DRAFT

EVALUATION OF THE

SANTA CLARA WASTE WATER COMPANY

PIPELINE

PREPARED FOR

MR. BOB COLE

PENFIELD & SMITH
2530 FINANCIAL SQUARE DRIVE, SUITE 110
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JUNE 15, 1990

W.O. 9465.01

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W.O. 9465.01

June 15, 1990

VenVirotek
Mr. Bob Cole
1536 Eastman Ave., Suite 6A
Ventura, CA 93003

SUBJECT: PIPELINE EVALUATION REPORT FOR SANTA CLARA WASTE WATER PIPELINE.

Attached are two (2) copies of the Draft Report for the subject project. Due to timing constraints, we have decided to submit the report prior to receiving the results of the ultrasonic testing of the pipeline and influent water quality testing. These tests will not have any impact on the flow capacity calculations.

Please review the report and advise me of your comments. Call me at (805) 983-7499 if you wish to schedule a meeting. I will be on vacation through June 21, 1990.

Very truly yours,

PENFIELD & SMITH

Patrick J. Reeves
Principal Engineer

PJR:lb

P&S

PURPOSE OF REPORT

This report was prepared to present the results of an evaluation performed on the Santa Clara Waste Water Company Pipeline. The evaluation was intended to determine acceptable capacities of the pipeline under current use and also with proposed additions of flow from; a) The new Ventura County Jail, b) 40 Acres of planned industrial development in Saticoy, and c) Increased flow from the Santa Clara Waste Water Company Plant. The evaluation was also intended to determine the corrosive effects on the pipeline from industrial and domestic wastewater.

BACKGROUND

The Santa Clara Waste Water Company (SCWWC) Pipeline is a nominal 10-inches in diameter and is 66,897 feet (12.7 miles) long. It is a cement mortar lined steel pipe and the thickness of the cement mortar may vary due to the corrosive effects of the wastewater. The inside diameter is assumed to be 9.4 to 9.6 inches. The pipeline was installed in 1959. A sample of the pipeline was measured, yielding a steel thickness of 0.15 inches, and a cement mortar thickness of 0.55 inches, (3 distinct layers). The outside diameter of the steel pipe was measured as 10.75 inches. The pipeline conveys industrial wastewater from the SCWWC Plant located near Mission Rock Road to a connection with the City of Oxnard's transmission main located near Wooley Road and Mayflower Avenue. Currently, the maximum daily flow is about 0.47 MGD. Oxnard City Staff (L. Fargo) has indicated that the maximum allowable flow per day is 0.34 MGD. The outflow empties into an open reservoir and is not submerged. The inflow elevation is approximately 43 feet. A plan and profile of the pipeline is shown on a folded drawing located at the end of this report, (Exhibit A). The wastewater is currently pumped by one of two pumps located at the SCWWC Company. One pump produces 30

psi with a calculated flow of about 500 gpm and the other produces 48 psi with a calculated flow of about 600 gpm.

There have been no reported odor problems or surcharge problems associated with the discharge point into the City of Oxnard sewer system (L. Fargo). The water quality of the wastewater has complied with conditions of the waste discharge permit (Appendix), with the exception of periodic problems with COD, BOD, and total toxic organics. There are plans underway to remedy the total toxic organics problem. The COD problem is no longer a concern due to new improvements to be provided at the City's Wastewater Treatment Plant. The City will no longer regulate this constituent. The BOD problem can be resolved by the addition of various chemicals as discussed in the Recommendation Section of this report.

The SCWWC Plant may expand in the future, producing increased flows. Additional flows are also proposed to enter the pipeline from the new Ventura County Jail and from 40 acres of planned industrial zoned land in Saticoy. It is anticipated that on-site storage and pre-treatment may be needed at these locations.

METHODOLOGY

Invert elevations of the SCWWC Pipeline were obtained from construction plans acquired from Brain Massey of the SCWWC. From this information a profile was drawn which was then modified to show the major high and low points and to show general slopes of the pipeline (See Exhibit A). Information pertaining to the barranca crossings, the Santa Clara River bridge crossing, changes or additions to the original pipeline construction, and end conditions were acquired from Bill Cook of the SCWWC or from visual inspection conducted by this office.

Theoretical flows were computed using the Hazen-Williams equation for friction losses (C=120 and 130). Minimum flows were obtained assuming a minimum velocity within the pipeline of 3 ft/s. Corrosion of the cement mortar lining of the pipeline is assumed to be a direct result of the production of hydrogen sulfide from the wastewater. The amount of hydrogen sulfide produced during different conditions was computed using the Pomeroy-Parkhurst equation (See calculations in Appendix).

Existing flow information was provided by Brian Massey and is attached in the Appendix of this report. Based on conversations with City Personnel and Mr. Massey, the information is suspect, and should be verified by a careful calibration of the system flow meters, or installation of new flow meters at the outlet to the City sewer system.

DISCUSSION

Currently the flow is pumped at either 30 psi or 48 psi. Effluent within the pipeline will not gravity flow since there are high points which must be overcome. It was found that the pipeline is flowing full throughout its entire length when either of the pumps is operating. Table 1 shows flows which can be achieved in the pipeline with the given pressures.

TABLE 1

	LOW RANGE		HIGH RANGE	
PRESSURE	GPM	VELOCITY	GPM	VELOCITY
30 psi	490	2.46	610	2.75
48 psi	540	2.70	670	3.03
100 psi	660	3.33	820	3.73
150 psi	760	3.86	950	4.32

A minimum pressure of 25 psi must be supplied for the flow to overcome the high point at STA 518 + 17.96.

Table 2 on the next page illustrates the range of flows in million gallons per day which can be achieved by applying the appropriate amount of pressure and horsepower. Table 3 provides a matrix of flows which could flow in the pipeline given a designated pump with a certain horsepower working at 60% efficiency, 24 hours per day, 7 days per week.

TABLE 2

PIPELINE FLOW CAPACITY

INPUT PRESSURE (PSC)	LOW RANGE (MGD)	HIGH RANGE (MGD)	AVERAGE (MGD)	REQ.PUMP[1] (HP)
Minimum	0.56	0.71	0.64	----
30	0.69	0.88	0.79	27
48	0.78	0.96	0.87	59
75	0.87	1.08	0.98	103
100	0.95	1.18	1.07	150
150	1.09	1.37	1.23	258

[1] Assume 60% efficiency

TABLE 3

POTENTIAL SOURCES OF FLOW VS. HP[3]

SOURCE	MIN. (MGD)	27 HP (MGD)	59 HP (MGD)	103 (MGD)	1.50 (MGD)	2258 (MGD)
Existing Plant[1]	.259	.259	.259	.259	.259	.259
Ultimate Jail	.245	.245	.245	.245	.245	.245
Seticoy 40 Acres	.136[2]	.208	.208	.208	.208	.208
Potential Plant Expansion	---	.078	.158	.268	.358	.518
Total Flow	0.64	0.79	0.87	0.98	1.07	1.23

[1] Maximum month, average day
[2] Less than required flow
[3] Assumes 24 hr/day - 7 days/week

The proposed Ventura County Jail will be developed in three phases. The final phase will hold 2307 prisoners. The wastewater line from the jail is to be tied into the SCWWC Pipeline at the Todd Barranca (See Exhibit A). The invert elevation at this point is about 190 feet. The first phase will introduce 63,800 gpd (EIR) to the pipeline. This is 76 gpm over a 14-hour period or 44 gpm over a 24-hour period. The final phase will produce 245,300 gpm (EIR) which is 292 gpm in 14 hours or 170 gpm in 24 hours. If this flow is introduced to the pipeline during a time when the SCWWC is pumping at 30 psi, the jail would have to produce a pressure greater than 21 psi. There is a high point in the SCWWC pipeline at STA 518 + 17.96 which is downstream of the proposed County Jail tie-in. If flow is introduced to the pipeline from the jail during a time when the SCWWC is not pumping, a minimum pressure of 13.8 psi and a minimum flow of 662 gpm must be produced by the jail to maintain a velocity of 3 ft/s. This would require the 63,800 gpd of the first phase to be pumped into the line entirely within 1.6 hours and the 245,300 gpd of the final phase would have to be pumped into the line within 6.2 hours. In order for these conditions to be met, a holding tank would have to be constructed at the jail site to retain the waste until it is to be pumped into the pipeline. As an alternative, the flow could be discharged at a much lower rate if there is already adequate flow in the pipeline.

Approximately 40 acres of industrial zoned land is to be developed in the Saticoy area. If this land is developed industrially, the City of Ventura projects that the waste produced will be approximately 5,200 gallons/acre/day or 0.208 MGD. If this land is developed commercially, the waste produced will be approximately 3,900 gallons/acre/day or 0.156 MGD. For the industrially developed case, the flows would be 248 gpm in a 14-hour time period and 144 gpm in a 24-hour time period. If

this flow is introduced into the pipeline during a time when the SCWWC is pumping at 30 psi, it would require a pressure greater than 15 psi to discharge the flow. If flow from the developed 40 acres is introduced to the pipeline during a time when the SCWWC is not pumping, a minimum pressure of 8 psi and a minimum flow of 662 gpm must be maintained to assure a velocity within the pipeline of 3 ft/s.

RECOMMENDATIONS

- It is recommended that a velocity of 3 ft/s be maintained within the pipeline when it is flowing to prevent sediment build-up. This velocity requires a flow rate of 662 gpm.

- The existing 30 psi and 48 psi pumps at the SCWWC are inefficient for the existing use. It is recommended that they be replaced with pumps which would more efficiently produce the required pressure of 25 psi and a flow rate of 662 gpm.

- There is adequate capacity in the SCWWC pipeline to serve the ultimate County Jail, and depending on the horsepower applied, there is adequate capacity to serve the Saticoy industrial land and increased SCWWC Plant flow.

- Provide non-destructive ultrasonic inspection of the pipeline to identify the existing thickness of the pipeline in several locations.

- Additional visual (video) inspection of the interior lining of the pipe for the entire length of the SCWWC pipeline is recommended as normal maintenance now, and every 5 years thereafter.

- Install a pressure sustaining valve or appurtenance at the discharge end of the pipeline to keep the interior lining of the pipeline submerged at all times.

- If the proposed Jail or Saticoy Industrial Area is served, a backflow preventer or check valve will be required at the SCWWC Plant to prevent their inflow from entering the SCWWC Plant.

- Require all inflow from new customers to have a pH in excess of 7.2.

- Install a flow meter at the discharge end of the SCWWC pipeline. Equip the installation with telemetry to advise the SCWWC Plant of flow conditions. Eventually the telemetry system may also be necessary to control the inflow from the proposed Jail and/or Saticoy Industrial Area.

- Depending on the proposed operation of the SCWWC pipeline, consider requiring new customers to provide storage for peak flow conditions.

- Provide written correspondence to the City of Oxnard requesting an amendment to the existing Industrial Wastewater Discharge Permit. Identify all potential customers, proposed flow rates, and anticipated chemical makeup of the wastestream.

