	1.8	3.2	100.0	0.	100.0
545.	105.4	7.9	1.8	3.2	100.0	0.	100.0
546.	103.1	8.0	1.9	3.3	100.0	0.	100.0
547.	96.6	7.9	2.1	3.5	100.0	0.	100.0
548.	92.5	7.9	2.2	3.5	100.0	0.	100.0
549.	33.7	25.3	2.3	3.6	75.2	24.8	75.2
550.	32.6	24.1	2.4	3.4	77.6	22.4	77.6
551.	35.3	22.5	2.4	3.3	82.2	17.8	82.2
552.	37.1	21.9	2.5	3.4	83.8	16.2	83.8
553.	36.3	19.2	2.4	3.5	99.2	0.8	99.2
554.	91.8	3.2	2.1	4.0	100.0	0.	100.0
555.	105.1	8.2	1.9	4.5	100.0	0.	100.0
556.	119.6	5.3	1.6	3.1	100.0	0.	100.0
557.	122.8	4.3	1.4	2.5	100.0	0.	100.0
558.	126.6	2.4	1.2	2.4	100.0	0.	100.0
559.	123.7	3.1	1.2	2.5	100.0	0.	100.0
560.	114.6	4.8	1.2	2.5	100.0	0.	100.0
561.	110.1	5.6	1.3	2.3	100.0	0.	100.0
562.	103.2	6.0	1.3	2.4	100.0	0.	100.0
563.	90.5	7.9	1.6	2.9	100.0	0.	100.0
564.	88.7	14.3	1.8	3.2	100.0	0.	100.0
565.	39.3	15.0	2.0	3.2	100.0	0.	100.0
566.	91.2	8.1	2.2	3.1	100.0	0.	100.0
567.	90.8	8.1	2.5	3.1	100.0	0.	100.0
568.	39.4	12.5	2.8	3.8	100.0	0.	100.0
569.	93.3	8.3	3.0	4.3	100.0	0.	100.0
570.	98.1	3.4	3.9	3.7	100.0	0.	100.0
571.	34.4	9.6	5.0	6.1	100.0	0.	100.0
572.	72.7	9.9	4.9	12.6	100.0	0.	100.0
573.	83.3	12.1	3.9	8.4	100.0	0.	100.0
574.	110.9	7.3	3.2	3.7	100.0	0.	100.0
575.	123.1	4.5	2.6	3.4	100.0	0.	100.0
576.	123.2	4.3	2.5	3.3	100.0	0.	100.0
577.	120.6	5.1	2.4	3.3	100.0	0.	100.0
578.	114.4	8.6	2.4	3.5	100.0	0.	100.0
579.	109.3	9.7	2.4	3.6	100.0	0.	100.0
580.	100.0	9.2	2.6	3.3	100.0	0.	100.0
581.	92.1	7.4	3.1	3.5	100.0	0.	100.0
582.	71.0	7.5	3.4	6.9	100.0	0.	100.0
583.	60.2	3.7	4.1	7.0	100.0	0.	100.0
584.	67.2	9.7	4.6	4.5	100.0	0.	100.0
585.	73.8	9.6	4.5	4.5	100.0	0.	100.0
586.	73.6	10.2	4.2	5.6	100.0	0.	100.0
587.	72.1	11.2	3.7	6.2	100.0	0.	100.0
588.	78.6	14.7	3.2	5.7	100.0	0.	100.0
589.	96.8	8.3	2.7	3.2	100.0	0.	100.0

