1	CONSISTENT WITH YOUR EXPERIENCE IN CONDUCTING
2	HYDROTEST FOR VARIOUS COMPANIES?
3	A. NO. THAT'S A VERY EXCESSIVELY HIGH
4	FAIL RATE, SIR.
5	Q. NOW, IN REVIEWING THE SHELL OIL
6	DOCUMENTS THAT WERE MADE AVAILABLE ABOUT THE
7	INTER-REFINERY PIPELINES, LET'S LET ME JUST GIVE
8	YOU, LET'S SAY, SIX MONTHS, DID YOU REVIEW AND SEE
9	ANY DOCUMENTS THAT INDICATE, THAT INDICATED THAT
10	AFTER THERE WAS A HYDROTEST FAILURE, SHELL OIL HAD
11	TAKEN SOME CORRECTIVE ACTION AND EITHER RUN A NEW
12	PASSING HYDROTEST OR DONE SOME REPAIR ON THE
13	PIPELINE WITHIN SIX MONTHS OF THE TEST FAILURE?
14	A. MY REVIEW HAS NOT REVEALED ANY
15	DOCUMENTS INDICATING THAT, SIR, NO.
16	MR. BRIGHT: THANK YOU. YOUR HONOR, NO
17	FURTHER QUESTIONS OF MR. KARLOZIAN AT THIS TIME.
18	THE COURT: CROSS-EXAMINE.
19	
20	CROSS-EXAMINATION
21	BY MR. EARLE:
22	Q. MR. KARLOZIAN, NICE TO SEE YOU
23	AGAIN.
24	A. IT'S A PLEASURE.
25	Q. LOOKING AT Y-MAP 5158, IS YOUR
26	TESTIMONY EARLIER THIS AFTERNOON THAT THE SIX-INCH
27	IDLE LINE THAT HAS THE ASTERISKS BY IT WAS ONE OF
28	THE LINES THAT WAS PLACED INTO SERVICE BY SHELL IN

1	SEE YOU TOMORROW MORNING AT 9	
2	O'CLOCK.	
. 3	HAVE A GOOD EVENING.	
4		
5	(THE PROCEEDINGS IN THE ABOVE-ENTITLED	
. 6	MATTER WERE ADJOURNED AND CONTINUED	
7	TO THURSDAY, MAY 31, 2001.)	
8		
9	-000-	ļ
10		ĺ
11		
12		
13		
14		
15		
16		
17		
18	folio del composito del primi del primi del primi del proper del composito del composito del composito del com Control del composito del Control del composito del composi	
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		

## COURT OF APPEAL OF THE STATE OF CALIFORNIA SECOND APPELLATE DISTRICT

WATSON LAND COMPANY,

PLAINTIFF-RESPONDENT,

VS.

SUPERIOR COURT CASE NO. BC 150161

ATLANTIC RICHFIELD COMPANY, ETC., ET AL.,

DEFENDANTS-APPELLANTS,

APPEAL FROM THE SUPERIOR COURT OF LOS ANGELES COUNTY HONORABLE WENDELL MORTIMER, JR., JUDGE PRESIDING

REPORTER'S TRANSCRIPT ON APPEAL

JUNE 4, 2001

APPEARANCES: FOR PLAINTIFF-RESPONDENT:

BRIGHT AND BROWN
BY: JAMES S. BRIGHT
MAUREEN J. BRIGHT
BRIAN L. BECKER
550 NORTH BRAND BOULEVARD
SUITE 2100
GLENDALE, CALIFORNIA 91203

818.243.2121

FOR DEFENDANTS-APPELLANTS:

CALDWELL, LESLIE, NEWCOMBE & PETTIT BY: MICHAEL R. LESLIE

ANDREW ESBENSHADE 1000 WILSHIRE BOULEVARD

SUITE 600

LOS ANGELES, CALIFORNIA 90017-5624

213.629.9040

VOLUME 11 OF 37 VOLUMES' PAGES 1212 THROUGH 1455, INCLUSIVE



LISA RIDLEY, CSR NO. 5886 OFFICIAL REPORTER

1	SUPERIOR COURT OF THE STATE OF CALIFORNIA
2	FOR THE COUNTY OF LOS ANGELES
3	DEPARTMENT 308 HON. WENDELL MORTIMER, JR., JUDGE
4	WATSON LAND COMPANY, A CALIFORNIA ) CORPORATION, )
5	
6	PLAINTIFF, )
7	) SUPERIOR COURT ) CASE NO. BC 150161
8	vs.
9	ATLANTIC RICHFIELD COMPANY, ETC., ) ET AL,
10	DEFENDANTS. )
11	REPORTER'S DAILY TRANSCRIPT OF PROCEEDINGS
12	MONDAY, JUNE 4TH, 2001
13	
14	VOLUME 11 PAGES 1212 THROUGH 1455, INCLUSIVE
15	APPEARANCES:
16	(SEE APPEARANCE PAGE)
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	LISA C. RIDLEY, CSR NO. 5886 OFFICIAL REPORTER
į	

```
FOR THE COUNTY OF LOS ANGELES
 2
    DEPARTMENT 308
                          HON. WENDELL MORTIMER, JR., JUDGE
    WATSON LAND COMPANY, A CALIFORNIA )
 3 .
    CORPORATION,
 4
                           PLAINTIFF,
 5
                                              SUPERIOR COURT
 6
                                           CASE NO. BC 150161
    vs.
 7
    ATLANTIC RICHFIELD COMPANY, ETC.,
    ET AL,
 8
                          DEFENDANTS.
10
         REPORTER'S DAILY TRANSCRIPT OF PROCEEDINGS
11.
                    MONDAY, JUNE 4TH, 2001
12
                           VOLUME 10
13
             PAGES 1212 THROUGH 1455, INCLUSIVE
14
    APPEARANCES:
    (SEE APPEARANCE PAGE)
15
16
17
18 .
19
20
21
22
23
24
25
26
                          LISA C. RIDLEY, CSR NO. 5886
27
                          OFFICIAL REPORTER
28
```

	<u> </u>
1	APPEARANCES
2	
. 3	(FOR PLAINTIFF) BRIGHT AND BROWN.
4	BY: JAMES S. BRIGHT MAUREEN J. BRIGHT
-5	BRIAN L. BECKER 5.50 NORTH BRAND BOULEVARD
. 6	SUITE 2100 GLENDALE, CALIFORNIA 91203
7	818.243.2121
8	(FOR DEFENDANTS) LAW OFFICES OF DAVID J. EARLE BY: DAVID JEFFREY EARLE
9	138 NORTH BRAND BOULEVARD SUITE 303
10	GLENDALE, CALIFORNIA 91203 818.242.4700
. 11	CADWELL, LESLIE, NEWCOMBE & PETTIT
12	BY: MICHAEL R. LESLIE 1000 WILSHIRE BOULEVARD
1,3	SUITE 600 LOS ANGELES, CALIFORNIA 90017
14	213.629.9040
15	
16	
17	
18	
19	
,20,	
21	
22	
23	
24	
25	
26	
27	
28	
• 1	·

		<u> </u>	
1	INDEX FOR VOLUME 10	PAGES 1212 TO 1455	
2	DAY DATE	SESSION PAGE	
3	MONDAY 06-04-01 MONDAY 06-04-01	A.M. 1212 P.M. 1359	
4	30 01 01	1.11.	
5			
6	PLAINTIFF'S WITNESSES	PAGE	
7	KOERNER, CHRISTOPHER EATON DIRECT EXAMINATION BY M		
8	CROSS-EXAMINATION BY MR REDIRECT EXAMINATION BY	. LESLIE 1240	
. 9	RECROSS-EXAMINATION BY		
10	SCHMIDT, CHARLES	AIION DI MO. BRIGHT 1204	
11	DIRECT EXAMINATION BY M CROSS-EXAMINATION BY MR		
12	DAGDIGIAN, JEFFREY		
13	DIRECT EXAMINATION BY M	S. BRIGHT 1363	
14			
15			
16	DEFENDANT'S WITNESSES	PAGE	
17	MAXFIELD, SANDRA (OUT OF O DIRECT EXAMINATION BY M		
18	CROSS-EXAMINATION BY MS		
19	JAFFE, GLENN (OUT OF ORDER DIRECT EXAMINATION BY M		
20	CROSS-EXAMINATION BY MS REDIRECT EXAMINATION BY	BRIGHT 1350	
21	RECROSS-EXAMINATION BY		
22			
23			
24			
25			
26			
27	·		}
28	. •	•	