- Work with the City of Oxnard to identify the City's pipe conveyance network capacity downstream of the SCWWC pipeline discharge point.

- Complete the installation of the equipment at the SCWWC Plant which will reduce the effluent total toxic organics.

- During periods of high biological oxygen demand (BOD), consider adding either hydrogen peroxide (oxygen) or oxidizing agents such as ferrus chloride, ferric chloride, or chelated iron solution (catalytic), at the SCWWC Plant.

- Continue to maintain the SCWWC pipeline with monthly cleaning (neoprene "pig").

- Perform a battery of water quality tests know as "Generator Self Certification". These tests include corrosivity, reactivity, flammability, and aquatic bioassay (96 hour fish kill).

- Do not plan on exceeding 100 psi with the pump discharge pressure at the SCWWC Plant. This would limit the pipeline capacity to 1.07 MGD.

APPENDIX

1). Industrial Wastewater Discharge Permit

2). Calculations for Hydrogen Sulfide

3). Flow Calculation

4). Flow Records

5). Water Quality Test Results

6). Exhibit "A", Plan and Profile Drawing

1

INDUSTRIAL WASTEWATER DISCHARGE PERMIT

COPY

Permit No: 43

CITY OF OXNARD

SOURCE CONTROL PROGRAM

INDUSTRIAL WASTEWATER DISCHARGE PERMIT

Company Name: Santa Clara Waste Water Company

Mailing Address: Post Office Box 4156

Ventura, California 93004

Facility Address: 815 Mission Rock Road

Santa Paula, California 93060

The above named Industrial User is authorized to discharge industrial wastewater to the City of Oxnard's sewerage system in compliance with Chapter 25 of the Oxnard City Code, which by reference is incorporated herein as if fully set forth, and all applicable provisions of Federal or State law or regulation, and in accordance with any discharge point(s), effluent limitations, monitoring requirements, and any other conditions as herewith attached.

This permit does not exempt the operator(s) of this facility from compliance with any other laws, regulations, or ordinances which may be applicable; and/or leaves unaffected any further restraint(s) on the disposal of wastewater at this site which may be contained in other statutes or required by other agencies.

This permit is granted in accordance with the application filed on November 20, 1986, and in conformity with plans, specifications, and other data submitted to the City's Source Control Program (SCP) in support of the above application.

Effective this 1st day of January, 1988.

To expire the 30th day of June, 1988.

Robert B. Montgomery R.S.

~~Approved by:~~

Robert B. Montgomery, R.S.
Environmental Control Supervisor

PART I - WASTEWATER DISCHARGE LIMITATIONS

The Industrial User shall comply with the effluent limitations specified below:

MAXIMUM CONCENTRATIONS
(Expressed in mg/L*)

PARAMETER	LOCAL LIMIT (DAILY MAXIMUM)
Biochemical Oxygen Demand (BOD)	600
Cadmium (Cd)	3.0
Chemical Oxygen Demand (COD)	1800
Chromium, total (Cr)	3.0
Chromium, hexavalent (Cr+6)	0.1
Copper (Cu)	3.0
Hydrogen Sulfide, dissolved (H2S)	0.1
Lead (Pb)	3.0
Nickel (Ni)	3.0
Oil & Grease (O&G)	100
pH (minimum)	6.0**
pH (maximum)	10.0**
Suspended Solids (SS)	800
Total Toxic Organics (TTO)	1.0
Zinc (Zn)	3.0

*Unless Otherwise Specified
**pH Units

PART II - MONITORING REQUIREMENTS

PARAMETER	MONITORING FREQUENCY	SAMPLE TYPE
Biochemical Oxygen Demand (BOD)	1-Day/Week	1
Cadmium (Cd)	1-Day/Month	1
Chemical Oxygen Demand (COD)	1-Day/Week	1
Chromium, total (Cr)	1-Day/Month	1
Chromium, hexavalent (Cr+6)	1-Day/Month	1
Copper (Cu)	1-Day/Month	1
Hydrogen Sulfide, dissolved (H2S)	1-Day/Week	2
Lead (Pb)	1-Day/Month	1
Nickel (Ni)	1-Day/Month	1
Oil & Grease (O&G)	1-Day/Week	2
pH	1-Day/Week	2
Suspended Solids (SS)	1-Day/Week	1
Volatile Organics	1-Day/Month	2
Zinc (Zn)	1-Day/Month	1
Remaining Priority Pollutants	1-Day/Year	1&2

(1) 24-Hr. flow proportional composite
NOTE: Where the Industrial User does not have the capability of flow measurement, a time-weighted composite may be acceptable.

(2) Grab

Wastewater analyses shall be performed by a laboratory certified by the State Department of Health Services for the constituent(s) being analyzed. If the laboratory used or proposed for use by the Industrial User is not certified by the California Department of Health Services, or due to restrictions in the State's laboratory certification program, or in cases where certification does not exist for other reasons, the discharger shall be considered in compliance with this provision provided:

A. Data results remain consistent with results of samples collected by the SCP;

B. A quality assurance program is utilized by the laboratory, which includes a procedures manual (this manual shall be made available for inspections by the SCP); and

C. Certification is pursued in good faith and obtained as soon as possible after the program is reinstated.

PART III - SPECIAL CONDITIONS/REQUIREMENTS

1. The Industrial User shall develop, within 3 months of the effective date of this permit, an Influent Monitoring Program. To ensure that only wastewaters for which its facility is desigend to treat are accepted. The program proposal shall be submitted to the Source Control Program by March 31, 1987.

2. The Industrial User shall notify the SCP at least seventy-two (72) hours prior to commencing any line cleaning activities.

3. The Industrial User is only permitted to accept wastewater from the following sources:

/a. Union Oil (Stewart, Richardson, Snyder, Dryden, and Mandalay Leases)

/b. Sage Energy (Saticoy, Santa Paula, and Edwards Leases)

/c. Concordia Resources

/d. Hamp Oil

e. Thornbury

f. Exxon U.S.A.

g. L. Barker

h. Hunter Oil

i. B. J. Titon

j. T&T Energy Services Co.

k. Joe Aidlin

/l. Mobil

Water Softener Brine

m. Hasa Chemical

n. Keysor Century

o. Milum Textile

p. Weyerhauser

q. United

/r. Pacific Water

s. Henry Mayo Hospital

The Industrial User shall notify the SCP, within seven days, regarding any deletions from the aforementioned list. For the purposes of this Permit a change of ownership shall be defined as a deletion.

3. The Industrial User shall obtain approval from the SCP prior to the acceptance of wastewater from a new source.

PART IV - REPORTING REQUIREMENTS

1. The Industrial User shalI immediately notify the SCP upon any accidental or slug discharge to the City's sewerage system. Formal written notification discussing the circumstances of the discharge and steps taken to prevent future occurrence shall be submitted to the City within five (5) days following the verbal notification.

2. The Industrial User shall notify the SCP, in writing, prior to the introduction of any new source of wastewater or pollutants or any substantial change in the volume or characteristics of the wastewater being introduced into the City's sewerage system from the User's industrial processes.

3. The Industrial User shall verbally notify the SCP of any upset of its pretreatment system that may place its wastewater discharge in a state of non-compliance, with wastewater discharge limitations contained in this permit or other limitations specified in the City's Ordinance. This notification shall be made within twenty-four (24) hours of first being aware of the upset. A detailed written report shall be submitted to the SCP within five (5) days following verbal notification and shall contain a description of the upset and its cause, the duration of the upset (including exact dates and times) or anticipated duration; and the steps taken or planned to prevent recurrence.

4. The Industrial User shall submit periodic Self-Monitoring Reports to the SCP. These reports are to be submitted according to the following schedule:

MONITORING FREQUENCY	REPORT DUE
Continuous, Daily, Weekly, Monthly	By the fourteenth (14) day of the following month.
Quarterly	April 14, July 14, Oct. 14, January 14
Semiannually	July 14, January 14
Annually	January 14

The pH values shall be reported in terms of daily minimum and maximum values for each day the facility is in operation. In addition, the total duration of each pH event in excess of permissible limits shall be reported. The reports shall also contain average and maximum daily flows.

5. The Industrial User (where applicable) shall ensure that all monitoring instruments and devices used by the Industrial User to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. The flow measurement system shall be calibrated at least twice per year, or more frequently as necessary, to ensure continued accuracy of the system.

   To ensure proper operation of the pH monitoring system, the Industrial User shall be required to conduct a daily system calibration check. In addition, the Industrial User shall be required to maintain a written maintenance log relative to the system. This log shall contain, at a minimum, the following information:

   a. Date that calibration and check procedures were performed;

   b. Person(s) performing the procedures;

   c. Description of the procedures performed (may be in the form of a checklist;

   d. Statement(s) regarding whether or not the system operated correctly;

   e. Description of problems encountered, if any; and

   f. Description of maintenance/corrective procedures undertaken.

   The log shall be maintained on a daily basis and shall be made available upon request to SCP personnel.

6. The Industrial User shall submit all reports to the following address:

Oxnard Wastewater Treatment Plant
Source Control Program
6001 South Perkins Road
Oxnard, CA 93033

Attention: Robert B. Montgomery, R.S.
Environmental Control Supervisor

PART V - STANDARD CONDITIONS

1. A copy of this permit shall be posted at the Industrial User's facility so as to be available to all operating personnel at all times .

2. Right of Entry

   The Industrial User shall allow the Director or his representative, exhibiting proper identification, to enter upon the premises of the Industrial User at all reasonable hours for the purposes of inspection, sampling, and/or record inspection. Reasonable hours in this context includes, but is not limited to, any time the Industrial User is operating any process which results in a process waste and/or wastewater discharge to the City's sewerage system.

3. Record Retention

   a) The Industrial User shall retain and preserve for no less than three (3) years, any records, books, documents, memoranda, reports, correspondence and any and all summaries thereof, relating to monitoring, sampling and chemical analyses made by or in behalf of the Industrial User in connection with its discharge.

   b) All records that pertain to matters that are the subject of special orders or any other enforcement or litigation activities brought by the City shall be maintained until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

4. Confidential Information

   Except for data determined to be trade secrets under Chapter 25, Section 25-15 of the Oxnard City Code, all information required by this permit shall be available for public records inspection at the office of the Environmental Control Supervisor.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the user shall record the following information:

a) The exact place, date, and time of sampling;

b) The dates the analyses were performed;

c) The person(s) who performed the analyses;

d) The sample collection and preservation methods used;

e) The analytical techniques or methods used;

f) The results of all required analyses; and

g) Average daily and maximum daily flows during the reporting period.

h) All monitoring instruments and devices utilized by the Industrial User to fulfill the prescribed monitoring program shall be properly maintained and calibrated to ensure their continued accuracy. The flow monitoring equipment shall be calibrated every six (6) months. Proof of calibration shall be submitted with the appropriate Self-Monitoring Report.

6. Dilution

No Industrial User shall increase the use of potable or process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit.

7. Proper Disposal of Pretreatment Sludges and Chemicals

The disposal of sludges and/or spent chemicals shall be performed in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

8. Signatory Requirements

All reports required by this permit shall be signed by an authorized representative of the Industrial User.

