



AGENDA REPORT

Meeting Date: November 13, 2012

Item Number: E-3

To: Honorable Mayor & City Council

From: David D. Gustavson, Director of Public Works and Transportation

Subject:

- A. RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BEVERLY HILLS MAKING ENVIRONMENTAL FINDINGS PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, AND ADOPTING AN ADDENDUM TO A PREVIOUSLY CERTIFIED FINAL ENVIRONMENTAL IMPACT REPORT FOR THE PROPOSAL TO DRILL TWO NEW WELLS WITHIN AN EXISTING DRILL SITE LOCATED AT 9101 WEST PICO BOULEVARD IN THE CITY OF LOS ANGELES; AND
- B. APPLICATION BY PACIFIC COAST ENERGY COMPANY L.P. ("PCEC") FOR A PERMIT TO DRILL AND PRODUCE FROM PCEC WELL NUMBERS WP-60H AND WP-61

Attachments:

- 1. CEQA Resolution
- 2. PCEC Application Letter
- 3. Drill Path and Well Bottom Maps
- 4. Notice to Residents within 300' radius of well bottom
- 5. Subsidence Report
- 6. City's Petroleum Consultant Donald D. Clarke report

RECOMMENDATION

Staff recommends that the City Council move to adopt a Resolution making findings pursuant to the California Environmental Quality Act and adopting an Addendum; and conditionally approve the application submitted by Pacific Coast Energy Company L.P. (PCEC) to drill and produce oil and/or natural gas from Well Numbers WP-60H and WP-61 from their West Pico drill site located at 9101 West Pico Boulevard, Los Angeles California.

INTRODUCTION

On December 7, 2011; PCEC submitted a Permit Application to the City of Beverly Hills requesting permission to drill two of their wells. Their submittal package was in compliance with Section 10-5-312 of the City's Municipal Code and included all of the data requested in Subsections A1 through A7, B and C. The City also received a Certificate of Insurance from PCEC naming the City of Beverly Hills and City Council as

additional insured; an updated Subsidence Report referencing WP-60H and WP-61; maps indicating the drill path and the bottom-hole locations of both wells together with mailing labels to allow notification of property owner within a 300' radius of the proposed well bottoms.

According to Section 10-5-301C of the Beverly Hills Municipal Code, "*The council finds and determines that subsurface areas within the city may be explored for oil and gas, and, if such substances are found, they may be produced by directional or slant drilling methods from surface locations outside the city. Such operations must comply with the regulations of the city or county having local control of the drill site area, as well as the limitations and regulations set forth in this article to protect the citizens and residents of the city from odors, noise, dust, and the spreading of oil, dirt, and debris upon the public streets of the city, and to protect buildings and structures from vibrations, sinking, or other damages caused by the drilling for and production of oil and gas in an unrestricted location and manner.*"

DISCUSSION

PCEC, as successor to BreitBurn Energy Company, operates the West Pico drill site at 9101 West Pico Boulevard located on the north side of Pico Boulevard between Oakhurst Drive and Doheny Drive in the City of Los Angeles.

Well Nos. WP60H and WP-61 were originally installed in 1965 by Occidental Petroleum Corporation as a conductor pipe designated as Well Conductor WP 802 and Well Conductor WP 805 respectively.

The actual drilling of WP60H (well conductor WP802), will commence at about 65 feet and will be directionally drilled to a total depth of 5,880 feet. WP 60H will enter Beverly Hills City Limit at 5,442 foot depth below ground, under the North East portion of the intersection of Whitworth and Rexford. The proposed bottom hole location of this new well will be about 260 feet north and 150 feet east of the intersection of Rodeo and El Camino Drive.

The actual drilling of WP61 (well conductor WP802), will commence at about 65 feet and will be directionally drilled to a total depth of 5,270 feet. WP 61 will enter Beverly Hills City Limits at 3,176 foot depth below ground, just west of the intersection of Whitworth and Rexford. The proposed bottom hole location will be about 104 feet south and 40 feet east of the intersection of Beverly Drive and Olympic Boulevard.

A subsidence report dated May 6, 2011, prepared by Robert G. Lindblom, R.G., was included with the application. The report gives an accounting of the subsidence history of proposed area drill and possible causes of subsidence. It also concludes that the effect of future oil development on subsidence will be negligible. Further, the report indicates that PCEC will continue to monitor land levels with benchmark surveys.

Donald Clarke, the City's consulting petroleum geologist, reviewed the report (see attachment #5) has advised us that there is no evidence that future oil and gas production from wells WP60H and WP61 will endanger in any way the property or safety of the citizens of the City of Beverly Hills.

Staff has determined that the terms and conditions of Title 10 of the BHMC have been complied with. Staff and the City's consulting petroleum geologist have also determined that persons and property within the City of Beverly Hills will not be adversely affected by the granting of the Council permit.

If approved, the council permits will include the following language that was incorporated into previous permits issued to oil companies by the City of Beverly Hills:

"The permittee shall reimburse the City for any environmental testing or review of records deemed appropriate by the City to determine whether the permittee's operations are creating a health or safety risk within the City of Beverly Hills. Additionally, permittee shall take such actions as directed by the City to eliminate any health or safety risk determined by the City to be created by permittee's operations within the City of Beverly Hills, including, without limitation, the cessation of production from the well and the appropriate abandonment of that well.

Unless the City determines that: (1) there is an immediate need to commence environmental testing in order to protect the public health or safety or (2) notice of environmental testing will reduce the value of the testing, the City shall provide permittee with at least five days notice of environmental testing to be conducted at permittee's expense. Permittee may provide input to the City during that five-day period regarding the proposed testing. Similarly, unless the City determines that immediate action is required to eliminate a health or safety risk, the City shall provide permittee with five days notice before requiring any action to eliminate a health or safety risk arising from permittee's operations. Permittee may provide input to the City during that period regarding the proposed action.

Failure by the City to provide notice pursuant to this condition shall not relieve permittee of its obligation under this condition to reimburse the City for testing nor shall such failure relieve permittee of its obligation to comply with any directive from the City to eliminate a health or safety risk."

This permit will not allow the use of hydraulic fracturing technique (fracking) for the production of oil and gas from wells WP60 H and WP61.

On October 11, 2012, all the tenants and property owners located within a 300' radius of the bottom hole of the proposed wells WP60H and WP61 were mailed a notice regarding this application advising them that the matter is scheduled to be heard publicly before the City Council on October 23, 2012.

The Planning Division prepared an addendum to the Drill Site Modernization Environmental Impact Report (EIR) and Planning Division has concluded that the project is consistent with the EIR and will not result in any new impacts not previously analyzed (see attachment #6). In addition, a Resolution adopting findings pursuant to the California Environmental Quality Act (CEQA) and adopting the Addendum has been prepared for Council consideration (see attachment #7). Because all identified mitigation measures have been imposed by, and are under the jurisdiction of the City of Los Angeles, the City of Beverly Hills does not have the authority to impose the mitigation, and does not have the authority, as a responsible agency, to enforce measures requiring implementation outside of its jurisdiction. In order to clarify that there are no impacts associated with the City of Beverly Hills' aspects of this project, the Addendum has been revised to reflect that there are no mitigation measures within the jurisdiction of the City of Beverly Hills that would be imposed in conjunction with approval

of the Permit, although the mitigation previously imposed by the City of Los Angeles remains in effect.

In accordance with Section 10-5-316 of the Beverly Hills Municipal Code, "... the council permit shall become null and void unless the permit is accepted by the applicant in its entirety in writing and filed with the city clerk within thirty (30) days after the effective date thereof, together with the payment of the permit fee required by section 10-5-319 of this chapter, and no work on such drill site shall be commenced until such permit is accepted and issued."

In accordance with Section 10-5-321 of the Beverly Hills Municipal Code "... the city engineer, from time to time as he deems appropriate, shall determine if any adverse effect upon the surface of the city is occasioned or is in danger of being occasioned by reason of the removal of oil, gas, or other hydrocarbon substances from the subsurface of the city pursuant to a well regulated by the provisions of this article.....In the event the city engineer observes any such adverse effect or danger, he may order the immediate suspension of further production from such well or wells as may be located entirely or partly within the city, and, in the event of such an order, production on such wells shall be suspended by the permittee or other operator immediately upon receiving notice of such order....."

FISCAL IMPACT

In December 2011, PCEC deposited \$8,883/well in permit application fees as required by Section 10-5-312 BHMC and the City's Fiscal Year 2011/2012 Schedule of Taxes, Fees & Charges. If the City Council permit is granted, an additional \$4,000 (\$2,000 per well in accordance with BHMC 10-5-319) will be collected in permit fees.

Additionally, according to the current royalties paid to the City for oil production from drill located site outside the City limits, the City will receive \$1,946.76 for the first 10,000 barrels produced and \$0.14381 for each additional barrel produced from each well in annual licensing fees. This fee is subject to annual adjustment



David D. Gustavson

Approved By

Attachment 1

RESOLUTION NO. _____

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BEVERLY HILLS MAKING ENVIRONMENTAL FINDINGS PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, AND ADOPTING AN ADDENDUM TO A PREVIOUSLY CERTIFIED FINAL ENVIRONMENTAL IMPACT REPORT FOR THE PROPOSAL TO DRILL TWO NEW WELLS WITHIN AN EXISTING DRILL SITE LOCATED AT 9101 WEST PICO BOULEVARD IN THE CITY OF LOS ANGELES

The City Council of the City of Beverly Hills hereby finds and resolves as follows:

Section 1. The project before the City of Beverly Hills (the “City”) is a proposal to drill two new wells (Well Nos. WP60H and WP-61) within an existing drill site located at 9101 West Pico Boulevard in the City of Los Angeles (the “Project”). The existing drill site is located approximately 500 feet south of the Beverly Hills city limits, and has been in operation since 1965. The site is currently authorized by the City of Los Angeles, the lead agency, to contain up to 69 wells. Because the two new wells would extend under properties in the City of Beverly Hills, a separate permit for the wells is required by the City of Beverly Hills, and the City of Beverly Hills serves as a responsible agency under the California Environmental Quality Act (“CEQA”) (Cal. Pub. Res. Code §21000 *et seq.*) and the State Guidelines (the “CEQA Guidelines”) (14 Cal. Code Regs. §15000 *et seq.*).

Section 2. The original project, consisting of 69 wells (the “Los Angeles Project”) was environmentally reviewed pursuant to the provisions of CEQA and the State CEQA Guidelines. The City of Los Angeles, as lead agency, prepared Environmental Impact Report No. 98-0149-PA (State Clearinghouse No. 1998091043) (the “EIR”) that determined the Los Angeles Project would not result in any significant unmitigable impacts.

Section 3. Each of the 69 wells in the Los Angeles Project has been established with a conductor well, which is the initial pipe and concrete casing used to establish a well. The conductor wells are drilled to a depth of approximately 65 feet, which allows them to be used for well drilling purposes at a later date. Although the 69 wells have previously been established by way of the initial conductor wells, not all of the conductor wells have been utilized for actual well drilling below the initial 65-foot depth. In this case, the proposed Project before the City involves the drilling of two new wells (Well Nos. WP60H and WP-61) within two existing conductor wells (Conductor Nos. WP 802 and WP 805). The actual drilling of Well No. WP60H (conductor well WP802) will commence at approximately 65 feet in depth (the bottom of the conductor well) and will be directionally drilled to a total depth of 5,880 feet. The well will enter the City’s limits at 5,442 feet below ground, under the northeast portion of the intersection of Whitworth Drive and South Rexford Drive. The proposed bottom hole location of this new well will be approximately 260 feet north and 150 feet east of the intersection of South Rodeo Drive and El Camino Drive. The actual drilling of Well No. WP61 (conductor well WP805) will commence at approximately 65 feet in depth (the bottom of the conductor well) and will be directionally drilled to a total depth of 5,270 feet. The well will enter the Beverly Hills city

limits at 3,176 feet below ground, just west of the intersection of Whitworth Drive and South Rexford Drive. The proposed bottom hole location of this new well will be approximately 104 feet south and 40 feet east of the intersection of South Beverly Drive and Olympic Boulevard.

Section 4. In order to consider the environmental effects of the Project under CEQA and the State CEQA Guidelines, the City is relying on the EIR for the Los Angeles Project. The Draft EIR was circulated for public review for the Los Angeles Project from April 22, 1999 to June 7, 1999 for a 45-day comment period. The City of Los Angeles prepared written responses to comments received on the Draft EIR and those responses to comments were incorporated into the Final EIR. The Final EIR was certified by the City of Los Angeles in October of 1999 and the Los Angeles Project was also approved at that time.

Section 5. In addition to relying on the EIR for the Los Angeles Project, the City prepared an Addendum to analyze the impacts of the Project in compliance with State CEQA Guideline 15164. Pursuant to State CEQA Guideline 15096(e), the City as responsible agency is authorized by CEQA to prepare further environmental documentation if necessary to make the EIR adequate for its purposes. An Addendum is the appropriate environmental document to analyze the Project as the Los Angeles Project analyzed in the previously certified EIR included the installation and use of up to 69 conductor wells, including the two conductor wells from which the drilling under the City of Beverly Hills is proposed as part of the Project. Thus, the Project is within the scope of the Los Angeles Project and no new environmental effects or any of the conditions contained in State CEQA Guideline 15162 and 15163 requiring a subsequent or supplemental EIR exist. Pursuant to State CEQA Guideline 15164, an addendum need not be circulated for public review. The Addendum is attached hereto as Exhibit A to this Resolution, and is hereby incorporated by this reference. As provided for in the Addendum, the Project to drill under the City of Beverly Hills within an existing drill site would not result in any impacts beyond those documented in the EIR for the Los Angeles Project that were deemed to be mitigated to less than significant levels with the imposition of mitigation measures.

Section 6. The findings made in this Resolution are based upon the information and evidence set forth in the EIR and in the Addendum and upon other substantial evidence that has been presented in the record of the proceedings. The documents, staff reports, technical studies, appendices, plans, specifications, and other materials that constitute the record of proceedings on which this Resolution is based are on file for public examination during normal business hours at the City of Beverly Hills Department of Public Works and Transportation, 345 Foothills Road, Beverly Hills, California 90210. The custodian of records is the Director of Public Works and Transportation. Each of those documents is incorporated herein by reference.

Section 7. State CEQA Guideline Sections 15096(h) and 15091 require that the City, as responsible agency, before approving the Project, make one or more of the following written finding(s) for each significant effect identified for the Project accompanied by a brief explanation of the rationale for each finding:

1. Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effects as identified in the Final EIR; or,

2. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency; or,
3. Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

In this case, the mitigation measures identified in the EIR are within the responsibility and jurisdiction of the City of Los Angeles, which imposed the mitigation measures on the Los Angeles Project. Pursuant to CEQA Guidelines Section 15041(b), the City of Beverly Hills, as a responsible agency, may require changes in a project to lessen or avoid only the effects, either direct or indirect, of that part of the project which it is called upon to approve. In this case, the aspects of the Project subject to City of Beverly Hills approval have no effects, and thus there is no duty or authority to mitigate.

Section 8. Environmental impacts identified in the EIR to be less than significant, and which do not require mitigation are described in Section III respectively of Exhibit B, attached hereto and incorporated herein by reference.

Section 9. Environmental impacts identified in the EIR as less than significant, and which do not require mitigation are described in Section IV respectively of Exhibit B, attached hereto and incorporated herein by reference.

Section 10. Environmental impacts identified in the EIR as significant but mitigable are described in Section V respectively of Exhibit B, attached hereto and incorporated herein by reference.

Section 11. Alternatives that might eliminate or reduce significant environmental impacts are described in Exhibit B, Section VII, attached hereto and incorporated herein by reference.

Section 12. Although State CEQA Guideline 15096(h) and 15091(d) require the City as a responsible agency to prepare and adopt a mitigation monitoring and reporting program for any project for which mitigation measures have been imposed to assure compliance with the adopted mitigation measures, in this case all mitigation measures have been imposed by the City of Los Angeles. The City of Los Angeles found that the mitigation measures detailed in the EIR will reduce all of the impacts identified in the EIR that are applicable to the Project, to less than significant levels. Because the project will not have any impacts in the City of Beverly Hills, there are no mitigation measures or alternatives within the City of Beverly Hills' jurisdiction to impose. Because all of the impacts identified in the EIR are associated with the Los Angeles Project and occur in the City of Los Angeles, the City of Los Angeles is the party responsible for enforcement of the mitigation measures.

Section 13. Prior to taking action, the City Council reviewed, considered and has exercised its independent judgment on the environmental effects disclosed in the EIR for the Los Angeles Project, the Addendum, and all of the information and data in the administrative record, and all

oral and written testimony presented to it during meetings and hearings and relies on the EIR for the Los Angeles Project for the purposes of analyzing the environmental effects of the Project.

Section 14. The City Council of the City of Beverly Hills hereby adopts the Addendum to the previously certified EIR prepared for the Los Angeles Project as set forth in Exhibit A, attached hereto and incorporated herein by this reference, and adopts findings pursuant to the California Environmental Quality Act as set forth in Exhibit B attached hereto and incorporated herein by reference.

Section 15. The City Clerk shall certify to the adoption of this Resolution, and shall cause this Resolution and this certification to be entered into the Book of Resolutions of the City Council of the City.

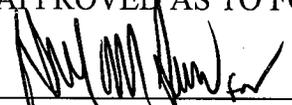
Adopted:

WILLIAM W. BRIEN, M.D.
Mayor of the City of Beverly Hills,
California

ATTEST:

(SEAL)
BYRON POPE
City Clerk

APPROVED AS TO FORM:



LAURENCE S. WIENER
City Attorney

APPROVED AS TO CONTENT

JEFFREY C. KOLIN
City Manager



DAVID GUSTAVSON
Director of Public Works and Transportation

APPENDUM

EXHIBIT A

-REVISED-

**ADDENDUM TO FINAL ENVIRONMENTAL IMPACT REPORT
AS CERTIFIED BY THE CITY OF LOS ANGELES
FOR THE PICO/DOHENY DRILLSITE MODERNIZATION PROJECT
(State Clearinghouse No. 1998091043)**

**Prepared on behalf of the City of Beverly Hills
in its capacity as a Responsible Agency**

SITE: 9101 West Pico Boulevard, Los Angeles, CA 90035
PROJECT TITLE: Pico/Doheny Drill Site
PROJECT APPLICANT: Pacific Coast Energy Company, L.P.

PROJECT DESCRIPTION: The Project, for the City of Beverly Hills' purposes as a responsible agency, is a proposal to drill two new wells (Well Nos. WP60H and WP-61) within an existing drill site located at 9101 West Pico Boulevard in the City of Los Angeles. The existing drill site is located approximately 500 feet south of the Beverly Hills city limits, and has been in operation since 1965. The site is currently authorized by the City of Los Angeles, the Lead Agency, to contain up to 69 wells. Because the proposed wells would extend under properties in the City of Beverly Hills, a separate permit for the wells is required by the City of Beverly Hills, and the City of Beverly Hills thus serves as a responsible agency.

Each of the 69 wells authorized by the City of Los Angeles approval has been established with a conductor well, which is the initial pipe and concrete casing used to establish a well. The conductor wells are drilled to a depth of approximately 65 feet, which allows them to be used for well drilling purposes at a later date. Although the 69 wells have previously been established by way of the initial conductor wells, not all of the conductor wells have been utilized for actual well drilling below the initial 65-foot depth. In this case, the proposed Project involves the drilling of two new wells (Well Nos. WP60H and WP-61) within two existing conductor wells (Conductor Nos. WP 802 and WP 805).

The actual drilling of Well No. WP60H (conductor well WP802) will commence at approximately 65 feet in depth (the bottom of the conductor well) and will be directionally drilled to a total depth of 5,880 feet. The well will enter Beverly Hills city limits at 5,442 feet below ground, under the northeast portion of the intersection of Whitworth Drive and South Rexford Drive. The proposed bottom hole location of this new well will be approximately 260 feet north and 150 feet east of the intersection of South Rodeo Drive and El Camino Drive.

The actual drilling of Well No. WP61 (conductor well WP805) will commence at approximately 65 feet in depth (the bottom of the conductor well) and will be directionally drilled to a total depth of 5,270 feet. The well will enter Beverly Hills city limits at 3,176 feet below ground, just west of the intersection of Whitworth Drive and South Rexford Drive. The proposed bottom hole location of this new well will be approximately 104 feet south and 40 feet east of the intersection of South Beverly Drive and Olympic Boulevard.

PURPOSE: This Addendum to the Environmental Impact Report (EIR) is being prepared pursuant to Section 15164 of the California Environmental Quality Act (CEQA) Guidelines which allows for a responsible agency to prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR have occurred. Pursuant to CEQA Section 15162, no subsequent EIR shall be prepared for the project unless, on the basis of substantial evidence in the light of the whole record, one or more of the following is determined:

- (1) Substantial changes are proposed in the project that will require major revisions of the previous EIR due to the involvement of new, significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- (3) New information of substantial importance identifies one or more significant effects not discussed in the previous EIR, significant effects previously examined will be substantially more severe than shown in the previous EIR, mitigation measures or alternatives previously found not to be feasible or not analyzed in the EIR would be feasible and would substantially reduce one or more significant effects but the project proponents decline to adopt of the measure or alternative.

FINDINGS ON THE PROJECT:

1. The original project consisting of the potential 69 wells, and hereafter referred to as the "Los Angeles Project", was environmentally reviewed pursuant to the provisions of the California Environmental Quality Act (Public Resources Code Sections 21000, *et seq.* ("CEQA"), and the State CEQA Guidelines (California Code of Regulations, Title 14, Sections 15000, *et seq.*). The City of Los Angeles prepared Environmental Impact Report

No. 98-0149-PA¹ (also known by its State Clearinghouse Number 1998091043, and hereafter referred to as the “EIR”) and, based on the information contained in the EIR, determined that the Los Angeles Project would not result in any significant, unmitigable impacts.