1	CASE NUMBER: B	C 150161
2	CASE NAME: W	ATSON LAND COMPANY V. ARCO
3	LOS ANGELES, CALIFORNIA M	ONDAY, JUNE 4TH, 2001
4	DEPARTMENT 307 H	ON. WENDELL MORTIMER, JR., JUDG
5	APPEARANCES: (	AS NOTED ON TITLE PAGE)
• б	REPORTER: L	ISA C. RIDLEY, CSR NO. 5886
7	TIME:	0:00 A.M.
8		
9		0
10		
11	(THE FOLLO	WING PROCEEDINGS
12	WERE HELD	IN OPEN COURT OUT
13	OF THE PRE	SENCE OF THE JURY:)
14		
15	THE COURT: IN T	HE WATSON LAND VERSUS
16	SHELL CASE, THIS IS THE TIME	ME WE'VE SET ASIDE FOR A
17	KELLY HEARING REGARDING TH	E TESTIMONY OF A
18	PARTICULAR WITNESS, DR. SCI	HMIDT, IS IT?
19	MR. BRIGHT: IT	IS.
2.0	THE COURT: REGAR	RDING DOWNHOLE FLUX
21	METHODS.	
22	FIRST OF AI	LL, PRELIMINARILY, I
23	RECEIVED WATSON LAND COMPAN	TY'S MOTION THIS MORNING
24	FOR SANCTIONS SAYING THIS	S A FRIVOLOUS MOTION OR
25	THE HEARING IS FRIVOLOUS, T	THE REQUEST FOR HEARING
26	IS FRIVOLOUS. AND I NOTE	N THE PAPERS THAT
27	APPARENTLY SHELL HAS HIRED	DR. SCHMIDT IN THE PAST
28	FOR OTHER LOCATIONS AND HE	HAS USED THIS SAME

```
1 UP AND DOWN THE DWP PIPELINE CORRIDOR.
```

- 2 AND IF YOU LOOK CAREFULLY, IT'S
- 3 HARD TO SEE, BUT IF YOU LOOK CAREFULLY, THERE'S
- 4 ACCOMPANIED THAT'S ASSOCIATED WITH EACH ONE OF
- 5 THESE THINGS. SOME OF THESE POINTS WHAT ARE DONE
- 6 BY, PREPARED BY ARCO, SOME OF THEM BY GATX. SOME
- 7 OF THEM BY VARIOUS CONSULTANTS THAT WORK FOR
- 8 WATSON.
- 9 SO THE CODE, BASICALLY REFLECTS WHO
- 10 DID IT AND THEN THEIR NUMBERING SYSTEM FOR EACH ONE
- 11 OF THESE SAMPLES.
- 12 Q. DR. DAGDIGIAN, HAVE YOU FORMED AN
- 13 OPINION AS TO WHETHER OR NOT THERE'S ANY
- 14 CONTAMINATION ON THE WATSON CENTER?
- A. YES, I HAVE.
- Q. WHAT IS THAT OPINION?
- 17 A. THERE WAS DEFINITELY CONTAMINATION
- 18 ON THE WATSON CENTER.
- Q. CAN YOU GIVE US AN OVERVIEW OF
- 20 WHERE THE CONTAMINATION IS THAT YOU HAVE IDENTIFIED
- 21 ON THE WATSON CENTER?
- A. SURE. IT BASICALLY EXISTS IN FIVE
- 23 DIFFERENT AREAS.
- 24 IF YOU LOOK DOWN WILMINGTON,
- 25 THERE'S DEFINITELY CONTAMINATION COMING FROM THE
- 26 ARCO REFINERY. BOTH THE FREE PRODUCT, THE LNAPL
- 27 AND DISSOLVE PHASE CONTAMINATION.
- 28 IF YOU LOOK RIGHT HERE AT 233

1	STREET AND THE DWP PIPELINE CORRIDOR THERE'S
2	DEFINITELY A GATX. JET FUEL RELEASE FROM THEIR
3 .	PIPELINE. AND THIS GENERAL VICINITY RIGHT HERE
4	(INDICATING).
5	AND THEN THERE ARE THREE AREAS
6	WHERE SHELL GASOLINE PIPELINES HAVE RELEASED
7	GASOLINE. THE FIRST AREA IS UP HERE, ON THE
8	NORTHERN PART OF THE FACILITY, WE CALL THAT THE
9	A-PLUME AND THAT'S IMPACTED SOIL AND GROUND WATER.
10	AND THEN DOWN HERE WE HAVE OUR
11	B-PLUME, AND THE B1 PLUME IS GENERALLY IN THE AREA
12	WHERE THE GATX RELEASE IS, AND HAS COMMINGLED WITH
13	IT AND THAT'S IMPACTED SOIL AND GROUND WATER.
14	AND THEN THE B2 PLUME IS THE
15	LARGEST PLUME BY FAR, IT'S IN THIS GENERAL AREA
16	RIGHT HERE (INDICATING) AND IT'S IMPACTED SOIL,
17	GROUND WATER AND THERE'S ALSO FREE PRODUCT IN A
1.8	NUMBER OF WELLS BELOW THAT PLUME.
19	Q. HAVE YOU PREPARED PLUME MAPS FOR
20,	EACH OF THE AREAS OF YOUR CONTAMINATION YOU JUST
21	IDENTIFIED?
22	A. YES, I HAVE.
23	Q. BEFORE WE MOVE TO THOSE PLUME MAPS,
24	DR. DAGDIGIAN, I WONDER IF YOU COULD TELL ME
25	SOMETHING ABOUT THE WAY THAT GASOLINE AND JET FUEL
26	MOVE THROUGH SOIL AND THROUGH GROUND WATER.
27	FIRST QUESTION, IN FACT, BEFORE I
28	EVEN ASK YOU THAT, IS THERE A DIFFERENCE BETWEEN

```
MOST PART ARE LESS DENSE THAN WATER, SO THEY WILL
    FLOAT ON THE GROUND WATER SURFACE.
  2
                  THEY ARE BOTH FAIRLY INSOLUBLE AND,
  3
     YOU KNOW, THEY WILL FORM, THE LNAPL WILL SLOWLY
  4
     DISSOLVE WITH TIME. GASOLINE IS PROBABLY A LITTLE
     BIT MORE SOLUBLE BECAUSE IT HAS SMALLER MOLECULES
  6
     SO IT TENDS TO GET INTO THE WATER A LITTLE FASTER
     AND IT ALSO TENDS TO MOVE A LOT QUICKER WITH THE
     GROUND WATER FOR THE SAME REASONS AS I JUST TALKED
     ABOUT.
 10
           Q. ALL RIGHT. SO LET'S GO BACK FOR A
 11
     MINUTE AND LET'S STARTS ON THE PLUME MAPS.
 12
                    LET'S TALK ABOUT THE PLUME MAPS,
 13
 14
    HOW MANY PLUME MAPS HAVE YOU PREPARED?
 15
              A. GEE --
 16
               Q. LET'S START WITH ONE OF THE PLUMES,
    LET'S TAKE B2?
 17
 18
              A. OKAY.
              Q. OKAY. HOW MANY PLUME MAPS ARE
19
     THERE FOR B2?
 20
              A. FOR B2, I HAVE PREPARED, I BELIEVE,
 21
     THREE DIFFERENT PLUME MAPS.
             Q. ALL RIGHT. LET'S BRING UP FOR THE
 23
     WITNESS THE MAPS THAT HAVE BEEN MARKED FOR
 24
     IDENTIFICATION AS EXHIBIT 1498 AND 1499.
 25
 26
                   1498, 1499 IS WITH THE MYLAR.
 .27
                    BY MS. BRIGHT: IS THIS A MAP YOU
 28
    RECOGNIZE, DR. DAGDIGIAN?
```