9. Revocation of Permit

The permit issued to the Industrial User by the City may be revoked when, after inspection, monitoring, or analysis it is determined that the discharge of wastewater to the City's Sewerage System is in violation of Federal, State, or local laws, ordinances, or regulations. Additionally, falsification or intentional misrepresentation of data or statements pertaining to this permit application or any other required reporting form, shall be cause for permit revocation.

10. Falsifying Information or Tampering with Monitoring Equipment

Knowingly making any false statements on any report or other document required by the permit or knowingly rendering any monitoring device or method inaccurate, may result in punishment under the criminal laws of the City, as well as being subjected to civil penalties and relief.

11. Modification or Revision of the Permit

a) The terms and conditions of this permit may be subject to modification by the City, at any time, as limitations or requirements of the City's Ordinance are modified; or other just cause exists.

b) This permit may also be modified to incorporate special conditions resulting from the issuance of a special order.

c) The terms and conditions may be modified as a result of EPA promulgating a new federal pretreatment standard.

d) Any permit modification which results in new conditions in the new permit shall include a reasonable time schedule for compliance, if necessary.

12. Transferability

This permit shall not be reassigned, transferred or sold to a new owner, new user, different premises or a new or changed operation.

13. Duty to Reapply

The City shall notify the User thirty (30) days prior to the expiration of the User's Permit. Within thirty (30) days of the notification, the User shall apply for reissuance of the permit on a form provided by the City.

14. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

15. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any invasion of personal rights, nor any infringement of Federal, State or local regulations.

CITY OF
Oxnard

PUBLIC WORKS DEPARTMENT • 305 W. THIRD ST. • OXNARD, CA 93030 • (805) 984-4696
WASTEWATER TREATMENT PLANT • 6001 S. PERKINS RD. • OXNARD, CA 93033 • (805) 488-3517

January 5, 1988

Santa Clara Waste Water Company
Post Office Box 4156
Ventura, CA 93004

Attention: Mr. Ted ~~Greyhack~~ Grabek

Subject: Industrial Wastewater Discharge Permit

Dear Mr. Greyheck:

Enclosed please find your company's Industrial Wastewater Discharge Permit. Effective immediately, your company is required to comply with all provisions and requirements set forth within the Permit. Please be sure to examine the Permit carefully.

Your facility's Permit contains a provision for the submission of an Influent Monitoring Program (Part III - Special Condition/Requirements) by March 31, 1988. The purpose of this program is to ensure that only wastewater which is treatable by your facility is accepted. This shall be accomplished by qualifying generators and their wastewater(s) prior to acceptance, through an evaluation procedure (Waste Analysis Plan). This Plan shall include a Waste Information Form to be signed by the generator and a complete analysis of a representative sample. Other elements of the Influent Monitoring Program shall include:

- Establishment of influent pollutant concentration limitations or guidelines (and accepting only those wastewaters which meet them);
- A quick screening process to check the wastewaters upon arrival for gross deviations from the originally qualified sample(s); and
- An accurate record keeping system for wastewater deliveries and manifests.

Please be advised that Industrial Wastewater Discharge Permits are issued to a specific User for a specific operation. A Permit shall not be reassigned or transferred or sold to a new owner, new User, different premises or a new or changed operation.

As stipulated in Chapter 25, Section 25-41(A) of the Oxnard City Code, the Permit is valid for a period of one (1) year or less. In addition, Section 25-54(F) requires that the Industrial User pay a yearly Permit Fee in the amount of $1,000 (Ordinance Number 2117). The Permit Fee is due and payable upon receipt of this Notice and covers the period July 1, 1987 to June 30, 1988. Failure to pay the required fee shall result in the revocation of the Permit and the initiation of all necessary steps to ensure that your company immediately stops or eliminates the discharge of any waste or wastewater into the City's sewerage system.

If you have any questions, please contact me at (805) 488-3517. Your cooperation is greatly appreciated.

Robert B. Montgomery, R.S.
Environmental Control Supervisor

RBM:jh
Enc.

2

CALCULATIONS FOR HYDROGEN SULFIDE

Saticoy Wastewater Disposal Line Study —

Determine flows in pipeline given initial pressure produced by pump.

Pipeline characteristics:

* Initial elevation = 186' } Δ elevation = 143.2'
* Final elevation = 42.8'
* Length = 66,897'
* Diameter = 9"
  - Assume inside diameter is 9" due to deposits and visual inspection of portion cut out in 1963.
* Hazen-Williams coefficient:
  - For concrete pipe: C = 120-130

Losses in pipeline:

$$\text{Friction Loss} = \frac{4.73\,(L)\,(Q)^{1.852}}{(C)^{1.852}\,(D)^{4.87}}$$ (Hazen-Williams formula)

$$\text{Minor Losses} = M\,\frac{V^2}{2g}$$

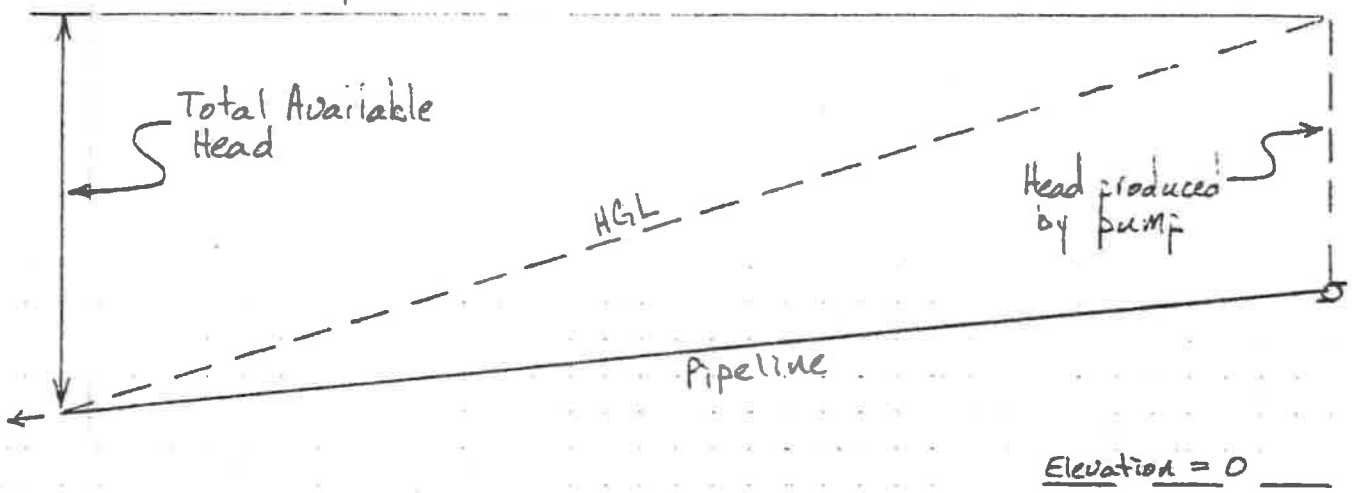
where:

Appertenance	M	No. In Pipeline	Total
Gate Valve, fully open	0.2	3	0.6
90° Bend	0.9	17	15.3
45° Bend	0.4	5	2.0
30° Bend	0.2	5	1.0
		Total M =	18.9

Hydraulic Grade Line:

* Pressure head produced by pump = PSI * 2.31 $\frac{\text{ft. head}}{\text{psi}}$
* Pressure head at output end is zero since pipe is open to atmosphere.

Method of Analysis —



Find Q which produces losses in pipeline which are equal to total available head. This will be the maximum possible Q at the given pump psi.

Total head available = initial elev. − final elev. + (psi_{pump} * 2.31)

Use trial and error method to find Q which gives:

Total head loss = Total head available

RSD

BY

Penfield & Smith
ENGINEERS • SURVEYORS
111 E. VICTORIA STREET, SANTA BARBARA, CALIF. (805) 963-9532

Vendrotek
Satico Pipeline

DATE 5-25-9

W.O. NO. 9465.01

Summary —

Analyses were performed using a computer spreadsheet to determine flows at various pumping pressures for C=120 and C=130.

Currently the flow is pumped at a pressure of 30 psi or 48 psi. Analyses were performed for both of these pressures.

Standard valves and fittings are rated at 150 psi while heavy duty valves and fittings are rated at 250 psi. Analyses were performed for these pressures also.

Considering the age of this pipeline, I wouldn't feel very comfortable pressurizing it over 100 psi. At 100 psi the pipeline will deliver flows in the range of 660 gpm to 715 gpm.

The analyses show that the current flow rate at 30 psi is in the range of 487 gpm to 527 gpm, and at 48 psi the flow rate is in the range of 536 gpm to 580 gpm.

3

FLOW CALCULATIONS

PROJECT: SATICOY WASTEWATER DISPOSAL LINE STUDY
W.O.: 9465.01
BY: RANDY S. DYER

PENFIELD & SMITH
P.O. BOX 98
SANTA BARBARA, CA 93102
(805) 963-9532

FILE NAME: 946501.SUM
DATE: 5-29-90

SUMMARY OF FLOW RESULTS

FLOW (GPM)

	Dia.= 9.0		Dia.= 9.5
	C=120	C=130	C=130
0 PSI	393	-----	490
30 PSI	487	527	607
48 PSI	536	580	668
100 PSI	660	715	824
150 PSI	764	827	953
250 PSI	941	1018	1173

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SANTA BARBARA, CA 93102
(805) 963-9532

FILE NAME: 946501.PIP
DATE: 5-25-90

PIPELINE INFORMATION:

LENGTH (ft.) =	66,897.00
DIAMETER (in.) =	9.00
AREA (sq. ft.) =	0.4416
MINOR LOSS COEF. =	18.9
INITIAL ELEVATION =	186.00
FINAL ELEVATION =	42.80
ELEV. DIFFERENCE =	143.20

C =	120
PSI PRODUCED BY PUMP =	30

HEAD FROM PUMP (ft.) =	69.3
TOTAL HEAD AVAILABLE =	212.5

FLOW (gpm)	VELOCITY (ft/s)	PIPE HL (ft)	MINOR HL (ft)	TOTAL (ft)	
500	2.52	221.29	1.87	223.16	
450	2.27	182.06	1.51	183.58	
475	2.40	201.24	1.69	202.92	
480	2.42	205.18	1.72	206.90	
485	2.45	209.15	1.76	210.91	
487	2.46	210.75	1.77	212.53	<<<<<
	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	

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FINAL ELEVATION =	42.80
ELEV. DIFFERENCE =	143.20

C =	120
PSI PRODUCED BY PUMP =	48

HEAD FROM PUMP (ft.) =	110.88
TOTAL HEAD AVAILABLE =	254.08

FLOW (gpm)	VELOCITY (ft/s)	PIPE HL (ft)	MINOR HL (ft)	TOTAL (ft)
500	2.52	221.29	1.87	223.16
550	2.78	264.01	2.26	266.27
540	2.72	255.19	2.18	257.37
535	2.70	250.83	2.14	252.97
537	2.71	252.57	2.15	254.73
536	2.70	251.70	2.15	253.85 <<<<<
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00