2. In October 1999, the City of Los Angeles certified Final Environmental Impact Report No. 98-0149-PA, and approved the Los Angeles Project to allow modernization and continued operation of the existing drill site. The Final Environmental Impact Report contemplated operation and drilling, and further use, of up to 69 conductor wells on the drill site, and established conditions of approval for continued operation of the drill site. In addition, the Final Environmental Impact Report identified certain mitigation measures that were necessary to mitigate potential impacts of the Los Angeles Project to less than significant levels. None of these mitigation measures addressed potential impacts in the City of Beverly Hills. The mitigation measures were adopted by the City of Los Angeles and made binding on the Project.
3. Thereafter, an application for the Project was submitted to the City of Beverly Hills on December 7, 2011 to allow the drilling of two new wells (within existing conductor wells) that would extend under the City of Beverly Hills. Although the new wells are authorized by the City of Los Angeles approvals granted after completion of the environmental review in FEIR No. 98-0149-PA, a separate permit for the wells is required by the City of Beverly Hills, and the City of Beverly Hills thus serves as a responsible agency for the Project.
4. Staff analyzed the Project to determine if any impacts would result from the proposed wells. Pursuant to CEQA Guidelines Section 15162, a new EIR is not required for the two wells contemplated by the Project because:
 - (1) The Los Angeles Project, as reviewed under the previously certified EIR, included the installation and use of up to 69 conductor wells, inclusive of the two conductor wells from which the extended drilling under the City of Beverly Hills is proposed. The proposed wells are within the scope of the Los Angeles Project, as previously contemplated in the certified EIR, and are therefore not considered to be a substantial change that would require major revisions of the previous EIR.

¹ The Final EIR and its associated attachments can be reviewed online at <http://www.beverlyhills.org/business/constructionlanduse/projectreview/currentpastprojects/currentprojects/>, or in person at the Beverly Hills Community Development Department, 455 N. Rexford Dr., Beverly Hills, CA 90210.

Furthermore, a subsidence report was prepared for the proposed wells in 2011. The Project, the subsidence report, and the proposed wells have been reviewed by City staff and the City's consulting geologist (Donald Clarke, RG3583), and it has been determined that the proposed wells will not result in any new significant environmental effects or a substantial increase in the severity of the impacts as previously identified in the EIR. The Project would not result in any significant impacts in the City of Beverly Hills, and the mitigation measures previously adopted by the City of Los Angeles address potential impacts at the Los Angeles surface site.

- (2) There are no changes with respect to the circumstances under which the project is undertaken that will require major revisions of the previous EIR due to the involvement of new significant environmental effects and there were no previously identified significant unmitigable effects. The Project is located within an existing drill site that has been in operation since 1965 and contains 69 conductor wells. Over 60 of the conductor wells have previously been drilled from, and the drill site underwent modernization in 1999. The two proposed wells would utilize existing conductor wells that have not previously been drilled beyond a depth of 65 feet. Although the proposed wells are considered to be new wells, they would utilize existing conductor wells and are within the scope of the Los Angeles Project as previously contemplated in the certified EIR, and therefore the Project is not considered to be a substantial change that would require major revisions of the previous EIR. Rather, the Project consists of the City of Beverly Hills considering the permits required by the Beverly Hills Municipal Code, and the related responsible agency consideration of the CEQA documentation. Furthermore, a subsidence report was prepared for the proposed wells in 2011. The Project, subsidence report, and the proposed wells have been reviewed by City staff and the City's consulting geologist (Donald Clarke, RG3583), and it has been determined that the proposed wells will not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
- (3) Staff has identified no new information of substantial importance identifying a significant effect, and no significant unmitigable effects were associated with the previously certified EIR.

Therefore, pursuant to CEQA Guidelines Section 15164, this Addendum to the EIR has been prepared to document that the two wells proposed to be drilled within existing conductor wells at the drill site, which would extend under the City of Beverly Hills, would not result in any impacts beyond those documented in the EIR.

Revised Addendum to Environmental Impact Report
Pico/Doheny Drill Site
November 13, 2012

For any questions regarding this matter, please contact Ryan Gohlich, Senior Planner in the Beverly Hills Community Development Department at 310.285.1194.

By: 

Ryan Gohlich, Senior Planner

DATE: October 31, 2012

HEARING DATE: November 13, 2012

Revised – November 8, 2012

EXHIBIT B
Findings and Facts in Support of Findings

I. Introduction

The California Environmental Quality Act (“CEQA”) and the State CEQA Guidelines (the “Guidelines”) provide that no public agency shall approve or carry out a project for which an environmental impact report has been certified which identifies one or more significant effects on the environment that will occur if a project is approved or carried out unless the public agency makes one or more of the following findings:

- A. Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effects identified in the EIR.
- B. Such changes or alterations are within the responsibility of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- C. Specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives identified in the EIR.¹

Pursuant to the requirements of CEQA, the City Council hereby makes the following environmental findings in connection with the proposal to drill two new wells (Well Nos. WP60H and WP-61) within an existing drill site located at 9101 West Pico Boulevard in the City of Los Angeles (the “Project”). Because the proposed wells would extend under properties in the City of Beverly Hills (the “City”), a separate permit for the wells is required by the City, and the City serves as a responsible agency under the California Environmental Quality Act (“CEQA”) (Cal. Pub. Res. Code §21000 et seq.) and the State Guidelines (the “CEQA Guidelines”) (14 Cal. Code Regs. §15000 et seq.).

The existing drill site located at 9101 West Pico Boulevard (the “Los Angeles Project”) was originally approved in 1999 by the City of Los Angeles as lead agency under CEQA. The City of Los Angeles processed and certified a Final EIR for the Los Angeles Project (the “EIR”). As a responsible agency, the City is relying on the EIR and has caused an Addendum to be prepared to the previously certified EIR to study the full environmental impacts of the Project.

These findings are based upon evidence presented in the record of these proceedings, both written and oral, the Addendum to the previously certified EIR, the EIR, and all of its contents, the Comments and Responses to Comments on the EIR, and staff and consultants’ reports presented through the City’s hearing process.

II. Project Objectives

As set forth in the EIR, the project objectives are as follows:

¹ Cal. Pub. Res. Code § 21081; 14 Cal. Code Regs. § 15091.

- A. To benefit the adjacent residential and commercial neighbors by modernizing the existing drillsite in an environmentally-sensitive manner, which would include the elimination of the existing unenclosed workover rig and its attendant diesel engine exhaust.
- B. To develop a project on the project site that is financially viable, and at the same time provides fiscal benefits to the City of Los Angeles and royalty interest holders.
- C. To develop and produce significant newly identified hydrocarbon reserves which otherwise would remain untapped.
- D. To develop a project that is sensitive to, and compatible with, the surrounding environment.

III. Effects Determined to be Less Than Significant/No Impact and Were Not Analyzed in the EIR

The City of Los Angeles, as lead agency, determined that development of the Los Angeles Project would not result in certain environmental impacts. These respective impacts and environmental issue areas were not analyzed in the EIR but were detailed in the EIR. The City, as responsible agency, is relying on the EIR and through its Addendum, has also determined that the Project to drill two new wells would not result in impacts in the environmental topic areas discussed below.

A. HYDROLOGY

- 1. The Project will not increase surface water runoff and would not cause an impact on existing drainage infrastructure as surface flows drain on-site into existing well cellars that are eventually reinjected into underground aquifers.
- 2. The Project will not create a flood hazard as the location of the Project is in an area known for minimal flooding.

B. BIOLOGICAL RESOURCES

- 1. The Project will not cause any impact on plant life, including tree species.
- 2. The Project will not have a significant impact on endangered, threatened or rare species or habitats as the Project area is highly urbanized.
- 3. The Project will not have an impact on any locally designated species, natural communities, wetland habitat or wildlife dispersal or migration corridors as the Project area is highly urbanized.

C. POPULATION

1. The Project will not cause any significant impacts on local or regional population projections.

D. HOUSING

1. The Project will not displace any existing housing.

E. RIGHT OF WAY AND ACCESS

1. The Project will not result in reduced lot area, access, or creation of abrupt grade differential between public and private property.

F. PUBLIC SERVICES

1. The Project will not cause an impact with regard to the need for new school facilities as no housing is proposed as part of the Project.

G. ENERGY CONSERVATION

1. The Project will not cause any impacts with regard to energy conservation. Although the Project will use electricity, such use would be within a normal urban growth rate.

H. UTILITIES

1. The Project will not cause any impacts on utilities such as water, sewer and solid waste disposal. Use of the utilities for the Project would represent normal urban growth rates and any upgrades required would be the responsibility of the applicant.

I. SAFETY

1. No impacts on safety are anticipated to result from the Project.

J. CULTURAL RESOURCES

1. The Project is not anticipated to have any environmental impacts on cultural resources as there are no known paleontological or archaeological resources in the Project area.

IV. Effects Determined to be Less Than Significant Without Mitigation in the EIR

The EIR found that the Los Angeles Project would have a less than significant impact without the imposition of mitigation on a number of environmental topic areas listed below. A less than significant environmental impact determination was made for each of the following topic areas listed below, based on the more expansive discussions contained in the EIR. The City, as a responsible agency, is relying on the EIR and through its Addendum, has also determined that the Project to drill two new wells would not result in impacts in the environmental topic areas discussed below.

A. GEOLOGY

1. The Project will not cause significant induced seismicity.
2. The Project is anticipated to have a less than significant impact from liquefaction.
3. Compliance with the applicable building code will reduce any seismic settlement impact to less than significant level.
4. The Project will not create a significant impact on the environment from subsidence.
5. The Project will not cause flooding, erosion or runoff impacts.
6. The Project will not cause impacts related to slope stability, inundation, tsunamis, seiches and volcanic hazards as the Project is removed from slopes and any bodies of water.
7. The cumulative impacts of geologic hazards are also less than significant.

B. AIR QUALITY

1. The Project is not expected to cause any odor impacts.
2. The Project will not cause construction related air quality impacts because construction emissions would be below applicable South Coast Air Quality Management District thresholds.
3. The Project will not cause any operational related air quality impacts including from toxic air contaminants or criteria air pollutants.

C. NOISE

1. The Project will not cause any nighttime operational noise impact in excess of applicable thresholds.
2. The Project will not cause any daytime operation average noise levels or maximum noise level impacts in excess of applicable thresholds.
3. The Project will not increase the community noise equivalent level (cnel) at sensitive receptors above applicable thresholds.
4. The Project will not cause operational vibration impacts.
5. The Project will not contribute to a cumulative noise level impact.

D. AESTHETICS/SHADE AND SHADOW/LIGHT AND GLARE

1. The Project will not cause shade or shadow impacts during the winter solstice.
2. The Project will not cause shade or shadow impacts during the spring/fall equinox.

3. The Project will not cause shade or shadow impacts during the summer solstice.
4. The Project will not cause cumulative shade/shadow impacts.
5. The Project will not cause light or glare impacts.
6. The Project will not cause cumulative light or glare impacts.

E. LAND USE

1. The Project will not have significant land use impact to the applicable plans or to existing zoning.
2. Cumulative land use impacts will be less than significant.

F. MINERAL RESOURCES

1. The Project will not result in a loss of, or loss of access to, or block access to, a mineral resource.
2. The Project will not contribute to a cumulative mineral resource impact.

G. RISK OF UPSET

1. The Project will not cause an impact related to the use of hazardous materials during daily operations.
2. The Project will have a less than significant impact risk from a blowout, and if a blowout did occur, any associated harm would be negligible because of Project design features that reduce the risk of upset.
3. The Project will have a less than significant impact with regard to upset risk due to an oil spill.
4. The Project is not anticipated to result in upset risk due to natural gas leaks based on safety monitoring included in Project operations.
5. The Project will not cause increased demand on the Los Angeles Fire Department due to fire risk as all LAFD regulations will be satisfied.
6. No groundwater contamination is expected to occur as a result of the Project.
7. No other oil drilling and production facilities are located in the immediate vicinity of the Project and thus the cumulative effects from risk of upset related to oil drilling and production will be less than significant.

H. TRAFFIC

1. The Project will not cause any exceedance in LOS as compared to existing conditions.

2. The Project will not cause any significant impacts to any study area intersections.
3. The Project will not cause any significant traffic impacts on the residential streets Cardiff Avenue and Oakhurst Drive. However, mitigation is imposed as detailed in Section V below.
4. The Project will not cause a significant construction related traffic impact. However, mitigation is imposed as detailed in Section V below.
5. No parking impacts would result with the proposed Project.

I. PUBLIC SERVICES

1. The Project will not result in a need for additional fire services or equipment.
2. Cumulative impacts on fire protection will be less than significant.

V. Potentially Significant Environmental Impacts Determined to be Mitigated to a Less Than Significant Level

The EIR identified the potential for the Los Angeles Project to cause significant environmental impacts in the areas of noise, traffic, public services, and aesthetics/views. The City, as responsible agency, is relying on the EIR and through its Addendum, has determined that the Project to drill two new wells would not result in any new or increased impacts different from those disclosed below and in the EIR. Mitigation measures were identified and adopted by the City of Los Angeles that would mitigate all of these impacts to a less than significant level. No further mitigation is required because all impacts have been mitigated to less than significant levels with the identified mitigation measures, which are under the jurisdiction of the City of Los Angeles.

A. NOISE

1. Construction Noise

Construction of the Los Angeles Project could generate noise levels in the vicinity that could potentially exceed applicable thresholds, but not to a level of significance. With the imposition of mitigation, this already less than significant impact will be further reduced to ensure a less than significant impact. This less than significant conclusion contained in the EIR is equally applicable to the Project to drill two new wells within the already existing drill site analyzed in the EIR.

a. Findings

Changes or alterations are within the responsibility and jurisdiction of another public agency (the City of Los Angeles) and not the agency making the finding (the City of Beverly Hills). Mitigation measures requiring changes of alterations have been adopted by the City of Los Angeles and are imposed upon the Project to ensure this already less than significant impact is reduced even further:

- The project shall comply with the City of Los Angeles Municipal Code Sections 41.04 and 112.05, and any subsequent ordinances, which regulate construction noise.
- Construction shall be restricted to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturday.
- To the extent feasible, construction activities shall be scheduled to avoid operating multiple pieces of equipment simultaneously, which causes higher noise levels.
- Grading and construction equipment shall be stored on the project site while in use.
- The project contractor shall use power construction equipment with noise shielding and muffling devices.

b. **Facts in Support of Findings**

Temporary construction noise impacts could result from the Los Angeles Project. As detailed in the EIR, temporary construction noise impacts could result from construction activities taking place inside the area that was surrounded by a 12 foot wall at the time of the EIR release, but which has since been expanded to 25 feet in height. The construction of the wall to 25 feet serves a mitigation effect on construction noise taking place at the Los Angeles Project site. As detailed in the EIR, there is the potential that these construction activities taking place inside the previous 12 foot, and now 25 foot wall, could cause noise levels to exceed 65 dBA at neighboring residential and commercial buildings. The average exterior noise level is between 56 and 62 dBA and a significant impact would result if construction activities exceed the average exterior noise levels by 5 dBA at a noise sensitive use for more than 10 days in a three month period. A significant impact would also result if construction activities exceed the average noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, or before 8:00 a.m. or after 6:00 p.m. on Saturday or at any time on Sunday.

With the incorporation of the mitigation detailed above and the noise reductions achieved through the increased wall height to 25 feet, it is expected that construction noise levels would not exceed applicable thresholds. The mitigation measures require that construction activity hours be restricted so as to avoid exceedance of the threshold during certain hours. The mitigation measures would also require that multiple pieces of construction equipment not be used at the same time in order to ensure noise levels are not compounded. The mitigation measures also require that muffling devices be used where possible to further reduce mechanical construction equipment noise. As such, construction noise levels would be further reduced to a less than significant level and the less than significant conclusion contained within the EIR is equally applicable to the Project to drill two new wells within the already existing drill site analyzed in the EIR. Finally, the location of noise generating activities associated with the

Project is approximately 500 feet south of the Beverly Hills City Limits, and with the mitigation imposed by the City of Los Angeles, impacts in Beverly Hills are unlikely.

2. Noise and Vibration

Although noise and vibration impacts are anticipated to be less than significant without mitigation, various design features are included in the EIR to ensure this already less than significant impact is reduced even further. This less than significant conclusion contained in the EIR is equally applicable to the Project to drill two new wells within the already existing drill site analyzed in the EIR.

a. Findings

Changes or alterations are within the responsibility and jurisdiction of another public agency (the City of Los Angeles) and not the agency making the finding (the City of Beverly Hills). Mitigation measures requiring changes or alterations have been adopted by the City of Los Angeles and are imposed upon the Project:

Perimeter Wall. A 12' high wall surrounds the existing site. As part of the project, the height of this wall would be extended to 25'.² All gaps between the existing and new walls would be sealed. The existing employee access door on the north side of the perimeter wall would be permanently sealed with concrete block (solid grouted). All other employee access doors in the perimeter wall would be replaced with assemblies having a minimum sound transmission class³ (STC) of 42. The procurement of laboratory-tested sound rated doors having an STC of at least 42 would provide the noise reduction needed to minimize or eliminate site noise through the perimeter wall. Additional sound-rated entry doors would be added as required by the Fire Department and as needed for personnel safety. The increased wall height would reduce the traffic noise generated on Pico Boulevard at the residential buildings just north of the project site. In addition, it would reduce the noise of the existing pump that is located near the wall and toward the central portion of the project site. As part of the project design, noise control measures in the form of acoustical blankets would be applied to the pump.

Mechanical Equipment. Mechanical equipment within the drillsite would be electrically driven. The equipment would be positioned inside the enclosed derrick structure, or in a separate enclosed structure. This includes the mud system (mud pumps,

² It should be noted that the wall extension to 25 feet has been completed.

³ Sound transmission class (STC) is a single number rating system used to compare the sound insulation properties of walls, floors, ceilings, windows or doors. In general the higher the STC rating, the better the assembly is at reducing noise from one side of the assembly to the other.

mud tanks with solids control equipment, and mud conditioning equipment), and all of the debris handling equipment. The walls and roofs of the separate structures to be used for mechanical equipment would be constructed by use of materials that provide a minimum STC of 42. Sound absorptive materials that provide a minimum noise reduction coefficient⁴ (NRC) of 0.70 would be applied to the interior walls and ceilings of the structures. The application of absorptive material on the walls and ceilings reduces the multiple reflections (reverberation) and transmission of noise to exterior locations. The personnel access door(s) to the separate structures would also provide a minimum STC of 42 and, to the extent possible, would remain closed when the equipment is in use.

Derrick Enclosure. To reduce the noise of the workover and redrilling activities, the proposed derrick would be completely enclosed using a derrick structure and would also include noise control features. The following sections describe the proposed derrick enclosure:

- **Enclosure Panels.** Sound rated panels would be used to form the derrick enclosure walls. The enclosure panels would be constructed of one layer of 0.04" thick sheet metal on each side, separated by 3.25". The cavity between the panels would be filled with R-I I insulation batts. The panel joints would overlap to form an airtight seal. The panels would have the surface density, stiffness and absorptive insulation needed to provide an STC of no less than 35.
- **Sound Absorption.** In order to control the reverberation of noise within the derrick enclosure, sound absorptive materials would be placed on a portion of the interior surface of the derrick structure. Specifically, sound absorptive panels having a minimum noise reduction coefficient (NRC) of 0.70 would be placed on the walls of the derrick enclosure below the drilling platform, on the first 50' of the derrick enclosure above the drilling platform, and on the upper 65' of the derrick enclosure. The absorptive material would effectively reduce noise propagation upward and through the open top of the derrick.
- **Enclosure Floor and Ceiling.** The base of the derrick enclosure would be enclosed with a floor assembly that provides a minimum STC of 35 and that is of sufficient durability to withstand the abuse inherent to the derrick

⁴ Noise reduction coefficient (NRC) is a single number rating of the sound absorption properties of a material. In general the higher the NRC rating, the more sound that is absorbed by the material.

environment. The underside (ceiling) of the working platform would be covered with sound absorptive panels that have a NRC of at least 0.70.

- **V-Door.** The V-door that connects the derrick enclosure to the catwalk building would be a sound rated assembly that provides a minimum STC of 35. A seal would be fitted around the perimeter of the V-door to form a tight closure to the derrick structure when the door is closed, as needed to maintain the STC rating.
- **Personnel and Equipment Doors.** All personnel and equipment access doors leading to the interior of the derrick enclosure would be sound rated assemblies having a minimum STC of 35.
- **Ventilation System.** Ventilation fan(s) would be located within the derrick enclosure below the working platform. The inlets and exhausts for the ventilation system would be fitted with lined ducts as needed to form acoustic silencers. The top of the derrick would be fitted with a low-pressure drop silencer as needed to reduce the propagation of noise to the residential buildings north of the site.

Support Building. To further minimize noise, the unloading and loading of materials from trucks, and the storage of equipment and supplies, would take place within the interior of a support building to be constructed along the northern perimeter wall. The following describes the construction and noise control features that are included in the design of the support building:

- **Walls and Roof.** The walls and roof of the support building would be constructed of materials that provide an STC of 42. This would be accomplished with solid filled concrete block or tilt-up structure walls, and a roof deck that has the weight and stiffness needed to attain this sound rating.
- **Sound Absorption.** In order to reduce the noise within the interior of the support building, sound absorptive materials with a noise reduction coefficient (NRC) of 0.70 would be provided within the space. The commercially available absorptive material would be treated as recommended by the manufacturer for the environment within the support building.
- **Truck Entry Doors.** The roll-up truck entry doors on the east and west sides of the support building would be well-sealed assemblies that provide the surface weight needed to achieve

an STC of 42. The doors would be kept tightly closed when not being used for truck access, and would be kept closed when materials are being loaded or unloaded from the trucks. The truck entry doors would not be used for personnel access.

- **Personnel Access Doors.** All personnel access doors to the interior of the support building would be well fitted, sound rated assemblies that provide a minimum STC of 42. The doors would be kept closed when not being used. Personnel doors would not be located on the north side of the support building.
- **Pipe Feed-Through.** The support building would have slotted doors on the south side so that pipe can be moved to the catwalk building. In order to minimize noise propagation from the interior of the support building to the nearby homes, the slotted doors would be well sealed, sound rated assemblies designed to provide a minimum STC of 42. They would be kept closed when not in use.
- **Ventilation System.** A ventilation system would be needed for the support building. The fan(s) would be located inside the support building, and the inlet and exhaust ducts would vent toward the south side of the building. The inlet and exhaust ducts would be fitted with silencers as needed to maintain the noise reduction consistent with the STC 42 of the walls and roof.
- **Pipe Racks and Material Storage.** Resilient padding would be used to ensure that pipes do not come into direct contact with the pipe racks, the building walls, or each other.

