



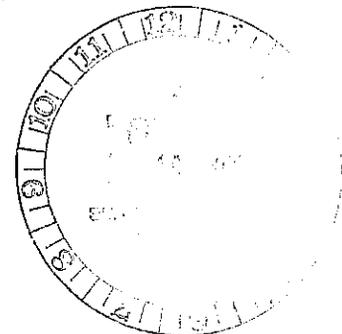
Converse Consultants

Over 50 Years of Dedication in Geotechnical Engineering and Environmental Sciences

January 11, 2002

00-43367-02

Mr. David Lloyd
Nevada Division of Environmental Protection
Bureau of Corrective Actions
555 East Washington Avenue, Suite 4300
Las Vegas, NV 89101-1049



Subject: **Work Plan - Additional Site Investigation**

Maryland Square Shopping Center
3661 South Maryland Parkway
Las Vegas, Nevada

Dear Mr. Lloyd:

Converse Consultants (Converse) is pleased to submit this work plan for the subject site. The additional investigation has been requested by the Nevada Division of Environmental Protection (NDEP) to delineate the horizontal and vertical extent of the tetrachloroethene (PCE) contamination at the site.

Site Description

The site is located at 3661 South Maryland Parkway at the northwest corner of Maryland Parkway and Twain Avenue in Las Vegas, Nevada. It is located in the Southeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 15, Township 21 South, Range 61 East. The site is developed as a strip shopping center. A dry cleaner is located on the shopping center property. A *Site Vicinity Map* is enclosed as Drawing No. 1. A *Site Plan Map* is enclosed as Drawing No. 2.

Background

On August 9, 2000, subsurface soil and water conditions were investigated along the eastern boundary of the subject site by drilling one (1) soil boring and converting it into a monitoring well (MW-1). Water samples collected from MW-1 on August 14, 2000 revealed that PCE concentrations in the groundwater at the subject site exceeded the established US EPA

maximum contamination level (MCL) for PCE in drinking water. Currently the MCL for PCE in drinking water is 5 ug/l or parts per billion (ppb).

On October 2 and 3, 2000, downgradient subsurface soil and water conditions were investigated by drilling five (5) additional soil borings in the vicinity of the Boulevard Mall parking garage and converting the borings into monitoring wells (MW-2, MW-3, MW-4, MW-5, MW-6). Water samples collected from these wells on October 5, 2000 revealed concentrations of PCE and trichloroethene (TCE) in the groundwater, which exceeded their established MCLs.

Scope of Services

Source Area Assessment

Converse will hand-auger five (5) shallow soil borings inside of the facility. The hand-auger borings will be advanced approximately 5 feet in depth and we will collect soil samples at approximately 5 feet below ground surface. One soil sample from each of the borings will be collected. The samples will be submitted to a certified laboratory for analysis using EPA Method 8260 for volatile organic compounds (VOCs).

Converse will install five (5) soil borings in the vicinity of the Maryland Square Shopping Center (1 upgradient, 2 sidegradient, and 2 downgradient) to investigate soil contamination in the area. Site Plans, showing the approximate locations of the soil borings, are enclosed as Drawings No. 2, 3A, and 3B. The borings will be installed with a truck or trailer-mounted drill rig. These borings will be installed to an approximate depth of 30 feet. One discrete soil sample will be collected during installation of each of the borings. The samples will be submitted to a certified laboratory for analysis using EPA Method 8260 for VOCs. The drill cuttings will be placed in labeled 55-gallon drums and stored on site pending proper disposal.

After completion of the soil borings, we will install 2-inch PVC well casing that will be screened through the water table. The wells will be installed per standard industry practice and general EPA protocol. After installation, the wells will be developed to remove sediment and to establish equilibrium between the aquifer and the well materials.

place deep well
near an existing
shallow well if you want
to get a vertical
gradient

Vertical Delineation

Converse will also drill one deeper soil boring near the center of the plume to an approximate depth of 50 feet. This will aide in determining the vertical extent of PCE contamination. The soil boring will be installed with a truck or trailer-mounted auger drill rig. During drilling, we will monitor subsurface conditions for potential aquitards. If any are encountered, we will terminate further drilling and set our well at that depth. Only the bottom 2.5 feet of this hole will be screened to assess the vertical extent of PCE in the groundwater. The drill cuttings will be placed in labeled 55-gallon drums and stored on-site pending proper disposal.