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FINAL ELEVATION =	42.80
ELEV. DIFFERENCE =	143.20

C =	120
PSI PRODUCED BY PUMP =	100

HEAD FROM PUMP (ft.) =	231
TOTAL HEAD AVAILABLE =	374.2

FLOW (gpm)	VELOCITY (ft/s)	PIPE HL (ft)	MINOR HL (ft)	TOTAL (ft)
600	3.03	310.18	2.69	312.87
650	3.28	359.74	3.16	362.90
660	3.33	370.06	3.26	373.31 <<<<<
662	3.34	372.14	3.27	375.41
661	3.34	371.10	3.27	374.36
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00

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FINAL ELEVATION =	42.80
ELEV. DIFFERENCE =	143.20

C =	120
PSI PRODUCED BY PUMP =	150

HEAD FROM PUMP (ft.) =	346.5
TOTAL HEAD AVAILABLE =	489.7

FLOW (gpm)	VELOCITY (ft/s)	PIPE HL (ft)	MINOR HL (ft)	TOTAL (ft)
750	3.78	468.91	4.20	473.11
760	3.84	480.55	4.32	484.87
765	3.86	486.42	4.37	490.80
764	3.86	485.25	4.36	489.61 <<<<<
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00

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ELEV. DIFFERENCE =	143.20

C =	120
PSI PRODUCED BY PUMP =	250

HEAD FROM PUMP (ft.) =	577.5
TOTAL HEAD AVAILABLE =	720.7

FLOW (gpm)	VELOCITY (ft/s)	PIPE HL (ft)	MINOR HL (ft)	TOTAL (ft)	
1000	5.05	798.87	7.47	806.34	
800	4.04	528.44	4.78	533.22	
900	4.54	657.25	6.05	663.30	
950	4.79	726.47	6.74	733.21	
940	4.74	712.37	6.60	718.97	
945	4.77	719.41	6.67	726.08	
942	4.75	715.18	6.63	721.81	
941	4.75	713.78	6.62	720.39	<<<<<
	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	

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ELEV. DIFFERENCE =	143.20

C =	130
PSI PRODUCED BY PUMP =	30

HEAD FROM PUMP (ft.) =	69.3
TOTAL HEAD AVAILABLE =	212.5

FLOW (gpm)	VELOCITY (ft/s)	PIPE HL (ft)	MINOR HL (ft)	TOTAL (ft)	
500	2.52	190.80	1.87	192.67	
550	2.78	227.64	2.26	229.90	
525	2.65	208.85	2.06	210.91	
526	2.65	209.58	2.07	211.65	
527	2.66	210.32	2.08	212.40	<<<<<
528	2.66	211.06	2.08	213.15	
	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	

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ELEV. DIFFERENCE =	143.20

C =	130
PSI PRODUCED BY PUMP =	48

HEAD FROM PUMP (ft.) =	110.88
TOTAL HEAD AVAILABLE =	254.08

FLOW (gpm)	VELOCITY (ft/s)	PIPE HL (ft)	MINOR HL (ft)	TOTAL (ft)	
500	2.52	190.80	1.87	192.67	
1000	5.05	688.80	7.47	696.27	
600	3.03	267.44	2.69	270.13	
550	2.78	227.64	2.26	229.90	
575	2.90	247.17	2.47	249.64	
580	2.93	251.17	2.51	253.68	<<<<<
581	2.93	251.97	2.52	254.49	
	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	

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ELEV. DIFFERENCE =	143.20

C =	130
PSI PRODUCED BY PUMP =	100

HEAD FROM PUMP (ft.) =	231
TOTAL HEAD AVAILABLE =	374.2

FLOW (gpm)	VELOCITY (ft/s)	PIPE HL (ft)	MINOR HL (ft)	TOTAL (ft)
600	3.03	267.44	2.69	270.13
800	4.04	455.64	4.78	460.42
700	3.53	355.81	3.66	359.47
720	3.63	374.86	3.87	378.74
718	3.62	372.94	3.85	376.79
716	3.61	371.02	3.83	374.85
715	3.61	370.06	3.82	373.88 <<<<<
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00

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ELEV. DIFFERENCE =	143.20

C =	130
PSI PRODUCED BY PUMP =	130

HEAD FROM PUMP (ft.) =	346.5
TOTAL HEAD AVAILABLE =	489.7

FLOW (gpm)	VELOCITY (ft/s)	PIPE HL (ft)	MINOR HL (ft)	TOTAL (ft)
800	4.04	455.64	4.78	460.42
820	4.14	476.96	5.02	481.98
830	4.19	487.78	5.15	492.93
828	4.18	485.61	5.12	490.73
827	4.17	484.52	5.11	489.63 <<<<<
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00

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C =	130
PSI PRODUCED BY PUMP =	250

HEAD FROM PUMP (ft.) =	577.5
TOTAL HEAD AVAILABLE =	720.7

FLOW (gpm)	VELOCITY (ft/s)	PIPE HL (ft)	MINOR HL (ft)	TOTAL (ft)	
1000	5.05	688.80	7.47	696.27	
1200	6.06	965.47	10.76	976.23	
1100	5.55	821.78	9.04	830.82	
1050	5.30	753.94	8.24	762.18	
1025	5.17	721.03	7.85	728.88	
1020	5.15	714.53	7.77	722.31	
1019	5.14	713.24	7.76	721.00	
1018	5.14	711.94	7.74	719.68	<<<<<
	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	

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FINAL ELEVATION =	42.80
ELEV. DIFFERENCE =	143.20

C =	120
PSI PRODUCED BY PUMP =	0

HEAD FROM PUMP (ft.) =	0
TOTAL HEAD AVAILABLE =	143.2

FLOW (gpm)	VELOCITY (ft/s)	PIPE HL (ft)	MINOR HL (ft)	TOTAL (ft)
400	2.02	146.38	1.20	147.58
395	1.99	143.01	1.17	144.18
394	1.99	142.34	1.16	143.50
393	1.98	141.67	1.15	142.83 <<<<<
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00

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FILE NAME: 946501.PIP
DATE: 5-29-90

PIPELINE INFORMATION:

LENGTH (ft.) =	66,897.00
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AREA (sq. ft.) =	0.4920
MINOR LOSS COEF. =	18.9
INITIAL ELEVATION =	186.00
FINAL ELEVATION =	42.80
ELEV. DIFFERENCE =	143.20

C =	130
PSI PRODUCED BY PUMP =	0

HEAD FROM PUMP (ft.) =	0
TOTAL HEAD AVAILABLE =	143.2

FLOW (gpm)	VELOCITY (ft/s)	PIPE HL (ft)	MINOR HL (ft)	TOTAL (ft)
500	2.26	146.63	1.50	148.14
495	2.24	143.93	1.47	145.40
494	2.24	143.39	1.47	144.86
493	2.23	142.85	1.46	144.32
492	2.23	142.32	1.46	143.78
491	2.22	141.78	1.45	143.23
490	2.22	141.25	1.45	142.69 <<<<<
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00

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C =	130
PSI PRODUCED BY PUMP =	30

HEAD FROM PUMP (ft.) =	69.3
TOTAL HEAD AVAILABLE =	212.5

FLOW (gpm)	VELOCITY (ft/s)	PIPE HL (ft)	MINOR HL (ft)	TOTAL (ft)
500	2.26	146.63	1.50	148.14
700	3.17	273.44	2.95	276.39
600	2.72	205.53	2.17	207.70
610	2.76	211.92	2.24	214.16
609	2.76	211.28	2.23	213.51
608	2.75	210.64	2.23	212.86
607	2.75	209.99	2.22	212.21 <<<<<
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00

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C =	130
PSI PRODUCED BY PUMP =	48

HEAD FROM PUMP (ft.) =	110.88
TOTAL HEAD AVAILABLE =	254.08

FLOW (gpm)	VELOCITY (ft/s)	PIPE HL (ft)	MINOR HL (ft)	TOTAL (ft)
600	2.72	205.53	2.17	207.70
650	2.94	238.37	2.54	240.92
660	2.99	245.21	2.62	247.83
670	3.03	252.13	2.70	254.84
669	3.03	251.44	2.69	254.13
668	3.03	250.74	2.69	253.43 <<<<<
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00

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PSI PRODUCED BY PUMP =	100

HEAD FROM PUMP (ft.) =	231
TOTAL HEAD AVAILABLE =	374.2

FLOW (gpm)	VELOCITY (ft/s)	PIPE HL (ft)	MINOR HL (ft)	TOTAL (ft)	
700	3.17	273.44	2.95	276.39	
800	3.62	350.16	3.85	354.01	
850	3.85	391.76	4.35	396.11	
840	3.80	383.27	4.25	387.52	
830	3.76	374.86	4.15	379.01	
826	3.74	371.53	4.11	375.63	
825	3.74	370.69	4.10	374.79	
824	3.73	369.86	4.09	373.95	<<<<<
	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	

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C =	130
PSI PRODUCED BY PUMP =	150

HEAD FROM PUMP (ft.) =	346.5
TOTAL HEAD AVAILABLE =	489.7

FLOW (gpm)	VELOCITY (ft/s)	PIPE HL (ft)	MINOR HL (ft)	TOTAL (ft)
800	3.62	350.16	3.85	354.01
900	4.08	435.51	4.88	440.39
950	4.30	481.38	5.43	486.81
955	4.33	486.08	5.49	491.57
954	4.32	485.14	5.48	490.62
953	4.32	484.20	5.47	489.66 <<<<<
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00

PROJECT: SATICOY WASTEWATER DISPOSAL LINE STUDY
W.O.: 9465.01
BY: RANDY S. DYER

PENFIELD & SMITH
P.O. BOX 98
SANTA BARBARA, CA 93102
(805) 963-9532

FILE NAME: 946301.PIP
DATE: 5-29-90

PIPELINE INFORMATION:

LENGTH (ft.) =	66,897.00
DIAMETER (in.) =	9.50
AREA (sq. ft.) =	0.4920
MINOR LOSS COEF. =	18.9
INITIAL ELEVATION =	186.00
FINAL ELEVATION =	42.80
ELEV. DIFFERENCE =	143.20

C =	130
PSI PRODUCED BY PUMP =	250

HEAD FROM PUMP (ft.) =	577.5
TOTAL HEAD AVAILABLE =	720.7

FLOW (gpm)	VELOCITY (ft/s)	PIPE HL (ft)	MINOR HL (ft)	TOTAL (ft)
1000	4.53	529.35	6.02	535.37
1200	5.43	741.97	8.67	750.64
1170	5.30	707.98	8.24	716.22
1175	5.32	713.59	8.31	721.91
1174	5.32	712.47	8.30	720.77
1173	5.31	711.35	8.28	719.63 <<<<<
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00