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	GR	POR	RT	RXD	SKD	RDS	SN
590.	101.8	8.1	2.2	3.3	100.0	0.	100.0
591.	101.8	7.9	2.1	3.5	100.0	0.	100.0
592.	101.0	7.9	2.0	3.5	100.0	0.	100.0
593.	100.3	8.0	2.1	3.4	100.0	0.	100.0
594.	94.8	8.0	2.5	3.4	100.0	0.	100.0
595.	89.5	6.8	2.8	3.6	100.0	0.	100.0
596.	81.2	7.5	3.2	5.3	100.0	0.	100.0
597.	79.9	8.8	3.4	7.1	100.0	0.	100.0
598.	90.7	9.9	3.7	5.5	100.0	0.	100.0
599.	97.7	10.0	3.4	4.7	100.0	0.	100.0
600.	97.3	10.5	3.1	5.3	100.0	0.	100.0
601.	99.3	11.4	3.0	4.9	100.0	0.	100.0
602.	101.2	10.6	3.3	3.9	100.0	0.	100.0
603.	94.4	9.3	3.5	4.9	100.0	0.	100.0
604.	85.0	6.6	4.5	6.5	100.0	0.	100.0
605.	65.9	7.4	5.4	15.7	100.0	0.	100.0
606.	71.0	8.1	6.1	9.1	100.0	0.	100.0
607.	78.5	8.1	6.5	7.7	100.0	0.	100.0
608.	84.2	8.4	6.2	5.8	100.0	0.	100.0
609.	86.0	8.8	5.5	6.7	100.0	0.	100.0
610.	89.7	10.2	5.0	7.1	100.0	0.	100.0
611.	96.0	11.0	4.2	5.7	100.0	0.	100.0
612.	100.4	10.9	3.4	4.8	100.0	0.	100.0
613.	105.6	10.5	3.1	4.5	100.0	0.	100.0
614.	110.0	9.5	2.7	4.2	100.0	0.	100.0
615.	110.5	9.6	2.6	4.3	100.0	0.	100.0
616.	111.4	9.3	2.6	4.2	100.0	0.	100.0
617.	108.6	9.9	3.2	4.2	100.0	0.	100.0
618.	92.4	9.6	3.9	4.7	100.0	0.	100.0
619.	83.2	9.9	4.2	15.5	100.0	0.	100.0
620.	80.5	12.4	3.6	25.9	100.0	0.	100.0
621.	116.7	6.3	2.7	15.4	100.0	0.	100.0
622.	123.6	3.1	2.2	4.8	100.0	0.	100.0
623.	123.2	3.2	1.7	3.4	100.0	0.	100.0
624.	120.5	3.8	1.6	3.5	100.0	0.	100.0
625.	119.4	4.0	1.6	3.4	100.0	0.	100.0
626.	118.1	4.2	1.5	3.3	100.0	0.	100.0
627.	116.2	4.6	1.5	3.2	100.0	0.	100.0
628.	114.0	4.9	1.5	3.2	100.0	0.	100.0
629.	110.2	7.2	1.5	3.3	100.0	0.	100.0
630.	107.9	7.7	1.7	3.2	100.0	0.	100.0
631.	102.8	10.0	1.9	3.2	100.0	0.	100.0
632.	92.8	8.5	2.1	3.3	100.0	0.	100.0
633.	87.3	8.3	2.4	4.0	100.0	0.	100.0
634.	83.9	8.9	2.6	4.3	100.0	0.	100.0
635.	86.4	9.4	2.7	3.9	100.0	0.	100.0
636.	94.1	9.4	2.8	3.6	100.0	0.	100.0
637.	94.7	9.4	3.2	3.5	100.0	0.	100.0
638.	87.7	10.0	3.5	5.1	100.0	0.	100.0
639.	94.1	8.4	3.8	6.3	100.0	0.	100.0