Catwalk Building. To minimize noise, a portable catwalk building would be used to store pipe for use in the derrick enclosure. A V-door in the derrick enclosure wall would connect the two structures when the catwalk building is in place. As designed, the catwalk building would have the following noise control features:

Walls, Roof and Floor. The walls, roof and floor of the catwalk building would be constructed of materials that provide an STC of 35.

- **Sound Absorption.** In order to reduce noise within the interior of the catwalk building, sound absorptive material that has a NRC of 0.70 would be installed within the space. The absorptive fill within the panels would be treated as recommended by the manufacturer for the environment within the catwalk building.

- **Pipe Feed-Through.** The catwalk building would have slotted doors on one side so that pipe can be moved to and from the support building. In order to minimize noise propagation from the interior of the catwalk building to the nearby homes, the slotted doors would be well sealed, sound rated assemblies that provide a minimum STC of 35.
- **Pipe Racks.** Resilient padding would be used to ensure that pipes do not come into direct contact with the pipe racks, the building walls, or each other.

Vibration Control Measures. Several features have been included in the project's design to minimize ground vibration. These are described as follows:

- **Derrick Enclosure Panels.** A vibration damping material would be used to attach the derrick enclosure panels to the primary derrick structure. This would inhibit the panels from acting as a resonator for the noise and vibration that occur within the derrick enclosure. The damping material would be used where major panel sections attach to the primary structure of the derrick.
- **Mechanical Equipment.** All mechanical equipment at the site (pumps, mud shakers, etc.) would be mounted on spring isolators. These isolators would have a spring rate as needed to support the equipment weight and would be properly sized and selected to withstand seismic loads.
- **Derrick Structure.** The derrick structure would be mounted on spring isolators. These isolators would have a spring rate as needed to support the complete derrick structure and equipment above and below the working platform. In addition, the springs would be properly sized and selected to withstand seismic loads.
- **Pipe Contacts.** To minimize ground vibration caused by pipe contacts, resilient pads would be used in the support building, the catwalk building, and the derrick enclosure at locations where the pipes may contact the structure.

Administrative Controls. BreitBurn Energy Company [now known by the name of its successor-in-interest Pacific Coast Energy Company, L.P.] will employ administrative controls to further reduce noise and vibration levels that may result from activities at the drillsite. These include:

- **Operational Restrictions.** Activities on the drillsite would be limited as follows:
 - The vehicular access doors to the support building would remain closed between the hours of 10:00 p.m. and 7:00 a.m.;
 - Employees would be instructed to maintain quiet at all times;
 - No truck movement associated with the project would occur on Oakhurst Drive north of the alley at the north side of the site, or on other residential streets in proximity to the site;
 - Signs would be posted above each of the drive-way exits of the support building instructing trucks leaving the building to minimize the application of power and to accelerate slowly.
- **Braking System.** A disc brake system would be used at the derrick and would provide squeal-free operation. This system is quieter than the conventional brakes used on most drilling operations. The specification for a disc brake system would include noise control as a procurement requirement. Data is currently unavailable regarding the degree to which such brakes are quieter. The derrick structure, V-door and working platform have been designed to reduce the noise of conventional brake squeal as needed for compliance with the significance criteria at the residential buildings. That is, the derrick structure has been designed to meet the significance criteria even with the use of a conventional braking system.
- **Pipe Movements.** The pipe rails ("horses") upon which pipe is moved between the support building and the catwalk building would be padded with resilient material. The rack used to transfer pipe from the support building to the catwalk structure would be padded as needed to minimize pipe impact noise.
- **Employee Parking.** Employees would continue to park in the parking spaces provided for their use in the alley north of the project site. There would be no expansion of the employee parking area as a result of this project.
- **Employee Entry.** Employees would enter the drillsite from an access door on Doheny Drive or Oakhurst Drive. Because the traffic noise levels are higher at these locations, any potential

increase in noise level experienced at the residential areas when the door is opened and closed would be minimized.

Noise and Vibration Monitoring. All monitoring would be conducted under the supervision of an independent acoustical consultant. The City of Los Angeles would be notified prior to the start of monitoring to permit the option of attending the noise and/or vibration measurement. The monitoring would include the following:

- **Pre-Workover and Drilling Phase.** As the equipment at the site is being function tested for operability, noise and vibration measurements, at the nearest residential boundaries to the drillsite would be obtained during the operation of the equipment. These pre-workover or redrilling trial runs would be used to verify and alter, if necessary, the acceptance of specific equipment with regard to noise and vibration. The objective during this phase of the project development would be to only accept equipment and noise control measures that would be in compliance with the significance criteria defined above.
- **Start of Workover and Redrilling.** Noise and vibration measurements would be obtained for at least 4 hours between 10:00 p.m. and 7:00 a.m. once each week for the first 6 weeks and then once each month for the next 6 months from the start of the workover and drilling phase. Subsequent monitoring would be provided on an as-needed basis in consultation with the City of Los Angeles. Monitoring would occur at the nearest residential building to the operations. A report of findings would be submitted to the City within 5 working days after each measurement period.

b. **Facts in Support of Findings**

The Los Angeles Project included a number of project design features to reduce noise and vibration impacts. Although vibration impacts are already anticipated to be less than significant, the project design features detailed in the above measures would ensure this already less than significant impact is reduced even further. To the extent such features have already been implemented, vibration impacts of the proposed Project to drill two new wells within the existing drill site would be reduced even further. As such, vibration impacts will be less than significant and the less than significant conclusion contained within the EIR is equally applicable to the Project to drill two new wells within the already existing drill site analyzed in the EIR. With imposition of the mitigation by the City of Los Angeles, no impacts would occur.

B. TRAFFIC

1. Construction and Operation Traffic

Construction and operation traffic is not expected to cause any significant traffic related impacts. However, mitigation was imposed by the City of Los Angeles in an effort to ensure that construction and operation traffic does not add congestion in the area surrounding the site, and to ensure a less than significant impact. This less than significant conclusion contained in the EIR is equally applicable to the Project to drill two new wells within the already existing drill site analyzed in the EIR.

a. Findings

Changes or alterations are within the responsibility and jurisdiction of another public agency (the City of Los Angeles) and not the agency making the finding (the City of Beverly Hills). Such mitigation measures requiring changes or alterations have been adopted by the City of Los Angeles and are imposed upon the Project:

Operational: The Project applicant shall be required to instruct all employees to approach the site via Pico Boulevard so they do not add traffic to the residential streets north of the Project site.

Construction: The Project applicant shall provide flag persons to allow two way traffic to flow through the alley without any conflicts during the construction period.

Construction: The Project applicant shall be required to instruct construction vehicles to approach the site via Pico Boulevard so they do not add traffic to the residential streets north of the Project site.

b. Facts in Support of Findings

As detailed in the EIR, under the future with project scenario, during the weekday AM and PM peak hour, all of the study intersections are forecast to operate at the same LOS as under the future without project conditions. Further, based upon the Los Angeles Department of Transportation threshold criteria, none of the study intersections are projected to be significantly impacted by the Los Angeles Project. Finally, no new trips are to be added to the residential streets of Cardiff Avenue and Oakhurst Drive.

As for construction impacts, some traffic disruption and temporary lane closures may be required. Additionally, as detailed in the EIR, construction activity in the alley bordering the drill site at 9101 West Pico Boulevard would result in the closure of half of the alley (10 feet) for potentially up to three weeks.

Although both operational and construction traffic associated with the Los Angeles Project is not anticipated to cause any significant impacts, mitigation is recommended as detailed above. The mitigation imposed would require the applicant to direct construction traffic and operational employee traffic away from the residential streets in order to ensure the already less than significant impact is reduced even further. Finally, because of potential traffic impacts in

the alley, the applicant will be required to provide flag persons to allow two way traffic to flow through the alley without any conflicts during the construction period. As such, traffic impacts will be less than significant and the less than significant conclusion contained within the EIR is equally applicable to the Project to drill two new wells within the already existing drill site analyzed in the EIR.

C. PUBLIC SERVICES

1. Fire Protection

The Los Angeles Project has the potential to require more fire flow, or water necessary for fire protection, than is available by the Los Angeles Department of Water and Power. There may also be impacts with regard to fire access to the site. Mitigation imposed by the City of Los Angeles, however, to ensure these potential impacts are reduced to a level of insignificance. This less than significant conclusion contained in the EIR is equally applicable to the Project to drill two new wells within the already existing drill site analyzed in the EIR

a. Findings

Changes or alterations are within the responsibility and jurisdiction of another public agency (the City of Los Angeles) and not the agency making the finding (the City of Beverly Hills). Mitigation measures requiring changes or alterations have been adopted by the City of Los Angeles and are imposed upon the Project:

- In order to evaluate the adequacy of water supply to meet the requirements of the project, the applicant should make a service advisory request to the LADWP. Upon receipt of the request, the LADWP would evaluate water availability and pressure adjacent to the project site. If any replacement or upgrade of water mains are needed, the applicant shall be required to pay fair share portions of the cost of the replacement or upgrade.
- Fire lane width shall not be less than 20 feet. When the fire lane must accommodate the operation of the Fire Department aerial ladder apparatus or where fire hydrants are installed, those portions shall not be less than 28 feet in width.
- Where access for a given development requires accommodation of Fire Department apparatus, overhead clearance shall not be less than 14 feet.

b. Facts in Support of Findings

The Los Angeles Fire Department fire flow requirement for the Los Angeles Project site is 4,000 gallons per minute at 20 pounds per square inch or from four adjacent fire hydrants flowing simultaneously. Therefore, four fire hydrants would need to be located, one at each

corner of the Los Angeles Project site. The Los Angeles Department of Water and Power indicated that in order to evaluate the adequacy of water supply to meet the requirements of the Los Angeles Project, a service advisory request would need to be made to the Los Angeles Department of Water and Power. Upon receiving this request, the Los Angeles Department of Water and Power would evaluate water availability and pressure adjacent to the site. If any upgrades or replacement of water mains are required, the applicant will be required to pay fair share portions of the cost of the replacement or upgrade. This requirement is included in the above mitigation measure to ensure a less than significant impact. Additional mitigation is also imposed to ensure that fire land width is adequate, and to ensure that overhead clearance is adequate for fire protection services. As such, fire protection impacts will be less than significant and the less than significant conclusion contained within the EIR is equally applicable to the Project to drill two new wells within the already existing drill site analyzed in the EIR.

D. AESTHETICS/VIEWS/VISUAL RESOURCES

1. Views/Visual Resources

The derrick structure included as part of the Los Angeles Project has the potential to cause visual impacts. Additionally, the increased 25 foot tall wall can also create visual impacts. With the implementation of mitigation, any visual impact will be reduced to a level of insignificance. This less than significant impact conclusion is equally applicable to the Project to drill two new wells as the wells would be drilled from the existing drill site where the derrick structure and 25 foot tall wall are located.

a. Findings

Changes or alterations are within the responsibility and jurisdiction of another public agency (the City of Los Angeles) and not the agency making the finding (the City of Beverly Hills). Mitigation measures requiring changes or alterations have been adopted by the City of Los Angeles and are imposed upon the Project:

- All facades of the derrick structure shall include architectural features with visual interest and shall avoid large blank walls.
- The project applicant shall explore ways in which the derrick structure can provide a visual community benefit and/or landmark, through such provisions as the placement of clocks and/or community art on the sides of the proposed derrick structure.
- Additional street trees shall be planted along the Pico Boulevard, Oakhurst Drive, and Doheny Drive frontages of the project site, where gaps in the existing line of trees currently occur.

- Additional landscaping treatment (such as the planting of creeping fig) shall be employed along the north facing (alley) perimeter wall.

b. **Facts in Support of Findings**

As indicated in the EIR, raising the wall from 12 feet to a height of 25 feet would increase the sense of building massing on the site. Although the increased height of the wall is consistent with surrounding one and two story structures, and no significant impacts are anticipated, additional landscaping is imposed as mitigation in order to ensure this already less than significant impact is reduced even further.

Additionally, the derrick structure that is 175 feet in height may appear large and intrusive. In order to reduce this intrusiveness and blend the derrick structure into the neighborhood, mitigation measures are imposed to require architectural features, or other features, be included on the derrick structure to ensure a less than significant visual impact. As such, visual impacts will be less than significant and the less than significant conclusion contained within the EIR is equally applicable to the Project to drill two new wells within the already existing drill site analyzed in the EIR. With imposition of the mitigation measures by the City of Los Angeles, no impacts would occur.

VI. Project Alternatives

The City of Beverly Hills, in relying on the EIR to study the environmental effects of the Project, has considered a range of reasonable alternatives including, Alternative 1: No Project/Existing Conditions to Remain, Alternative 2: Reduced Height of Derrick (145 Feet), Alternative 3: Reduced Height of Derrick (129 Feet), Alternative 3A: Rotating Catwalk and Derrick Structure, and Alternative 4: Project with Enclosed Project Site.

Although alternative site alternatives were considered as detailed in Alternative 5: Alternative Sites in the EIR, none were found feasible as the Los Angeles Project is site specific within a controlled existing drill site.

Alternatives 1, 2, 3, 3A, and 4 that were analyzed in the EIR are discussed below and the basis for rejecting each of these alternatives as infeasible is analyzed. Further, pursuant to CEQA Guideline 15096(g)(2) no other feasible alternatives exist that are within the City's control that would reduce or further eliminate the potentially significant, but mitigable, impacts identified in the EIR.

A. ALTERNATIVE 1: NO PROJECT/EXISTING CONDITIONS TO REMAIN

1. Summary of Alternative

The No Project/Existing Conditions to Remain alternative would leave the site in its present condition with existing operations on the site continuing. The Los Angeles Project will not be constructed nor would the Project move forward.

2. Reasons for Rejecting Alternative: Infeasibility

The No Project Existing Conditions to Remain alternative would not generate the impacts that are associated with the Los Angeles Project. However, air quality, noise and possibly aesthetic impacts associated with existing conditions would be increased as compared to the Los Angeles Project. Under the Los Angeles Project, noise impacts would be reduced via the increased height of the wall surrounding the site, and enclosure of the derrick and other project components with noise insulation materials.

The No Project Existing Conditions to Remain alternative would not accomplish any of the project objectives as the site would remain the same. It should also be noted that implementation of much of the Los Angeles Project has occurred, such that the existing conditions on the site are more representative of the Los Angeles Project than the existing conditions at the time of project approval.

The City Council hereby finds that each of the reasons set forth above would be an independent ground for rejecting Alternative 1 as infeasible, and by itself, independent of any other reason, would justify rejection of Alternative 1 as infeasible. Further, approval of this Alternative is beyond the authority of the City of Beverly Hills in its role as a responsible agency.

B. ALTERNATIVE 2: REDUCED HEIGHT OF DERRICK (125 FEET)

1. Summary of Alternative

The Reduced Height of Derrick (125 Feet) alternative would consist of installation of a 145 foot enclosed drilling structure, 30 feet shorter than the 175 foot derrick proposed as part of the Los Angeles Project. With the exception of the derrick height, operations would be almost identical to the proposed project in the EIR. Auxiliary equipment would be mounted inside the two-story drilling base substructure. The working floor, substructure, and portions of the derrick would be acoustically equipped for sound attenuation and the base of the rig substructure would be equipped with isolators to absorb equipment related vibrations. These noise features would also be included with the Project as well. A support building, equipped for sound attenuation, and used for loading and unloading of equipment and for storage of materials needed for drilling/workover operations, would still be built along the northern portion of the drill site from the existing east gate on Doheny Drive to a new gate on Oakhurst Drive. As with the Los Angeles Project, a catwalk building, also equipped for sound attenuation, would be constructed around the catwalk area and used for picking up and laying down tools and pipe for workover/drilling operations. Even with these changes, it is assumed the Project to drill two new wells could still occur with this Alternative.

2. Reasons for Rejecting Alternative: Infeasibility

The Reduced Height of Derrick (125 Feet) alternative would result in generally comparable impacts over the Los Angeles Project with the exception of two areas: shade/shadow and visual resources. As the height of the derrick would be reduced, shade/shadow and visual resources impacts would generally be considered less over the higher height of the derrick in the proposed project analyzed in the EIR. However, this alternative has the potential to result in a

slightly less efficient dispersion of project-generated emissions from within the structure as the emissions will be released at a lower height from the top of the derrick. It appears that a majority of the project objectives will be met with this alternative.

The City Council hereby finds that the less efficient dispersion of project generated emissions is an independent ground for rejecting Alternative 2 as infeasible, and by itself, independent of any other reason, would justify rejection of Alternative 2 as infeasible. Further, approval of this Alternative beyond the authority of the City of Beverly Hills in its role as a responsible agency.

C. ALTERNATIVE 3: REDUCED HEIGHT OF DERRICK (129 FEET)

1. Summary of Alternative

The Reduced Height of Derrick (129 Feet) alternative would consist of installation of a 129 foot enclosed drilling structure, 46 feet shorter than the 175 foot derrick proposed as part of the Los Angeles Project. As compared to the two story drilling base substructure for the project analyzed in the EIR, the drilling base substructure under this alternative would be reduced to one story, necessitating the removal of the mud tanks from the substructure to a location in the southeast part of the project site. A soundproofed building would be constructed around the mud plant area. Solids removal, mud cleaning and mud conditioning would take place in the mud building. The building would be vented over to a duct system in the drilling rig for venting at the top of the rig. As with the project in the EIR, the working floor, substructure, and portions of the 129 foot derrick would be acoustically equipped for sound attenuation, and the base of the rig substructure would be equipped with isolators to absorb equipment related vibrations. A support building, equipped for sound attenuation, and used for loading and unloading of equipment and for storage of materials needed for drilling/workover operations, would still be built along the northern portion of the drill site from the existing east gate on Doheny Drive to a new gate on Oakhurst Drive. As with the proposed project in the EIR, a catwalk building, also equipped for sound attenuation, would be constructed around the catwalk area and used for picking up and laying down tools and pipe for drilling/workover operations. Even with these changes, it is assumed the Project to drill two new wells could still occur with this Alternative.

2. Reasons for Rejecting Alternative: Infeasibility

Reduced Height of Derrick (129 Feet) alternative would result in generally comparable impacts over the Los Angeles Project with the exception of two areas: shade/shadow and visual resources. As the height of the derrick would be reduced, shade/shadow and visual resources impacts would generally be considered less over the higher height of the derrick in the proposed project analyzed in the EIR. However, this alternative has the potential to result in a slightly less efficient dispersion of project-generated emissions from within the structure as the emissions will be released at a lower height from the top of the derrick. It appears that a majority of the project objectives will be met with this alternative.

The City Council hereby finds that the less efficient dispersion of project generated emissions is an independent ground for rejecting Alternative 3 as infeasible, and by itself, independent of any other reason, would justify rejection of Alternative 3 as infeasible. Further,

approval of this Alternative is beyond the authority of the City of Beverly Hills in its role as a responsible agency.

D. ALTERNATIVE 3A: ROTATING CATWALK AND DERRICK STRUCTURE

1. Summary of Alternative

Alternative 3A is an additional alternative that would further reduce activities occurring outside of the derrick and support building. This option would include the 129 foot derrick alternative evaluated in alternative 3 above, but would also rotate the catwalk building and the derrick structure such that the catwalk building would be attached to the support building on its north end and to the derrick structure on its southern side. The net result of this alternative is that all pipe movement would occur inside noise controlled structures. This alternative would generally include the same components as alternative 3, but the derrick structure would be turned 90 degrees and the pipe handling building or catwalk building would be oriented north-south directly connecting the derrick to the support building. Even with these changes, it is assumed the Project to drill two new wells could still occur with this Alternative.

2. Reasons for Rejecting Alternative: Infeasibility

All of the environmental impacts associated with alternative 3A would be exactly the same as alternative 3 with one main difference: noise. Under Alternative 3A, pipe transfer from the support building to the catwalk would occur entirely within noise controlled and enclosed structures, further reducing potential noise impacts involved in transferring pipe for the support building to the catwalk building as compared to the project in the EIR. Thus, noise impacts are expected to be reduced even further.

However, similar to Alternative 3, this alternative has the potential to result in a slightly less efficient dispersion of project-generated emissions from within the structure as the emissions will be released at a lower height from the top of the derrick. It appears that a majority of the project objectives will be met with this alternative.

The City Council hereby finds that the less efficient dispersion of project generated emissions is an independent ground for rejecting Alternative 3A as infeasible, and by itself, independent of any other reason, would justify rejection of Alternative 3A as infeasible. Further, approval of this Alternative is beyond the authority of the City of Beverly Hills in its role as a responsible agency.

E. ALTERNATIVE 4: PROJECT WITH ENCLOSED PROJECT SITE

1. Summary of Alternative

This alternative would involve surrounding the entire drill site with a 145 foot tall perimeter structure. Although open-air, the perimeter structure would be acoustically equipped for sound attenuation. A conventional drilling rig, approximate 129 feet tall, would be modified to enable double (62 foot) stands of pipe to be utilized during drilling/workover operations. Equipment would be located around the drill site depending on the derrick location. Isolators would be used on all required equipment to absorb vibrations. Acoustical barriers would be

placed around auxiliary equipment to attenuate sound. Even with these changes, it is assumed the Project to drill two new wells could still occur with this Alternative.

2. Reasons for Rejecting Alternative: Infeasibility

Alternative 4 would generally result in some comparable impacts over that of the Los Angeles Project. However, it would also involve increased impacts in some instances as the mass and size of the proposed alternative would cause greater light and glare, shade/shadow, land use, and visual resource impacts. Additionally, air quality impacts would be greater as this alternative has the potential to modify airflow patterns which can mix emissions leaving the top of the structure and push them back down to ground level. Because of these potential impacts, and the land use inconsistency that may result, it does not appear that all project objectives would be met with this alternative. In particular, the objective requiring that a project be developed that is sensitive to, and compatible with, the surrounding environment, would not be met.

As at least one of the project objectives would not be met with this alternative, and this alternative would result in increased environmental impacts, the City Council finds these reasons as a basis for rejecting this Alternative as socially infeasible.

The City Council hereby finds that each of the reasons set forth above would be an independent ground for rejecting Alternative 4 as infeasible, and by itself, independent of any other reason, would justify rejection of Alternative 4 as infeasible. Further, approval of this Alternative is beyond the authority of the City of Beverly Hills in its role as a responsible agency.

F. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Of the alternatives evaluated above, Alternative 2 and 3 are the environmentally superior alternatives. However, as both alternatives have derrick structures lower than the Los Angeles Project, they both have the potential to increase air quality impacts. This is because of the slightly less efficient dispersion of project-generated emissions from within the structure as the emissions will be released at a lower height.

As the environmentally superior alternatives would increase air quality impacts, they are both rejected by the City Council. The alternatives are also rejected because each is beyond the authority of the City of Beverly Hills in its role as a responsible agency.

Attachment 2



September 6, 2012

Mr. David D. Gustavson
Director of Public Works & Transportation
City of Beverly Hills
455 N. Rexford Drive
Beverly Hills, CA 90210

Ms. Susan Healy Keene
Director of Community Development

Dear Mr. Gustavson:

SUBJECT: LOS ANGELES COUNTY, CALIFORNIA
CITY OF BEVERLY HILLS
BEVERLY HILLS (EAST) FIELD
PACIFIC COAST ENERGY COMPANY LP WELL NOS. WP-60H AND WP-61
APPLICATION FOR CITY COUNCIL PERMIT TO DRILL AND PRODUCE

Please reference the subject application submitted by BreitBurn Energy Company L.P. (now known as Pacific Coast Energy Company LP [PCEC]) to the City of Beverly Hills under our letter dated August 9, 2011. As a follow-up to our August 14, 2012 meeting with you as well as City staff, PCEC wishes to clarify with the City various items in anticipation of the issuance of the subject well permits.

Referencing the classification of the WP-60H and WP-61 wells to be drilled from our West Pico drillsite in the City of Los Angeles, the proposed wells were previously drilled quite some time ago to a first stage and conductor piping, or drive pipe, was set. This casing is set to support surface formations of upper zones. The WP-60H wellbore will be extended into the City of Beverly Hills and enter the City at a measured depth of 5,442'; the WP-61 wellbore will enter the City at a measured depth of 3,176'.

There have been more than two dozen wells previously drilled into the City of Beverly Hills from the West Pico drillsite over past decades. However, over time, production rates from the underlying East Beverly Hills Field have naturally declined. The two proposed PCEC wells are intended to replace existing wells which are either near the end of their productive lives or have become inactive.

Thank you for your prompt consideration and attention to this matter. If you have any questions, please feel free to contact me at (213) 225-0231.

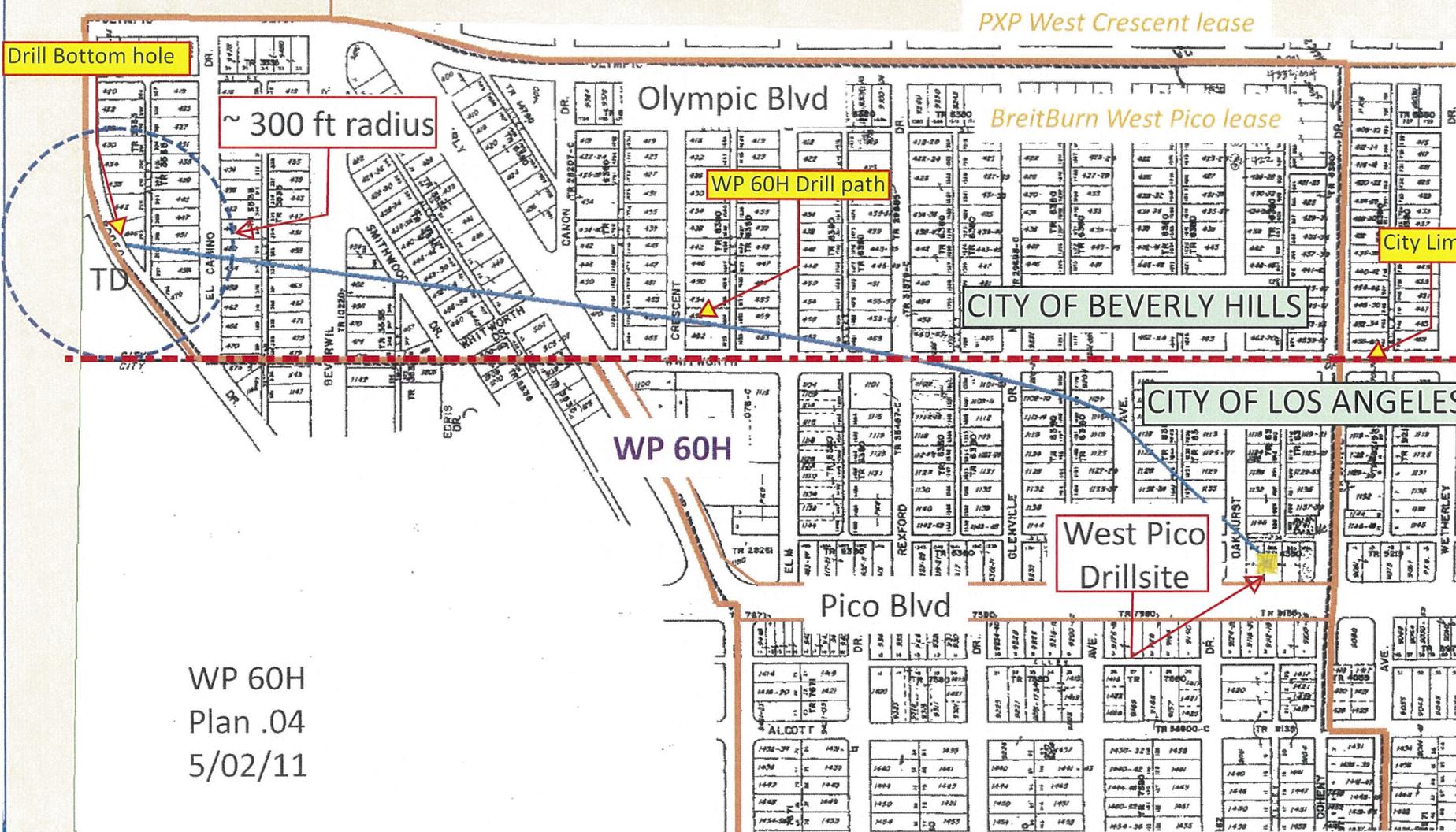
Very truly yours,


William Weldon
Land Manager

PACIFIC COAST ENERGY COMPANY LP

515 South Flower Street 48th Floor Los Angeles, California 90071 Phone (213) 225-5900 Fax (213) 225-5916

Attachment 3



WP 60H
Plan .04
5/02/11

X: 1879412.83 Y: 203204.357 Z: -5714.48299

3D distance = 303.269 ft; XY distance = 303.269 ft; Z distance = 0.00160197 ft

Drill Bottom hole

~ 300 ft radius

PXP West Crescent lease

BreitBurn West Pico lease

WP 61 Drill path

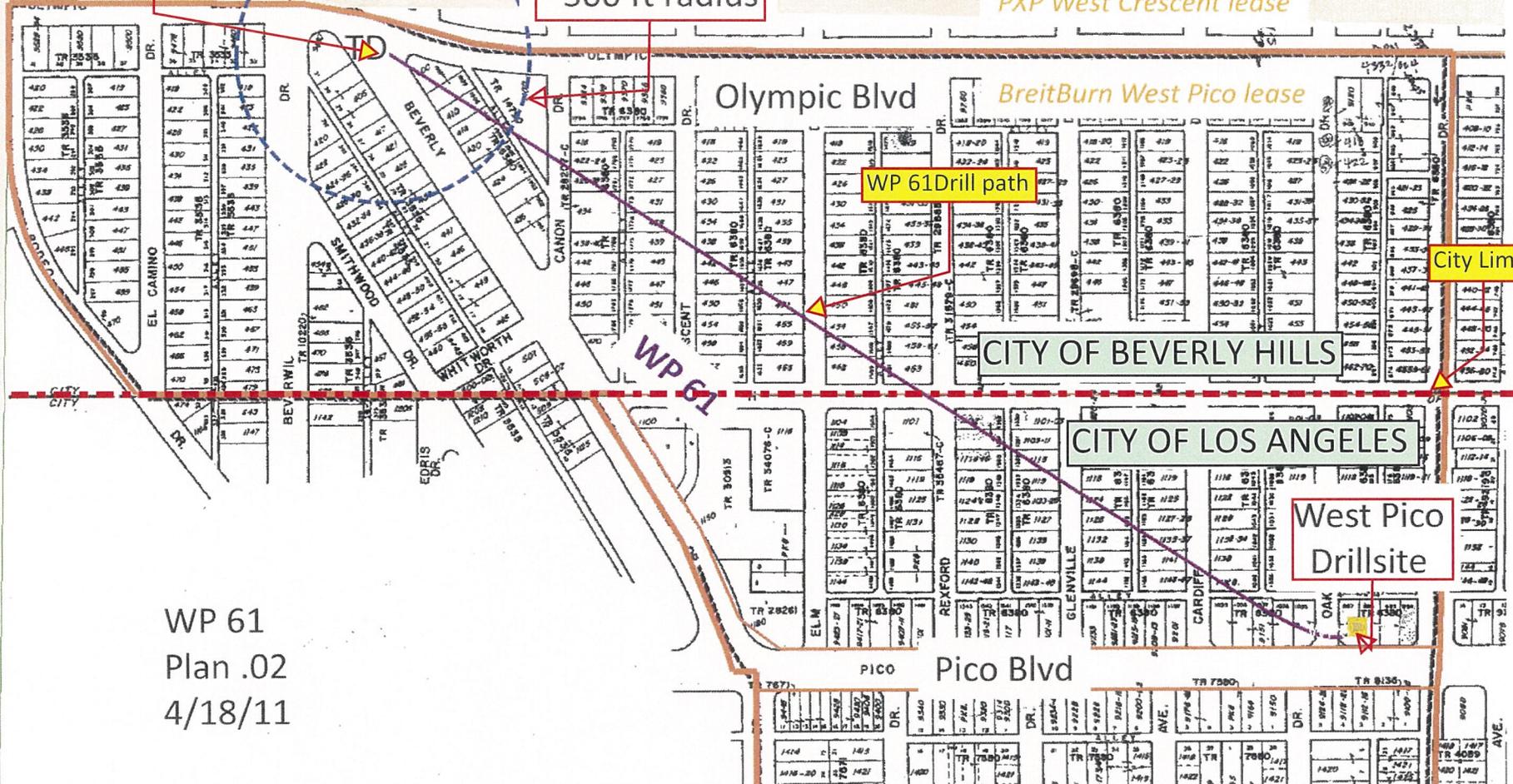
City Limit

CITY OF BEVERLY HILLS

CITY OF LOS ANGELES

West Pico Drillsite

WP 61
Plan .02
4/18/11



Attachment 4



PUBLIC WORKS & TRANSPORTATION DEPARTMENT
345 N. Foothill Drive
Beverly Hills, CA 90210-4817

DAVID D. GUSTAVSON
Director
310.285.2452
FAX: 310.278.1838

NOTICE

DATE: Tuesday October 23, 2012

LOCATION: City Council Chambers
Beverly Hills City Hall
455 North Rexford Drive
Beverly Hills, CA 90210

TIME: 7:00 p.m.

The City Council of the City of Beverly Hills, at its formal meeting on Tuesday, October 23, 2012, will consider:

APPLICATION BY PACIFIC COAST ENERGY COMPANY L.P. ("PCEC") FOR A PERMIT TO DRILL AND PRODUCE FROM WELL NUMBERS WP-60H AND WP-61

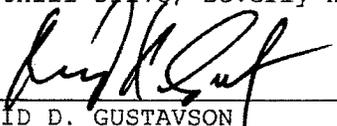
PACIFIC COAST ENERGY COMPANY L.P. ("PCEC"), formerly BREITBURN ENERGY COMPANY LLC is applying for a permit to drill from PCEC's West Pico drill site, located in the City of Los Angeles, to bottom-hole locations within the City of Beverly Hills.

This project has been assessed by the City of Beverly Hills Planning Division who have prepared an addendum to the April 1999 "BreitBurn Energy Company LLC Pico/Doheny Drill Site Modernization EIR", and Planning has concluded that the proposed work is consistent with the EIR and will not result in any new impacts not previously analyzed.

Any interested person may attend the meeting and be heard or present written comments to the City Council.

If you challenge the City Council's action in court, you may be limited to raising only those issues you or someone else raised at the public meeting described in this notice, or in written correspondence delivered to the City, either at or prior to this meeting.

If there are any questions regarding this notice, please contact the Public Works & Transportation Department at 310.285.2452. Copies of the application, including the subsidence report, City Council Agenda staff report and Environmental Impact Report (EIR), are on file in the Public Works & Transportation Department, and can be reviewed by any interested person at 345 Foothill Drive, Beverly Hills, CA 90210.



DAVID D. GUSTAVSON
Director

Dated: October 11, 2012



PUBLIC WORKS & TRANSPORTATION DEPARTMENT
345 N. Foothill Drive
Beverly Hills, CA 90210-4817

DAVID D. GUSTAVSON
Director
310.285.2452
FAX: 310.278.1838

NOTICE

This letter is to inform you that the time and date of the consideration of **PACIFIC COAST ENERGY COMPANY L.P. ("PCEC")** application for a permit to drill and produce from well numbers WP-60H and WP-61 has been changed. Please note the following changes:

OLD MEETING: Tuesday October 23, 2012 at 7:00 PM

NEW MEETING: Tuesday November 13, 2012 at 7:00 PM

LOCATION: City Council Chambers
Beverly Hills City Hall
455 North Rexford Drive
Beverly Hills, CA 90210

The City Council of the City of Beverly Hills, at its formal meeting on Tuesday, November 13, 2012, will consider:

APPLICATION BY PACIFIC COAST ENERGY COMPANY L.P. ("PCEC") FOR A PERMIT TO DRILL AND PRODUCE FROM WELL NUMBERS WP-60H AND WP-61

PACIFIC COAST ENERGY COMPANY L.P. ("PCEC"), formerly BREITBURN ENERGY COMPANY LLC is applying for a permit to drill from PCEC's West Pico drill site, located in the City of Los Angeles, to bottom-hole locations within the City of Beverly Hills.

This project has been assessed by the City of Beverly Hills Planning Division who have prepared an addendum to the April 1999 "BreitBurn Energy Company LLC Pico/Doheny Drill Site Modernization EIR", and Planning has concluded that the proposed work is consistent with the EIR and will not result in any new impacts not previously analyzed.

Any interested person may attend the meeting and be heard or present written comments to the City Council.

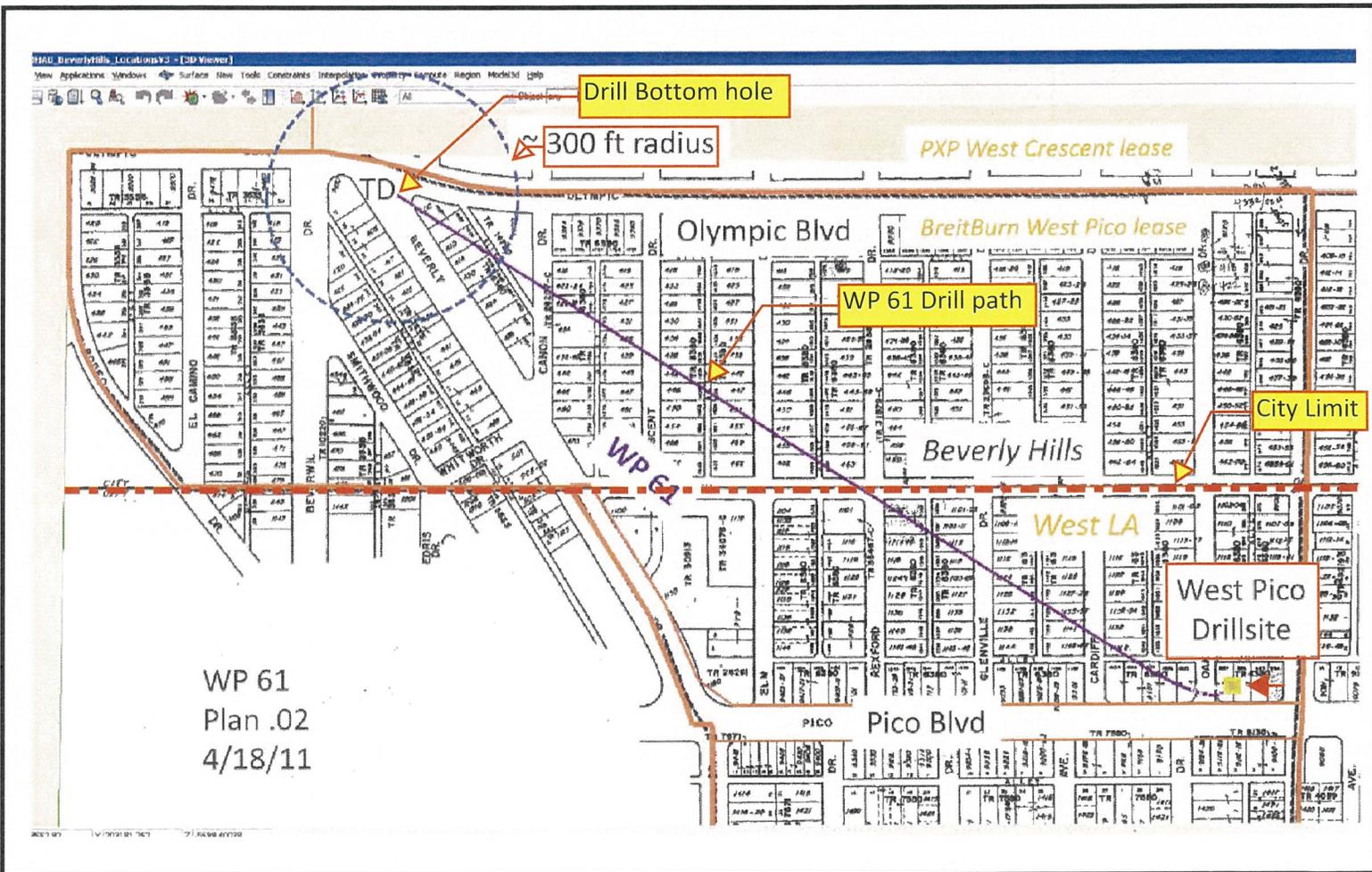
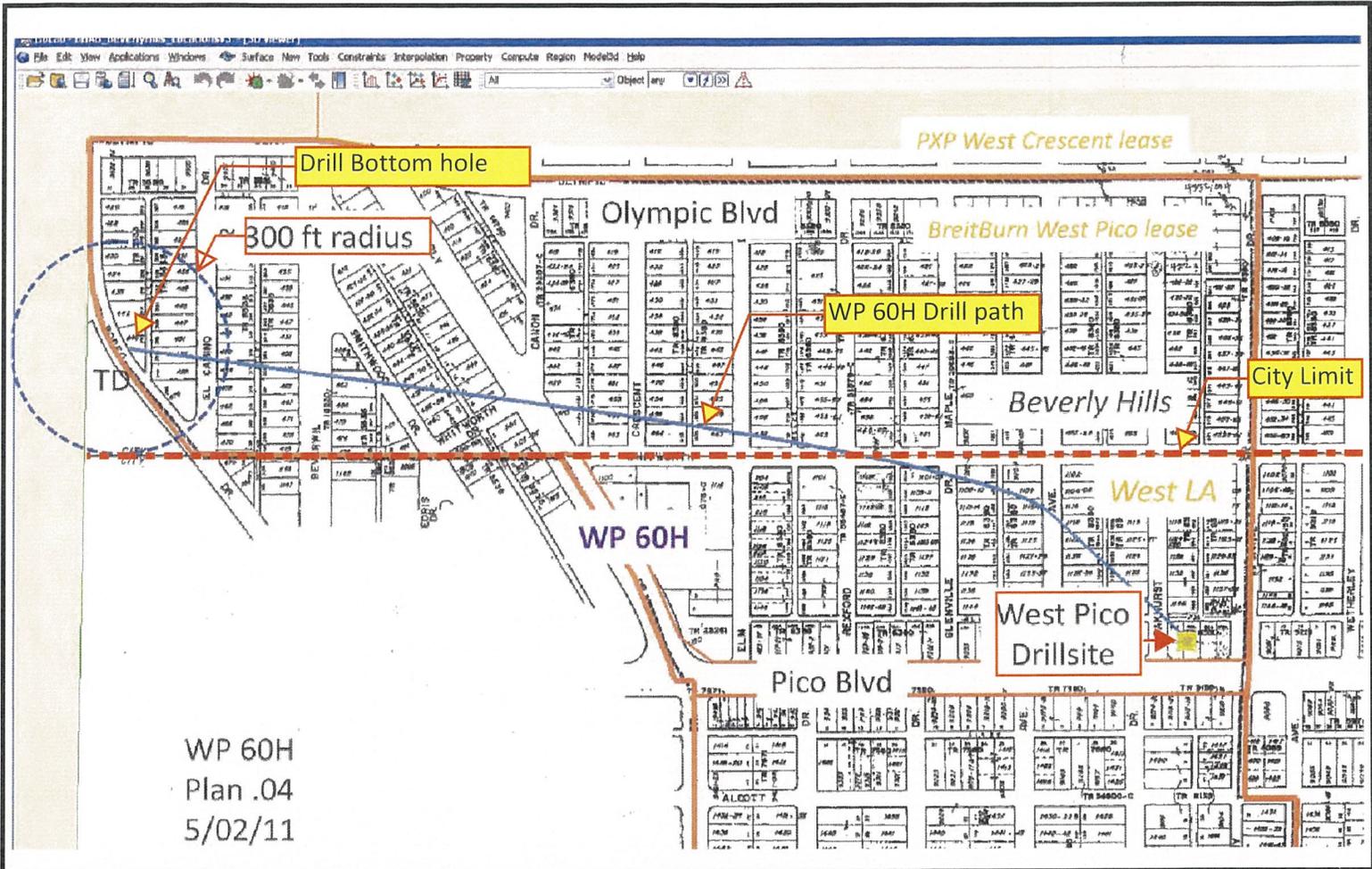
If you challenge the City Council's action in court, you may be limited to raising only those issues you or someone else raised at the public meeting described in this notice, or in written correspondence delivered to the City, either at or prior to this meeting.

If there are any questions regarding this notice, please contact the Public Works & Transportation Department at 310.285.2452. Copies of the application, including the subsidence report, City Council Agenda staff report and Environmental Impact Report (EIR), are on file in the Public Works & Transportation Department, and can be reviewed by any interested person at 345 Foothill Drive, Beverly Hills, CA 90210.