3	A VEC TELC
1	A. YES, IT IS.
2	Q. DID YOU CAUSE THIS TO BE PREPARED?
3	A. I SURE DID.
4	Q. WOULD YOU TELL US WHAT THIS MAP
5	DEPICTS?
6	A. OKAY.
7	WELL, THIS MAP, AGAIN, WE HAVE THE
8	WATSON CENTER, SAME MAP WE HAD BEFORE, THE PIPELINE
9	CORRIDORS WHICH WE SAW BEFORE, BUT NOW WE HAVE
10	DRAWN IN THE PLUMES, SO WE ARE LOOKING DOWN ON THE
11	PROPERTY, SO YOU ARE KIND OF LIKE AN AERIAL VIEW,
12	AND WE WERE LOOKING AT IT AT NIGHT AND IF GASOLINE
13	COULD FLUORESCE FROM THE GROUND WATER, THIS IS WHAT
14	WE WOULD SEE.
15	WE COULD SEE THESE PLUME MAPS.
16	NOW, THERE'S LOTS OF DIFFERENT WAYS
17	TO DESCRIBE PLUMES AND I MENTIONED A COUPLE OF
18	CHEMICALS THAT WE LOOK AT.
19	
~ _	I AM USING THIS PARTICULAR DRAWING,
20	I AM USING THIS PARTICULAR DRAWING, BENZENE.
	BRNZENE
20	BENZENE.
20	BENZENE.  AGAIN, BENZENE IS ONE OF MORE TOXIC
20 21 22	BENZENE.  AGAIN, BENZENE IS ONE OF MORE TOXIC  CHEMICALS AND IT USUALLY DRIVES THE CLEAN UP. SO
20 21 22 23	BENZENE.  AGAIN, BENZENE IS ONE OF MORE TOXIC  CHEMICALS AND IT USUALLY DRIVES THE CLEAN UP. SO  WHEN WE ASK THE QUESTION, HOW BIG IS THIS PLUME, A
20 21 22 23 24	BENZENE.  AGAIN, BENZENE IS ONE OF MORE TOXIC  CHEMICALS AND IT USUALLY DRIVES THE CLEAN UP. SO  WHEN WE ASK THE QUESTION, HOW BIG IS THIS PLUME, A  LOT OF TIMES BENZENE IS A CONVENIENT CHEMICAL TO
20 21 22 23 24 25	BENZENE.  AGAIN, BENZENE IS ONE OF MORE TOXIC  CHEMICALS AND IT USUALLY DRIVES THE CLEAN UP. SO  WHEN WE ASK THE QUESTION, HOW BIG IS THIS PLUME, A  LOT OF TIMES BENZENE IS A CONVENIENT CHEMICAL TO  LOOK AT.
20 21 22 23 24 25 26	BENZENE.  AGAIN, BENZENE IS ONE OF MORE TOXIC  CHEMICALS AND IT USUALLY DRIVES THE CLEAN UP. SO  WHEN WE ASK THE QUESTION, HOW BIG IS THIS PLUME, A  LOT OF TIMES BENZENE IS A CONVENIENT CHEMICAL TO  LOOK AT.  NOW, WHAT YOU ARE LOOKING AT IS THE

```
BILLION TO 10,000.
 2
                    SO THIS OUTER LINE RIGHT HERE IS 55
    PARTS PER BILLION, WHICH I HAVE CALCULATED TO BE
 3
    THE CLEANUP LEVEL, THEN WE GO TO 5,000 PARTS PER
 5
    BILLION, AND THEN FROM 5 TO 10 -- EXCUSE ME, FROM 5
    TO, THE YELLOW, TO 10,000 IN YELLOW -- 10, 10 TO 20
    AND THEN FROM 20 TO 40. SO THIS LITTLE HOT SPOT IN
 7
    THE CENTER IS 40,000 PARTS PER MILLION.
 8 .
 9
                    AND SO WE SEE HERE OUR B2 PLUME,
    OUR B1 GASOLINE PLUME AND AGAIN THIS IS BENZENE
10
    THAT WE ARE LOOKING AT AND THEN UP HERE IS THE
11
12
    A-PLUME. AND SO WHAT YOU ARE SEEING IS THE COLOR
13
    SHOWS YOU HOW CONCENTRATED. THE HOTTER THE COLOR,
    THE MORE BENZENE, THE MORE GASOLINE, IS IN THAT
14
15
    PARTICULAR AREA.
16
                    SO YOU CAN SEE IT'S LIGHT ON THE
    OUTSIDE AND GETS DARKER AND WE MOVE TO THE CENTER
17
    POINTS.
18
19
              Ο.
                    BY THE WAY, BEFORE WE MOVE ON, HOW
20
    DO YOU KNOW THOSE PLUME DRAWINGS YOU HAVE GOT UP
21
    THERE ARE ACCURATE?
22
              Α.
                   WELL, WE ARE ALWAYS QAQC'ING THE
23
   DATA AS IT IS BEING DEVELOPED AND I THINK I TALKED
24
    EARLIER ABOUT HOW WE KNOW THE LABORATORY REPORTS
   ARE ACCURATE.
25
26
                    AND SO THE NEXT STEP IS GETTING THE
27
   LABORATORY REPORTS, YOU KNOW, INTO TABLES AND FROM
```

TABLES INTO FIGURES AND ALONG THE WAY WE MAKE

```
MISTAKES AND SO WE ARE ALWAYS TRYING TO FIND THOSE
 1
    MISTAKES, CORRECT THOSE MISTAKES AND COME UP WITH A
 2
    CORRECT PICTURE.
                    SO WE WILL GO THROUGH A PROCESS NOT
    TOO DISSIMILAR FROM WHAT I HAVE DESCRIBED EARLIER
    FOR THE LAB REPORTS. WE WILL LOOK AT THE DRAWINGS
 6
    AND I WILL GIVE THE DRAWINGS AND A TABLE TO
    SOMEBODY AND SAY, CHECK EVERY NUMBER ON THIS TABLE
 8
    WITH WHAT'S ON THE DRAWINGS AND CHECK, CHECK,
    CHECK, CHECK EVERYTHING IS ACCURATE OR THEY WILL
10
11
    FIND A MISTAKE AND CORRECT IT.
                    WE WILL REPEAT THAT PROCESS MAYBE
12
13
    TWICE.
                    AND THEN FOR A DOUBLE CHECK,
14
    BECAUSE LOTS OF TIMES THERE ARE, A LOCALITY OF THIS
    DATA, IN FACT, CAME FROM OTHER CONSULTANTS, THERE
16
17
   MAY HAVE BEEN AN ERROR IN CREATING THE TABLE
             AND SO SORT OF THE LAST CHECK,
18
   MAYBE THE SECOND TO THE LAST CHECK, IS TO TAKE THE
19
   ACTUAL ANALYTICAL DATA SHEET AND COMPARE IT TO THE
20
   DRAWING AND SEE IF WE CAN FIND ANY MISTAKES.
21
   THE LAST CHECK IS WHEN YOU PRESENT IT IN COURT.
22
23 .
              0.
                   THIS IS THE FINAL CHECK.
24
                    WELL, EVERYTHING GOES THROUGH THAT
   QAQC PROCEDURE, DID YOU FIND SOME ERRORS THAT
```

