THE SAN JOAQUIN COMPANY INC. 1120 HOLLYWOOD AVENUE, SUITE 3, OAKLAND, CALIFORNIA 94602

ENVIRONMENTAL PROTECTION

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Alameda County Health Care Services Agency Environmental Protection Division 1131 Harbor Way Parkway, Suite 250 Alameda, California 94502-6577

Date. March 30, 2000

Our Reference, 9401,114

Attn Mr. Larry Seto

SUBJECT Quarterly Status Report - 208 Jackson Street, Oakland, California

Dear Mr Seto

At the request of the property owner, SNK Development Inc, we transmit herewith a copy of our *Quarterly Status December 1*, 1999 to February 29, 1999 – 208 Jackson Street, Oakland, California.

If you have any questions, please call me at (510) 336-1772

Sincerely,

D. J'Watkins President

The San Joaquin Company Inc

Enc: Quarterly Status Report

THE SAN JOAQUIN COMPANY INC.

1120 HOLLYWOOD AVENUE, SUITE 3, OAKLAND, CALIFORNIA 94602

QUARTERLY STATUS REPORT

DECEMBER 1, 1999 to FEBRUARY 29, 1999 208 Jackson Street, Oakland, California

Prepared for

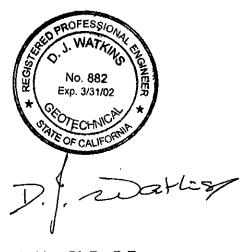
SNK DEVELOPMENT INC

March 2000

Project No. 9401.114

PROFESSIONAL CERTIFICATION AND LIMITATIONS

This report was prepared under the direction of the engineer whose seal and signature appear below. The work was performed in accordance with generally accepted standards of engineering practice based on information available to us at the time of its preparation and within the limits of the scope of work directed by the client. No other representation, expressed or implied, and no warranty or guarantee is included or intended as to professional opinions, recommendations, or field or laboratory data provided.



D.J. Watkins, Ph.D., P.E. Geotechnical Engineer The San Joaquin Company Inc.

INTRODUCTION

This status report is for the property at 208 Jackson Street, Oakland, California. It covers the period from December 1, 1999 to February 29, 2000

SITE LOCATION

The subject property is situated at 208 Jackson Street, Oakland, California. That location is shown on Figure 1. Figure 2 is a site plan showing the location of groundwater-quality monitoring wells that have been installed on the site.

BACKGROUND

Site History

Between 1946 and 1947, a steel-framed building was constructed at the corner of Second and Madison Streets for the Marine Steel Company (Marine Steel). Associated with this building was a storage yard that extended northeast along Madison Street. At that time, the Marine Steel site had the address 205 Madison Street.

Subsequent to its initial occupancy by Marine Steel, the site at 205 Madison Street was occupied by a variety of businesses that included used machinery and scrap metal dealers. At some time prior to 1963, the metal building and property at that address was used by a truck-rental business. At an unknown date, presumably when the truck rental business occupied the site, four underground storage tanks were installed on that property. These included a 10,000-gallon and an 8,000-gallon gasoline tank and a 10,000-gallon and a 2,000-gallon diesel tank.

In January 1963, ownership of the site at 205 Madison Street passed to the John Morell Company (Morell), which incorporated it into its meatpacking facility at 208 Jackson Street. In 1970, Morell sold all of its property at 208 Jackson Street, but the site continued in use as a meatpacking facility with a succession of owners, the last of which was the East Bay Packing Company (East Bay Packing).

In May 1990, all four tanks were removed from the property by East Bay Packing. Testing at the bottom of the tank pits showed that soil and groundwater beneath the tanks was affected by components of fuel hydrocarbons.

In November 1990, the 208 Jackson Street property was purchased by Mr. Tzu Ming Chen and Mrs. Chih Chin Lin Chen (the Chens), the owners of Wo Lee Food, which used the property for production, packaging and distribution of Asian specialty foods. In the period between 1990 and 1998, under the direction and oversight of the California Regional Water Quality Control Board — San Francisco Bay Region (RWQCB) and the Alameda County Health Care Services Agency, Environmental Health Services Division (ACHCSA), the

Chens retained a series of consultants to characterize the site and monitor groundwater quality in the affected area.

On October 22 1998, SNK Development Inc. (SNK) purchased the 208 Jackson Street property from the Chens and immediately retained The San Joaquin Company Inc. (SJC) to develop a remediation plan that would permit redevelopment of the property. SNK also contracted with Dietz Irrigation of Tracy, California, to implement the remediation.