After completion of the deep boring, we will install 2-inch PVC well casing that will be screened through the deeper water table. The well will be installed per standard industry practice and general EPA protocol. After installation, the well will be over-developed to remove sediment, to remove any shallow groundwater that may have infiltrated from above during drilling activities, and to establish equilibrium between the aquifer and the well materials.

A licensed surveyor will conduct a survey of the new wells for horizontal and vertical control to aid in establishing the local groundwater gradient and flow direction.

Groundwater Sampling

The monitoring wells (6 existing and 5 new) will be purged and sampled in accordance with EPA protocol. The groundwater samples will be collected in sterilized 40-ml glass vials, capped with Teflon lined lids, labeled, and placed in an insulated container. Samples will be sent under chain-of-custody to a certified laboratory in Nevada. The samples will be analyzed in accordance with EPA Method 8260 for VOCs.

The purged groundwater will be placed in labeled 55-gallon drums and stored on site pending proper disposal.

Report Preparation

An investigation report will be prepared upon completion of the site activities, which will be submitted to the NDEP. The report will include a discussion of the investigation/monitoring results and our conclusions and recommendations.

Certified Environmental Manager (CEM) Statement

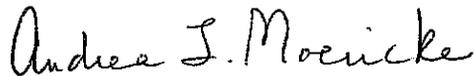
For the services provided and described in this document, the following language is from NAC 459.

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state, and local statutes, regulations, and ordinances.

We appreciate the opportunity to continue providing our environmental services for you. Should you have any questions regarding this report, please contact us at your earliest convenience.

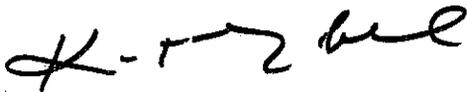
Respectfully submitted,

CONVERSE CONSULTANTS



Andrea L. Moericke, CEM
Senior Project Manager
Nevada CEM 1754 (Exp. 3/1/03)
Dated 1/14/02

Reviewed by:

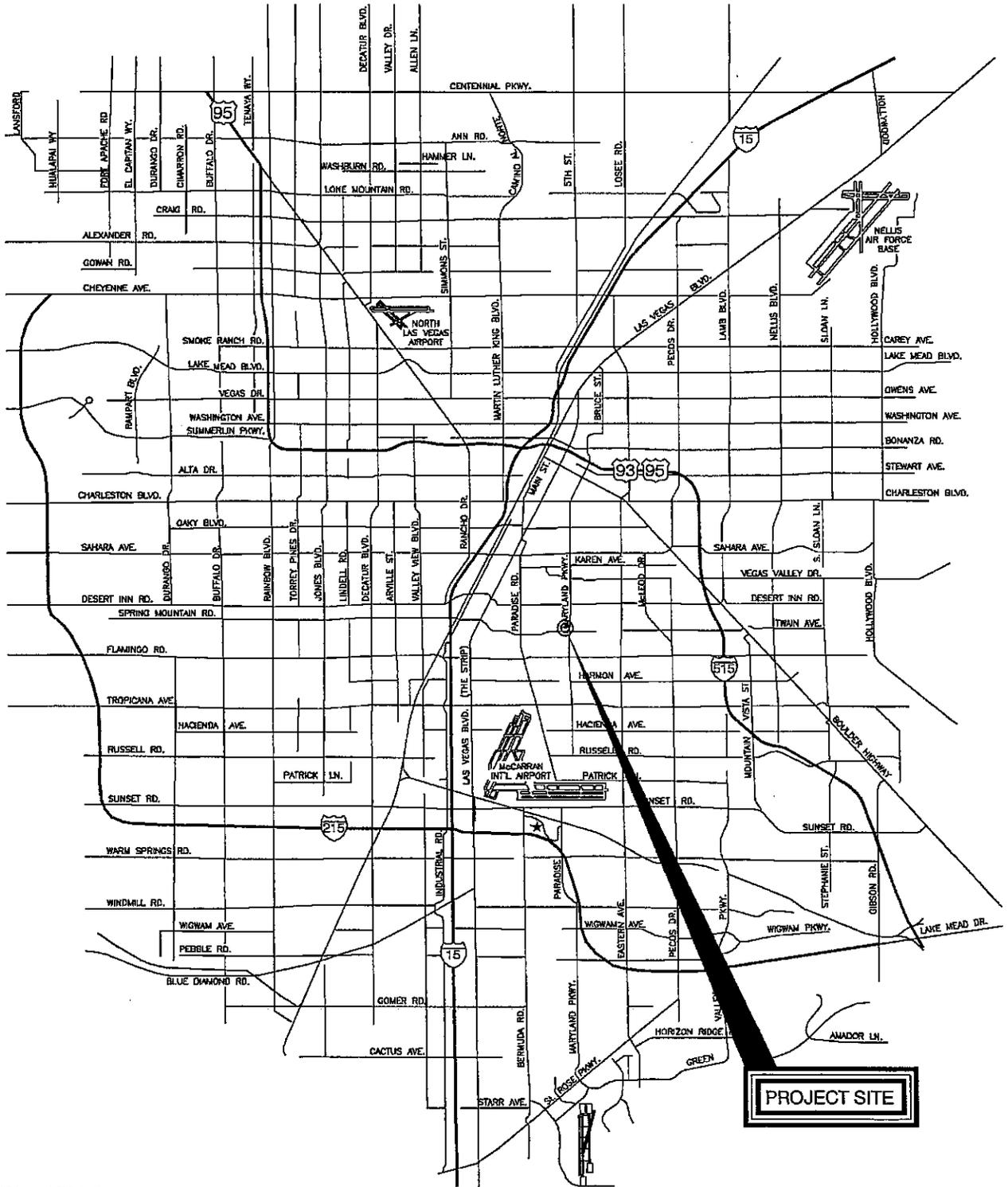


Kurt A. Goebel, CEM
Principal Geologist
Environmental Division Manager

KAG:ALM:sc
23/13CS

Encl: Drawings No. 1, 2, 3A, and 3B

Dist: 1/Addressee
1/The Herman Kishner Trust
Attn: Mr. Irwin Kishner



LAS VEGAS VICINITY

HERMAN KISHNER TRUST
 3661 South Maryland Parkway
 Las Vegas, Nevada

Scale	N.T.S.	File No.	36702001
Date	12/31/01	Project No.	00-43367-02
Drafted By	GLE	Drawing No.	
Checked By	ALM		
Approved By			



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AL PHILLIPS

MW-1
1974.27

MW-6
1971.31

MW-5
1972.73

MW-4
1972.73

MW-2
1968.27

MW-3
1968.24

MARYLAND PARKWAY

PARKING GARAGE

PAVED PARKING

MACY'S

TWAIN AVENUE



LEGEND

⊗ MONITOR WELL WITH ELEVATION

NOTE: TWO MONITORING WELLS WILL BE INSTALLED
DOWN GRADIENT FROM MW-2 AND MW-3.

