

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. 76-284

N.P.D.E.S. No. CA 0078352

WASTE DISCHARGE REQUIREMENTS
FOR
GETTY OIL COMPANY
KERN COUNTY

The California Regional Water Quality Control Board, Central Valley Region (hereinafter Board), finds:

1. The Getty Oil Company (hereinafter discharger) presently discharges up to 6.5 MGD ($2.5 \times 10^4 \text{ m}^3/\text{day}$) of oil field production wastes to the Beardsley Canal (001) under the provision of Board Order No. 74-571 (N.P.D.E.S. No. CA 0078352), adopted 20 December 1974.
2. Flow in the Beardsley Canal is terminated approximately 30 days per year for maintenance purposes. Due to this the discharger has submitted a Report of Waste Discharge for alternate disposal to the Kern Island Canal (002).
3. The existing and proposed discharge points are in Section 9, T29S, R28E, MDB&M, immediately north of Bakersfield.
4. Revised operations have increased the total daily waste flow to 7.35 MGD ($2.78 \times 10^4 \text{ m}^3/\text{day}$).
5. The waste stream exhibits the following characteristics

Specific Electrical Conductance @25°C	1240	umhos
Chloride	210	mg/l
Boron	1.2	mg/l
Oil and Grease	26.5	mg/l
6. The Board adopted a Water Quality Control Plan for the Tulare Lake Basin (5D) on 25 July 1975.
7. The beneficial uses of the Beardsley and Kern Island Canals are:
 - a. agricultural supply
 - b. esthetic enjoyment
 - c. preservation and enhancement of fish, wildlife, and other aquatic resources or preserves
 - d. ground water recharge
8. Effluent limitations and toxic effluent standards established pursuant to Sections 301, 302, 304, and 307 of the Federal Water Pollution Control Act and amendments thereto are applicable to the discharge.

9. The Board has notified the discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
10. The Board in a public meeting heard and considered all comments pertaining to the discharge.
11. This Order shall serve as a National Pollutant Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act, or amendments thereto, and shall take effect 1 March 1977 provided the Regional Administrator has no objections.

IT IS HEREBY ORDERED, the discharger in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Federal Water Pollution Control Act, and regulations and guidelines adopted thereunder shall comply with the following:

A. Effluent Limitations

1. The 30-day mean daily discharge shall not exceed 7.35 MG ($2.78 \times 10^4 \text{ m}^3$).
2. The discharge of an effluent to the Beardsley (001) or Kern Island (002) Canals in excess of the following limits is prohibited.

<u>Constituent</u>	<u>Units</u>	<u>30-day Average</u>	<u>Daily Maximum</u>
Specific Electrical Conductance @25°C	umhos/cm ²	1,500	2,000
Chloride	mg/l	275	300
	kg/day	7,650	8,350
	lbs/day	16,850	18,400
Boron	mg/l	2	2
	kg/day	55	55
	lbs/day	120	120
Oil and Grease	mg/l	35	45
	kg/day	975	1,250
	lbs/day	2150	2,750

3. Bypass or overflow of untreated or partially treated wastes is prohibited.
4. The discharge of wastes to the Kern River is prohibited.

B. Receiving Water Limitations

1. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

2. The discharge shall not cause concentrations of any materials in the receiving waters which are deleterious to human, plant, animal, or aquatic life.
3. The discharge shall not cause floating oil, grease, scum or foam in the receiving water.
4. The discharge shall not cause fungus, slimes, or other objectionable growth in the receiving water.
5. The discharge shall not cause esthetically undesirable discoloration of the receiving waters.

C. Provisions

1. Neither the treatment nor the discharge of pollutants shall create a nuisance as defined in the California Water Code.
2. Board Order No. 74-571 is rescinded on 1 March 1977.
3. This Order expires 1 January 1982 and the discharger must file a Report of Waste Discharge in accordance with Title 23, California Administrative Code, not later than 1 July 1981 as application for issuance of new Waste Discharge Requirements.
4. This Order includes items 1, 3, 5, 6, & 7 of the attached "Reporting Requirements".
5. This Order includes items 1, 2, 4, 5, 6, 7, 8, 9, 10, and 11 of the attached "Standard Provisions".
6. This Order includes the attached "General Monitoring and Reporting Provisions".
7. The discharger shall comply with the Monitoring and Reporting Program No. 76-264 as specified by the Executive Officer.
8. The discharger shall furnish technical reports as specified by the Executive Officer.
9. Compliance with the daily maximum concentration limits shall be determined from the analytical results of any sample, whether discrete or composite.
10. The daily average constituent discharge rate, \bar{M} is obtained from the following calculation of any calendar day:

$$\bar{M} \text{ (lbs/day)} = \frac{8.34 \sum_{i=1}^n (Q_{ie} \times C_i)}{n}, \quad \text{and} \quad \bar{M} \text{ (kg/day)} = \frac{\sum_{i=1}^n (Q_{im} \times C_i)}{1000 n}$$

in which

n = number of samples analyzed in any calendar day.