The remediation was conducted in compliance with a work plan approved by the ACHCSA (SJC, 1998. ACHCSA, 1998a, 1998b.) The remediation work involved excavation of soil from beneath the affected part of the site, treatment of the soil on site, and restoration of the remedial excavation.

On-site remediation work was completed in November 1998 (Dietz Irrigation, 1998) and, with the concurrence of the ACHCSA, the site was released for redevelopment on December 3, 1998 (ACHCSA, 1998c)

All previously existing groundwater-quality monitoring wells present on the site were closed when the hydrocarbon-affected soil was remediated. As called for by the remediation work plan, two new off-site monitoring wells - Nos. MW-6 and MW-7 - were installed on December 30, 1998 at the locations shown on Figure 2. A first round of groundwater-quality monitoring using these wells was completed on January 9, 1999 (The San Joaquin Company Inc 1999a); a second round followed on April 25, 1999 (The San Joaquin Company Inc 1999b); a third round was completed on July 24, 1999 (The San Joaquin Company Inc 1999c) and a fourth round on October 24, 1999 (The San Joaquin Company Inc 1999d).

The sampling round that was conducted on October 24, 1999 was the last round called for by the remediation work plan.

A formal report of corrective action was submitted to the ACHCSA on November 22, 1999 (The San Joaquin Company 1999e). The report documented the environmental history of the site, including the work performed for the site remediation, with tabulations of all geotechnical and geochemical data gathered from the subject site since the leakage from the underground storage tanks previously located on the property, together with engineering assessments and evaluations of that data.

Groundwater-quality Monitoring

Results of Groundwater Analyses

The depth to groundwater measured in MW-6 and MW-7 between January 9, 1999 and October 4, 1999 are shown in Table 1. Table 2 presents the results of analyses of groundwater recovered from those wells over the same period.

As can be seen in Table 2, diesel, gasoline and all of the BTEX compounds were detected in the sample recovered from well MW-6 on April 26, 1999, although none - with the exception

of a trace of xylene polymers - had been detected in water previously recovered from that well. That result was unexpected. Additional samples were recovered during the sampling round conducted on July 25, 1999 and submitted to Curtis & Tompkins' laboratory in Berkeley, California where they were independently analyzed as a quality-assurance measure. The results of Curtis & Tompkins analyses are shown on the lower part of Table 2

When differences in the laboratories' reporting protocols are accounted for, the Curtis & Tompkins analyses validate those performed by Chromalab. (The San Joaquin Company, Inc., 1999d.)

The sample of groundwater recovered from monitoring well MW-6 on July 24 contained no detectable concentrations of the BTEX compounds. This result is compatible with the result obtained for that well on January 9, showing that the elevated concentrations of BTEX compounds that were detected in the sample recovered on April 25 had been eliminated. Similarly, although not entirely eliminated, the concentrations of diesel and gasoline in the sample recovered on July 25 had fallen markedly from the concentrations present on April 25, which had unexpectedly appeared following the January 9 sampling round, when there had been no detectable concentrations of either diesel or gasoline in the sample recovered from MW-6.

On October 24, 1999, analyses of the sample of groundwater recovered from MW-6 detected the presence of 140 μ g/L of total petroleum hydrocarbons quantified as diesel, 370 μ g/L of total petroleum hydrocarbons quantified as gasoline, and benzene at 0.73 μ g/L. There were no detectable concentrations of toluene, ethyl benzene, or total xylene polymers. MTBE was detected at 950 μ g/L.

Concentrations of analytes of concern in samples from monitoring well MW-7 had fallen significantly between the sampling round conducted on January 9 and the sampling round conducted on April 25. As can be seen by inspection of Table 2, however, by July 25, although the concentration of diesel was again lower, there was a large increase in the concentration of gasoline and the BTEX compounds in the sample recovered from this well. This increase in concentrations was also unexpected.

Analyses of the sample of groundwater recovered from MW-7 on October 24 detected the presence of 1,300 $\mu g/L$ of total petroleum hydrocarbons quantified as diesel, 660 $\mu g/L$ of total petroleum hydrocarbons quantified as gasoline, benzene at 220 $\mu g/L$, toluene at 8 8 $\mu g/L$, ethyl benzene at 24 $\mu g/L$ and total xylene polymers at 65 $\mu g/L$. No MTBE was detected in the sample recovered from this well, as was the case for the previous sampling round.

Evaluation of Groundwater Analyses

There are several data trends that can be observed in the results obtained from analyses of samples from monitoring wells MW-6 and MW-7 in the period from January 9, 1999 to October 24, 1999.