26 REQUIRED CORRECTION?

27 A. YEAH, WE DID. WE FOUND A FEW.

28 NOTHING THAT WOULD AFFECT OUR OPINIONS.

1	WE FOUND A FEW PLACES WHERE THE
2	NUMBERS ARE SLIGHTLY HIGHER AND A FEW LACES WHERE
3	WE HAD REPORTED NUMBERS AND THERE WERE IN, REALITY,
4	NON-DETECT.
5	Q. WHY DON'T YOU EXPLAIN FOR US WHAT
6.	NON-DETECT MEANS, WHAT DOES THAT MEAN?
<b>7</b> .	A. I AM SORRY, ANOTHER ACRONYM.
8	NON-DETECT MEANS, OR MEANS NON-DETECT, AND
9	NON-DETECT IS A RESULT THAT WE WOULD GET FROM THE
10	ANALYTICAL DATA SHEETS SO THE LABORATORY HAS SOME
11	ABILITY TO REPORT THE SAMPLE DATA BACK TO US, HOW
12	MUCH BENZENE IS IN IT.
13	THEY MAY REPORT A NUMBER, SAY, 50,
14	AND AT SOME POINT THEY CAN'T SEE ANY FURTHER.
15	THEY CAN'T SENSE THE NUMBER ANY
16	LOWER AND THAT LOWEST NUMBER THEY CAN DETECT IT AT
17	IS THE DETECTION LIMIT. AND SO THE DETECTION LIMIT
18:	MIGHT BE 5 PARTS PER BILLION.
19	AND ONCE THEY GET BELOW 5 PARTS PER
20	BILLION, THEY CAN'T DETECT IT, THEY REPORTED IT AS
21	NOT DETECTED OR NON-DETECTABLE, SO THAT'S, IN
22	ENVIRONMENTAL PARLANCE, THAT'S ZERO.
23	Q. NOW, YOU ARE SHOWING US A MAP THAT
24	DEPICTS THE PLUMES IN TERMS OF BENZENE.
25	DID YOU LOOK AT THESE PLUMES IN
26	TERMS OF ANY OTHER CHEMICALS?
27	A. YES, I DID.
28	O I THINK I HAVE AN OVERLAY HERE TUAT

1.	SHOWS THE OXYGENATE CONCENTRATIONS.
. 2	WHY DON'T YOU FLIP THAT OVER?
3	A. OKAY. SO WHAT THE MYLAR SHEET
4	SHOWS IS OUR NEXT SET OF ANALYSIS, REMEMBER EARLIER
5	I TALKED ABOUT TOTAL PETROLEUM HYDROCARBONS, BTEX,
б	BENZENE WITH B AND BTEX, THEN WE WENT TO
7	OXYGENATES, MTBE AND DIPE. AND THAT'S WHAT I
8	PLOTTED ON THIS NEXT GRAPH, AND THIS IS GOING TO
. 9	START TO GET A LITTLE FUZZY HERE.
10	THE MOST IMPORTANT THING HERE IS
11	THAT WE HAVE DIPE, THIS BLUE AREA RIGHT HERE, AND
12	THIS BLUE AREA RIGHT HERE, AND THE DIPE AND THE
13	BENZENE PERFECTLY OVERLAP ONE ANOTHER.
14	AND WHEN THEY PERFECTLY OVERLAP OR
15	THEY COEXIST IN THE SAME AREA, WHAT THAT IS TELLING
16	YOU IS, THAT THEY CAME FROM THE SAME SOURCE.
17	SO NOW WE HAVE A PLUME THAT HAS
18	BENZENE IN IT, HAS TPH GASOLINE IN IT, AND IT HAS
19	DIPE IN IT. THESE TWO RIGHT HERE.
20	THEN DOWN HERE, THIS IS, AGAIN, THE
21	B2 AND THIS IS THE A-PLUME, NOW IN THE B1 PLUME, WE
22	HAVE NOT ONLY DIPE, WHICH IS DOWN HERE, BUT WE HAVE
23	SOME MTBE IN THIS AREA RIGHT HERE (INDICATING).
24	AND REMEMBER, I SAID EARLIER THAT
25	WE DO THESE ANALYSIS FOR A REASON. IT HELPS US
26	UNDERSTAND WHEN THE GASOLINE WAS MANUFACTURED AND
27	THAT WILL HELP US UNDERSTAND WHAT THE SOURCE WAS.

AND SO THE FACT THAT WE DON'T HAVE

```
ANY MTBE IN THESE TWO PLUMES RIGHT HERE TELLS US
    THAT THIS GASOLINE WAS MADE BEFORE LEAD WAS PHASED
    OUT.
 3
                     SO THIS IS MOST LIKELY GOING TO BE
 5
    A LEADED GASOLINE.
                     IN FACT, IT IS A LEADED GASOLINE,
 6
    AS WE ARE TALKING ABOUT LATER IN MY PRESENTATION.
 7
                     THE FACT THAT THIS GASOLINE HAS
 8
    MTBE IN IT STARTS TO TELL US, WELL, THIS GASOLINE
    OBVIOUSLY WAS MANUFACTURED AFTER LEAD WAS PHASED
10
11
    OUT.
12:
                     SO IT STARTS ONSET WHERE THIS IS.
13
    SO WE ARE NOW STARTING TO HAVE SOME INFORMATION,
    AND IN ACTUALITY, WE START TO HONE IN ON THIS A
    LITTLE BIT MORE. THERE'S MORE CLUES. MR. LESLIE
15
16
    SAID THIS WAS A MYSTERY OR DETECTIVE STORY. THAT'S
17
    EXACTLY RIGHT, EXACTLY RIGHT.
     Additional YOU ARE GOING TO HAVE CLUES, YOU
18
19
    MAY EVEN TAKE SOME WRONG TURNS BUT AS YOU START TO
    PUT ALL THE CLUES TOGETHER, YOU WILL SEE WHAT THE
20
    FINAL PICTURE IS GOING TO EVOLVE TO.
. 21
22
                    SO THE FACT OF MTBE IS STARTING TO
    TELL US LEADED GASOLINE, IN FACT, WE HAVE MTB HERE
24
    IS STARTING TO TELL US THAT THIS IS A MORE MODERN
    GASOLINE.
25
26
                  AND ALSO THE FACT THAT WE HAVE DIPE
    HERE IS STARTING TO TELL ME, BASED ON MY RESEARCH
27
28
    OF THE SHELL FACILITIES THAT THIS GASOLINE CAME
```

1	FROM ONE OF THOSE FACILITIES.
2	Q. ALL RIGHT, LET'S ZERO IN ON THAT
. 3	B2 PLUME. HAVE YOU GOT ANY PLUME MAPS THAT ARE A
4	LITTLE BETTER THAN WE ARE CAN SEE A LITTLE EASIER?
5	A. YES, I DO.
6	Q. THEN BY ALL MEANS LET'S BRING THEM
7	UP.
8	LET'S BRING UP THREE EXHIBITS,
9	EXHIBIT 1500, 1501 AND 1502.
10	ALL RIGHT, LET'S JUST START WITH
11	THE FIRST ONE, LET'S LEAVE THE OTHER TWO THERE.
12	SO, RECOGNIZE THIS EXHIBIT,
13	DR. DAGDIGIAN?
14	A. YES, I DO.
15	Q. DID YOU CAUSE THIS TO BE PREPARED?
16	A. YES, I DID.
17	Q. WHY DON'T YOU TELL US WHAT THIS
18	EXHIBIT SHOWS US?
19	A. WELL, NOW, THIS IS A BLOWUP OF WHAT
20	WE ARE JUST LOOKING AT, THE B2 PLUME, SO THERE WAS
21	THE TWO, THE B1 AND THE B2 PLUMES AND THE LOWER
22	HALF OF THE WATSON CENTER. SO NOW I JUST FOCUS IN
23	AND BLOWN UP THAT AREA FOR US TO LOOK AT.
24	AND NOW WE ARE STARTING TO SEE, NOT
25	ONLY THE PLUME MAPS, BUT THE ACTUAL NUMBERS AND
26	WHERE WE TOOK SAMPLE AND WHAT WE FOUND AT EACH OF
27	THE SAMPLING LOCATIONS.
28	AGAIN, JUST TO REVIEW, THE GREEN