DAVID D. GUSTAVSON
Director

Dated: October 18, 2012



Attachment 5

**BREITBURN ENERGY PARTNERS L.P.
515 SOUTH FLOWER STREET, SUITE 4800
LOS ANGELES, CALIFORNIA 90071**

SUBSIDENCE REPORT FOR PROPOSED WELLS

WP 60 H and WP 61

WEST BEVERLY HILLS FIELD

WEST PICO DRILLSITE

PREPARED FOR:

City of Beverly Hills
Beverly Hills, California 90210

PREPARED BY:

Robert G. Lindblom
Petroleum Consultant
California Professional Geologist No. 2405
20 Stowe Lane
Menlo Park, California 94025

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INTRODUCTION

This report has been prepared in support of the application to the city of Beverly Hills for permits to allow BreitBurn Energy Partners L.P. to drill wells WP 60 H and WP 61 in the West Beverly Hills (WBH) field, Los Angeles County. A number of the attached figures have been used in previous subsidence reports submitted to the city of Beverly Hills and serve as a historical database for reference. The use of pertinent field area file data from BreitBurn Energy and related published material as listed under References is acknowledged. The two proposed wells will be directionally drilled to specific bottom hole locations (Refer to Figures 2, 12). The drilling operations for the designated wells will take place in the West Pico (WP) drillsite, located at 9101 West Pico Boulevard in the city of Los Angeles.

This report contains a review of the recorded ground movements in the area of the proposed wells, an evaluation of recognized oil field related subsidence criteria, a recommendation for future monitoring and surveillance, and conclusions concerning the subsidence potential based on the available data. On the basis of this detailed review, the potential for such subsidence over and adjacent to the proposed wells is negligible. Recorded ground level elevation changes are generally similar to historical changes in the area.

Listed in Table I are the proposed wells with data as to field designation, objective formations and depths. The stratigraphic sections penetrated in the proposed wells consist of interbedded sands and shales that are of upper Miocene to Pleistocene in geologic age. To date, the commercially productive zones in the WBH field are found in sands of Pliocene and Miocene geologic age. Depending upon the presence of hydrocarbons in the objective Hauser formation (Miocene geologic age), specific intervals will be exposed to production. The angle of the well course through the completion intervals in WP 60 H will be around 79 degrees from vertical and in WP 61 will average near vertical.

TABLE I – PROPOSED WELLS

WELL	FIELD	OBJECTIVE	DEPTH
WP 60 H	WBH	T/Hauser	6955 MD/-5648 VSS
		TD	7884 MD/-5856 VSS
WP 61	WBH	T/Hauser	6567 MD/-5698 VSS
		TD	7151 MD/-6282 VSS

GEOLOGIC CONDITIONS

The West Beverly Hills (WBH), East Beverly Hills (EBH) and San Vicente (SV) fields are located at the northwesterly rim of the Los Angeles basin on east-west trending sharply folded anticlinal structures with associated normal and reverse faults (Figures 2, 3). The producing limits of the fields extend across the common boundary between the cities of Los Angeles and Beverly Hills (Figure 2). The WBH and EBH fields are found on a sharply folded anticlinal trend extending over four miles east to west (Figure 2). The descriptions of the three fields relative to discovery and structural and stratigraphic conditions of this portion of the Los Angeles basin are adequately described by Jacobson and Lindblom (1977 and 1987), Atlantis Scientific (1978), Erickson (1976), and Erickson et al (1975). Physiographically, the surface of the area slopes gently toward the south and east from the base of the Santa Monica mountains. There is little or no topographical evidence at the surface of the underlying structures of the two fields. The east-west trending anticlinal structure is buried beneath late Tertiary (Pliocene) and Quaternary clastic conglomerates that sourced from the Santa Monica mountains. The subsurface structures in this part of the Los Angeles basin are characterized by a steeply dipping to near vertical south flank with a rather broad less dipping north flank (Figures 2 and 3). The westerly end of the regional structural trends upon which the WBH/EBH/SV fields are found is truncated by the northeast trending Santa Monica/Malibu (Raymond) thrust fault.

The SV field was discovered by Chevron USA in 1968. As of January 1, 2011 the SV field has produced a cumulative total of 25.4 million barrels of oil and 30.1 billion cubic feet of gas. During December 2011, the field produced 755 barrels of oil per day (BOD) and 636 thousand cubic feet of gas per day (MCFGD) day from 33 wells. The oil and gas from the SV field are produced from the San Vicente drillsite (Plains Exploration and Production Co., PXP, Operator).

The WBH field (originally named the Beverly Hills field) was discovered in 1908 when oil production was established in shallow Pliocene sands named the Wolfskill formation. Peak production occurred in 1912, when over 240,000 barrels of oil (15° to 22°) was produced from twenty wells. Individual well production averaged about 30 barrels of oil per day. During the field's development, there were a number of wells drilled and abandoned to delineate the limits of the field. With extensive urbanization in subsequent years, these producing wells were abandoned. In the mid-1950s, oil and gas production in the area was reestablished, primarily in the deeper Miocene formations (Hauser, Ogden) from wells directionally drilled from within enclosed drillsites or "islands." A number of these drillsites and enclosed wells have been abandoned over the past thirty years. The oil and gas from the WBH field are currently produced from three drillsites: the Hillcrest (Hillcrest Beverly Oil Corp., HBOC, Operator), Beverly Hills High School (Venoco, Operator) and West Pico (Breitburn Energy Partners L.P., Operator). (Figure 2).

As of January 1, 2011, the WBH field has produced a cumulative total of 31.5 million barrels of oil (BO) and 41.9 billion cubic feet of gas (BCFG) [3]. Of this cumulative production, the primary and most productive zones in the field are the deeper Miocene formations (Hauser, Ogden) and have produced about 85% of the cumulative oil production and 98% of the cumulative gas production. As of January 1, 2011, the field produced 477 barrels of oil per day (BOD) and 424 thousand cubic feet of gas per day (MCFGD) from 20 wells [4]. Table II lists pertinent data on the reservoir characteristics of the three principal productive formations in the field.

In the mid-1960s, Standard Oil Company of California (Chevron) and Occidental Petroleum discovered significant oil and gas reserves two miles east of the Beverly Hills field [8, 9]. Following this discovery, the entire producing area was divided into the East and West Beverly Hills fields, by the CA Division of Oil, Gas, and Geothermal Resources.

The EBH field, as of January 1, 2011 has produced a cumulative total of 119.2 million barrels of oil (BO) and 186.6 billion cubic feet of gas (BCFG). During December 2010, the field produced 1685 BOD and 2.3 million cubic feet of gas per day (MMCFGD) from 67 wells. The oil and gas from the EBH field are produced from three drillsites – the West Pico drillsite (Breitburn Energy, Operator) and the San Vicente and Packard drillsites (Plains Exploration and Production Co., PXP, Operator).

Chevron USA produced hydrocarbons from the EBH and SV fields from 1967-1991 at which time they sold their properties including production and the Packard and San Vicente drillsites, to Stocker Resources, Inc., now named Plains Exploration and Production Co. (PXP). During this time Occidental Petroleum produced oil and gas from the WBH and EBH fields and in 1992 Breitburn Energy purchased the Occidental properties and the West Pico drillsite. In 1981, Beverly Hills Oil Company established new oil and gas production in the WBH field from the Beverly Hills High School drillsite and in 1995 Venoco, Inc. purchased the Beverly Hills Oil Company properties and the Beverly Hills High School drillsite from the Wainoco Oil and Gas Company, successor to the Beverly Hills Oil Company.

HISTORICAL REVIEW OF SURFACE EARTH MOVEMENTS

Precise level survey lines, with repeated surveys since 1949, have been used to monitor ground movements in this area. There is some leveling data available for the period prior to 1949, but it is limited and spotty in coverage and has not been used in the preparation of this report. During the period between 1949 and 1963, survey data shows a considerable part of Beverly Hills and adjacent areas had been slowly subsiding [2, 5, 10, 11]. The rates (Figure 4) are small, between .01 and .04 feet per year, and there has been no need for concern. The cause of this ground motion is related to a combination of regional tectonic forces and local shallow groundwater withdrawals. For example, the area north and northwest of the subject fields is in part comprised of a nearly northeast-southwest trending trough of coarse clastic Pleistocene sediments that are fresh-water bearing. Total thickness near the center of this trough is approximately 1200 feet. The

surface subsidence trend (Figure 4) coincides with this trough. Changes in fluid levels in this trough have amounted to a lowering of over 75 feet between 1945 and 1970. During this same period, the surface of the ground had subsided a maximum of .6 foot or about 7-1/4 inches [5, 6].

From 1967 to 2006, the companies have had repeated precise level surveys made throughout the area to monitor any possible oil field related subsidence. The results of some of the earlier (prior to 1989) surveys are presented in this report as historical reference data. A review of this data is pertinent since this report will deal primarily with data obtained between August 1989 and May 1993, May 1993 to January 2000 and January 2000 to December 2006. The results of ground movement in feet per year for the period 1975 to 1978 (Figure 5) show the rate of ground movement in the Beverly Hills-West Los Angeles area was similar to the period from 1949 to 1963 (Figure 4). The total ground movement map (change in elevation) between 1963 and 1978 (Figure 8) shows that in a broad area, including portions of and between oil fields, minor ground movement has occurred. This movement may be related to three factors: 1) tectonic activity, 2) groundwater withdrawals, and 3) hydrocarbon withdrawals [2, 5, 6, 10, 11]. The combination of these three factors resulted in a 0.5 of a foot drop in surface elevations near the center of a broad elongate bowl feature. The dimensions of this bowl are approximately 20,000 feet (3.8 miles) east-west by 15,000 feet (2.8 miles) north-south (Figure 8). With respect to the areal extent of this topographic feature, the amount of ground movement is negligible. The westerly portion of this feature is noted on ground movement maps from 1989 to 2006 (Figures 7, 8, 9, 11, 12, 14 15}. The annual rate of change in this area, refer to Figures 5 (1975-1978), 7 (1989-1993), 11 (1993-2000) and 14 (2000-2006) is generally similar showing a value of .02 - .03 foot per year.

Since 1978, ground movement surveys in the West and East Beverly Hills and San Vicente fields area were made in September 1981, December 1982, March 1984, November 1986, August 1989, May 1993, January 2000, and most recently, December 2006. These surveys were limited in size and scope with respect to the number of monuments surveyed because of the active and proposed drilling in the specific area and to cover the estimated areal extent of hydrocarbon production from the fields. The precise level lines run to May 1993 measured surface elevations in an area between Santa Monica, La Cienega, and Olympic Boulevards. The level route of the January 2000 survey was revised from earlier survey routes to include portions of Pico and Whitworth Boulevards south of Olympic Boulevard and west of La Cienega Boulevard. This route would allow new level coverage across portions of the East and West Beverly Hills fields (Figure 10) [2, 10, 11]. The 2006 survey location is similar to the 2000 survey location except for the small addition to the east of the intersection of La Cienega and Pico Blvds. to obtain level data from markers 116, 132 and 134 (Figure 13) [2, 10, 11]. The ground movement data received from these new level routes favorably fit the contours drawn from the earlier level line data to the north and west. The 1993 - 2000 and 2006 survey data obtained by PSOMAS were computerized and the annual rate of change in elevation and total change in elevation during the time periods of 1993-2000 and 2000-2006 were programmed and drawn (2000 - Figures 11, 12 and 2006 - Figures 14, 15).

Comparisons with pre-1978 survey data, which commenced at BM 82 (12-16090) on Western Avenue and post-1978 data, which used BM 400 (13-05150) and/or BM 901 (13-12710) as datum (Figures 6, 10, 13) are limited to that area where the sets of data coincide.

The two anomalous changes in elevation from the 2000 survey, refer to Figures 11 and 12, at level points 802 and 1135 are probably due to tectonic forces or mistie of level data between the Pafford and PSOMAS surveys. In their report, PSOMAS, noted that various Bench Marks previously established by either Pafford or the Los Angeles City Engineer had been destroyed primarily by street construction after 1993. PSOMAS established Bench Marks where necessary to close the level survey loops. With the 2006 survey a similar anomaly occurs adjacent to level point 1025 (Figures 14, 15). In discussions with PSOMAS, this is also due to a function of error in measurements and/or not having level reference marks.

The annual rate of change in the central and eastern area shows a negligible increase of .005 of foot in the 2006 survey (Figure 14). The area around level points 801 and 1066 is located between the current limits of the south boundary of the SV field and the north boundary of the EBH field. In this area the total change in elevation in the 2006 survey shows a small increase from .02 - .15 of a foot compared to the 2000 survey.

An area of depression, based on the 1993-2000 level data, between Santa Monica and Olympic Boulevards across the southwestern city limits of Beverly Hills is shown on Figures 11 and 12. This trend is also suggested from the 1989-1993 level data (Figures 7, 9). The 1993-2000 data show a maximum annual rate of change in ground elevation of a negligible .01 of a foot per year. Because of the location of this area near the junction of the Santa Monica/Malibu, San Vicente and West Beverly Hills (WBH) fault systems, the cause of an elevation change is most likely of tectonic origin (Figures 2, 17). With the 2006 survey this depression is not apparent and shows a gradual increase (0.0 -.05) in rate of elevation from Santa Monica Blvd. to the BHHS drillsite. Fluid withdrawal may also be a factor in a change of elevation, however the WBH field was discovered in 1908 and over the past 102 years has a relatively small cumulative production of 31.5 million BO and 41.9 BCFG. A final contributing cause of the anomaly may be a mistie of data between the earlier Pafford surveys and the recent PSOMAS surveys.

In September 1985, precise level measurements were made along Wilshire and Pico Boulevards from Western Avenue to the Pacific Palisades as part of a proposed drilling permit in Pacific Palisades by Occidental Petroleum Corporation. Chevron USA participated in the Beverly Hills-West Los Angeles segment of this survey and a part of this data was used to establish the ground movement profile along Wilshire Boulevard between Santa Monica Boulevard to Western Avenue (Figure 13). This profile shows the 1985 data closely follows the historical subsidence trend for the area. The two anomalies in the 1985 data at BM 13-12169 and BM 12-16250 may be attributed to survey error or instrument malfunction.

Overall, the data obtained from the 1967-2006 surveys show some correlation with historical trends in the subject field area. Any possible element of subsidence in the area related to hydrocarbon extraction should be minimized with continuing decline of field production and pressure maintenance projects are continued and/or initiated.

POSSIBLE CAUSES OF RECORDED GROUND MOVEMENTS

Historically, gradual but minor changes in elevation have been noted in the area of the two fields and the two proposed wells (Figures 4, 5, 7-9, 11, 12, 14, 15). The principal causes for these recorded surface ground movements or changes in surface elevation are varied and complex and are summarized under the following categories:

1. Tectonic activity.
2. Compaction of sediments due to either surface loading or wetting.
3. Compaction and consolidation due to vibration.
4. Consolidation of sediments as a result of a subsurface reduction in pore pressure.
5. Subsurface solution or cavitation.

1. *Tectonic Activity*

There is ample evidence of past tectonic forces in the subject area. This can be seen in the folding and faulting patterns that characterize the geology of the area (Figures 2, 3). The record of recent tectonic activity is shown in the seismicity in the Los Angeles basin from earthquakes recorded from 1978 to 1991 (Figure 17) [7].

The data from the repeated leveling surveys in the area are evidence supporting present-day tectonic activity. Because of interaction of various combinations of the principal causes of ground movement, it is difficult to separate the amount of movement caused by tectonic activity. Wherever ground movements are occurring, and there is no evidence other influences are present, tectonic motion may be considered the cause.

2. *Compaction of Sediments Due to Either Surface Loading or Wetting*

There is no indication that any significant part of the present day earth movement in the area of the proposed wells is the result of surface loading or wetting [5].

3. *Compaction and Consolidation Due to Vibration*

The only forces that may show cause for subsidence by vibration are earthquakes that are common in southern California (Figure 17) [7]. Some very minor local

surface movements occur as a result of surface traffic; however, these movements are too insignificant for consideration [5].

4. Consolidation of Sediments as a Result of a Reduction in Pore Pressure

One of the most important criteria related to oil field subsidence is the reduction or change in fluid or gas pore pressure within the subsurface formations undergoing depletion. When the formation pressure is either reduced or increased, deformation within the particular reservoir rock may occur. Such a change in formation pressure will result in a load transfer from the fluid phase to the solid matrix or the reverse. The magnitude of the resulting deformation is dependent upon several other variables that interact with each other. Because of the difficulty in adequately defining each of these variables at the time of first hydrocarbon discovery, a rigorous mathematical analysis as to what the eventual magnitude of deformation may be is not possible. An assessment of the potential for compaction can be made based on the monitoring and analysis of similar adjacent oil fields. This assessment, while empirical for the most part, indicates there will not be any significant rock deformation from pore pressure reduction in the producing zones to be developed in the location of the proposed wells. Studies have shown that some subsidence in the Beverly Hills area was related to shallow fresh water withdrawals. The same controlling geologic characteristics discussed under oilfield related surface movements are applicable to shallow aquifers [5].

5. Subsurface Solution or Cavitation

There is no evidence that any significant subsidence is occurring in the subject area as a result of subsurface solution or cavitation [5].

POTENTIAL FOR FUTURE OIL FIELD RELATED SURFACE SUBSIDENCE

An evaluation of oil field related subsidence in the subject area is dependent on examination of all related criteria. This criteria analysis is based on known facts about the area relative to causes and principles of subsidence. Any increase in the total production in the WBH field from the proposed wells as to subsidence potential in the area will be evaluated. Table II lists pertinent reservoir data for the WBH field.

The following summaries discuss each of the criteria that may be responsible for subsidence potential as related to future fluid withdrawals from the subject area.

1. Fluid Withdrawal and Subsurface Pore Pressure Reduction

The reduction of pore pressure within the produced formations is an important criterion related to subsidence. In order to initiate consolidation or compaction within the producing formation, it is necessary to first reduce the pore pressure of the interstitial liquid and gas. Such a reduction can result in a load transfer from the fluid phase to the grain matrix. The amount of consolidation that will occur is dependent upon several other factors discussed in the following paragraphs. Hydrocarbons from the WBH field are currently produced by artificial lift because the primary reservoir drive mechanism of solution gas in the oil is insufficient to flow the wells. A secondary source of reservoir energy is the result of injection of water into the reservoir. The Beverly Hills Oil Company in 1984 initiated a water injection program into the Miocene Hauser and Ogden producing zones that Venoco continues to the present time [3, 4]. As of January 1, 2011 a cumulative total of 21.3 million barrels of water (BW) has been injected into the WBH field. In the EBH field this total is 366 million barrels of water (BW) and the total in the SV field is 17.4 million barrels of water (BW). These water injection programs maintain reservoir pressure in the fields and reduce the possibility of subsidence from reduction of pore pressure caused by the withdrawal of hydrocarbons and any associated formation waters.

2. Regional Structural Conditions

The structural conditions anticipated in the area of the subject wells were discussed under Geologic Conditions. The entrapping structure in the WBH field is a sharply folded anticline and is typical of other oil accumulations discovered and developed in the area (Figures 1, 2, 3). The anticlinal entrapment indicates the field was at one time under rigorous north-south compressional forces. The resulting arching structure will provide support to both the producing horizons and the overlying cap rock and offset potential effects of hydrocarbon withdrawals [2, 5, 10, 11].

In addition to the configuration of the entrapping structure, additional internal support can be given by a relation between the depths to the shallowest significant producing horizon, the thickness of the producing formations and the breadth of the productive area. All three of these characteristics interact with each other to create conditions that may vary from hazardous to safe insofar as subsidence is concerned. In the case of the accumulations in the WBH field, the configuration is relatively stable and should be capable of supporting within the overburden any stress that might result from consolidation within the productive horizons. Table II lists the reservoir data of the principal producing formations in the WBH field. The top of the shallow Wolfskill producing zone is estimated to be at a depth of 2500 feet while the width is about 1600 feet, giving a depth to width ratio of 1.6. In the deeper Hauser zone, the depth at the top of the producing horizon is estimated to be 5000 feet with a width of 2400 feet, giving a depth to width

ratio of 2.1. The top of the producing horizon in the Ogden zone is 5700 feet, and the width 2400 feet, giving a depth to width ratio of 2.4. The depth to width ratio of the producing zones in the WBH field is considered favorable or safe, particularly in a structure with this indicated arching or folding [5].

3. *Physical Properties of the Producing Horizons*

The physical properties of the reservoir rocks also have a bearing on how much consolidation may occur within the producing horizons by any sizable load transfer from the fluid and gas phase to the rock matrix. Each of the listed physical properties is thought to have the following characteristics in controlling subsidence [5].

a. Porosity

Based on data from wells drilled in the WBH field, the average porosity in the potentially productive sands is 23%. Porosities of this magnitude may still undergo some reduction if the rock matrix is weak and subject to consolidation.

b. Lithology

Another significant rock property, which controls the amount of consolidation, is the lithology of the entrapping formations or sediments. Based on data obtained from previously drilled wells in the field, the objective formations consist of very fine to medium grained sands, fairly well sorted and quartzose with some included clay and silt material [2, 10]. A fairly clean quartzose sand of this description is usually not subject to much consolidation with additional loading.

c. Geologic Compaction and Cementation

These criteria are related to depth of burial, or maximum loading during geologic time, and the geologic age of the formations. In the proposed area of drilling, the objective formations have been deeply buried, are relatively old in geologic age (5-20 million years), and are fair to well consolidated. The rock matrix may be strengthened as a result of the depth of burial and geologic age.

PROPOSED FUTURE MONITORING

Since 1967, Chevron USA (Operator since 1966-1991) and Stocker Resources, Inc. and now Plains Exp. & Prod. Co. (Operator since 1991), the Occidental Petroleum Company, and now BreitBurn Energy Company LLC (Operator since 1992), the Beverly Hills Oil Company, Wainoco Oil and Gas Company, and now Venoco, Inc. (Operator since 1995) have maintained, separately or in partnership, subsidence monitoring and surveillance programs covering the East and West Beverly Hills and San Vicente fields. Pafford and Associates, a private consulting survey firm in Los Angeles, was retained to make the first and subsequent periodic surveys through May 1993. The surveys in January 2000 and December 2006 were made by PSOMAS, a consulting survey company in Los Angeles.