W.O.: 9065.01
BY: RSD
FILE: 946501.RSD
DATE: 5-11-90

SATICOY WASTEWATER DISPOSAL LINE PROFILE INFORMATION

STATION	GROUND ELEVATION	TOP OF PIPE ELEVATION	INVERT ELEVATION	COVER (FT)	DISTANCE (FT)	SLOPE (%)
12.20						
39.90	42.40	39.73	38.89	2.67	27.70	-----
578.53	44.15	40.25	39.41	3.90	538.63	0.097
1041.55	45.00	42.50	41.66	2.50	463.02	0.486
1815.87	47.20	43.90	43.06	3.30	774.32	0.181
2007.35	47.90	46.20	45.36	1.70	191.48	1.201
2151.25	49.00	46.20	45.36	2.80	143.90	0.000
3000.00	51.60	48.90	48.06	2.70	848.75	0.318
3448.00	51.50	47.00	46.16	4.50	448.00	-0.424
3473.00	51.50	47.00	46.16	4.50	25.00	0.000
3662.80	53.20	50.50	49.66	2.70	189.80	1.844
4200.00	54.90	52.40	51.56	2.50	537.20	0.354
4985.91	51.20	46.50	45.66	4.70	785.91	-0.751
5081.56	49.60	46.40	45.56	3.20	95.65	-0.105
5800.00	51.10	48.80	47.96	2.30	718.44	0.334
5941.66	51.90	49.30	48.46	2.60	141.66	0.353
6185.51	54.20	51.00	50.16	3.20	243.85	0.697
6205.08	53.90	50.60	49.76	3.30	19.57	-2.044
6800.00	56.00	51.10	50.26	4.90	594.92	0.084
7000.00	57.80	52.70	51.86	5.10	200.00	0.800
7800.00	-----	54.40	53.56	-----	800.00	0.212
8085.00	58.20	55.60	54.76	2.60	285.00	0.421
8400.00	57.90	55.50	54.66	2.40	315.00	-0.032
9437.00	60.10	57.60	56.76	2.50	1037.00	0.203
9800.00	60.10	58.80	57.96	1.30	363.00	0.331
10400.00	63.20	60.50	59.66	2.70	600.00	0.283
11200.00	65.40	63.00	62.16	2.40	800.00	0.313
11600.00	66.40	63.80	62.96	2.60	400.00	0.200
11896.65	66.80	64.20	63.36	2.60	296.65	0.135
12300.20	67.50	64.50	63.66	3.00	403.55	0.074
12800.00	69.50	67.00	66.16	2.50	499.80	0.500
13293.00	72.70	70.10	69.26	2.60	493.00	0.629
14000.00	73.70	70.10	69.26	3.60	707.00	0.000
14418.50	77.00	74.00	73.16	3.00	418.50	0.932
14800.00	77.90	75.50	74.66	2.40	381.50	0.393
15600.00	81.90	79.20	78.36	2.70	800.00	0.463
16464.87	85.90	77.90	77.06	8.00	864.87	-0.150
16811.28	86.20	83.20	82.36	3.00	346.41	1.530
17147.69	88.60	85.90	85.06	2.70	336.41	0.803
17485.15	89.50	86.90	86.06	2.60	337.46	0.296
18461.00	93.00	90.70	89.86	2.30	975.85	0.389
19147.35	94.30	91.90	91.06	2.40	686.35	0.175
19718.89	97.00	94.45	93.61	2.55	571.54	0.446
20176.38	97.40	94.96	94.12	2.44	457.49	0.111
21609.00	101.40	98.70	97.86	2.70	1432.62	0.261
21698.55	101.80	99.00	98.16	2.80	89.55	0.335
22600.00	103.50	100.90	100.06	2.60	901.45	0.211
23000.00	105.00	102.20	101.36	2.80	400.00	0.325

W.O.: 9065.01
BY: RSD
FILE: 946501.RSD
DATE: 5-11-90

SATICOY WASTEWATER DISPOSAL LINE PROFILE INFORMATION

STATION	GROUND ELEVATION	TOP OF PIPE ELEVATION	INVERT ELEVATION	COVER (FT)	DISTANCE (FT)	SLOPE (%)
23600.00	106.10	103.50	102.66	2.60	600.00	0.217
24000.00	106.40	103.80	102.96	2.60	400.00	0.075
24495.00	106.60	104.30	103.46	2.30	495.00	0.101
25200.00	109.30	106.50	105.66	2.80	705.00	0.312
26000.00	110.50	107.70	106.86	2.80	800.00	0.150
27664.00	116.50	111.70	110.86	4.80	1664.00	0.240
28400.00	118.40	115.90	115.06	2.50	736.00	0.571
28800.00	120.20	116.70	115.86	3.50	400.00	0.200
28985.00	120.40	116.30	115.46	4.10	185.00	-0.216
29600.00	122.60	119.90	119.06	2.70	615.00	0.585
30800.00	127.00	124.50	123.66	2.50	1200.00	0.383
31200.00	128.20	125.30	124.46	2.90	400.00	0.200
31600.00	129.30	126.70	125.86	2.60	400.00	0.350
32000.00	129.70	126.70	125.86	3.00	400.00	0.000
32800.00	132.50	130.10	129.26	2.40	800.00	0.425
33200.00	134.00	131.40	130.56	2.60	400.00	0.325
34000.00	136.90	134.10	133.26	2.80	800.00	0.337
34800.00	138.90	136.10	135.26	2.80	800.00	0.250
35517.00	141.40	138.30	137.46	3.10	717.00	0.307
35692.00	142.60	136.30	135.46	6.30	175.00	-1.143
36200.00	138.80	136.20	135.36	2.60	508.00	-0.020
37000.00	138.50	135.80	134.96	2.70	800.00	-0.050
37400.00	139.20	136.60	135.76	2.60	400.00	0.200
37800.00	137.90	135.40	134.56	2.50	400.00	-0.300
38600.00	136.50	133.80	132.96	2.70	800.00	-0.200
39000.00	136.90	134.30	133.46	2.60	400.00	0.125
39146.40	136.60	134.00	133.16	2.60	146.40	-0.205
39194.68	136.40	134.10	133.26	2.30	48.28	0.207
SANTA CLARA RIVER BRIDGE						
42167.06	-----	146.80	145.96	-----	2972.38	-----
42215.86	132.60	130.00	129.16	2.60	48.80	-----
42869.03	137.30	135.10	134.26	2.20	653.17	0.781
42933.00	138.90	135.30	134.46	3.60	63.97	0.313
43417.96	138.80	136.50	135.66	2.30	484.96	0.247
43782.75	141.60	135.40	134.56	6.20	364.79	-0.302
44244.96	147.70	145.00	144.16	2.70	462.21	2.077
44727.96	148.90	146.40	145.56	2.50	483.00	0.290
45467.70	153.90	150.40	149.56	3.50	739.74	0.541
45677.96	154.70	150.70	149.86	4.00	210.26	0.143
45894.84	156.90	152.90	152.06	4.00	216.88	1.014
46018.90	160.80	157.00	156.16	3.80	124.06	3.305
46108.96	159.60	156.10	155.26	3.50	90.06	-0.999
46422.96	161.10	158.60	157.76	2.50	314.00	0.796
46508.96	162.40	159.80	158.96	2.60	86.00	1.395
46817.96	164.70	161.90	161.06	2.80	309.00	0.680
47647.92	171.40	166.10	165.26	5.30	829.96	0.506
48017.96	171.70	169.30	168.46	2.40	370.04	0.865
48675.61	175.70	170.90	170.06	4.80	657.65	0.243

W.O.: 9065.01
BY: RSD
FILE: 946501.RSD
DATE: 5-11-90

SATICOY WASTEWATER DISPOSAL LINE PROFILE INFORMATION

STATION	GROUND ELEVATION	TOP OF PIPE ELEVATION	INVERT ELEVATION	COVER (FT)	DISTANCE (FT)	SLOPE (%)	
WASON BARRANCA							
48728.71	176.10	171.10	170.26	5.00	53.10	-----	
49017.96	175.80	173.00	172.16	2.80	289.25	0.657	
49417.96	177.50	174.50	173.66	3.00	400.00	0.375	
49817.96	181.40	178.90	178.06	2.50	400.00	1.100	
51417.96	187.00	184.40	183.56	2.60	1600.00	0.344	
51817.96	189.30	186.70	185.86	2.60	400.00	0.575	
52217.96	187.50	185.00	184.16	2.50	400.00	-0.425	
52405.79	178.20	175.00	174.16	3.20	187.83	-5.324	
52428.04	178.30	175.60	174.76	2.70	22.25	2.697	
52499.99	177.80	174.80	173.96	3.00	71.95	-1.112	
52548.96	179.10	175.70	174.86	3.40	48.97	1.838	
52592.39	-----	180.00	179.16	-----	43.43	9.901	
ELLSWORTH BARRANCA							
52632.39	-----	180.00	179.16	-----	40.00	-----	
52650.96	181.00	179.00	178.16	2.00	18.57	-5.385	
52869.17	185.80	182.60	181.76	3.20	218.21	1.650	
53132.27	180.00	177.10	176.26	2.90	263.10	-2.090	
53464.88	169.40	166.70	165.86	2.70	332.61	-3.127	
53817.96	170.70	168.30	167.46	2.40	353.08	0.453	
54217.96	173.70	171.20	170.36	2.50	400.00	0.725	
54617.96	177.80	175.30	174.46	2.50	400.00	1.025	
54856.60	179.10	176.90	176.06	2.20	238.64	0.670	
54939.13	178.40	174.90	174.06	3.50	82.53	-2.423	
55394.38	172.90	169.70	168.86	3.20	455.25	-1.142	
55506.78	173.90	169.90	169.06	4.00	112.40	0.178	
55658.18	174.60	172.00	171.16	2.60	151.40	1.387	
55798.69	175.60	173.20	172.36	2.40	140.51	0.854	
56252.67	179.10	176.50	175.66	2.60	453.98	0.727	
56435.92	180.20	177.70	176.86	2.50	183.25	0.655	
56539.24	180.80	176.00	175.16	4.80	103.32	-1.645	
56585.46	180.90	177.60	176.76	3.30	46.22	3.462	
56639.34	180.60	176.50	175.66	4.10	53.88	-2.042	
57017.96	180.80	178.50	177.66	2.30	378.62	0.528	
57417.96	181.40	178.40	177.56	3.00	400.00	-0.025	
58393.64	181.80	179.10	178.26	2.70	975.68	0.072	
59217.96	184.70	181.20	180.36	3.50	824.32	0.255	
59617.96	184.80	182.10	181.26	2.70	400.00	0.225	
60017.96	186.90	183.60	182.76	3.30	400.00	0.375	
60417.96	189.50	185.90	185.06	3.60	400.00	0.575	
60817.96	192.10	189.30	188.46	2.80	400.00	0.850	
61378.26	192.50	189.70	188.86	2.80	560.30	0.071	
61431.00	-----	191.00	190.16	-----	52.74	2.465	>
61461.00	-----	181.00	180.16	-----	30.00	-33.333	> TODD
61515.00	-----	181.00	180.16	-----	54.00	0.000	> BARRANCA
61560.00	-----	189.00	188.16	-----	45.00	17.778	>
62684.96	183.50	180.70	179.86	2.80	1124.96	-0.738	
62728.96	183.50	180.50	179.66	3.00	44.00	-0.455	