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	GR	PDR	MT	RXD	SXD	ROS	S.I
640.	107.3	3.3	3.9	5.4	100.0	0.	100.0
641.	113.4	7.0	3.7	4.5	100.0	0.	100.0
642.	116.5	6.1	3.4	4.0	100.0	0.	100.0
643.	118.3	5.5	3.1	4.0	100.0	0.	100.0
644.	118.3	5.7	2.9	3.9	100.0	0.	100.0
645.	121.6	4.8	2.6	3.3	100.0	0.	100.0
646.	120.4	5.1	2.4	3.7	100.0	0.	100.0
647.	123.5	4.2	2.3	3.5	100.0	0.	100.0
648.	134.8	1.5	2.1	3.4	100.0	0.	100.0
649.	134.7	1.8	2.1	3.1	100.0	0.	100.0
650.	121.1	5.9	2.4	3.2	100.0	0.	100.0
651.	98.7	7.9	2.8	3.4	100.0	0.	100.0
652.	35.3	7.6	3.1	3.4	100.0	0.	100.0
653.	95.0	10.3	3.1	8.2	100.0	0.	100.0
654.	106.4	10.3	3.1	5.7	100.0	0.	100.0
655.	112.0	9.1	2.9	3.6	100.0	0.	100.0
656.	102.9	10.2	2.7	3.3	100.0	0.	100.0
657.	95.7	10.5	3.1	3.9	100.0	0.	100.0
658.	35.7	11.7	3.6	4.8	100.0	0.	100.0
659.	79.6	14.6	4.2	9.2	99.4	<u>0.6</u>	99.4
660.	82.6	23.9	4.5	7.9	56.4	43.6	56.4
661.	82.4	25.3	4.7	5.7	52.5	47.5	52.1
662.	76.2	25.3	4.5	4.7	57.3	42.2	52.8
663.	73.4	25.1	4.3	4.9	57.2	42.8	54.5
664.	73.8	24.8	3.9	4.3	61.3	38.7	57.7
665.	78.7	25.2	3.6	4.3	60.8	39.2	59.5
666.	85.1	26.1	3.4	4.3	58.6	41.4	58.6
667.	91.5	26.8	3.3	4.0	59.1	40.9	58.2
668.	39.5	27.0	3.0	3.8	60.8	39.2	60.8
669.	39.4	26.6	2.7	3.4	64.6	35.4	64.6
670.	33.3	26.1	2.4	3.3	69.5	30.5	69.5
671.	33.9	25.1	2.4	3.7	72.7	27.3	72.7
672.	90.6	24.1	2.5	3.6	75.2	24.3	75.2
673.	95.5	24.1	2.7	4.0	72.3	27.7	72.3
674.	100.1	24.0	2.9	4.0	70.3	29.7	70.3
675.	100.4	23.8	3.0	3.9	68.8	31.2	68.8
676.	99.4	23.4	3.0	3.9	70.2	29.3	70.2
677.	100.4	22.9	3.0	4.0	71.7	28.3	71.7
678.	104.5	22.6	3.0	4.0	73.1	26.9	73.1
679.	109.4	19.7	3.0	4.0	85.4	14.6	85.4
680.	115.0	15.3	2.9	3.9	100.0	0.	100.0
681.	117.3	11.9	2.8	3.9	100.0	0.	100.0
682.	119.3	9.5	2.8	4.0	100.0	0.	100.0
683.	121.9	8.2	2.7	3.9	100.0	0.	100.0
684.	121.0	8.1	2.6	3.7	100.0	0.	100.0
685.	123.5	6.7	2.6	3.7	100.0	0.	100.0
686.	126.9	4.9	2.6	3.9	100.0	0.	100.0
687.	127.7	4.5	2.6	4.0	100.0	0.	100.0
688.	127.9	4.5	2.6	3.9	100.0	0.	100.0
689.	127.9	4.6	2.6	3.3	100.0	0.	100.0