1. Repeated precise traverses have been run over the leveling network in the East and West Beverly Hills fields and the San Vicente field since the first production from the EBH field in 1967. Over the past twenty-three years, surveys in the subject area were run in 1981, 1982, 1984, 1986, 1989, 1993, 2000, and 2006.
2. Collar logs may be run in select wells for possible later detection and evaluation of subsurface consolidation within a producing formation [2, 10]
3. The WBH field operators and their successors have run periodic formation pressure surveys in field wells to determine the magnitude and rate of change in formation pressure within each significant producing horizon [2].
4. BreitBurn Energy Partners L.P. will continue to coordinate and cooperate with all agencies that may from time to time run precise level or triangulation traverses in the area. The company will also coordinate with agencies that have established seismograph stations for the purpose of detecting and recording seismic activity [2].

CONCLUSIONS

1. Surface ground movements occurring in the area of the proposed wells may be caused by tectonic activity, groundwater withdrawal, and oil field operations. These activities make it difficult to detect and define any minor subsidence related to further hydrocarbon withdrawals.

2. The potential for additional surface subsidence from oil field operations within and adjacent to the proposed wells is negligible. The anticlinal structure of the WBH field, with associated dipping beds and depth of burial, should furnish adequate support within the overburden to minimize load transfer to a producing formation by its pressure depletion.
3. By maintaining a precise land-level monitoring, surveillance and evaluation program, BreitBurn Energy Company LLC will be able to detect and define any significant surface subsidence that might result from oil field hydrocarbon withdrawals. Corrective measures, such as new or expanded pressure maintenance programs, can be initiated to arrest subsidence before any damage may occur to field wells and surface development.

Signed: Robert G. Lindblom

ROBERT G. LINDBLOM
California Professional Geologist, Number 2405

Date: May 6, 2011

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No. 60, Pacific Section, American Association of Petroleum Geologists.
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survey data and other related file data.
- [11] West, J.C. (1992-1993, 1996-1998, 2000-2007) Personal communication and
authored subsidence reports in support of drilling permits to the city of
Beverly Hills.

APPENDIX A

STATEMENT OF AUTHOR'S QUALIFICATIONS

In accordance with Section 10 - 5.313 of the Beverly Hills Municipal Code, the qualifications and experience of the author making this subsidence report is set forth:

EDUCATION:

AA (Associate of Arts) degree in pre-engineering and business, Duluth Junior College, 1948.

BS Degree in Geology, University of Chicago, 1950.

Graduate school, University of Minnesota, geology and petroleum engineering, 1951.

WORK EXPERIENCE:

Employed by Standard Oil Company of California, and Chevron USA from 1951-1990.

Exploration Geologist, San Joaquin and Sacramento Valley, 1951-1964. Development Geologist, Los Angeles urban area, wellsite formation evaluation - onshore and offshore Alaska and California, 1964-1975. District Development Geologist, Sacramento Valley, East and Northern San Joaquin Valley, 1975-1986. Staff Development Geologist and Supervisor, Property Sales and Reservoir Management--Western Region Exploration Department, 1986-1990.

Retired from Chevron USA, October 31, 1990.

Lecturer, Stanford University, School of Earth Sciences, Energy Resources Engineering Department (formerly Petroleum Engineering Department) 1975-----. Appointed Consulting Professor, Subjects: Drilling Technology and Well Log Analysis, 1985-----.

Petroleum Consultant, 1991-----.

Appointed professional member by Governor Pete Wilson to the California State Board of Registration for Geologists and Geophysicists, 1992-1995 and reappointed 1995-2000. President of the Board, 1994-1996.

APPENDIX A (Continued)**PROFESSIONAL SOCIETIES AND ASSOCIATIONS:**

American Association of Petroleum Geologists (AAPG)
American Institute of Professional Geologists (AIPG)
Society of Sedimentary Geology (SEPM)
Society of Petroleum Engineers of the AIME (SPE)
Society of Professional Well Log Analysts (SPWLA)
Society of Exploration Geophysicists (SEG)
Geological Society of America (GSA)
Professional Geologist - State of California (No. 2405)
Certified Petroleum Geologist - AAPG (No. 2095)
Certified Professional Geologist - AIPG (No. 5076)

TABLE II - WEST BEVERLY HILLS FIELD RESERVOIR DATA

Zone	Wolfskill	Hauser	Ogden
Year of First Production	1908	1954	1981
Reservoir Area (Acres)	25	200	200
Depth to Top of Zone (feet)	2,500	5,300	5,700
Maximum Width (feet)	1,600	2,400	2,400
Ratio of Depth/Width*	1.6	2.2	2.4
Net Sand Thickness at Crest (feet)	250	100	135
Average Porosity (% bulk volume)	31	24	22
Average Permeability (millidarcies)	150	110	150
Interstitial Water (% pore space)	56	33	30
Original Oil in Place (barrels/acre-feet)	840	1,025	920
Original Solution Gas-Oil Ratio (standard cu.ft./barrel)	310	550	500
Initial Formation Volume Factor (volume 1/volume)	1.11	1.35	1.31
Original Reservoir Datum Pressure (psig)	990	2,800	3,100
Datum (feet subsea)	3,000	6,250	6,950
Reservoir Temperature (°F)	110	195	205
API Gravity of Oil (°)	15-22	25	25

*Range of Depth/Width at Ranger Zone (Wilmington Field) 2,300/15,000 = .15

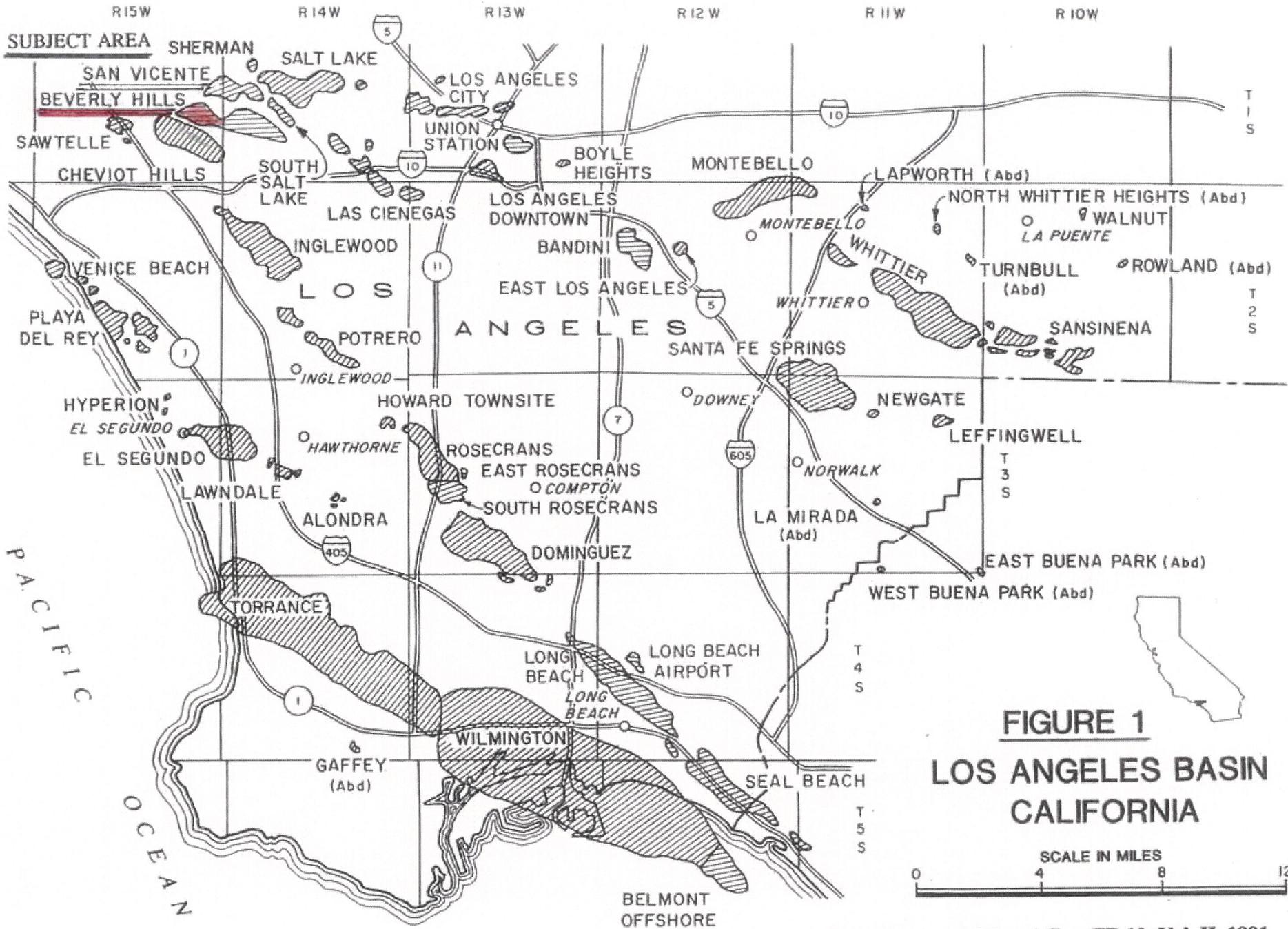


FIGURE 1
LOS ANGELES BASIN
CALIFORNIA

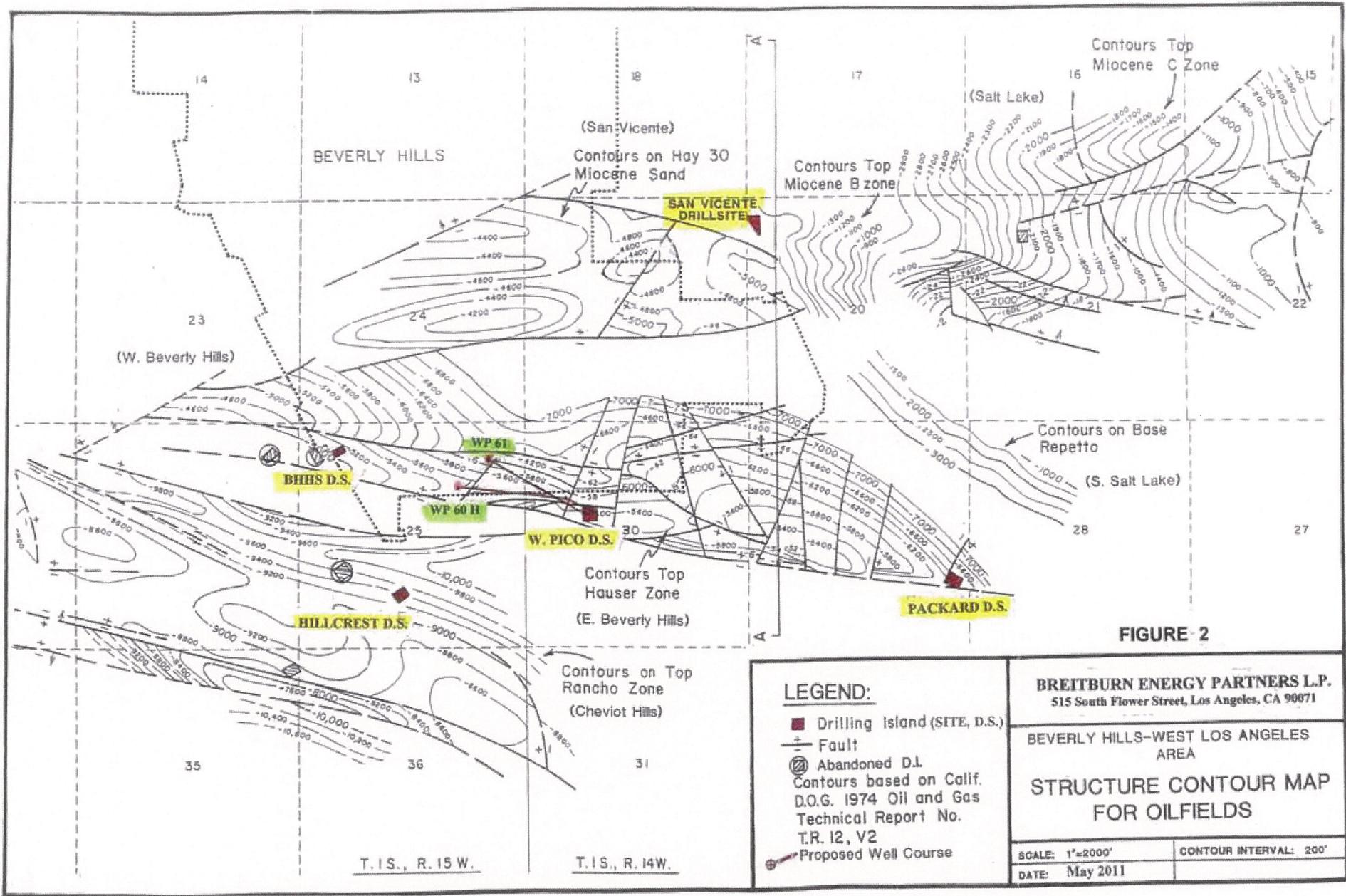


FIGURE - 2

LEGEND:

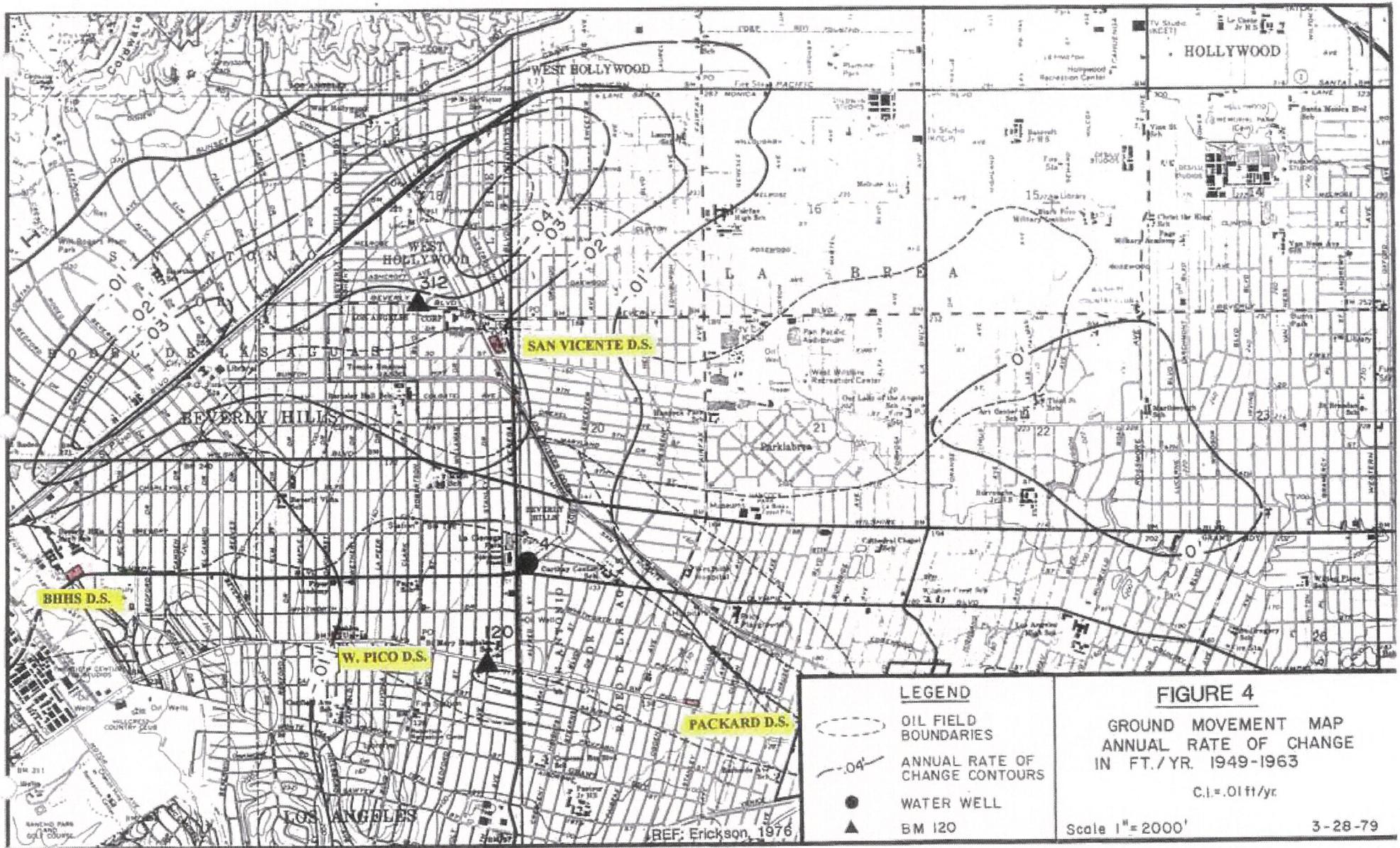
- Drilling Island (SITE, D.S.)
- Fault
- ⊗ Abandoned D.I.
- Contours based on Calif. D.O.G. 1974 Oil and Gas Technical Report No. T.R. 12, V2
- Proposed Well Course

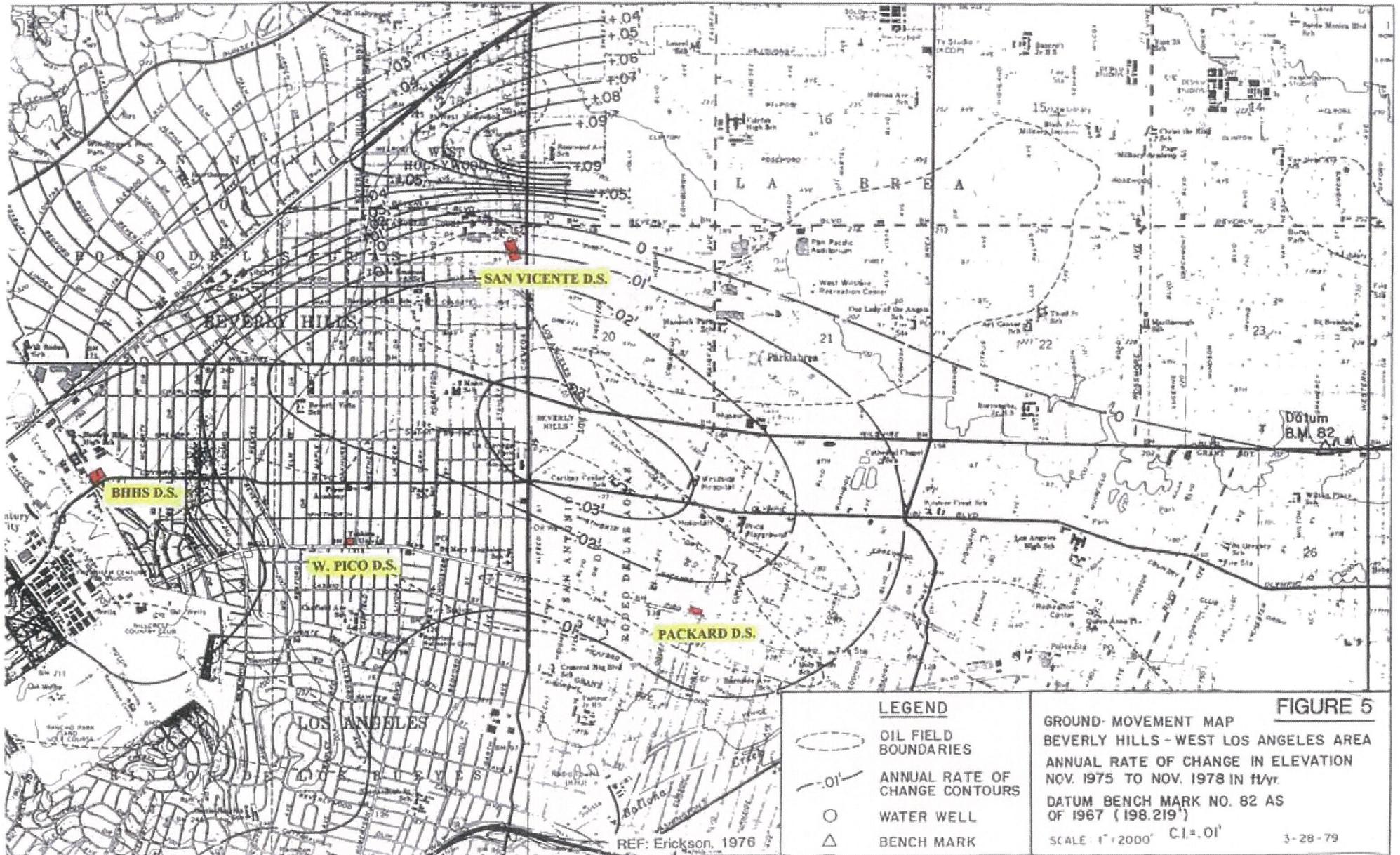
BREITBURN ENERGY PARTNERS L.P.
515 South Flower Street, Los Angeles, CA 90071

BEVERLY HILLS—WEST LOS ANGELES AREA
STRUCTURE CONTOUR MAP FOR OILFIELDS

SCALE: 1"=2000'
DATE: May 2011

CONTOUR INTERVAL: 200'