W.O.: 9065.01
BY: RSD
FILE: 946501.RSD
DATE: 5-11-90

SATICOY WASTEWATER DISPOSAL LINE PROFILE INFORMATION

STATION	GROUND ELEVATION	TOP OF PIPE ELEVATION	INVERT ELEVATION	COVER (FT)	DISTANCE (FT)	SLOPE (%)
62774.28	182.90	179.90	179.06	3.00	45.32	-1.324
63159.47	182.00	180.20	179.36	1.80	385.19	0.078
63542.36	182.80	179.50	178.66	3.30	382.89	-0.183
64117.46	182.80	180.00	179.16	2.80	575.10	0.087
64230.92	183.60	179.60	178.76	4.00	113.46	-0.353
64617.96	184.10	181.00	180.16	3.10	387.04	0.362
65017.96	184.90	182.40	181.56	2.50	400.00	0.350
65417.96	186.60	184.20	183.36	2.40	400.00	0.450
65817.96	189.00	186.60	185.76	2.40	400.00	0.600
66344.15	190.00	183.40	182.56	6.60	526.19	-0.608
66422.28	190.10	187.70	186.86	2.40	78.13	5.504
66535.18	190.10	186.80	185.96	3.30	112.90	-0.797
66629.13					93.95	
				TOTAL:	66616.93	

4

FLOW RECORDS

EXHIBIT C
SCWU

VOLUME - BARRELS

Year	January	February	March	April	May	June	July	August	September	October	November	December	(M) Total
1983	68,268	67,517	74,113	74,585	73,571	99,141	85,339	80,164	89,101	88,554	80,826	87,459	968
1984	95,902	86,330	89,927	89,306	91,032	85,939	86,777	87,181	86,840	92,664	129,926	142,629	1,164
1985	193,432	171,556	180,407	184,663	144,727	123,341	125,132	118,814	121,311	137,062	117,639	127,059	1,745
1986	115,089	129,031	124,616	106,844	89,422	86,126	82,220	75,527	71,125	46,832	61,146	72,544	1,060
1987	66,482	60,337	67,217	86,528	74,770	71,690	79,041	73,829	79,269	67,156	73,594	76,236	876
1988 (YTD)	74,696	74,319	76,685	72,026	78,434	116,137	97,707	99,694	90,836	227,507	201,303	169,467	1,378,811
1989	169,975	146,648	143,813	153,364	171,189	164,461	162,077	159,154	179,115	184,139	144,972	118,933	1,897,840
1990	107,519	114,480	133,822	123,517									

5

WATER QUALITY TEST RESULTS

SANTA CLARA WASTE WATER

RECEIVED
MAY 08 1990
Ans'd.....

SERVING THE WASTE WATER NEEDS OF INDUSTRY

A Subsidiary of Venvirotek

INDUSTRIAL WASTEWATER DISCHARGE SELF-MONITORING REPORT

Average Daily Flow: 0.185387 Mg/day Maximum Daily Flow: 147000 gal a day

Signature of Sample Collector: BTCE

ANALYSIS RESULTS*

Pollutant	Units	Sample Type	Sample Dates 3-6	3-15	3-26	3-30		Mo. Avg	Limits
BOD	mg/L	comp	180	130	140	160		152.5	600
COD	"	"	740	2100	1000	1100		1235	1800
Susp. Solids	"	"	180	120	150	96		136.5	800
Cadmium	"	"	BQL					BQL	3.0
Chromium total	"	"	BQL					BQL	3.0
Copper	"	"	BQL					BQL	3.0
Lead	"	"	0.06					.06	3.0
Nickel	"	"	BQL					BQL	3.0
Zink	"	"	0.02					.02	3.0
Dissolved H2S	"	grab	0.03	0.03	0.07	0.04		.04	0.1
Oil & Grease	"	"	290	51	28	24		98.25	100
T.T.O.	"	"	1.58	1.95				.76	1.0
pH	pH	"		7.2	7.47	7.5		7.39	>6<10

*ATTACH COPY OF LAB REPORT AS ERIFICATION OF REPORTED R SULTS.
Were pretreatment standards met?___Yes___No (if no, attach explanation)

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 20TH day of APRIL, 1990, at VENTURA.

Authorized Representative

MIKE ADAMSKE ENV. MGR.
Name and Title

805/525-8315 • 805/654-1900
815 Mission Rock Road • Santa Paula, California 93060 • Mailing Address: P.O. Box 4156 • Ventura, California 93004

SANTA CLARA WASTE WATER

SERVING THE WASTE WATER NEEDS OF INDUSTRY

A Subsidiary of Venvirotek

INDUSTRIAL WASTEWATER DISCHARGE SELF-MONITORING REPORT

Average Daily Flow: 0.179285 mg/day Maximum Daily Flow: 147000 gal/Day

Signature of Sample Collector: BTC.E

ANALYSIS RESULTS*

Pollutant	Units	Sample Type	Sample Dates 2-2	2-12	2-16	2-22		Mo. Avg	Limits
BOD	mg/L	comp	385	87	138	46		176.5	600
COD	"	"	1310	1480	1313	1550		1413	1800
Susp. Solids	"	"	178	74	128	148		132	800
Cadmium	"	"	BQL					BQL	3.0
Chromium total	"	"	BQL					BQL	3.0
Copper	"	"	0.05					.05	3.0
Lead	"	"	0.04					.04	3.0
Nickel	"	"	BQL					BQL	3.0
Zinc	"	"	0.10					.10	3.0
Dissolved H2S	"	grab	0.01	<0.01	0.03	0.02		.02	0.1
Oil & Grease	"	"	24	14.6	15.4	12.3		16.59	100
T.T.O.	"	"	2.34			1.45		1.89	1.0
pH	pH	"	7.8	7.52	7.56	7.5		7.6	>6<10

*ATTACH COPY OF LAB REPORT AS VERIFICATION OF REPORTED RESULTS.
Were pretreatment standards met?___Yes X No (if no, attach explanation)

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 13TH day of MARCH, 1990, at VENTURA.

Authorized Representative

MIKE ADAMSKE
Name and Title
ENVIRONMENTAL MANAGER

805/525-8315 • 805/654-1900
815 Mission Rock Road • Santa Paula, California 93060 • Mailing Address: P.O. Box 4156 • Ventura, California 93004

SANTA CLARA WASTE WATER

SERVING THE WASTE WATER NEEDS OF INDUSTRY

A Subsidiary of Venwirotek

INDUSTRIAL WASTEWATER DISCHARGE SELF-MONITORING REPORT

Average Daily Flow: 0.150322 Maximum Daily Flow: 105,000 gals.

Signature of Sample Collector: BTC E.

ANALYSIS RESULTS*

Pollutant	Units	Sample Type	Sample Dates 1-8	1-9	1-17	1-25		Mo. Avg	Limits
BOD	mg/L	comp	92	71	152	189			600
COD	"	"	1073	1347	1484	1484			1800
Susp. Solids	"	"	82	106	147	140			800
Cadmium	"	"	BQL						3.0
Chromium total	"	"	BQL						3.0
Copper	"	"	BQL						3.0
Lead	"	"	0.13						3.0
Nickel	"	"	BQL						3.0
Zink	"	"	0.05						3.0
Dissolved H2S	"	grab	<0.01	<0.01	0.01	<0.01			0.1
Oil & Grease	"	"	26	26.9	41.3	14.8			100
T.T.O.	"	"	1.778						1.0
pH	pH	"		7.44	7.43	7.42			>6<10

*ATTACH COPY OF LAB REPORT AS ERIFICATION OF REPORTED R SULTS.

Were pretreatment standards met? ___ Yes X No (if no, attach explanation)
(See letter dated Jan. 29, 1990)

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 9TH day of FEBRUARY, 1990, at VENTURA, CA.

Authorized Representative

MIKE ADAMSKE ENV. MGR.
Name and Title

805/525-8315 • 805/654-1900
815 Mission Rock Road • Santa Paula, California 93060 • Mailing Address PO Box 4156 • Ventura, California 93004

December

SANTA CLARA WASTE WATER

SERVING THE WASTE WATER NEEDS OF INDUSTRY

A Subsidiary of Vinnamatek

INDUSTRIAL WASTEWATER DISCHARGE SELF-MONITORING REPORT

Average Daily Flow: 0.176129 MG/Day Maximum Daily Flow: 134,400 Gal/Day

Signature of Sample Collector: BTCE

ANALYSIS RESULTS*

Pollutant	Units	Sample Type	Sample Dates 12-1	12-5	12-13	12-21	12-29	Mo. Avg	Limits
BOD	mg/L	comp	116	469	438	156	257	287.2	600
COD	"	"	1136	1256	1415	1415	1347	1313.8	1800
Susp. Solids	"	"	155	240	130	188	200	182.6	800
Cadmium	"	"	BQL						3.0
Chromium total	"	"	1.60						3.0
Copper	"	"	1.40						3.0
Lead	"	"	0.30						3.0
Nickel	"	"	BQL						3.0
Zink	"	"	0.40						3.0
Dissolved H2S	"	grab	<0.01	<0.01	<0.01	<0.01	0.04	0.016	0.1
Oil & Grease	"	"	16	22	22.1	18.8	82.7	32.32	100
T.T.O.	"	"	1.04					1.04	1.0
pH	pH	"	7.45	7.19	7.15	7.29	7.20	7.25	>6<10

*ATTACH COPY OF LAB REPORT AS ERIFICATION OF REPORTED R SULTS.

Were pretreatment standards met?___Yes X No (if no, attach explanation)

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 12th day of January, 1990, at Ventura, CA.

Authorized Representative

Mike Adamske Environmental Manager

Name and Title

805/525-8315 • 805/654-1900

815 Mission Rock Road • Santa Paula, California 93060 • Mailing Address: P.O. Box 4156 • Ventura, California 93004

November

INDUSTRIAL WASTEWATER DISCHARGE SELF-MONITORING REPORT

Company Name: Santa Clara Waste Water

Contact Person: Brian Massey

Company Address: 815 Mission Rock Road

Telephone Number: (805) 525 8315

Average Daily Flow: 168000 gpd

Maximum Daily Flow: 0.270000 M/gpd

Name and Affiliation of Sample Collector: RTCE

ANALYSIS RESULTS*

POLLUTANT	UNITS	SAMPLE TYPE	SAMPLE DATES							MO. AVG.	
			11-3	11-9	11-15	11-21					
BOD	mg/l	FPC	189	236	282	201				227	600
COD	"	"	762	1025	1153	922				965.5	1,800
Sus Solids	"	"	138	74	328	99				159.75	800
Cadmium	"	"	BQL							BQL	3.0
Chromium tot	"	"	0.07							0.07	3.0
Copper	"	"	BQL							BQL	3.0
Lead	"	"	013							013	3.0
Nickel	"	"	BQL							BQL	3.0
Zink	"	"	0.10							0.10	3.0
Diss.Hyd.Sulfide	"	Grab	0.01	0.01	0.01	0.02				0.01	0.1
Oil & Grease	"	"	24	140	13.3	1166				47.24	100.0
T.T.O.	"	"	.168								1.0
ph	ph	"	7.35	7.30	6.82	7.18					6 to 10

*ATTACH COPY OF LABORATORY REPORT AS VERIFICATION OF REPORTED RESULTS

Were pretreatment standards met? ____ Yes X No (If no, explain on separate sheet).