No MTBE was detected in the samples recovered from MW-7 on July 25 (the first sampling round where analysis for this oxygenate was performed) nor on October 24, while 1,500 µg/L and 950 µg/L were detected, respectively, in the samples recovered on the same date from MW-6. This indicates that groundwater in MW-6 is affected by a different mixture of hydrocarbon fuels than the groundwater in MW-7. It is also significant that, although analyses for MTBE had been performed on samples from the other monitoring wells located on the 208 Jackson Street property in prior years, none had ever been detected in any of those wells.

In addition to the difference related to the presence and absence of MTBE, there are other notable differences in the matrix of data obtained from wells MW-6 and MW-7. Water from MW-6, which had been essentially free of petroleum hydrocarbons on January 9, was unexpectedly found to be affected by significant concentrations of several of those compounds on April 25. However, by July 25, there had been major declines in the concentration of diesel and gasoline in that well and none the BTEX compounds were present. By the October 24 sampling round reported herein, there had been a minor upward fluctuation in the concentration of diesel in the sample from MW-6, but there was a further, large decrease in the concentration of gasoline. Also, the concentrations of the BTEX compounds, except for a very minor trace of benzene, continued to be undetectable. This data trend strongly suggested that some new mixture of analytes had been introduced into MW-6 between January 9 and April 25, but, since the latter date, has been dissipating from the groundwater at that location by natural processes such as dispersion or dilution, and by the purging of the well at each sampling round.

Data from MW-7 shows an unexpected increase in the concentrations of gasoline and the BTEX compounds in the period between April 25 and July 24, although, earlier in the year, the trend of the data was declining towards lower concentrations of the analytes of concern. By October 24, although there was an inconsequential increase in the concentration of diesel detected in the sample from MW-7, there was a very large decrease in the concentration of gasoline and the BTEX compounds, so that the pattern of substantial decrease in the concentrations of all analytes of concern in samples from this well was restored. This data trend suggests that some foreign material may have been introduced into the well in the period between April 25 and July 25, 1999

It is interesting to set the data trends described above in the context of re-paving work that occurred on Second Street over the first few months of 1999. Following is a chronological listing of conditions observed in and around the wells during this period

Sampling Date	Conditions Observed
January 9, 1999	No unusual conditions are observed; paving was undisturbed.
April 25, 1999	Second Street has been scarified and the surficial bituminous macadam surfacing removed. Some

stained areas are seen in the vicinity of MW-6. MW-7 well cover is buried under pile of sand- to gravel-sized bituminous macadam debris, but it is otherwise apparently undisturbed.

July 25, 1999

Re-paving is complete around MW-6. Debris has been cleared from the MW-7 well cover, but that cover is found broken and loose in the paving of Madison Street, which has not been re-paved. On removal of the dedicated bailer hung in the well casing, it was found that the upper 6 inches of the casing above the top of the bailer was blocked by bituminous macadam debris and there was evidence that some of that material had fallen further down the well to the groundwater table.

Bituminous macadam contains a large number of petroleum hydrocarbon compounds, particularly long carbon-chain compounds. During re-paving operations, other, lighter petroleum compounds are used as solvents and for treatment of existing pavement prior to laying new surfacing. If any of those materials (which are applied in liquid or semi-liquid form), spilled equipment fuels, or pavement debris from street planing operations were introduced into the groundwater-quality monitoring wells, they would cause the type of increase in concentrations of petroleum hydrocarbons that had been observed at the 208 Jackson Street site.

The data trends and field conditions described above strongly support the interpretation that re-paving work performed in that area of the site was the cause of the sudden appearance of components of fuel hydrocarbons in monitoring well MW-6 on April 25 and the notable increase in the concentrations of components of fuel hydrocarbons in monitoring well MW-7 on July 25

When monitoring wells MW-6 and MW-7 were first sampled on January 9, the pavement around the site was in its original condition. By the sampling round conducted on April 25, the wearing course of the Second Street pavement had been planed away in preparation for re-paving that street. It is evident that some material related to the re-paving work was introduced into MW-6, resulting in the unexpected presence of petroleum hydrocarbons in that well.

By April 25, the paving contractor had stored paving debris directly on top of the MW-7 casing closure, but the bolted casing cover and well cap had prevented introduction of any of this material into the well. Thus, concentrations of analytes of concern in MW-7 declined compared to those detected in samples recovered previously from this well, as would be expected, due to the beneficial effects of the remediation work that had been performed on the site by that time on the ongoing processes of natural bioremediation and dispersion.