LEGEND

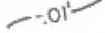
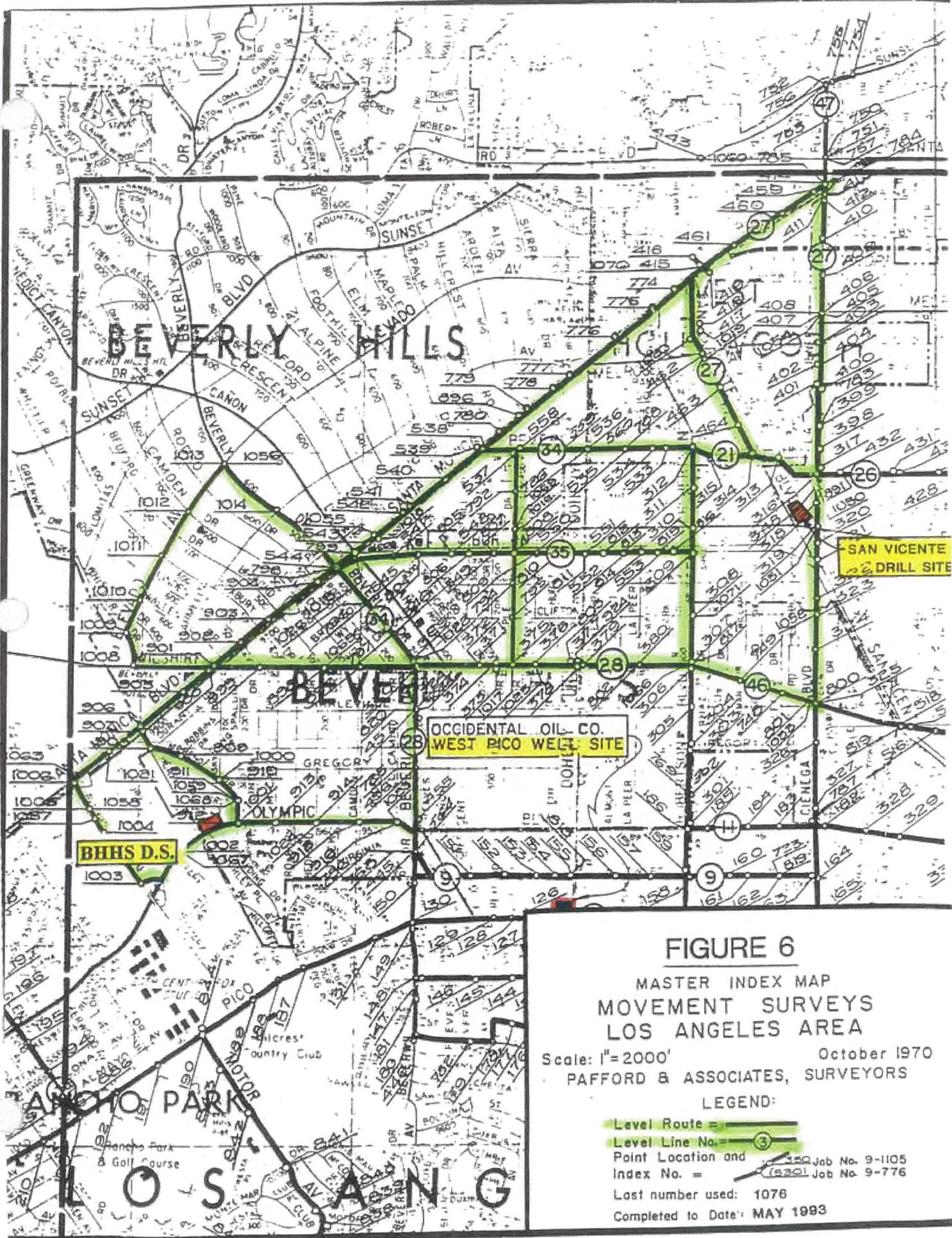
-  OIL FIELD BOUNDARIES
-  ANNUAL RATE OF CHANGE CONTOURS
-  WATER WELL
-  BENCH MARK

FIGURE 5

GROUND MOVEMENT MAP
 BEVERLY HILLS - WEST LOS ANGELES AREA
 ANNUAL RATE OF CHANGE IN ELEVATION
 NOV. 1975 TO NOV. 1978 IN ft/yr.
 DATUM BENCH MARK NO. 82 AS
 OF 1967 (198.219')
 SCALE: 1" = 2000' C.I. = .01'
 3-28-79

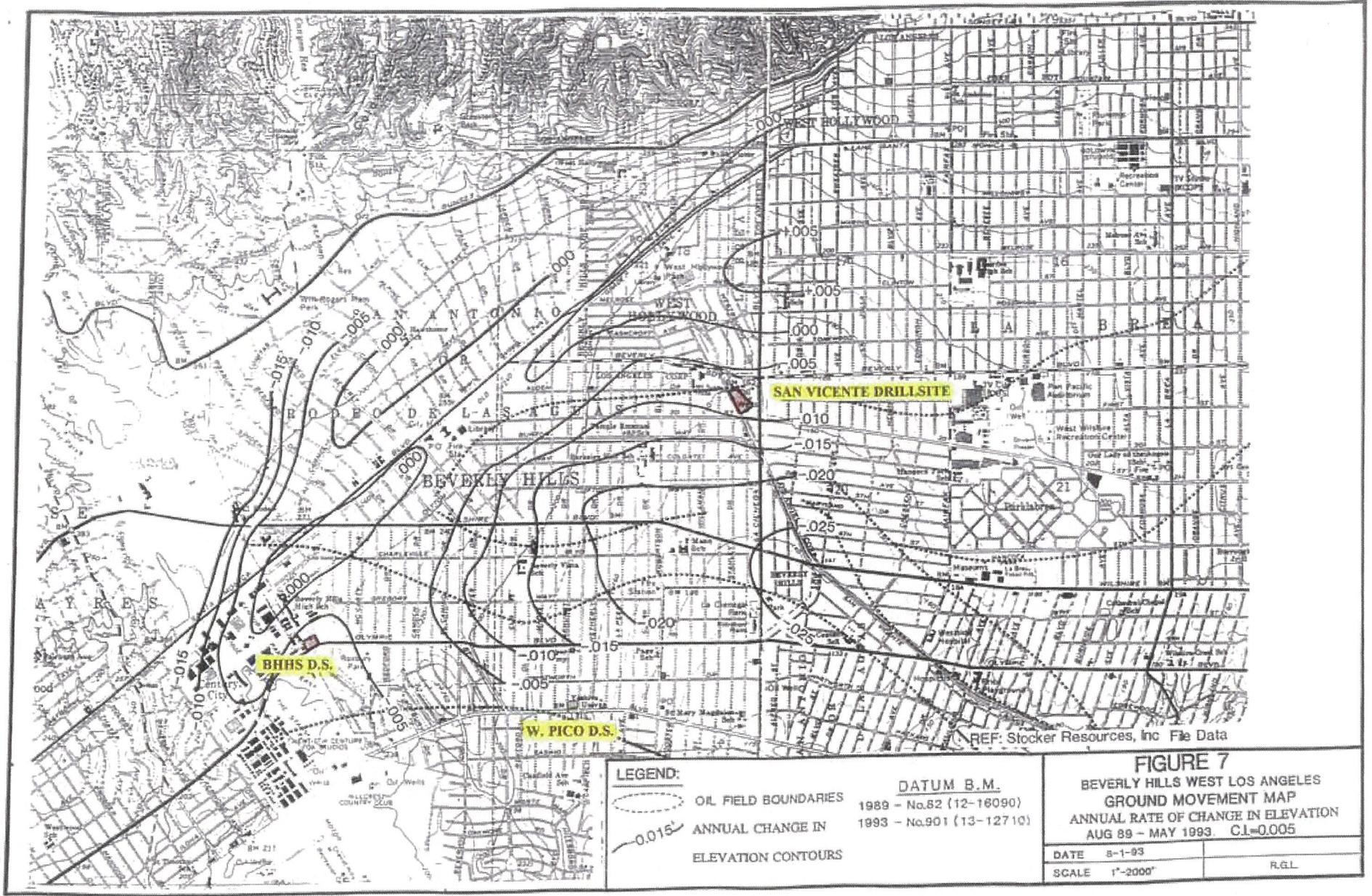


MASTER INDEX MAP MOVEMENT SURVEYS LOS ANGELES AREA

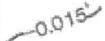
Scale: 1"=2000' October 1970
PAFFORD & ASSOCIATES, SURVEYORS

LEGEND:

- Level Route =
- Level Line No. = 3
- Point Location and Index No. = 350 Job No. 9-1105
15301 Job No. 9-776
- Last number used: 1076
- Completed to Date: MAY 1983



LEGEND:

-  OIL FIELD BOUNDARIES
-  ANNUAL CHANGE IN ELEVATION CONTOURS

DATUM B.M.
 1989 - No.82 (12-18090)
 1993 - No.901 (13-12710)

FIGURE 7
 BEVERLY HILLS WEST LOS ANGELES
 GROUND MOVEMENT MAP
 ANNUAL RATE OF CHANGE IN ELEVATION
 AUG 89 - MAY 1993. C.I.=0.005

DATE	8-1-93	
SCALE	1"=2000'	R.G.L.

REF: Stocker Resources, Inc File Data

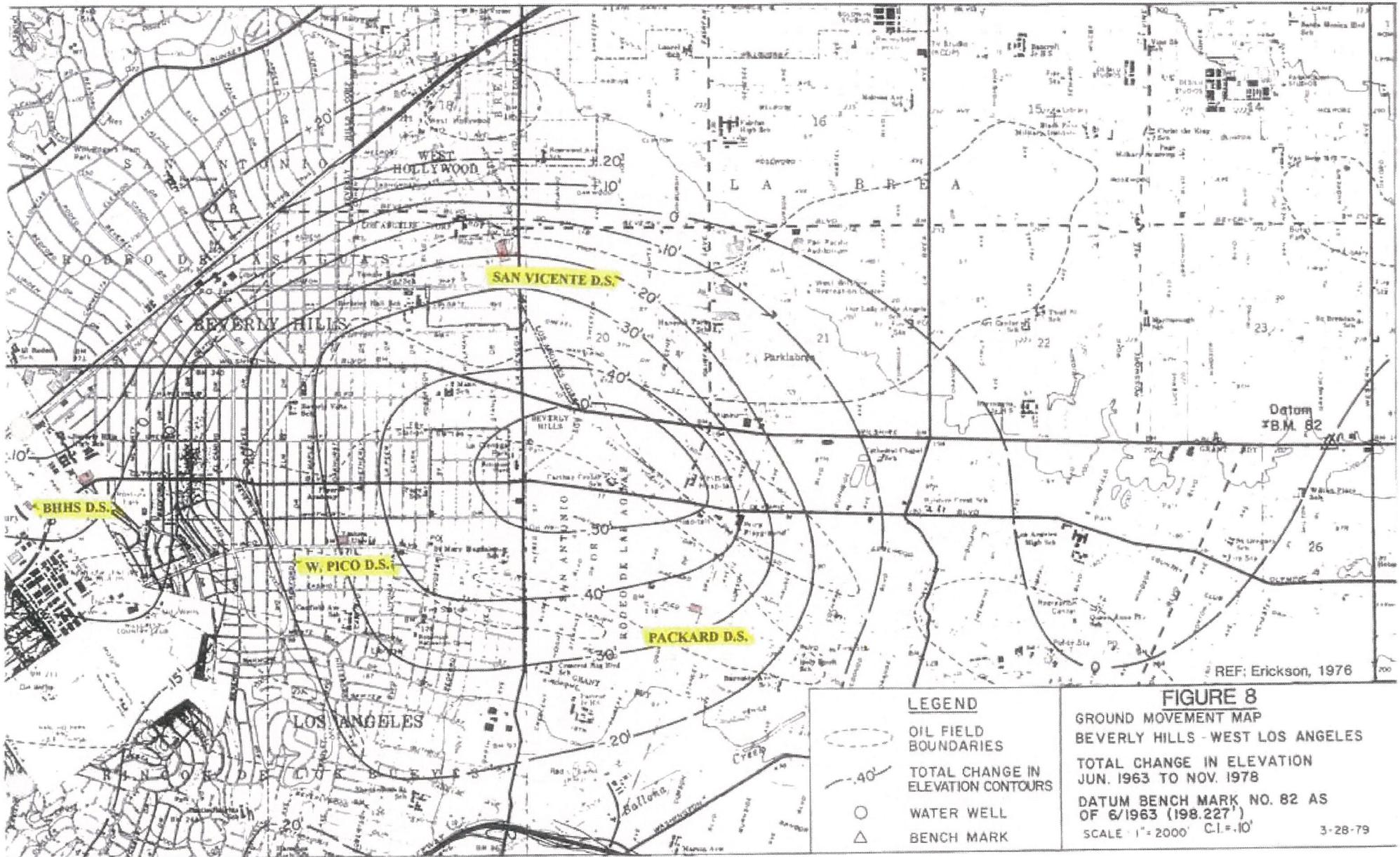
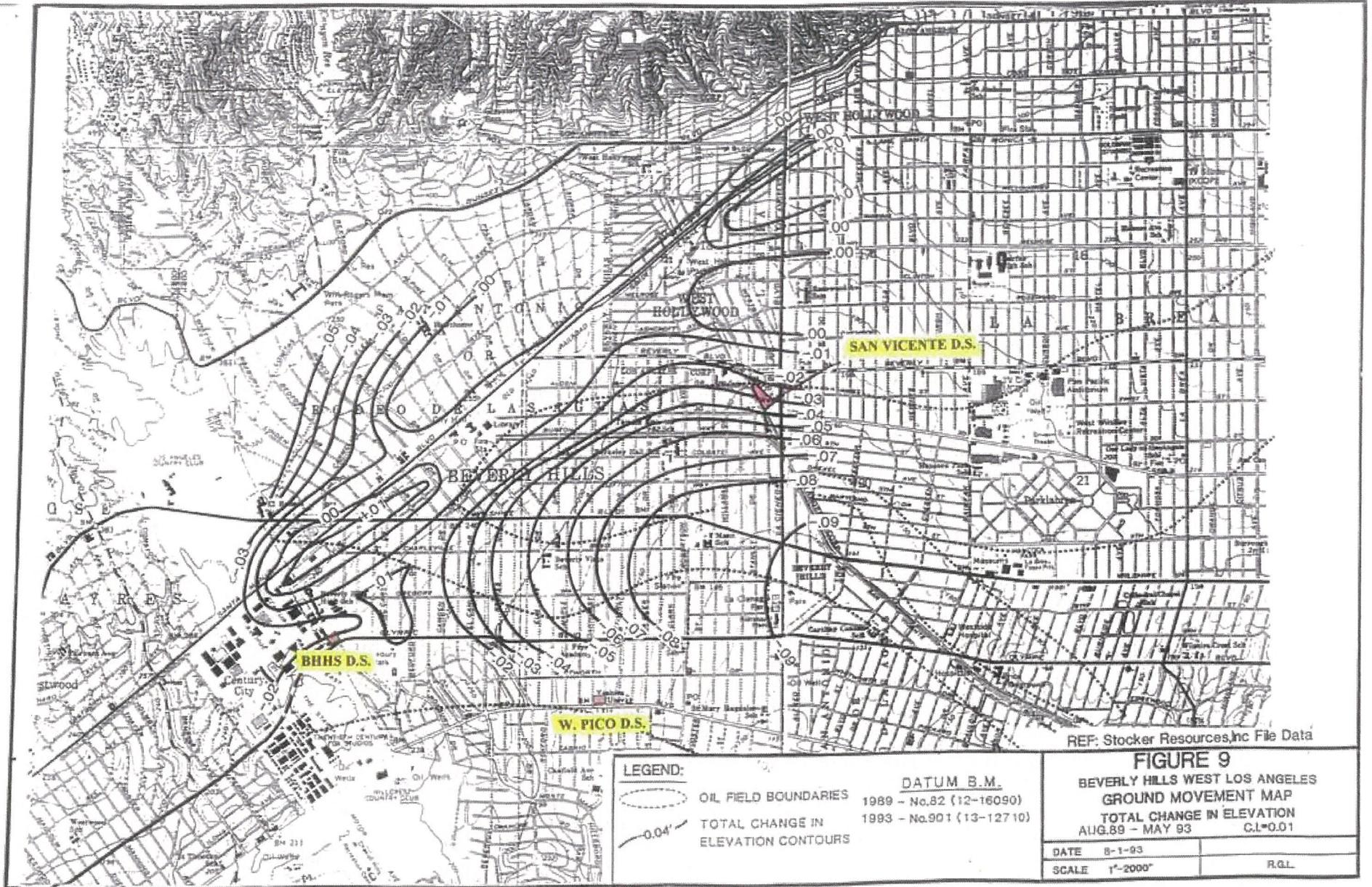
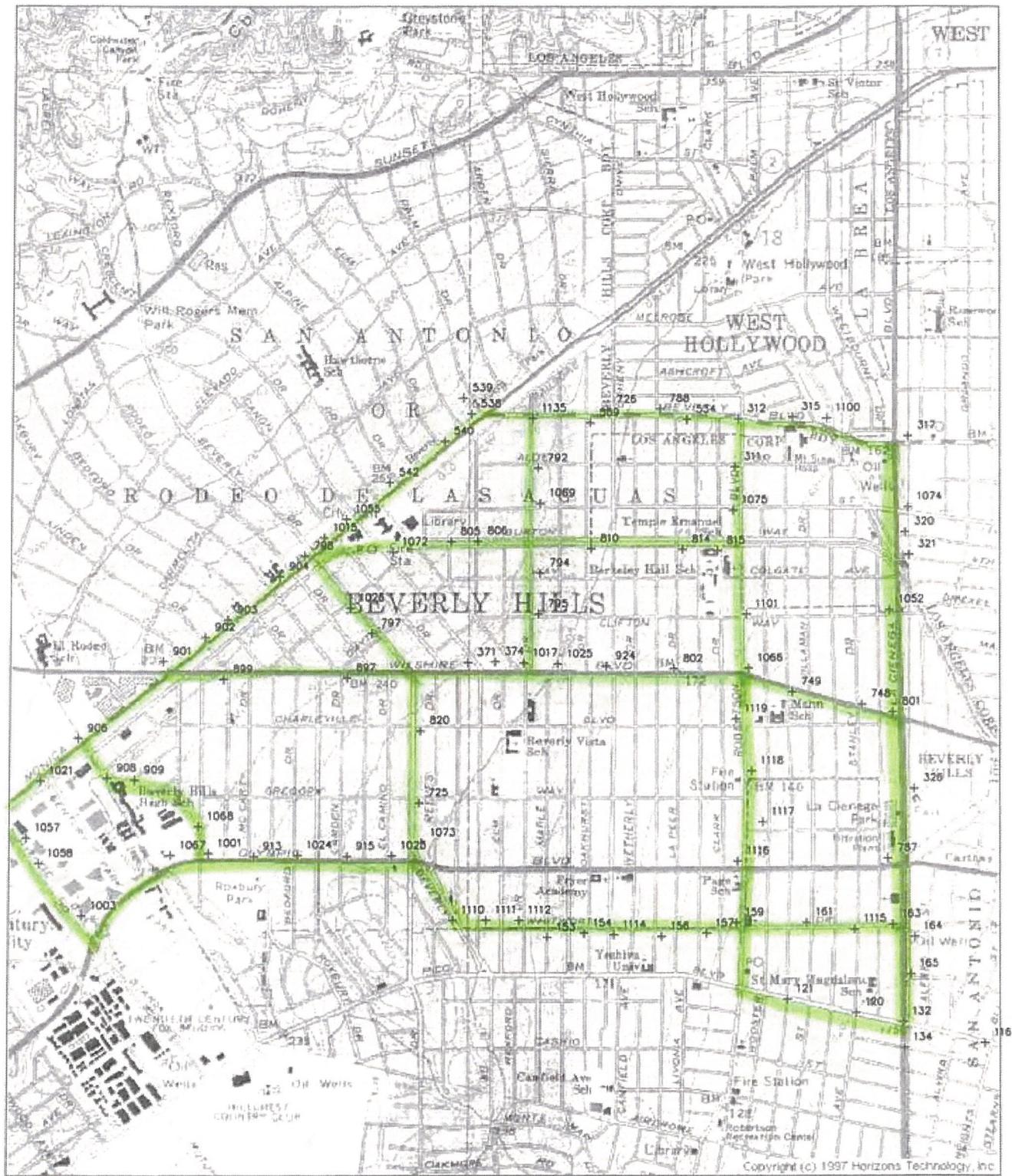


FIGURE 8
 GROUND MOVEMENT MAP
 BEVERLY HILLS - WEST LOS ANGELES
 TOTAL CHANGE IN ELEVATION
 JUN. 1963 TO NOV. 1978
 DATUM BENCH MARK NO. 82 AS
 OF 6/1963 (198.227')
 SCALE 1" = 2000' C.I. = 10' 3-28-79



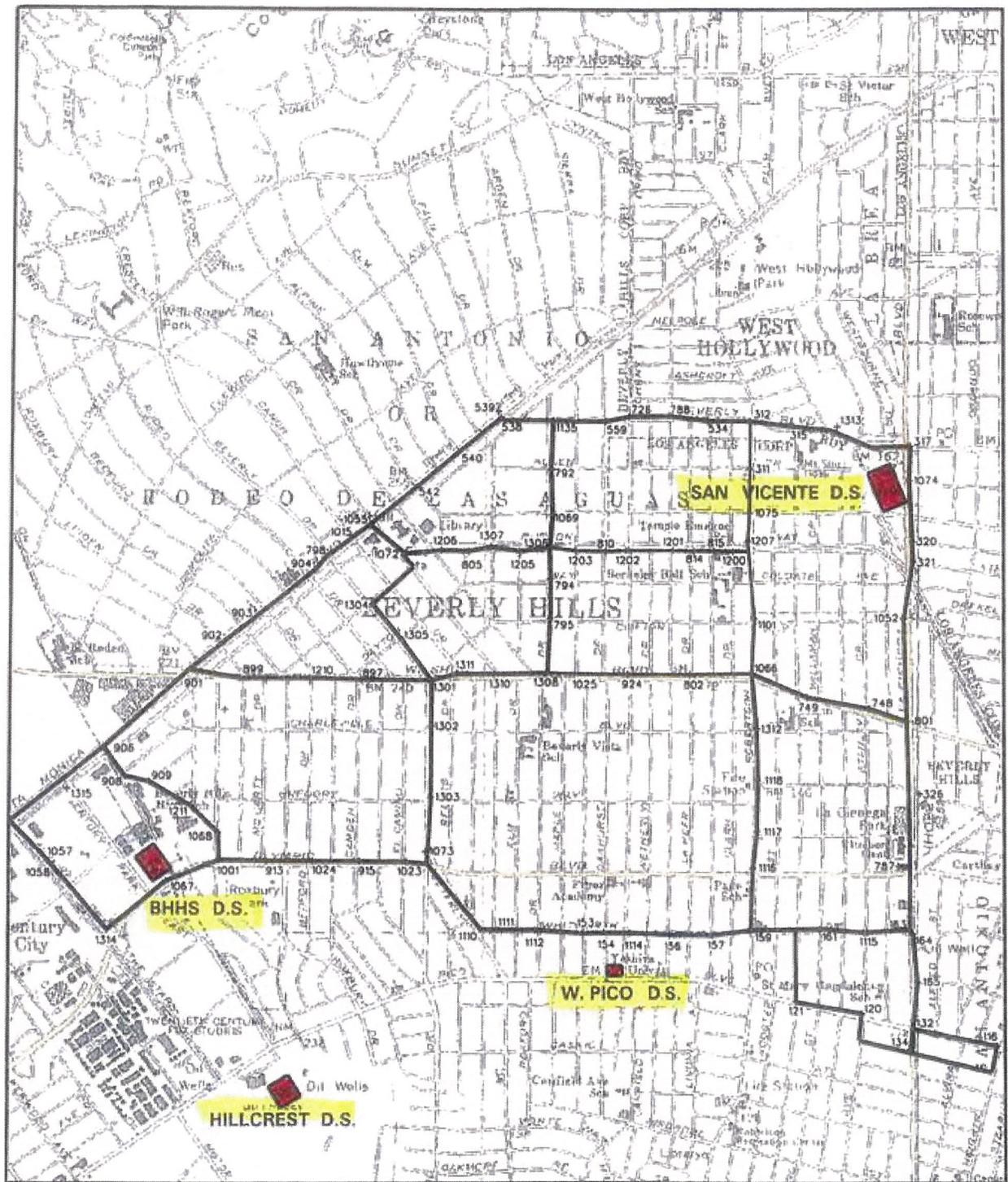


Location Map
 Bench Mark Movement Survey
 Beverly Hills - West Los Angeles
 PSOMAS - January 2000