"I have personally examined and am familiar with the information submitted in this document and attachments. Based on my inquiry of those individuals responsible for obtaining information reported herein, I declare under penalty of perjury that the foregoing is true and correct. I am aware there are significant penalties for submitting false information, including the possibility of fine and/or imprisonment."

Executed on the 14 day of Dec, 1989, at Santa Clara Waste Water

Signature of Authorized Representative: [signature]

Typed Name and Title: Mike Adamske, Environmental Manager

OCTOBER

INDUSTRIAL WASTEWATER DISCHARGE SELF-MONITORING REPORT

Company Name: Santa Clara Waste Water

Contact Person: Brian Massey

Company Address: 815 Mission Rock Road

Telephone Number: (805) 525 8315

Average Daily Flow: 310000 gpd

Maximum Daily Flow: 120000 gpd

Name and Affiliation of Sample Collector: BTCE

ANALYSIS RESULTS*

POLLUTANT	UNITS	SAMPLE TYPE	SAMPLE DATES							MO. AVG.	
			10-6	10-10	10-18	10-26					
BOD	mg/l	FPC	210	443	284	525				365.5	600
COD	"	"	802	883	753	1565				1000.75	1,800
Sus Solids	"	"	176	64	99	35				93.5	800
Cadmium	"	"	0.02							0.02	3.0
Chromium tot	"	"	0.02							0.02	3.0
Copper	"	"	0.02							0.02	3.0
Lead	"	"	0.04							0.04	3.0
Nickel	"	"	0.04							0.04	3.0
Zink	"	"	0.02							0.02	3.0
Diss.Hyd.Sulfide	"	Grab	0.01	0.01	0.05	0.01				0.02	0.1
Oil & Grease	"	"	45.4	67	57	16				46.35	100.0
T.T.O.	"	"	.234							.234	1.0
ph	ph	"	7.44	7.44	7.49	7.53				7.475	6 to 10

*ATTACH COPY OF LABORATORY REPORT AS VERIFICATION OF REPORTED RESULTS

Were pretreatment standards met? _____Yes _____No (If no, explain on separate sheet).

"I have personally examined and am familiar with the information submitted in this document and attachments. Based on my inquiry of those individuals responsible for obtaining information reported herein, I declare under penalty of perjury that the foregoing is true and correct. I am aware there are significant penalties for submitting false information, including the possibility of fine and/or imprisonment."

Executed on the 4th day of Nov, 1989, at Santa Clara Waste Water.

Signature of Authorized Representative: [signature]

Typed Name and Title: MICHAEL ADAMSKE ENVIRONMENTAL MANAGER

SEPTEMBER

INDUSTRIAL WASTEWATER DISCHARGE SELF-MONITORING REPORT

Company Name: Santa Clara Waste Water

Contact Person: Brian Massey

Company Address: 815 Mission Rock Road

Telephone Number: (805) 525 8315

Average Daily Flow: 298000 gpd

Maximum Daily Flow: 310,000 gpd

Name and Affiliation of Sample Collector: BTC E.

ANALYSIS RESULTS*

POLLUTANT	UNITS	SAMPLE TYPE	SAMPLE DATES 9-1	9-7	9-13	9-21	9-29			MO. AVG.	
BOD	mg/l	FPC	198	335	252	248	587			324	600
COD	"	"	907	959	890	777	626			831.8	1,800
Sus Solids	"	"	79	25	142	210	86			108.4	800
Cadmium	"	"	0.02							0.02	3.0
Chromium tot	"	"	0.02							0.02	3.0
Copper	"	"	0.02							0.02	3.0
Lead	"	"	0.04							0.04	3.0
Nickel	"	"	0.04							0.04	3.0
Zink	"	"	0.02							0.02	3.0
Diss.Hyd.Sulfide	"	Grab	0.01	<0.01	0.01	0.01	0.03			0.014	0.1
Oil & Grease	"	"	37.6	15	34.6	47	44			35.64	100.0
T.T.O.	"	" .214								.214	1.0
ph	ph	"	7.30	7.26	7.38	7.4	7.62			7.39	6 to 10

*ATTACH COPY OF LABORATORY REPORT AS VERIFICATION OF REPORTED RESULTS

Were pretreatment standards met? X Yes ____ No (If no, explain on separate sheet).

"I have personally examined and am familiar with the information submitted in this document and attachments. Based on my inquiry of those individuals responsible for obtaining information reported herein, I declare under penalty of perjury that the foregoing is true and correct. I am aware there are significant penalties for submitting false information, including the possibility of fine and/or imprisonment."

Executed on the 14th day of Oct, 1989 at Santa Paula Ca.

Signature of Authorized Representative: [signature]

Typed Name and Title: ENVIRONMENTAL MANAGER SCWW

August

INDUSTRIAL WASTEWATER DISCHARGE SELF-MONITORING REPORT

Company Name: Santa Clara Waste Water

Contact Person: Brian Massey

Company Address: 815 Mission Rock Road

Telephone Number: (805) 525 8315

Average Daily Flow: 156030 gpd

Maximum Daily Flow: 263340 gpd

Name and Affiliation of Sample Collector: BTC Environmental

ANALYSIS RESULTS*

POLLUTANT	UNITS	SAMPLE TYPE	SAMPLE DATES 8-4	8-8	8-16	8-24				MO. AVG.	
BOD	mg/l	FPC	260	389	234	174				2[illegible]	600
COD	"	"	755	925	1033	846					1,800
Sus Solids	"	"	54	53	71	36.8					800
Cadmium	"	"	0.10								3.0
Chromium tot	"	"	0.01								3.0
Copper	"	"	0.25								3.0
Lead	"	"	0.25								3.0
Nickel	"	"	0.25								3.0
Zink	"	"	0.25								3.0
Diss.Hyd.Sulfide	"	Grab	0.01	<0.01	0.01	0.01					0.1
Oil & Grease	"	"	15	25	24	27.5					100.0
T.T.O.	"	"	1.0								1.0
ph	ph	"	7.4	7.5	7.5	7.5					6 to 10

*ATTACH COPY OF LABORATORY REPORT AS VERIFICATION OF REPORTED RESULTS

Were pretreatment standards met? X Yes ____ No (If no, explain on separate sheet).

"I have personally examined and am familiar with the information submitted in this document and attachments. Based on my inquiry of those individuals responsible for obtaining information reported herein, I declare under penalty of perjury that the foregoing is true and correct. I am aware there are significant penalties for submitting false information, including the possibility of fine and/or imprisonment."

Executed on the 14th day of Sept, 1989, at Santa Paula, Ca.

Signature of Authorized Representative: B. Massey

Typed Name and Title: Brian Massey Mgr. SCWW

July

INDUSTRIAL WASTEWATER DISCHARGE SELF-MONITORING REPORT

Company Name: Santa Clara Waste Water Company

Contact Person: Bill Massey

Company Address: P. O. Box 4156, Ventura, CA 93003

Telephone Number: (805)525-8315

Average Daily Flow: 215,335 gpd

Maximum Daily Flow: 550,000 gpd

Name and Affiliation of Sample Collector: ENSECO - CRI

ANALYSIS RESULTS*

POLLUTANT	UNITS	SAMPLE TYPE	SAMPLE DATES 7-7	7-11	7-19	7-27				MO. AVG.	Maximum Allowed
BOD	mg/l	FPC	420	420	460	410				427.5	600
COD	"	"	960	1100	1200	1000				1065	1,800
Suspended Solids	"	"	53	67	100	120				85	800
Cadmium	"	"	<0.05							<0.05	3.0
Chromium - Total	"	"	<0.1	"						<0.1	3.0
Copper	"	"	0.08							0.08	3.0
Lead	"	"	0.2							0.2	3.0
Nickel	"	"	0.2							0.2	3.0
Zinc	"	"	0.10							0.10	3.0
Diss. Hyd. Sulfied	"	Grab	<0.1	<0.1	<0.1	0.1				<0.1	0.1
Oil and Grease	"	"	45	32	43	25				36.25	100.0
Total Toxic Org.	"	"	1.42			--				1.42	1.0
pH	pH	"		7.4	7.3	7.0				7.2	6 to 10

*ATTACH COPY OF LABORATORY REPORT AS VERIFICATION OF REPORTED RESULTS

Were pretreatment standards met? ____ Yes X No (If no, explain on separate sheet).

"I have personally examined and am familiar with the information submitted in this document and attachments. Based on my inquiry of those individuals responsible for obtaining information reported herein, I declare under penalty of perjury that the foregoing is true and correct. I am aware there are significant penalties for submitting false information, including the possibility of fine and/or imprisonment."

Executed on the 14 day of August, 1989, at Santa Paula, Ca.

Signature of Authorized Representative: B. Massey

Typed Name and Title: Bill Massey

6/89

INDUSTRIAL WASTEWATER DISCHARGE SELF-MONITORING REPORT

Company Name: Santa Clara Waste Water Company

Contact Person: [illegible]

Company Address: P. O. Box 4156, Ventura, CA 93003

Telephone Number: (805)525-8315

Average Daily Flow: 227,333 gpd

Maximum Daily Flow: 55,000 gpd

Name and Affiliation of Sample Collector: ENSECO C.R.L.

ANALYSIS RESULTS*

POLLUTANT	UNITS	SAMPLE TYPE	SAMPLE DATES 6-2	6-6	6-14	6-22	6-29			MO. AVG.	Maximum Allowed
BOD	mg/l	FPC	690	540	570	350	390			508	600
COD	"	"	1000	530	1800	1100	1200			1126	1,800
Suspended Solids	"	"	110	150	140	200	78			135.6	800
Cadmium	"	"		<0.05						<0.05	3.0
Chromium - Total	"	"		<0.1						<0.1	3.0
Copper	"	"		0.05						0.05	3.0
Lead	"	"		0.2						0.2	3.0
Nickel	"	"		0.16						0.16	3.0
Zinc	"	"		0.06						0.06	3.0
Diss. Hyd. Sulfied	"	Grab	<0.1	0.1	<0.1	<0.1	<0.1			<0.1	0.1
Oil and Grease	"	"	47	50	16	43	55			42.2	100.0
Total Toxic Org.	"	"		1.16						1.16	1.0
pH	pH	"	7.4	7.4	7.5	7.5	7.5			7.46	6 to 10

*ATTACH COPY OF LABORATORY REPORT AS VERIFICATION OF REPORTED RESULTS

Were pretreatment standards met? ____ Yes X No (If no, explain on separate sheet).

"I have personally examined and am familiar with the information submitted in this document and attachments. Based on my inquiry of those individuals responsible for obtaining information reported herein, I declare under penalty of perjury that the foregoing is true and correct. I am aware there are significant penalties for submitting false information, including the possibility of fine and/or imprisonment."