- 1 AREAS ARE OUR PIPELINE CORRIDORS, SO IN THE FAR
- 2 LEFT WE HAVE THE DWP PIPELINE CORRIDOR, PRETTY MUCH
- 3 IN THE MIDDLE. WE HAVE THE UTILITY WAY PIPELINE
- 4 CORRIDOR, AND OVER HERE WE HAVE WILMINGTON AND WHAT
- 5 USED TO BE PART OF THE EASTERN CORRIDOR.
- Q. BEFORE I GO ON, I WANTED TO ASK YOU
- 7 A QUESTION ABOUT HOW YOU DECIDE WHERE YOU DRAW
- 8 THOSE LINES.
- 9 HOW DID YOU DETERMINE WHERE THAT 55
- 10 PART PER BILLION LINE IS THAT DEFINES THE BENZENE
- 11 IN THE PLUME B2?
- A. WELL, WHEN YOU FIRST START LOOKING
- 13 AT THIS, IT'S AN ITERATIVE PROCESS I GUESS IS THE
- 14 SIMPLE ANSWER. YOU WILL HAVE MAYBE NOT ALL THIS
- · 15 DATA SO YOU WILL TAKE THE DATA THAT YOU HAVE AND
  - 16 YOU WILL TRY AND DRAW THE BEST SET OF LINES AS YOU
  - 17 POSSIBLY CAN.
  - 18 I AM GOING TO ILLUSTRATE THAT IN A
  - 19 SECOND.
  - 20 AS YOU GET MORE DATA YOU HAVE GOT
  - 21 TO USE ALL OF THE DATA TO CONTINUE TO REFINE THE
  - 22 SHAPE OF THIS PLUME, THE NATURE OF THIS PLUME AND
  - 23 WHERE THE DIFFERENT MATERIALS ARE.
  - 24 AND IN THE END ANALYSIS YOU WILL
  - 25 HAVE A PRETTY GOOD UNDERSTANDING BUT IT WON'T BE
  - 26 PERFECT.
  - 27 AND IN THE NON-PERFECT AREAS WILL
  - 28 INDICATE WITH SOME QUESTION MARKS OR SOME DASHED

LINES AND THIS WILL INDICATE, IN THIS PARTICULAR 1 CASE, OUR ND, NON-DETECT, ZERO, IS, YOU KNOW, WE 3 THINK IT'S FOR THIS PLUME CAUSE FROM THIS SOURCE IS RIGHT HERE, AND WE FEEL VERY COMFORTABLE WITH THAT, I WILL TELL YOU WHY IN A SECOND. 5 6 DOWN HERE WE ARE LESS COMFORTABLE, SAYING WE ARE PRETTY COMFORTABLE HERE, PRETTY 7 COMFORTABLE HERE, WE THINK IT FOLLOWS LIKE THIS. BUT WE DON'T HAVE ENOUGH DATA IN FACT THE DATA THAT WE HAVE HERE. THOSE, THERE'S SOME CONCENTRATIONS 10 AND THAT'S TELLING US SOMETHING. 11 12 AND WE WANT TO KNOW WHAT THAT'S TELLING US. 13. 14 SO LIKE I SAID, IT'S AN ITERATIVE 15 PROCESS AND WHAT YOU DO, AND I WILL TAKE A FEW EXAMPLES, LET'S TAKE, LET'S TAKE 18,000 RIGHT HERE, 16 AND 25,000 RIGHT HERE. OKAY, NOW, I WANT TO DRAW A 18 LINE THAT'S A 20,000 CONTOUR. SO EVERYTHING INSIDE HERE IS GOING TO BE 20,000 OR GREATER. 19 20 WELL, ALTHOUGH THAT LINE CANNOT GO AND CANNOT CIRCLE AROUND THAT 18,000, BECAUSE 21 THAT'S OBVIOUSLY LESS. 22 AND I GOT A 25,000 HERE, SO WHAT DO 23 I DO? 24 25 AND BASICALLY WHAT I DO IS, WITH A 26 LITTLE BIT OF EXPERIENCE, I SAY, WELL, OKAY, I 27 SHOULD DIVIDE THAT UP INTO 6 OR 8, LET'S SAY, 7, 5,

7 LITTLE EQUAL BLOBS AND THE LINE SHOULD BE IN FROM

1	HERE A LITTLE BIT.
. 2	SAME THING HERE, 2,500 AND 2,700.
3	THAT'S A MUCH BIGGER DISTANCE FROM 500. AND I AM
4	GOING TO HAVE OBVIOUSLY A 10,000 AND 20,000 LINES
, 5	SOMEWHERE BETWEEN THOSE TWO.
6	HERE I HAVE A 41,000 AND THAT HAS
7	GOT TO, YOU KNOW, BE CIRCLED BY THE 40,000 LINE.
8	AFTER I AM DONE WITH THAT, THAT
9	SHAPE, ALL I HAVE REALLY DONE IS TAKEN THE DATA
10	HERE AND FIT A MAP TO IT.
11	I HAVEN'T USED ALL OF THE DATA.
12	THERE'S OTHER PIECES OF DATA THAT
13	YOU WOULD LIKE TO KNOW. IT'S LIKE, FOR EXAMPLE,
14	WHAT IS HAPPENING OVER HERE. ON THE ARCO SIDE.
15	WHAT DO THE OTHER CHEMICAL PLUMES
15 16	WHAT DO THE OTHER CHEMICAL PLUMES TELL US?
16	TELL US?
16 17	TELL US?  WHICH WAY IS THE DIRECTION OF
16 17 18	TELL US?  WHICH WAY IS THE DIRECTION OF  GROUND WATER FLOW, WHICH WAY SHOULD THIS PLUME BE
16 17 18 19	TELL US?  WHICH WAY IS THE DIRECTION OF  GROUND WATER FLOW, WHICH WAY SHOULD THIS PLUME BE  ELONGATED?
16 17 18 19 20	TELL US?  WHICH WAY IS THE DIRECTION OF  GROUND WATER FLOW, WHICH WAY SHOULD THIS PLUME BE  ELONGATED?  IN THE CASE OF THIS PLUME, GROUND
16 17 18 19 20 21	TELL US?  WHICH WAY IS THE DIRECTION OF  GROUND WATER FLOW, WHICH WAY SHOULD THIS PLUME BE  ELONGATED?  IN THE CASE OF THIS PLUME, GROUND  WATER IS BASICALLY, THIS IS POINTING IN THE
16 17 18 19 20 21	TELL US?  WHICH WAY IS THE DIRECTION OF  GROUND WATER FLOW, WHICH WAY SHOULD THIS PLUME BE  ELONGATED?  IN THE CASE OF THIS PLUME, GROUND  WATER IS BASICALLY, THIS IS POINTING IN THE  DIRECTION OF GROUND WATER. IT IS BASICALLY DOING
16 17 18 19 20 21 22	TELL US?  WHICH WAY IS THE DIRECTION OF  GROUND WATER FLOW, WHICH WAY SHOULD THIS PLUME BE  ELONGATED?  IN THE CASE OF THIS PLUME, GROUND  WATER IS BASICALLY, THIS IS POINTING IN THE  DIRECTION OF GROUND WATER. IT IS BASICALLY DOING  THIS OVER TIME. SO IT IS BASICALLY GOING SOUTH,
16 17 18 19 20 21 22 23 24	WHICH WAY IS THE DIRECTION OF GROUND WATER FLOW, WHICH WAY SHOULD THIS PLUME BE ELONGATED?  IN THE CASE OF THIS PLUME, GROUND WATER IS BASICALLY, THIS IS POINTING IN THE DIRECTION OF GROUND WATER. IT IS BASICALLY DOING THIS OVER TIME. SO IT IS BASICALLY GOING SOUTH, MAYBE WITH A WESTERN TILT OR WITH AN EASTERN TILT.
16 17 18 19 20 21 22 23 24 25	WHICH WAY IS THE DIRECTION OF GROUND WATER FLOW, WHICH WAY SHOULD THIS PLUME BE ELONGATED?  IN THE CASE OF THIS PLUME, GROUND WATER IS BASICALLY, THIS IS POINTING IN THE DIRECTION OF GROUND WATER. IT IS BASICALLY DOING THIS OVER TIME. SO IT IS BASICALLY GOING SOUTH, MAYBE WITH A WESTERN TILT OR WITH AN EASTERN TILT.  SO WHEN I TAKE ALL THE DATA AND I