REF: AutoCAD drawing file "b--mall--1.dwg", supplied by client

EXISTING WELL LOCATIONS

HERMAN KISHNER TRUST
3661 South Maryland Parkway
Las Vegas, Nevada

Scale 1" = 100'
Date 12/31/01
Drafted By GLE
Checked By ALM
Approved By

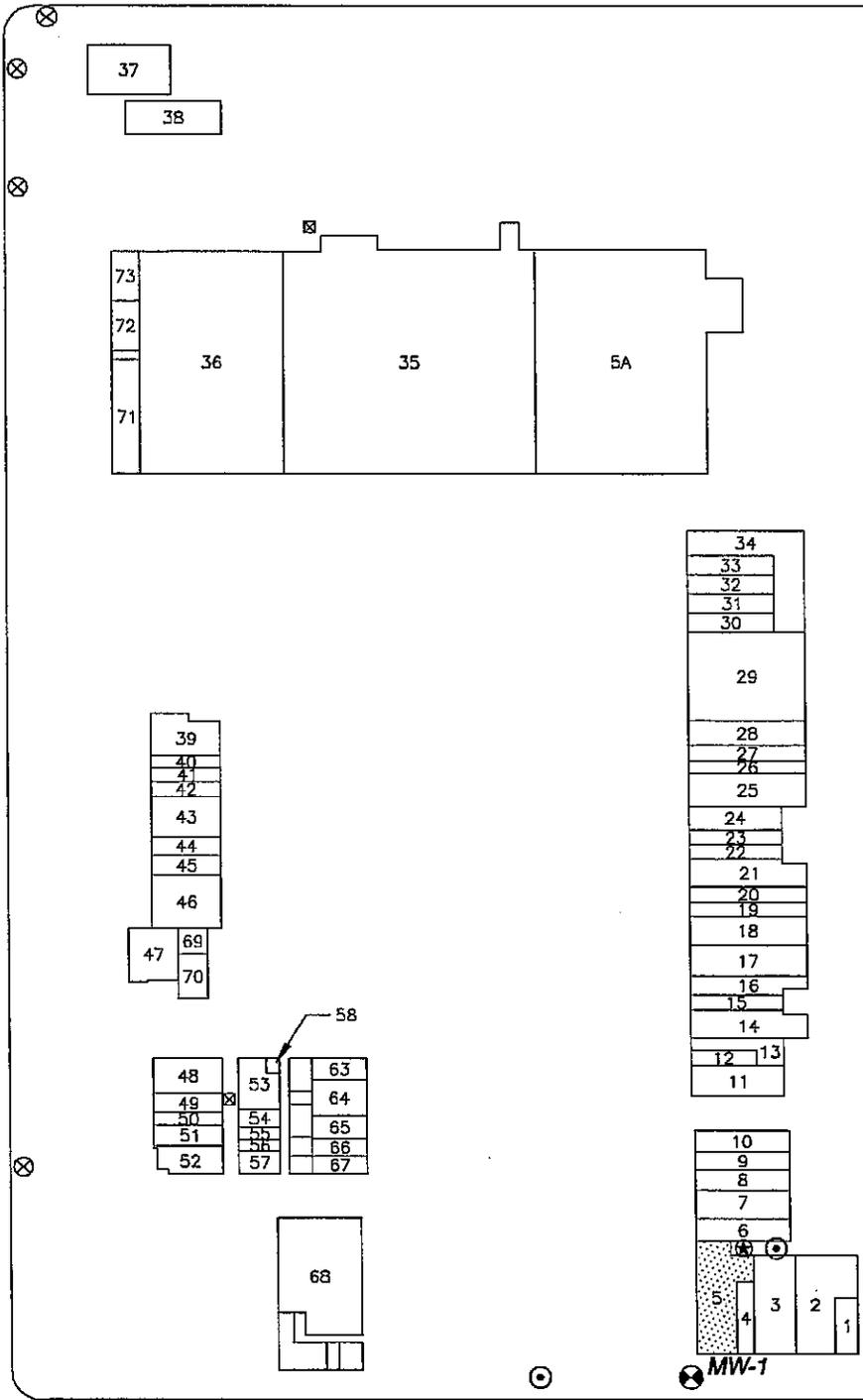
File No. 36701003
Project No. 00-43367-02
Drawing No.



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TWAIN AVENUE



LEGEND

- EXISTING MONITORING WELL
- PROPOSED MONITORING WELL
- DRY CLEANING FACILITY
- WATER COOKER
- PAD MOUNTED TRANSFORMER
- POLE MOUNTED TRANSFORMER