By the July 25 sampling round, the re-paving of Second Street had been completed and the petroleum compounds introduced into MW-6 by that activity had declined in concentration due to natural dispersion, dilution and the purging of the well during the April and July sampling rounds. This trend continued through the October 24 sampling round and the concentrations of the analytes of concern declined further toward the non-detectable concentrations that had prevailed on January 9, 1999.

At some time between April 25 and July 25, the MW-7 well cover was damaged and displaced by the bucket of heavy equipment used to load the paving debris that had been temporarily stored over it. This activity caused debris to fall into the well casing before the paving contractor reset the cover over the well. The material introduced into the well at that time caused the concentration of petroleum hydrocarbons in the groundwater in the gasoline range to rise significantly, thus accounting for the results obtained by the analysis of the sample recovered from MW-7 on July 25. By October 24, the effect of this perturbation had passed, so that the results of the analyses of the sample recovered on that date showed that the trend of steadily decreasing concentrations of analytes of concern with time had resumed.

In SJC's opinion, the above scenario is well supported by the sampling data. We expect, assuming that there are no future man-made perturbations that might adversely affect the groundwater quality, that concentrations of analytes of concern in monitoring wells MW-6 and MW-7 will continue to decline due to continuing natural bioremediation, dispersion, and dilution. Accordingly, we do not interpret the phenomena observed in monitoring well MW-6 in April and in monitoring well MW-7 in July to represent a material worsening of groundwater quality in the area of the 208 Jackson Street site.

ACTIVITY DURING THE REPORTING PERIOD

Following is a summary of activity related to the subject site for the period from December 1, 1999 to February 29, 2000.

Meeting With Regulatory Agency

Dr. Dai Watkins and Mr. Bernie Dietz of SJC met with Mr. Larry Seto of the ACHCSA on January 12, 2000 to review the current environmental status of the site and its environs and to consider any additional work that might be required before an application could be made to the RWQCB for site closure.

Following discussion, Mr. Seto requested that a fifth round of groundwater sampling and analysis be conducted for MW-6 and MW-7. The date of that sampling round would be set according to a six-month frequency and is currently scheduled for April 20, 2000.

Engineering Reports and Filings

During the reporting period, the following report was a prepared.

The San Joaquin Company Inc. (1999d), Quarterly Status and Groundwater-quality Monitoring Report, September 1, 1999 to November 30, 1999 - 208 Jackson Street, Oakland, California. November 1999.

WORK IN PROGRESS

In compliance with the guidance provided by the ACHCSA on January 12, 2000, a fifth round of groundwater sampling is scheduled for April 20, 2000. If the results of analyses of samples from that round indicate that such is appropriate, SJC will prepare a draft application for site closure for review by the ACHCSA and submission to the RWQCB.

REFERENCES

Alameda County Health Care Services Agency (1998a), Letter: RE: 208 Jackson Street, ()akland, California 94607, from Larry Seto (Senior Hazardous Materials Specialist) to Mr. Scott Johnson, SNK Development Inc. August 3, 1998

Alameda County Health Care Services Agency (1998b), Letter RE: 208 Jackson Street, ()akland, California 94607, from Larry Seto (Senior Hazardous Materials Specialist) to Mr. Scott Johnson, SNK Development Inc. October 21, 1998.

Alameda County Health Care Services Agency (1998c), Letter RE: 208 Jackson Street, ()akland, California 94607, from Larry Seto (Senior Hazardous Materials Specialist) to Mr Scott Johnson, SNK Development Inc. December 3, 1998.

Dietz Irrigation (1998), Report of Excavation and Treatment of Hydrocarbon Affected Soil – 208 Jackson Street, Oakland, California. November 30, 1998.

The San Joaquin Company Inc. (1999a), Quarterly Status and Groundwater-quality Monitoring Report, December 1, 1998 to February 29, 1999 - 208 Jackson Street, Oakland, California. April 1999.

The San Joaquin Company Inc. (1999b), Quarterly Status and Groundwater-quality Monitoring Report, March 1, 1999 to May 31, 1999 - 208 Jackson Street, Oakland, California. June 1999

The San Joaquin Company Inc. (1999c), Quarterly Status and Groundwater-quality Monitoring Report, June 1, 1999 to August 31, 1999 - 208 Jackson Street, Oakland, California. August 1999.

The San Joaquin Company Inc. (1999d), Quarterly Status and Groundwater-quality Monitoring Report, September 1, 1999 to November 30, 1999 - 208 Jackson Street, Oakland, California. November 1999.