1	Q. WHY DON'T WE START LOOKING AT THE
2	OTHER DATA, DR. DAGDIGIAN.
. 3	HAVE YOU DEFINED THIS PLUME IN
4	TERMS OF OTHER CHEMICALS?
5	A. YES, I HAVE.
6	Q. WHY DON'T YOU GRAB ONE OF THOSE
7	BOARDS AND EXPLAIN TO US WHAT CHEMICALS YOU
8	SELECTED?
9	A. OKAY, FINE.
10	WE SAW THE MTBE AND DIPE EARLIER,
11	AND THE NEXT MAP IS A BLOWUP OF WHAT WE SAW EARLIER
12	NOW FOCUSED IN ON THE PLUME.
13	NOW, AGAIN, REMEMBER, THAT WE HAVE
14	FAIRLY GOOD DEFINITION OF A ZERO LINE HERE, WE HAVE
15	GOT A TWO, WE HAVE GOT A FOUR, WE KNOW THERE'S
16	SOMETHING COMING OUT FROM OVER HERE FROM ARCO, BUT
1.7	IT'S NOT VERY HIGH AT THIS PARTICULAR POINT.
18	SO THE IDEA IS WE HAVE OUR PLUME
19	WHICH HAS SPREAD A CERTAIN DISTANCE THIS AWAY AND
20	THIS PLUME HAS FORMED A CERTAIN DISTANCE THIS WAY,
21	SOMEWHERE IN THE MIDDLE IS NON-DETECT, IS ZERO.
22	DON'T KNOW EXACTLY WHERE IT IS BUT
23	WE HAVE GUESSED IT'S RIGHT HERE (INDICATING).
24	SO NOW WE'RE LOOKING FOR THE OTHER
25	DATA FOR THESE OTHER CHEMICALS TO START TO SUPPORT
26	HOW WE HAVE DRAWN THESE LINES.
27	OKAY. IN THIS PARTICULAR CASE, WE
28	HAVE THE DIISOPROPYL ETHER PLUME THAT WE HAVE

- 1 DRAWN, AGAIN, HAVE BEEN, VERY SIMILAR SHAPE.
- 2 WHEN I SAY VERY SIMILAR SHAPE, WHAT
- 3 DO I MEAN?
- WELL, THE HOT SPOT IS BASICALLY IN
- 5 THE SAME SPOT AS BEFORE. HERE WE HAVE A 14,000,
- 6 AND AN 8,000.
- 7 DIFFERENT CONCENTRATION LEVELS,
- 8 DIFFERENT CHEMICAL. THE HOT SPOT IS IN THE SAME
- 9 GENERAL AREA.
- 10 WE NOTICE ALSO THESE PLUMES ARE
- 11 RIGHT UNDERNEATH THE UTILITY WAY CORRIDOR AND THE
- 12 DEPARTMENT OF WATER AND POWER CORRIDOR.
- AND WE KNOW THAT IN THOSE CORRIDORS
- 14 THERE WERE SHELL PIPELINES, GASOLINE PIPELINES, AND
- 15 WE KNOW THOSE GASOLINE PIPELINES CARRY THE KIND OF
- 16 GASOLINE THAT WE ARE GOING TO EVENTUALLY SEE THAT
  - 17 WE HAVE HERE.
  - 18 SO WE KNOW THAT IT CARRIED GASOLINE
  - 19 WITHIN THE TIME PERIODS THAT THIS GASOLINE WAS
  - 20 MANUFACTURED.
  - 21 WE SEE THAT THE PLUME IS ELONGATED
  - 22 ALONG THE AXIS, AND WE CAN SEE FAIRLY GOOD
  - 23 DEFINITION OVER HERE (INDICATING), THE NON-DETECTS
  - 24 FOR MTBE, BUT THERE'S NO MTBE ANYWHERE IN THIS
  - 25 | PLUME. YOU LOOK AT OUR NUMBERING SYSTEMS, THE
  - 26 FIRST NUMBER IS MTBE AND THE SECOND NUMBER IS DIPE,
  - 27 SO WE SEE HERE, WELL, 2 -- I HAVE AN 8 FOR DIPE.
  - 28 THE DASH LINE MEANS IT WASN'T

1	SAMPLED.
2	THERE'S LOTS OF REASONS WHY IT
. 3	DIDN'T GET SAMPLED. BUT IN THE EARLY DAYS NOBODY
4	WAS LOOKING FOR DIPE, THEY DIDN'T KNOW THAT THAT
5	CHEMICAL WAS OUT THERE OR WAS IMPORTANT, SO THEY
6	DIDN'T SAMPLE FOR IT.
. 7	SO WE HAVE NO INFORMATION DOWN
8	HERE, WE HAVE SOME NON-DETECT HERE, WE HAVE AN 8
9	HERE, WE HAVE A COUPLE OF NOT TESTED HERE, A COUPLE
10	NON-TESTED HERE, AND YOU CAN SEE 130 HERE, 140 HERE
11	(INDICATING).
12	SO WE HAVE A PRETTY GOOD DEFINITION
13	BUT, AGAIN, WE CAN'T MAKE THE ULTIMATE TESTS ABOUT
14	HOW FAR THIS PLUME SHOULD BE OVER HERE AND WE KNOW,
15	WE KNOW HERE WE HAVE AN 8 BUT WE NEED MORE
16	INFORMATION ALONG THE ARCO TO FINALIZE THIS.
17	THE KEY THING THAT I THINK WE SEE
18	HERE IS THAT IT'S ELONGATED PLUME, HOT SPOT, NOT
19	THE SAME AREA AND THE GOOD OVERLAP BETWEEN THE TWO
20	TELLING US THEY ARE FROM THE SAME CONTAMINANT, SAME
21	GASOLINE.
22	HERE WE SEE MTBE, WE HAVE DEFINITE
23	BORDERS, NON-DETECT, NON-DETECT, AROUND
24	IT. SO WE ARE PRETTY MUCH SURROUNDED. SO WE KNOW
25	EXACTLY HOW BIG THIS PLUME GOES. IN FACT, WE COULD
26	FILL IN THE INFORMATION WITH OUR DATA THAT WE HAVE
27	WITHIN THE CENTER OF THE PLUME TO MAP THE

CONCENTRATION CONTOURS THAT WE ARE LOOKING AT.