Q_{ie} = flow rate (mgd)

Q_{im} = flow rate (m^3 .day)

C_i = constituent concentration (mg/l);

if a composite sample is taken, C_i is the concentration measured in the composite sample, and Q_i is the average flow rate occurring during the period over which the samples are composited.

11. The 30-day average constituent discharge rates shall be the arithmetic average of all the values of daily averages as calculated in Provision 10.
12. Wastes hauled for disposal shall be transported by a registered liquid waste hauler to a disposal site approved by the Board.
13. The discharger shall use the best practicable cost effective control technique currently available to limit mineralization to no more than a reasonable increment.
14. A copy of this Order shall be maintained at the treatment facility and shall be available at all times to plant operating personnel.
15. The discharger shall report promptly to the Board any material change or proposed change in character, location, or volume of the discharge or in the production rates or methods of processing.
16. In the event of any change in control or ownership of this treatment or disposal system, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Board.
17. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from his liabilities under Federal, State, or local laws, nor guarantee the discharger a capacity right in the receiving waters.

I, JAMES A. ROBERTSON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on DEC 17 1976.

Original signed by
James A. Robertson

JAMES A. ROBERTSON, Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. 76-264

FOR
GETTY OIL COMPANY
KERN COUNTY

EFFLUENT MONITORING

A sampling station shall be established for each point of discharge and shall be located where representative samples of that effluent can be obtained. The following shall constitute the effluent monitoring program:

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Total Flow	MGD	Continuous	Daily
Specific Electrical Conductance at 25°C	umhos	Grab	Daily
Boron	mg/l	Grab	2/month
Chlorides	mg/l	Grab	2/month
Oil & Grease	mg/l	Four grabs during a 45-minute period	2/month

If the discharge is intermittent rather than continuous, then on the first day of each such intermittent discharge, the discharger shall monitor and record data for all of the parameters listed in the effluent monitoring schedule, after which the frequencies of analysis listed in the schedule shall apply for the duration of each such intermittent discharge. In no event shall the discharger be required to monitor and record data more often than twice the frequencies listed in the schedule.

MONITORING IMPLEMENTATION

The discharger shall implement the above monitoring program on the effective date of this Order. Monitoring reports shall be submitted to the Board for each month by the 15th day of the following month, beginning not later than 15 February 1977.

Original signed by
James A. Robertson
Ordered by JAMES A. ROBERTSON, Executive Officer

DEC 17 1976

(date)

10/27/76

GETTY OIL COMPANY
 KERN RIVER FIELD
 KERN COUNTY

The Kern River Oil Field is located about five miles north of Bakersfield. The field is adjoined on the east by Round Mountain Oil Field and the west by the Kern Front Field. By 31 December 1971, 9,710 acres of the total 9,850 were proved.

Getty Oil Company, the largest producer in the Kern River Field, reported that 80% of their 1971 production was incremental oil due to a large scale thermal program. Getty Oil estimates the total waste water flow to be 20.2 MGD. Of this, 12.9 mgd are reclaimed for steam injection. The remainder, 7.35 mgd, must be disposed.

A Division of Oil and Gas report indicates that the oil field production waters are in general, sodium bicarbonate type. The report indicates chlorides ranging from 48 to 78 mg/l; Boron, 0.1 to 0.5 mg/l; and total dissolved solids, 598 to 1,070 mg/l. Monitoring conducted by Getty Oil Company of their discharge between 2/14/74 and 9/20/74 indicated electrical conductivity ranging from 1,033 to 2,083 umhos, chlorides from 249 to 355 mg/l and Boron from 1.1 to 3.6 mg/l.

Discharge Serial No. 001 is to the Beardsley Canal. The Beardsley Canal originates at the Beardsley Weir on the Kern River, approximately one mile upstream of the discharge point. The Beardsley canal traverses westerly through the City of Oildale and turns north to become the Lerdo Canal. The Lerdo Canal has a cross connection to Poso Creek near Famoso.

Discharge Serial No. 002 is to the Kern Island Canal. This canal originates at the Rocky Point Weir, also on the Kern River, immediately upstream from the discharge point. The Kern Island Canal flows west and south through the City of Bakersfield. It is the source for numerous canals serving a large area in the southern end of the San Joaquin Valley.

The Kern River, which supplies both the Beardsley and Kern Island canals, is generally considered Class I irrigation water. Chemical characteristics of the river are:

<u>Characteristic</u>	<u>Units</u>	<u>Minimum</u>	<u>Maximum</u>
Electrical Conductivity	umhos	63	400
Total Dissolved Solids	mg/l	40	257
Chlorides	mg/l	4.0	7.4
Boron	mg/l	0.1	0.2

The Tulare Lake Basin Plan contains effluent limitations for the disposal of petroleum production wastes to land overlying usable groundwater. These limitations are:

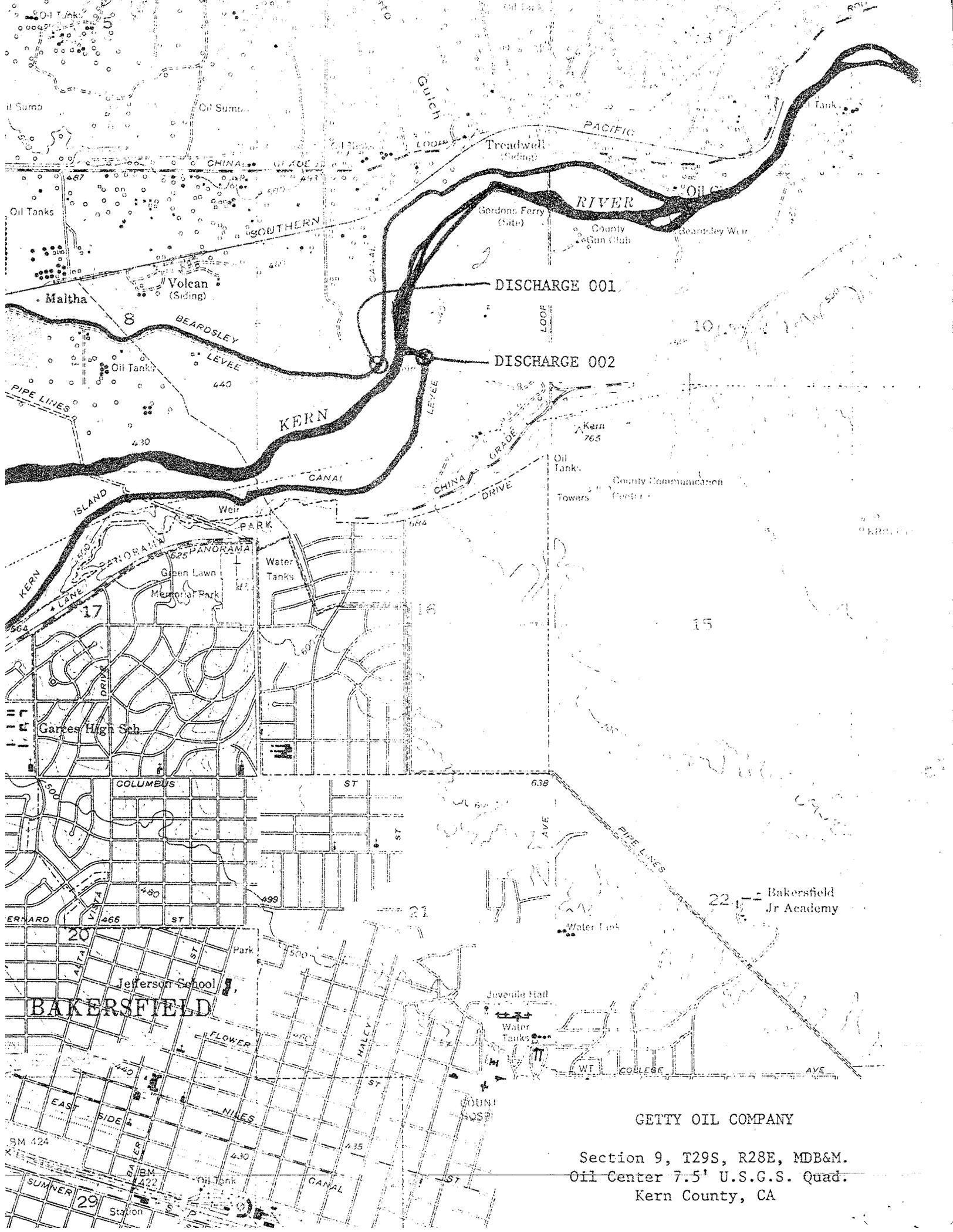
<u>Characteristic</u>	<u>Units</u>	<u>Maximum</u>
Electrical Conductivity	umhos	1000
Chlorides	mg/l	200
Boron	mg/l	1

GETTY OIL COMPANY
KERN COUNTY

Page 2

Since this discharge is to an irrigation supply system serving many thousands of acres, any incremental salt build-up in the groundwater will be minimal. The area near the confluence of the Beardsley (Lerdo) Canal and Poso Creek is underlain by groundwater with an E.C. of near 2000 umhos. The Kern Island Canal serves an area southeast of Bakersfield which has groundwaters of 1500 to 2500 umhos. In this area Boron concentrations in the groundwater of up to 4.0 mg/l have been reported.

10/27/76 JAOD/em



DISCHARGE 001

DISCHARGE 002

KERN

RIVER

CANAL

BEARDSLEY
LEVEE

CHINA
DRIVE

KERN ISLAND

LANE PANORAMA

GREEN LAWN
MEMORIAL PARK

GARTER HIGH SCH

COLUMBUS ST

ERNA RD

JEFFERSON SCHOOL

BAKERSFIELD

EAST SIDE

SUMNER

OIL TANKS

COUNTY COMMUNICATION
CENTRE

WATER TANKS

WATER TANKS

WATER TANKS

JUVENILE HALL

WATER TANKS

COUNTY

GETTY OIL COMPANY

Section 9, T29S, R28E, MDB&M.
Oil Center 7.5' U.S.G.S. Quad.
Kern County, CA