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	GR	PJR	RT	RXD	SKD	ROS	S.I
690.	127.3	4.7	2.6	3.8	100.0	0.	100.0
691.	127.2	4.6	2.6	3.8	100.0	0.	100.0
692.	129.6	2.1	2.6	3.7	100.0	0.	100.0
693.	131.9	1.4	2.6	3.7	100.0	0.	100.0
694.	136.3	1.2	2.6	3.8	100.0	0.	100.0
695.	135.2	1.1	2.6	3.8	100.0	0.	100.0
696.	135.6	1.3	2.5	3.8	100.0	0.	100.0
697.	132.8	1.3	2.4	3.8	100.0	0.	100.0
698.	128.5	3.5	2.3	3.7	100.0	0.	100.0
699.	125.9	3.4	2.3	3.5	100.0	0.	100.0
700.	123.9	4.0	2.3	3.5	100.0	0.	100.0
701.	115.8	6.1	2.6	3.4	100.0	0.	100.0
702.	109.3	7.6	2.9	4.2	100.0	0.	100.0
703.	91.7	8.2	3.0	12.4	100.0	0.	100.0
704.	112.6	7.2	3.1	9.0	100.0	0.	100.0
705.	119.6	5.4	2.8	3.8	100.0	0.	100.0
706.	117.8	8.0	2.5	3.7	100.0	0.	100.0
707.	113.2	9.3	2.4	3.3	100.0	0.	100.0
708.	109.7	9.8	2.5	3.1	100.0	0.	100.0
709.	109.7	7.6	2.5	4.6	100.0	0.	100.0
710.	114.6	6.6	2.6	4.5	100.0	0.	100.0
711.	116.0	6.3	2.6	3.9	100.0	0.	100.0
712.	116.0	6.3	2.5	3.5	100.0	0.	100.0
713.	120.4	5.1	2.5	3.5	100.0	0.	100.0
714.	124.9	3.8	2.4	3.7	100.0	0.	100.0
715.	126.8	3.1	2.3	3.7	100.0	0.	100.0
716.	126.4	3.3	2.3	3.7	100.0	0.	100.0
717.	122.7	4.5	2.3	3.5	100.0	0.	100.0
718.	123.7	4.1	2.3	3.4	100.0	0.	100.0
719.	125.5	3.5	2.3	3.5	100.0	0.	100.0
720.	123.7	4.0	2.2	3.6	100.0	0.	100.0
721.	123.2	4.2	2.2	3.5	100.0	0.	100.0
722.	122.0	4.5	2.2	3.4	100.0	0.	100.0
723.	121.2	4.8	2.3	3.5	100.0	0.	100.0
724.	119.9	5.2	2.3	3.3	100.0	0.	100.0
725.	35.3	14.6	2.3	3.2	100.0	0.	100.0
726.	0.2	14.6	2.3	3.1	100.0	0.	100.0
727.	0.2	14.5	2.2	3.0	100.0	0.	100.0
728.	0.3	14.5	2.2	3.0	100.0	0.	100.0
729.	0.4	14.6	2.3	3.0	100.0	0.	100.0
730.	0.5	14.5	2.3	3.0	100.0	0.	100.0
731.	0.5	7.0	2.3	3.1	100.0	0.	100.0
732.	0.	6.1	0.	3.1	100.0	0.	100.0
733.	0.	5.5	0.	0.	100.0	0.	100.0
734.	0.	5.7	0.	0.	100.0	0.	100.0
735.	0.	4.8	0.	0.	100.0	0.	100.0
736.	0.	5.1	0.	0.	100.0	0.	100.0
737.	0.	4.2	0.	0.	100.0	0.	100.0
738.	0.	1.5	0.	0.	100.0	0.	100.0
739.	0.	1.8	0.	0.	100.0	0.	100.0

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CITIES SERVICE OIL COMPANY
HEGBERG MP NO. 21

	GR	POR	RT	RXD	SXD	RDS	SW
740.	0.	5.9	0.	0.	100.0	0.	100.0
741.	0.	7.9	0.	0.	100.0	0.	100.0
742.	0.	7.6	0.	0.	100.0	0.	100.0
743.	0.	10.3	0.	0.	100.0	0.	100.0
744.	0.	10.3	0.	0.	100.0	0.	100.0
745.	0.	9.1	0.	0.	100.0	0.	100.0
746.	0.	10.2	0.	0.	100.0	0.	100.0
747.	0.	10.5	0.	0.	100.0	0.	100.0
748.	0.	11.7	0.	0.	100.0	0.	100.0
749.	0.	14.6	0.	0.	99.4	0.6	99.4
750.	0.	0.	0.	0.	100.0	0.	0.

STARTING DEPTH?

OWLL