FIGURE 10

LEVEL ROUTE ———

SCALE: 1" = 2000'



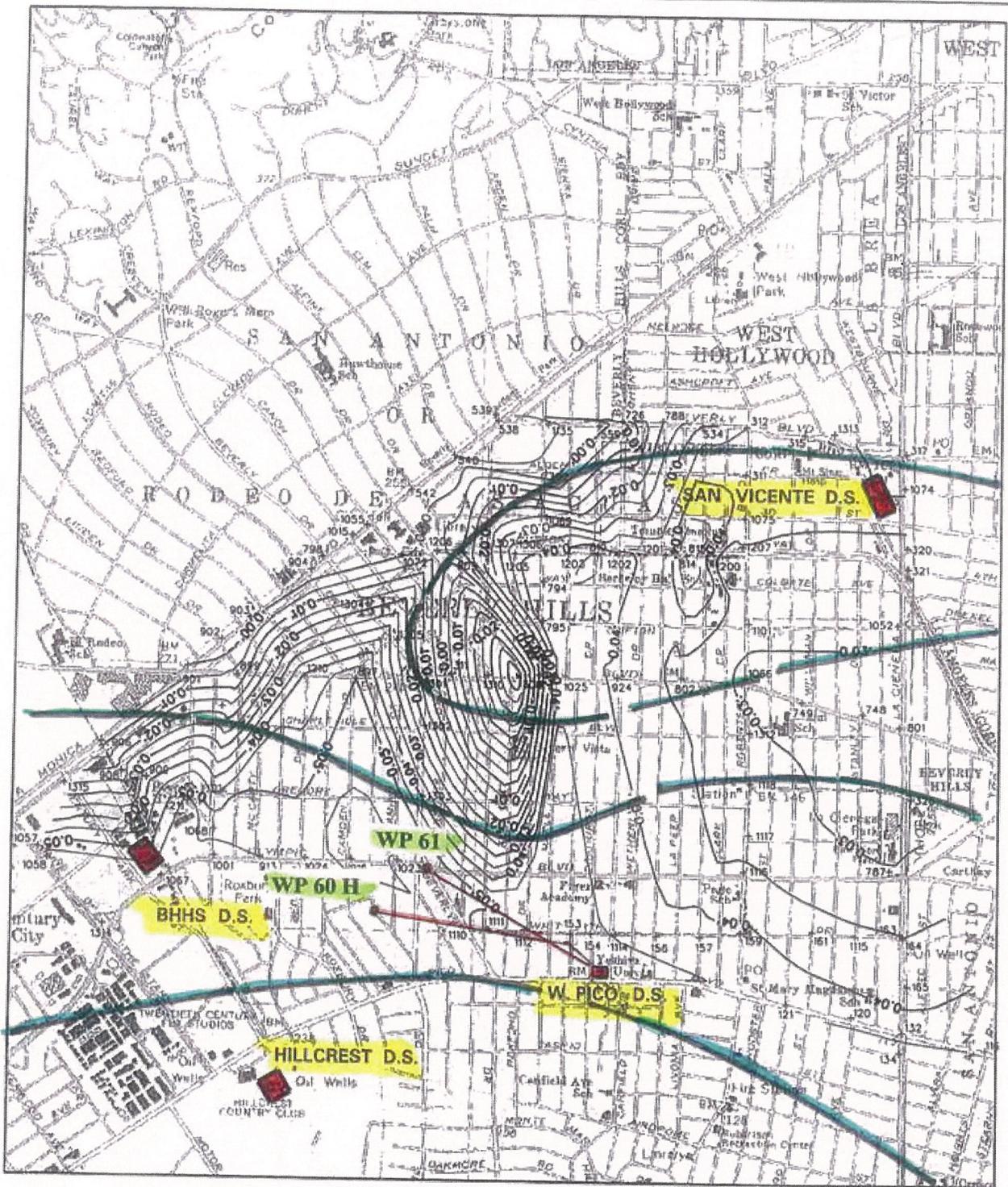
Location Map

Bench Mark Movement Survey
 Beverly Hills – West Los Angeles
 PSOMAS – December 2006

FIGURE 13

LEVEL ROUTE 

SCALE: 1" = 2000'



Ground Movement Map

Annual Rate of Change in Elevation

January 2000 – December 2006

Beverly Hills – West Los Angeles

(Plains Exploration & Production Company File Data)

SCALE: 1" = 2000'

C.I. = 0.005'

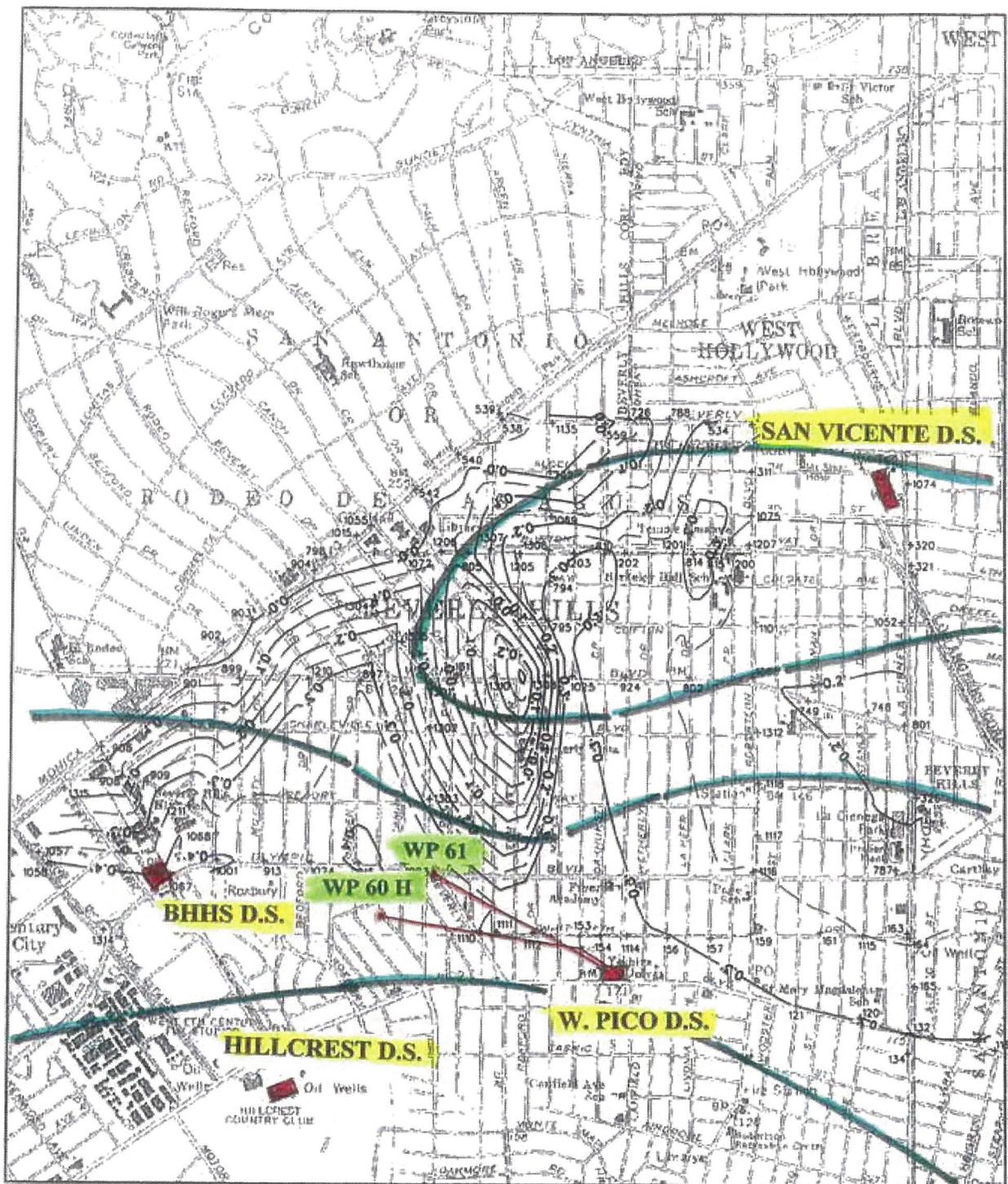
 OILFIELD BOUNDARY

DATUM B.M.

2000 - NO. 901 (13-12710)

2006 - NO. 901 (13-12710)

FIGURE 14



Ground Movement Map

Total Change in Elevation
 January 2000 - December 2006
 Beverly Hills - West Los Angeles

(Plains Exploration & Production Company File Data)

DATUM B.M.

2000 - NO. 901 (13-12710)

2006 - NO. 901 (13-12710)

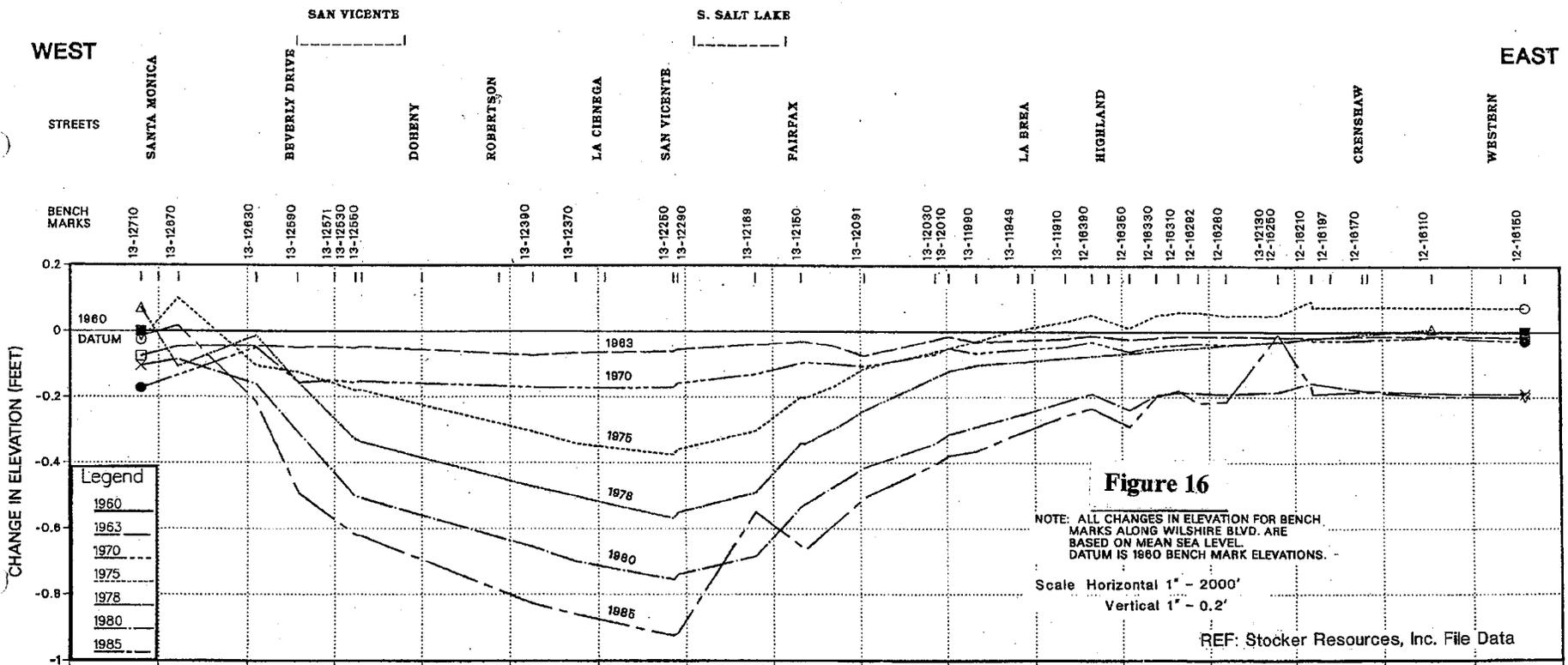
FIGURE 15

SCALE: 1" = 2000'

C.I. = 0.05'

 OILFIELD BOUNDARY

GROUND MOVEMENT PROFILE WILSHIRE BLVD. 1960-1985



LOS ANGELES BASIN SEISMICITY 1978 - 1991

REF: Hauksson, E., 1992

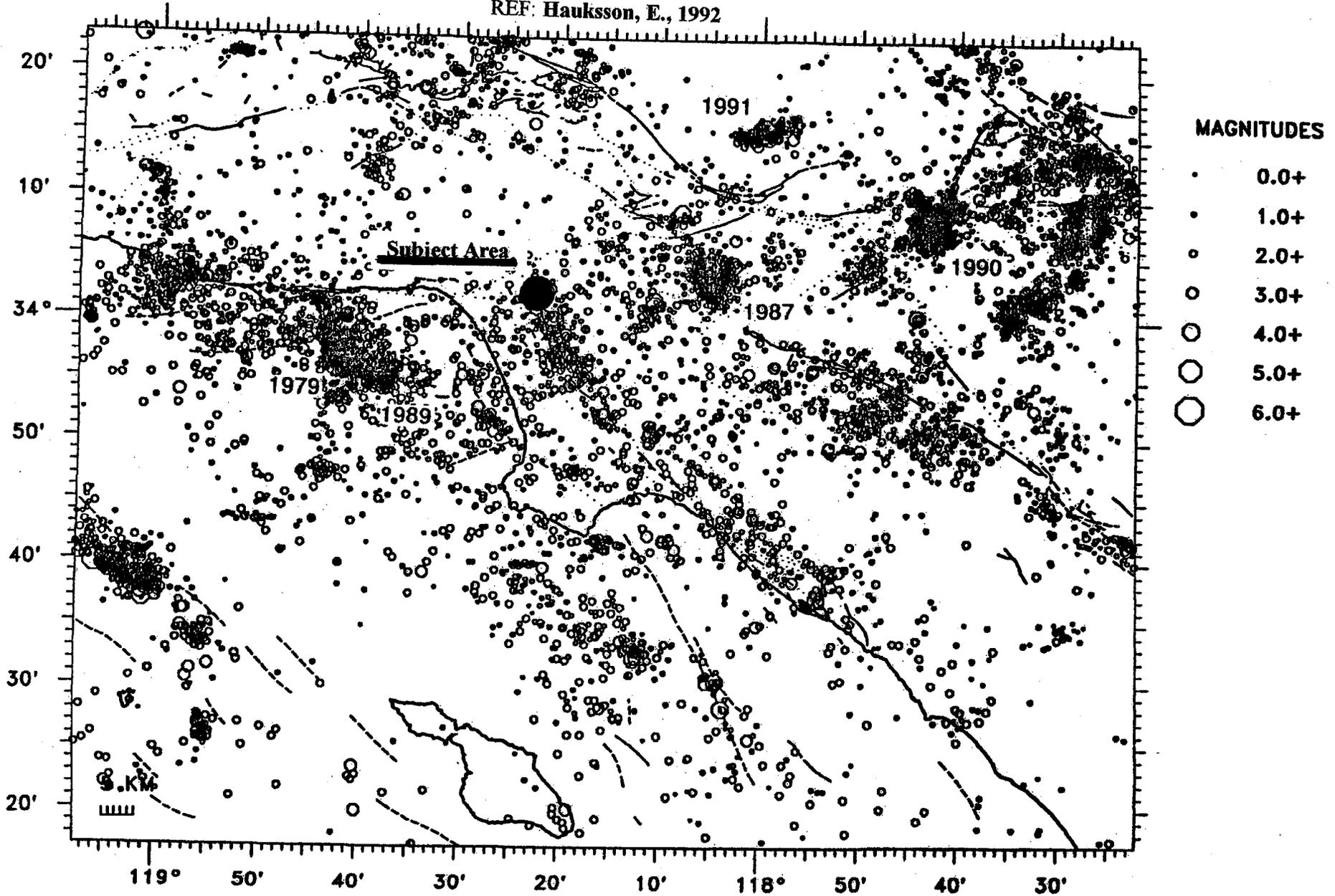


Figure 17

Attachment 6

Don Clarke, Consulting Geologist, 5838 Graywood Ave. Lakewood, California 90712-1128

December 19, 2011

Juan Martinez, Civil Engineer

City of Beverly Hills

345 Foothill Rd

Beverly Hills, CA 90210

Dear Mr. Martinez:

I have reviewed the recent application by BreitBurn Energy Company to drill and produce two wells numbered WP-60H (API# 037-27257) and WP-61 (API# 037-27258). I reviewed the provisions of Article 3 of Chapter 5, Title 10 of the City of Beverly Hills Municipal Code. The California Division of Oil, Gas and Geothermal Resources approved the Permit to Conduct Well Operations for the two wells.

The application appears to satisfy the City of Beverly Hills requirements for the application. I requested some additional information from Mr. Jon Kuespert of BreitBurn. He quickly emailed me a geologic cross section along each well course and a structure map. There is one inconsistency that stands out in the application. The given point for entering the City of Beverly Hills for WP-60H is 5880 feet below the surface in the text and -5442 vertical subsea (5442 measured depth) on the figure. WP-61 crosses into Beverly Hills at 5270 below the surface in the text and at -2691 vertical subsea (3176 measured depth) on the figure. I brought this to Mr. Kuespert's attention. Even though these numbers are inconsistent it is clear that the wells pass into Beverly Hills at depths greater than 500 feet.

I also reviewed Bob Lindblom's subsidence report and find that it too complies with Beverly Hills requirements. I would like to emphasize that there are factors other than oil production that produce ground level changes. Groundwater withdrawal is probably a significant contributor to changes in ground level in Beverly Hills.

If you have any questions on this review please contact me.

Respectfully submitted,

Don Clarke, RG 3583

Don Clarke, Consulting Geologist, 5838 Graywood, Ave., Lakewood, California, 90712-1128

August 10, 2012

Mr. Juan Martinez, Civil Engineer

City of Beverly Hills

345 Foothill Rd.

Beverly Hills, CA 90210

Dear Mr. Martinez,

This past week (Thursday, August 2, 2012) I met with you, Ann Zaworski, Ryan Gohlich and Michelle McGrath at your offices. I also spoke with Ann on Tuesday August 7, 2012 by phone. I spoke by phone to Breitburn people, including Jon Kuespert, Brad Pierce and Bill Weldon on August 2, 2012 and Friday August 10, 2010. The subject of these conversations was BreitBurn's proposal to drill two oil wells into Beverly Hills from their drillsite on Pico Blvd. which is located in Los Angeles. To my knowledge this was proposed in August of 2011 and it came to my attention in November 2011. I evaluated the proposal and submitted my report in December 2011.

Several concerns remain prior to submittal to Beverly Hills City Council. I will try to address these with this memo.

1. Valid environmental study The Pico drillsite was constructed and an environmental report was prepared. The April 1999 draft environmental report has the supporting data. BrietBurn sent a copy to Beverly Hills engineers on June 6, 2012. They said that they have provided copies twice prior. The final environmental statement was submitted and approved many years ago and should be valid today.
2. The environmental report was for the site and for the 69 conductors. The conductor is a large piece of pipe that is driven vertically into the ground and cemented into place. The surface portion of the conductor will be the well head. The oil well will be drilled through the conductor. In this way the upper 100 feet of the drill hole is separated from the surface soils and shallow deposits. It also protects the drill hole from ground failure or sloughing of the walls. It is standard procedure to use the conductors and this is closely regulated by the California Division of Oil, Gas and Geothermal Resources (DOGGR). There have been no new conductors placed at the drill site.
3. Breitburn has drilled wells from over 60 of the conductors.

4. Proposed wells WP-60H and WP-61 have planned surface locations in two of the unused conductors. In other words there have been no other wells drilled through these conductors in the past.
5. The BreitBurn facility is located in Los Angeles and has some wells drilled into Beverly Hills that are currently producing oil.
6. The BreitBurn staff assures me that they have all of the necessary permits to operate in Los Angeles and that they satisfy all current safety and environmental requirements. In other words they are in full compliance with LA City codes and regulations.
7. BreitBurn has applied for and received the necessary permits from DOGGR. DOGGR has also granted new API numbers as part of their Permit to Conduct Well Operations (August 5, 2011). Note: These wells may be equivalent to the two wells that went to City Council in May 2007. If so the conductors for those wells were used for drilling to locations in Los Angeles.
8. The proposed wells will follow a course as has been provided to the engineering department. One well will enter Beverly Hills at a depth of around 3000 feet and the other at 5000 feet.
9. From the well head the wells will be cased to a depth of 1,100 feet.
10. There are no plans to perform fracture jobs on these wells.
11. The BreitBurn people assure me that they are ready to move forward in a reasonable and safe manner. They are available to answer questions if needed. They have also offered a tour of the facilities Beverly Hills employees and politicians.
12. No surface operations for these wells will occur in Beverly Hills. Bottom hole locations will be greater than one mile deep in Beverly Hills.
13. The wells will be completed well below the potable ground water. The wells will also be cemented across these fresh aquifers.

I see no reason to delay approval of these wells. It is my opinion that BreitBurn must operate under close scrutiny in the greater Beverly Hills area. As such I would expect them to operate in an exemplary manner if they expect to continue operating.

If you have any more questions please contact me.

Respectfully submitted,

Don Clarke, RG 3583