MARYLAND PARKWAY

REF: AutoCAD drawing file "b-mall-1.dwg", supplied by client

PROPOSED WELL LOCATIONS

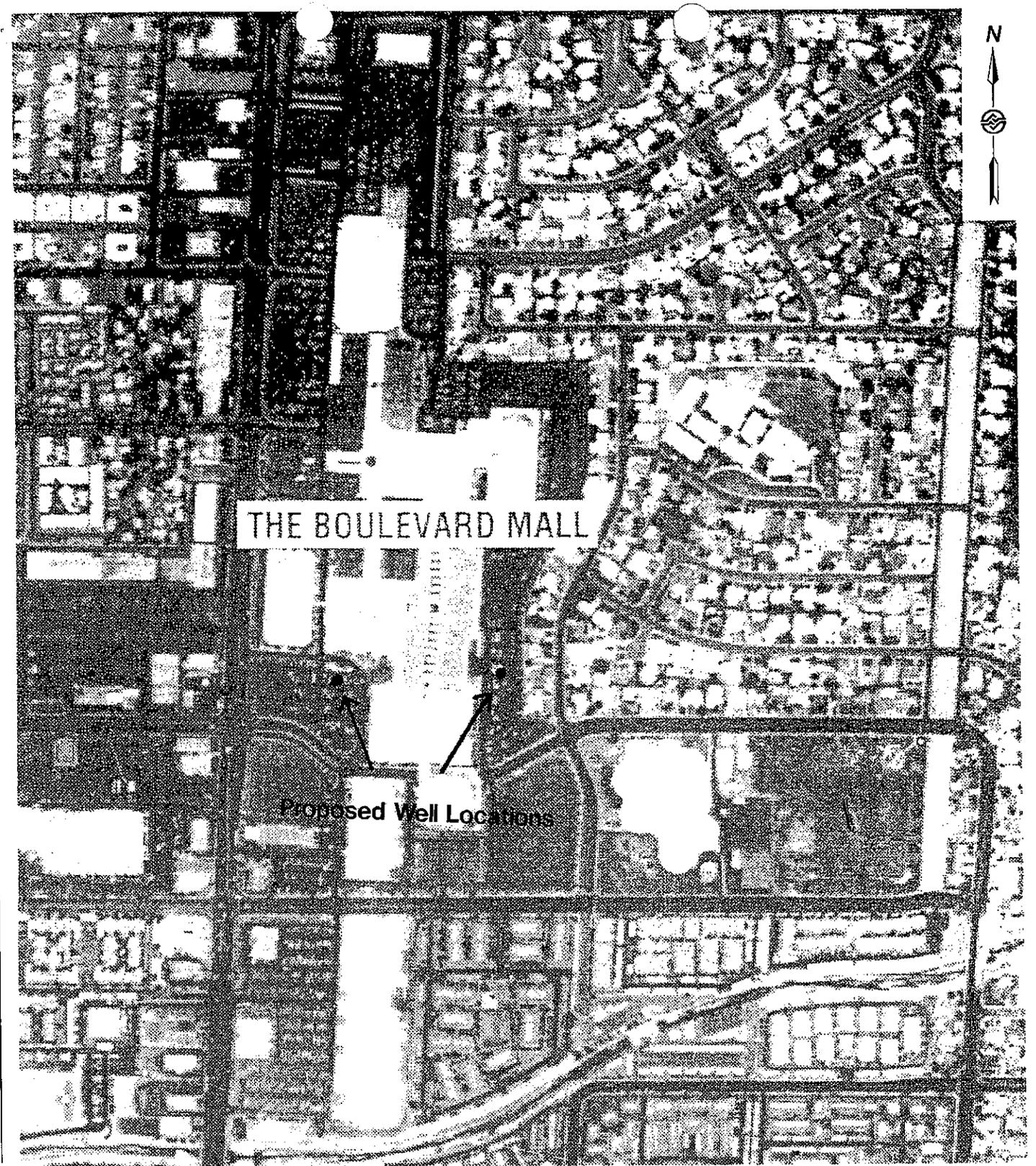
HERMAN KISHNER TRUST
 3661 South Maryland Parkway
 Las Vegas, Nevada

Scale	N.T.S.	File No.	32901002
Date	1/2/02	Project No.	00-43367-02
Drafted By	GLE	Drawing No.	
Checked By	ALM		
Approved By			



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3A



THE BOULEVARD MALL

Proposed Well Locations

PROPOSED WELL LOCATIONS

HERMAN KISHNER TRUST
 3661 South Maryland Parkway
 Las Vegas, Nevada

Scale N.T.S.
 Date 1/14/02
 Drafted By GLE
 Checked By ALM
 Approved By

File No.
 Project No. 00-43367-02
 Drawing No.



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3B