Executed on the 14th day of July, 1989, at Santa Paula, Cal.

Signature of Authorized Representative: [signature]

Typed Name and Title: Brian Massey Mgr.

5/89

INDUSTRIAL WASTEWATER DISCHARGE SELF-MONITORING REPORT

Company Name: Santa Clara Waste Water Company

Contact Person: W.S. Cook

Company Address: P. O. Box 4156, Ventura, CA 93003

Telephone Number: (805)525-8315

Average Daily Flow: 186452 gpd

Maximum Daily Flow: 600000 gpd

Name and Affiliation of Sample Collector: ENSECO-C.R.L.

ANALYSIS RESULTS*

POLLUTANT	UNITS	SAMPLE TYPE	SAMPLE DATES 5-5-89	5-9-89	5-17	5-25				MO. AVG.	Maximum Allowed
BOD	mg/l	FPC	640	320	340	560				465	600
COD	"	"	1400	1000	1000	1200				1150	1,800
Suspended Solids	"	"	91	85	130	78				96	800
Cadmium	"	"	<0.05							<0.05	3.0
Chromium - Total	"	"	0.1							0.1	3.0
Copper	"	"	0.14							0.14	3.0
Lead	"	"	0.3							0.3	3.0
Nickel	"	"	0.2							0.2	3.0
Zinc	"	"	0.13							0.13	3.0
Diss. Hyd. Sulfied	"	Grab	0.1	<0.1	0.1	0.1				0.1	0.1
Oil and Grease	"	"	51	100	47	42				60	100.0
Total Toxic Org.	"	"	1.16							1.16	1.0
pH	pH	"	7.4	7.7	7.6	7.4				7.5	6 to 10

*ATTACH COPY OF LABORATORY REPORT AS VERIFICATION OF REPORTED RESULTS

Were pretreatment standards met? ____ Yes X No (If no, explain on separate sheet).

"I have personally examined and am familiar with the information submitted in this document and attachments. Based on my inquiry of those individuals responsible for obtaining information reported herein, I declare under penalty of perjury that the foregoing is true and correct. I am aware there are significant penalties for submitting false information, including the possibility of fine and/or imprisonment."

Executed on the 14th day of JUNE, 1989, at SANTA PAULA CA.

Signature of Authorized Representative: W.S. Cook

Typed Name and Title: W.S. Cook MANAGER

4/89

INDUSTRIAL WASTEWATER DISCHARGE SELF-MONITORING REPORT

Company Name: Santa Clara Waste Water Company

Contact Person: WSCook

Company Address: P. O. Box 4156, Ventura, CA 93003

Telephone Number: (805)525-8315

Average Daily Flow: 187,333 gpd

Maximum Daily Flow: 270,000 gpd

Name and Affiliation of Sample Collector: ENSECO-CRL

ANALYSIS RESULTS*

POLLUTANT	UNITS	SAMPLE TYPE	SAMPLE DATES							MO. AVG.	Maximum Allowed
			4-7	4-12	4-20	4-28					
BOD	mg/l	FPC	440	370	365	520				424	600
COD	"	"	1100	1100	460	1480				1035	1,800
Suspended Solids	"	"	250	120	62	68				125	800
Cadmium	"	"	<0.05							<0.05	3.0
Chromium - Total	"	"	0.3							0.3	3.0
Copper	"	"	0.10							0.10	3.0
Lead	"	"	0.3							0.3	3.0
Nickel	"	"	0.19							0.19	3.0
Zinc	"	"	0.10							0.10	3.0
Diss. Hyd. Sulfied	"	Grab	0.2	<0.1	0.2	0.1				0.15	0.1
Oil and Grease	"	"	46	67	47	48				52	100.0
Total Toxic Org.	"	"	4.4							4.4	1.0
pH	pH	"	7.5	7.2	7.4	7.3				7.35	6 to 10

*ATTACH COPY OF LABORATORY REPORT AS VERIFICATION OF REPORTED RESULTS

Were pretreatment standards met? ____ Yes X No (If no, explain on separate sheet).

"I have personally examined and am familiar with the information submitted in this document and attachments. Based on my inquiry of those individuals responsible for obtaining information reported herein, I declare under penalty of perjury that the foregoing is true and correct. I am aware there are significant penalties for submitting false information, including the possibility of fine and/or imprisonment."

Executed on the 14th day of MAY, 1989, at SANTA PAULA CA.

Signature of Authorized Representative: WSCook

Typed Name and Title: WSCook, MANAGER

3/89

INDUSTRIAL WASTEWATER DISCHARGE SELF-MONITORING REPORT

Company Name: Santa Clara Waste Water Company

Contact Person: Ted A. Grahek

Company Address: P. O. Box 4156, Ventura, CA 93003

Telephone Number: (805)525-8315

Average Daily Flow: 162,581 gpd

Maximum Daily Flow: 240,000 gpd

Name and Affiliation of Sample Collector: ENSECO - CRL

ANALYSIS RESULTS*

POLLUTANT	UNITS	SAMPLE TYPE	SAMPLE DATES 3-3	3-10	3-15	3-	3-31			MO. AVG.	Maximum Allowed
BOD	mg/l	FPC	640	480	430	250	410			442	600
COD	"	"	1,300	1,200	1,100	1300	1100			1200	1,800
Suspended Solids	"	"	78	120	130	410	55			158.6	800
Cadmium	"	"	<0.05							<0.05	3.0
Chromium - Total	"	"	0.2							0.2	3.0
Copper	"	"	0.07							0.07	3.0
Lead	"	"	0.2							0.2	3.0
Nickel	"	"	0.2							0.2	3.0
Zinc	"	"	<0.05							0.05	3.0
Diss. Hyd. Sulfied	"	Grab	0.2	0.1	0.1	0.1	<0.1			~~0.12~~ ? 0.12	0.1
Oil and Grease	"	"	57	58	66	39	68			57.6	100.0
Total Toxic Org.	"	"	0.76							0.76	1.0
pH	pH	"	7.1	7.2	7.5	6.9	7.4			7.22	6 to 10

*ATTACH COPY OF LABORATORY REPORT AS VERIFICATION OF REPORTED RESULTS

Were pretreatment standards met? ____ Yes X No (If no, explain on separate sheet).

"I have personally examined and am familiar with the information submitted in this document and attachments. Based on my inquiry of those individuals responsible for obtaining information reported herein, I declare under penalty of perjury that the foregoing is true and correct. I am aware there are significant penalties for submitting false information, including the possibility of fine and/or imprisonment."

Executed on the 14th day of APRIL, 1989, at Santa Paula, Ca.

Signature of Authorized Representative: [signature]

Typed Name and Title: [illegible] - MANAGER

2/89

INDUSTRIAL WASTEWATER DISCHARGE SELF-MONITORING REPORT

Company Name: Santa Clara Waste Water Company

Contact Person: Ted A Grabek

Company Address: P. O. Box 4156, Ventura, CA 93003

Telephone Number: (805)525-8315

Average Daily Flow: 183,571 gpd

Maximum Daily Flow: 576,266 gpd

Name and Affiliation of Sample Collector: ENSECO - CRL

ANALYSIS RESULTS*

POLLUTANT	UNITS	SAMPLE TYPE	SAMPLE DATES 2-3	2-7	2-15	2-22				MO. AVG.	Maximum Allowed
BOD	mg/l	FPC	630	200	280	350				365	600
COD	"	"	1,200	990	780	1,700				1168	1,800
Suspended Solids	"	"	210	97	58	52				104	800
Cadmium	"	"	<0.05							<0.05	3.0
Chromium - Total	"	"	0.1							0.1	3.0
Copper	"	"	<0.05							<0.05	3.0
Lead	"	"	0.2							0.2	3.0
Nickel	"	"	0.2							0.2	3.0
Zinc	"	"	0.05							0.05	3.0
Diss. Hyd. Sulfied	"	Grab	<0.1	<0.1	0.1	0.1				<0.1	0.1
Oil and Grease	"	"	42	100	54	56				63	100.0
Total Toxic Org.	"	"	1.21							1.21	1.0
pH	pH	"	7.4	7.3	7.8	7.5				7.5	6 to 10

*ATTACH COPY OF LABORATORY REPORT AS VERIFICATION OF REPORTED RESULTS

Were pretreatment standards met? ____ Yes X No (If no, explain on separate sheet).

"I have personally examined and am familiar with the information submitted in this document and attachments. Based on my inquiry of those individuals responsible for obtaining information reported herein, I declare under penalty of perjury that the foregoing is true and correct. I am aware there are significant penalties for submitting false information, including the possibility of fine and/or imprisonment."

Executed on the 14th day of March, 1989, at Santa Paula, Ca.

Signature of Authorized Representative: Ted A. Grabek

Typed Name and Title: Ted A. Grabek - Manager

1/89

INDUSTRIAL WASTEWATER DISCHARGE SELF-MONITORING REPORT

Company Name: Santa Clara Waste Water Company

Contact Person: Ted A. Grahek

Company Address: P. O. Box 4156, Ventura, CA 93003

Telephone Number: (805)525-8315

Average Daily Flow: 196,774 gpd

Maximum Daily Flow: 327,654 gpd

Name and Affiliation of Sample Collector: ENSECO - CRL

ANALYSIS RESULTS*

POLLUTANT	UNITS	SAMPLE TYPE	SAMPLE DATES 1/6	1/13	1/18	1/26				MO. AVG.	Maximum Allowed
BOD	mg/l	FPC	570	460	480	390				460	600
COD	"	"	1,300	860	920	1,000				1,020	1,800
Suspended Solids	"	"	120	100	11	45				88	800
Cadmium	"	"	<0.05							<0.05	3.0
Chromium - Total	"	"	0.26							0.26	3.0
Copper	"	"	0.07							0.07	3.0
Lead	"	"	0.6							0.6	3.0
Nickel	"	"	0.19							0.19	3.0
Zinc	"	"	21								3.0
Diss. Hyd. Sulfied	"	Grab	0.1	0.4	0.2	0.1				0.2	0.1
Oil and Grease	"	"	75	38	54	47				54	100.0
Total Toxic Org.	"	"	1.42							1.42	1.0
pH	pH	"	7.3	7.4	7.6	21				7.4	6 to 10

*ATTACH COPY OF LABORATORY REPORT AS VERIFICATION OF REPORTED RESULTS

Were pretreatment standards met? ____ Yes X No (If no, explain on separate sheet).

"I have personally examined and am familiar with the information submitted in this document and attachments. Based on my inquiry of those individuals responsible for obtaining information reported herein, I declare under penalty of perjury that the foregoing is true and correct. I am aware there are significant penalties for submitting false information, including the possibility of fine and/or imprisonment."

Executed on the 14th day of FEB., 1989, at Santa Paula, Ca.

Signature of Authorized Representative: Ted A. Grahek

Typed Name and Title: Ted A. GRAHEK - Manager

6

EXHIBIT "A" - PLAN AND PROFILE DRAWING