The San Joaquin Company Inc. (1999e), Corrective Action Report - 208 Jackson Street, ()akland, California. November 1999

The San Joaquin Company Inc. (1998), Remediation Plan - 208 Jackson Street, Oakland, California. June 1998 (Revised October 1998).

TABLE 1

DEPTHS TO GROUNDWATER

Well No.	Date Measured	Casing Elevation MSL	Groundwater Depth in feet	Groundwater Elevation MSL
MW-6	01/09/99 04/25/99 07/24/99 10/24/99	5.63	4.57 4.00 4.23 5.12	1.06 1.63 1.40 0.51
MW-7	01/09/99 04/25/99 07/24/99 10/24/99	5.15	4.58 4.10 4.04 4.90	0.57 1.05 1.11 0.25

Notes: (1) All elevations in feet relative to mean sea level (MSL).

TABLE 2

RESULTS OF ANALYSES OF SAMPLES FROM GROUNDWATER-QUALITY MONITORING WELLS

Primary Analyses by Chromalab, Inc.

Well No.	Date Sampled	TPHd	TPHg	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
NO.	Sampled	μg/L	μg/L	μg/L	μ g/L	μg/L	μg/L	μg/L
MW-6	01/09/99	ND	ND	ND	ND	ND	1.70	n.a.
	04/25/99	140	4500	26	160	9.8	140	n.a.
	07/25/99	89	1400	ND	ND	ND	ND	1500
	10/24/99	140	370	0.73	ND	ND	ND	950
MVV-7	01/09/99	1900	7200	410	550	120	1200	n.a.
	04/25/99	1800	4500	960	47	ND	730	n.a.
	07/25/99	1200	9100	2000	830	610	2000	ND
	10/24/99	1300	660	220	8.8	24	65	ND

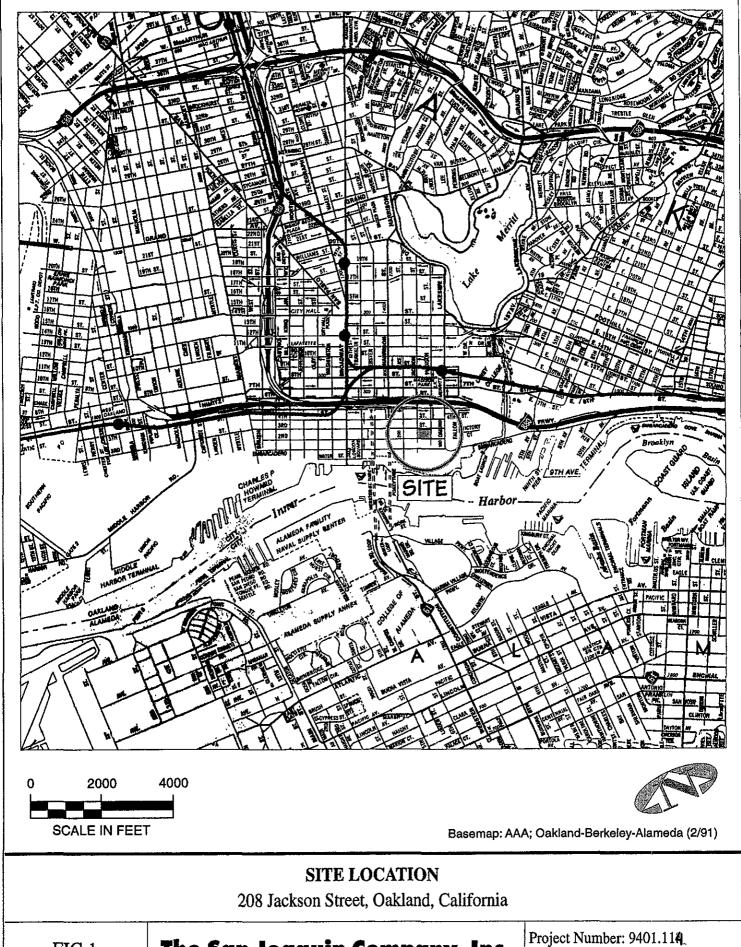
Quality Assurance Analyses by Curtis & Tompkins, Ltd.

Well	Date	TPHd	TPHg	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
No. Sampled	Sampled	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
MW-6	07/25/99	190	ND	ND	ND	ND	0.64	2700
MW-7	07/25/99	1100	7200	1900	790	560	1940	ND

Notes:

⁽¹⁾ ND = Not detected above the Method Detection Limit (MDL)

⁽²⁾ n.a. = Not analyzed for this analyte



The San Joaquin Company, Inc. FIG 1

Drawn by: GNM Date: 06/09/98