	r
1	AND THEN FOR DIPE WE OBVIOUSLY HAVE
2	THREE HITS, THE REST ARE NON-DETECT SO THAT FAIRLY
3	SIMPLY DEFINES THAT.
4	Q. WHAT OTHER CHEMICALS DID YOU LOOK
5	AT?
6	A. WELL, AS I MENTIONED EARLIER, WE
7	LOOK AT THE FUEL SCAVENGERS, LEAD SCAVENGERS.
В	SO I HAVE A MAP OF EDB AND EDC.
9	EDC IS IN THE GREEN, AND THE EDB IS
10	IN OUR CHARTREUSE COLOR, THE PINK.
11	AND WHAT WE SEE IS THAT, LET'S
12	START WITH THE EASY ONE, B1, THERE IS NO EDB THAT
13	WE CAN SEE THERE.
14	SO, AGAIN, THIS WAS USED TO GET THE
15	LEAD OUT OF OUR LEADED GASOLINE. WE HAVE ALREADY
16	GOT MTBE THERE SO THAT IS STARTING TO TELL US THAT
17	IF THERE'S LEADED GASOLINE HERE, IT MUST HAVE BEEN
18	TOWARDS THE VERY END OF THE LEADED ERA BECAUSE WE
19	ARE NOT SEEING ANYTHING THAT'S REALLY OTHER THAN
20	DIPE THAT COULD SUPPORT THAT COULD POSSIBLY BE
21	THERE.
22	AGAIN, WE ARE LOOKING AT PLUMES
23	WITH THE GENERAL SHAPE THAT WE SAW EARLIER. IN
24	OTHER WORDS, THESE PLUMES HAVE THE HOT SPOT IN THE
25	SAME SPOT, THEY ARE ELONGATED ALONG UNDERNEATH,
26	DIRECTLY UNDERNEATH THE UTILITY WAY PIPELINE
-27	CORRIDOR. THE HOT SPOTS IN THE SAME OTHER, THE
28	SAME GENERAL SHAPE THAT YOU PUT THEM ON OVERLAYS,

. 1	THEY OVERLAY PHYSICALLY AND THAT'S TELLING US THAT
2	THIS GASOLINE HAD THE LEAD SCAVENGER IN IT, WHICH
3	IS IN OUR NEXT PIECE OF EVIDENCE THAT THIS IS A
4	LEADED GASOLINE.
5	NOW, WE ARE STARTING TO GET SOME
б	BETTER DEFINITION.
7	IF THIS EDB AND EDC IS ALL PART OF
8	THE SAME PLUME, BUT ON THE MTBE AND THE DIPE, WE
9	DIDN'T HAVE PERFECT DEFINITION THIS WAY AND ON THE
10	BENZENE WE DIDN'T HAVE PERFECT DEFINITION ON THIS
11	BUT NOW THIS ONE WE DO HAVE EXCELLENT DEFINITION
12.	ON, AND THEY ARE ALL PART OF THE SAME PLUME, WHAT
13	DOES THAT TELL YOU ABOUT HOW TO DRAW THE BENZENE
14	AND THE MTBE PLUMES OR DIPE PLUMES?
	THE MILL OF THE CONTROL OF THE CONTR
15	IT TELLS YOU YOU ARE GOING TO DRAW
15 16	THEM SIMILARLY.
٠,	
16	THEM SIMILARLY.
16 17 18	THEM SIMILARLY.  SO AS WE START TO LOOK HERE,
16 17 18	THEM SIMILARLY.  SO AS WE START TO LOOK HERE,  NON-DETECT, NON-DETECT, NON-DETECT.
16 17 18 19	THEM SIMILARLY.  SO AS WE START TO LOOK HERE,  NON-DETECT, NON-DETECT, NON-DETECT.  .052, VERY SMALL, AND NON-DETECT, HERE'S A
16 17 18 19	THEM SIMILARLY.  SO AS WE START TO LOOK HERE,  NON-DETECT, NON-DETECT, NON-DETECT.  .052, VERY SMALL, AND NON-DETECT, HERE'S A  NON-DETECT, NON-DETECT, SO THERE'S A LITTLE ISLAND
16 17 18 19 20 21	THEM SIMILARLY.  SO AS WE START TO LOOK HERE,  NON-DETECT, NON-DETECT, NON-DETECT.  .052, VERY SMALL, AND NON-DETECT, HERE'S A  NON-DETECT, NON-DETECT, SO THERE'S A LITTLE ISLAND  RIGHT THERE.
16 17 18 19 20 21	THEM SIMILARLY.  SO AS WE START TO LOOK HERE,  NON-DETECT, NON-DETECT, NON-DETECT.  .052, VERY SMALL, AND NON-DETECT, HERE'S A  NON-DETECT, NON-DETECT, SO THERE'S A LITTLE ISLAND  RIGHT THERE.  NON-DETECT, NON-DETECT.
16 17 18 19 20 21 22	THEM SIMILARLY.  SO AS WE START TO LOOK HERE,  NON-DETECT, NON-DETECT, NON-DETECT.  .052, VERY SMALL, AND NON-DETECT, HERE'S A  NON-DETECT, NON-DETECT, SO THERE'S A LITTLE ISLAND  RIGHT THERE.  NON-DETECT, NON-DETECT.  NON-DETECT, NON-DETECT.
16 17 18 19 20 21 22 23	THEM SIMILARLY.  SO AS WE START TO LOOK HERE,  NON-DETECT, NON-DETECT, NON-DETECT.  .052, VERY SMALL, AND NON-DETECT, HERE'S A  NON-DETECT, NON-DETECT, SO THERE'S A LITTLE ISLAND  RIGHT THERE.  NON-DETECT, NON-DETECT.  SO ALL THE WAY AROUND THIS THINK,
16 17 18 19 20 21 22 23 24 25	THEM SIMILARLY.  SO AS WE START TO LOOK HERE,  NON-DETECT, NON-DETECT, NON-DETECT.  .052, VERY SMALL, AND NON-DETECT, HERE'S A  NON-DETECT, NON-DETECT, SO THERE'S A LITTLE ISLAND  RIGHT THERE.  NON-DETECT, NON-DETECT.  NON-DETECT, NON-DETECT.  SO ALL THE WAY AROUND THIS THINK,  WE HAVE SAMPLES WHICH ARE SHOWING, WE HAVEN'T, I

1	BUT ALL THE WAY AROUND, AS FAR AS
2	WE CAN SEE ON THIS MAP, WE SEE THAT THIS PLUME IS
3	COMPLETELY DEFINED AND WE CAN TELL BECAUSE THIS
4	PLUME OVERLAPS THE OTHERS, THAT MAKES THOSE OTHER
5	PLUMES VERY WELL DEFINED.
б	BUT NOT PERFECTLY. WE STILL NEED
7	TO LOOK AT OVER HERE WHAT'S HAPPENING AT ARCO. NOW
В	WE ARE GETTING A REAL SENSE THAT THESE PLUMES ARE,
9 .	INDEED, CAUSED BY A RELEASE THAT CAME FROM THE
10	UTILITY WAY CORRIDOR.
11	THE COURT: LET'S ADJOURN FOR THE DAY,
12	WE WILL BE IN RECESS UNTIL 9
13	O'CLOCK TOMORROW MORNING. HAVE A GOOD EVENING, WE
14	WILL SEE YOU THEN.
15	
16	
17 18	(THE PROCEEDINGS IN THE ABOVE-ENTITLED MATTER WERE ADJOURNED AND CONTINUED TO TUESDAY, JUNE 5, 2001, AT 9:00 A.M)
19	
20	-000-
21	
22	
23	
24	
25	
26	
27	
28	

<b>2016年 1987年 1987年 1987年 1987年 1987年</b>		Marie Committee of the	
		Maria California de Cara de Calona de Ca	
All and the second second second			
		The state of the s	
Control of the Contro			
the state of the s			
	Parallel Control of the Control of t	The property of the second	
Control of the Contro			
the state of the s			

Paragraph (

The Subsect of the Court of the

English State of the Control of the

ing Charles (21)

## COURT OF APPEAL OF THE STATE OF CALIFORNIA SECOND APPELLATE DISTRICT

WATSON LAND COMPANY,

PLAINTIFF-RESPONDENT,

VS.

) SUPERIOR COURT ) CASE NO. BC 150161

ATLANTIC RICHFIELD COMPANY, ETC., ET AL.,

DEFENDANTS-APPELLANTS,

APPEAL FROM THE SUPERIOR COURT OF LOS ANGELES COUNTY
HONORABLE WENDELL MORTIMER, JR., JUDGE PRESIDING
REPORTER'S TRANSCRIPT ON APPEAL

JUNE 5, 2001

APPEARANCES: FOR PLAINTIFF-RESPONDENT:

BRIGHT AND BROWN
BY: JAMES S. BRIGHT
MAUREEN J. BRIGHT
BRIAN L. BECKER
550 NORTH BRAND BOULEVARD
SUITE 2100
GLENDALE, CALIFORNIA 91203
818.243.2121

FOR DEFENDANTS-APPELLANTS:

CALDWELL, LESLIE, NEWCOMBE & PETTIT
BY: MICHAEL R. LESLIE
ANDREW ESBENSHADE
1000 WILSHIRE BOULEVARD
SUITE 600
LOS ANGELES, CALIFORNIA 90017-5624
213.629.9040

VOLUME 12 OF 37 VOLUMES PAGES 1456 THROUGH 1670, INCLUSIVE



LISA RIDLEY, CSR NO. 5886 OFFICIAL REPORTER

```
FOR THE COUNTY OF LOS ANGELES
    DEPARTMENT 308
                          HON. WENDELL MORTIMER, JR., JUDGE
 3
    WATSON LAND COMPANY, A CALIFORNIA )
    CORPORATION,
 4
                           PLAINTIFF,
 5
                                              SUPERIOR COURT
: б
                                            CASE NO. BC 150161
    VS.
 7
    ATLANTIC RICHFIELD COMPANY, ETC.,
    ET AL,
 8
                          DEFENDANTS.
 9
10
         REPORTER'S DAILY TRANSCRIPT OF PROCEEDINGS
11
                    TUESDAY, JUNE 5TH, 2001
12
                           VOLUME 10
13
             PAGES 1456 THROUGH 1670, INCLUSIVE
    APPEARANCES:
    (SEE APPEARANCE PAGE)
15
16
17
18
19
20
21
22
23
24
25
26
                          LISA C. RIDLEY, CSR NO. 5886
27
                          OFFICIAL REPORTER
28
```

1.	APPEARANCES
2	
3	(FOR PLAINTIFF) BRIGHT AND BROWN
4	BY: JAMES S. BRIGHT MAUREEN J. BRIGHT
. 5	BRIAN L. BECKER 550 NORTH BRAND BOULEVARD
6	SUITE 2100 GLENDALE, CALIFORNIA 91203
7	818.243.2121
8	(FOR DEFENDANTS) LAW OFFICES OF DAVID J. EARLE BY: DAVID JEFFREY EARLE
9	138 NORTH BRAND BOULEVARD SUITE 303
10	GLENDALE, CALIFORNIA 91203 818.242.4700
11	CADWELL, LESLIE, NEWCOMBE & PETTIT
12	BY: MICHAEL R. LESLIE 1000 WILSHIRE BOULEVARD
13	SUITE 600 LOS ANGELES, CALIFORNIA 90017
14	213.629.9040
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	

				·
1	INDEX FOR VOL	UME 11	PAGES 14	56 TO 1670
2	DAY	DATE	SESSION	PAGE
3	TUESDAY TUESDAY	06-05-01 06-05-01	A.M. P.M.	1456 1565
4		00 00 01	2	1303
5				
6				
7,	PLAINTIFF'S W	ITNESSES	·	PAGE
8 9	DAGDIGIAN, JE DIRECT EXA	FFREY MINATION BY MS	BRIGHT (CONTI	
10		INATION BY MR.	LESLIE	1539
11	RHODES, ILEAN READING OF			1566
12	DAGDIGIAN, JE CROSS-EXAM		LESLIE (RESUMEI	)) 1580
13				
14				
15				
16				
17 18	PLAINTIFF'S E	XHIBITS	IN FOR ID EVD	REJ'D W/DRAWN
19	3207 REPORT		1585	
20				
21			· · · · · · · · · · · · · · · · · · ·	
22		en de la companya de La companya de la co		
23	·			
24				
25				
26				
27			•	
28				• /

	1	(THE FOLLOWING PROCEEDINGS WERE
	2	HELD IN OPEN COURT, IN THE
	3 .	PRESENCE OF THE JURY:)
	4	
	5	JEFFREY DAGDIGIAN,
	6	CALLED AS A WITNESS BY THE PLAINTIFF, HAVING
	7	PREVIOUSLY BEEN SWORN, RESUMED THE STAND AND
	8	TESTIFIED FURTHER AS FOLLOWS:
	9	THE COURT: ALL RIGHT, WE ARE BACK ON THE
1	. 0	RECORD WITH THE JURY AND DR. DAGDIGIAN.
1	.1	IS THAT THE WAY YOU PRONOUNCE IT?
1	.2	THE WITNESS: PERFECTLY.
1	.3	THE COURT: PERFECTLY CLOSE.
1	.4	I WANT TO REMIND YOU YOU ARE STILL
1	.5	UNDER OATH.
1	.6	DO YOU UNDERSTAND?
1	7	THE WITNESS: I DO.
1	В	THE COURT: PROCEED, COUNSEL.
1	.9	
2	0	DIRECT EXAMINATION (CONTINUED)
2	21	BY MS. BRIGHT:
2	22 .	Q. GOOD MORNING, DR. DAGDIGIAN.
2	3	A. GOOD MORNING.
2	24	Q. BEFORE WE MOVE ON, I'D LIKE TO HAVE
2	25	YOU, IF YOU COULD, PICK UP THAT BIG EXHIBIT THAT'S
2	6	GOT THE BENZENE PLUME ON IT FOR A SECOND.
2	27	WE WERE TALKING ABOUT SOME OF OUR
2	8 8	CAST OF CHARACTERS YESTERDAY ON THIS. AND ONE OF

1 /	THE CAST OF CHARACTERS YOU TOLD US ABOUT LOOKED
2	IS BTEX; RIGHT?
3	A. THAT IS CORRECT.
4	Q. AND WHAT IS IT ON THAT PARTICULAR
· · 5	PLUME MAP FOR GASOLINE THAT WE ARE LOOKING AT?
6	A. THIS PLUME MAP LOOKS AT BENZENE,
7	WHICH IS THE "B" IN BTEX.
8	Q. GIVE US AN IDEA OF HOW BIG THAT
9	THING IS, CAN YOU?
10	A. THIS IS A FAIRLY LARGE PLUME. IT'S
11	ABOUT 1,300 FEET LONG BY ABOUT 6- OR 700 FEET WIDE.
12	TO GIVE YOU SOME PERSPECTIVE ON THAT, IN TERMS THAT
13	I THINK EVERYBODY WOULD UNDERSTAND, I HAVE MADE AN
14	OVERLAY OF A FOOTBALL FIELD WHICH IS ON THE SAME
15	SCALE AS THE DRAWING. ONE INCH EQUALS 50 FEET.
16	SO A FOOTBALL FIELD IS 100 YARDS
17	LONG PLUS 10 YARDS AT EACH END ZONE AND 53 AND A
18	THIRD YARDS WIDE.
19	AND SO THIS IS WHAT A FOOTBALL
20	FIELD WOULD LOOK LIKE IF WE PUT IT NEXT TO OUR
21	PLUME.
22	SO IF YOU START UP HERE, THAT'S
23	ABOUT ONE, TWO, THREE, A LITTLE BIT MORE THAN THREE
24	FOOTBALL FIELDS LONG AND, SOMEPLACE LESS THAN
25	THREE, SOMEPLACE MORE THAN THREE FOOTBALL FIELDS
26	WIDE.
27	Q. AND YESTERDAY YOU TOLD US HOW YOU
28	DREW THE YOU WERE TALKING ABOUT HOW YOU DREW THE