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CHEVRON PRODUCTS COMPANY EL SEGUNDO REFINERY

PRODUCT RELIABILITY AND OPTIMIZATION PROJECT FINAL ENVIRONMENTAL IMPACT REPORT

Volume II: Final Health Risk Assessment

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PREFACE

This document constitutes the Final Environmental Impact Report (EIR) for the Chevron Products Company El Segundo Refinery Product Reliability and Optimization Project. The Draft EIR was circulated for a 45-day public review and comment period on March 7, 2008. The comment period ended on April 22, 2008. Four comment letters were received during the public comment period on the Draft EIR. The comment letters and responses are included in Appendix G of Volume I of this document. The comments were evaluated and minor modifications have been made to the Draft EIR such that it is now a Final EIR. None of the modifications alter any conclusions reached in the Draft EIR, nor provide new information of substantial importance relative to the draft document that would require recirculation of the Draft EIR pursuant to CEQA Guidelines §15088.5. Therefore, this document is now a Final EIR. Additions to the text of the EIR are denoted using italics. Text that has been eliminated is shown using strike outs.

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CHEVRON PRODUCTS COMPANY EL SEGUNDO REFINERY

DRAFT FINAL HEALTH RISK ASSESSMENT FOR THE PRODUCT RELIABILITY AND OPTIMIZATION PROJECT

1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

This Health Risk Assessment (HRA) has been prepared to evaluate the toxic air contaminant impacts of the proposed Chevron Products Company El Segundo Refinery – Product Reliability and Optimization (PRO) Project.

1.2 FACILITY LOCATION AND SCAQMD ID NUMBER

The Refinery is located at 324 West El Segundo Boulevard in the City of El Segundo, California in the southern portion of Los Angeles County (See Figure 1). The South Coast Air Quality Management District (SCAQMD) identification number for the facility is 800030. The Refinery is bounded by El Segundo Boulevard to the north, Sepulveda Boulevard to the east, Rosecrans Avenue to the south, and Vista Del Mar to the west. The Chevron Refinery is located in an area of mixed land uses, with industrial, recreation, residential, and commercially zoned areas nearby. Land use to the north of the Chevron Refinery is primarily residential, with a mix of commercial and light industrial zoning mixed in. The predominant adjacent land uses west of the Refinery are nearly all heavy industrial, or open space, which includes: Dockweiler State Beach, Manhattan Beach, and the El Segundo Generating Station, although a small parcel of land at the southwest corner of the Chevron property is made up of commercial and multiple-family residential.

Directly south of the Refinery, there is a single-family residential area bordering the entire length of the Refinery separated by Rosecrans Avenue. The corridor immediately east of the Refinery is comprised of a golf course at the corner of Sepulveda Boulevard and El Segundo Boulevard, with light commercial and heavy industrial zoning for the rest of the tract. The Refinery is located in the City of El Segundo within Los Angeles County in an urbanized area that includes a substantial amount of industrial development, due to the proximity of Los Angeles International Airport (LAX).

1.3 DESCRIPTION OF FACILITY AND PROCESSES

Crude oil, used to produce gasoline and other Refinery products, is delivered by ship to the marine terminal and pumped to the Refinery by existing pipelines or received via pipeline

directly to the Refinery. The crude oil is then processed in the crude units where it is heated and distilled into multiple feedstock components that are later processed elsewhere in the Refinery. The heavy residual oil leaving the crude units is further distilled in the vacuum units to yield additional, lighter hydrocarbon products and vacuum residuum. The vacuum residuum is processed in the Coker Unit and the lighter hydrocarbon components from the crude units and vacuum units are fed to other Refinery units for further processing. Some of the major downstream processes are cracking in the Fluidized Catalytic Cracking Unit (FCCU) and ISOMAX Unit, processing to separate sulfur in the hydrotreating units including the Vacuum Residuum Desulfurization (VRDS) Unit, synthesizing in the Alkylation Unit, and reforming in the Continuous Catalytic Reformer (CCR) Unit.

Auxiliary systems are also needed to support Refinery operations including hydrogen plants (to produce hydrogen needed for certain refinery reactions), boilers to produce steam, cogeneration plants to produce electricity and steam, and wastewater treatment systems.

1.4 SUMMARY OF RESULTS

This document contains the HRA prepared for the Refinery PRO Project. The results of the project HRA are summarized herein.

The HRA has been prepared in accordance with the August 2003 Office of Environmental Health Hazard Assessment (OEHHA) Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments and the October 2003 Air Resources Board Recommended Interim Risk Management Policy for Inhalation-based Residential Cancer Risk memo. This HRA includes a comprehensive analysis of the dispersion of certain AB2588-listed compounds into the environment, the potential for human exposure, and a quantitative assessment of individual health risks associated with the predicted levels of exposure.

Table 1 summarizes the results of this HRA. The Refinery emissions associated with implementation of the proposed project are estimated to result in an increased cancer risk to the maximum exposed individual worker (MEIW) of 0.22 per million, an increased cancer risk to the maximum exposed individual resident (MEIR) of 0.33 per million, and an increased cancer risk to the maximum exposed sensitive receptor of 0.13 per million. The maximum acute hazard index for the proposed project is estimated to be 0.031 and the maximum chronic hazard index is estimated to be 0.007.

	Project HRA Result
Excess Cancer Risk (per million) to the Maximum Exposed Individual Worker	0.22E-06
Excess Cancer Risk to the Maximum Exposed Individual Resident (per million)	0.33E-06
Excess Cancer Risk to the Maximum Exposed Sensitive Receptor (per million)	0.13E-06
Maximum Acute Hazard Index	0.0307
Maximum Chronic Hazard Index	0.0066

TABLE 1 SUMMARY OF CHEVRON EL SEGUNDO REFINERY PROPOSED PROJECT HRA RESULTS

Based on the health risk assessment results, the MEIW is located approximately 600 feet east of the Refinery and MEIR is located approximately near the southwestern boundary of the Refinery. The proposed project cancer risk at the MEIW and the MEIR are below the 10×10^{-6} or 10 per million risk threshold. The non-cancer acute and chronic health impacts for the proposed project are below the hazard index of 1.

2.0 PROPOSED PROJECT DESCRIPTION

The proposed Refinery modifications are summarized in this section. The locations of the proposed new and modified units are shown in Figure 2. The PRO Project includes modifications to existing specific process units, new process units, and also new infrastructure that supports and links these units to other processes, units or facilities throughout the Refinery. The proposed project will involve physical changes and additions to multiple process units and operations as well as operational and functional improvements primarily within the confines of the Refinery.

2.1 Proposed Process Unit Modifications

2.1.1 No. 2 Crude Unit

The No. 2 Crude Unit provides the initial separation of crude oil by distillation. The various distillates are then further refined in other processing units in the Refinery. The proposed modifications to the No. 2 Crude Unit include rerouting atmospheric PRDs to the proposed new

Vapor Recovery and Safety Flare System. In addition, two knock-out drums will be added to the unit to collect, for recovery purposes, any liquids released from the PRDs in the No. 2 Crude Unit, the No. 2 RSU, and the Minalk/Merox Unit. The purpose of this modification is to voluntarily reduce potential emissions from PRDs that currently vent to atmosphere in the event of a process upset.

2.1.2 No. 2 Residuum Stripper Unit

The No. 2 RSU processes the heavy hydrocarbons from the bottom of the No. 2 Crude Unit using vacuum distillation to produce various weight gas oils. The proposed modifications to the No. 2 RSU are limited to rerouting PRDs to the proposed new Vapor Recovery and Safety Flare System via the two new knock-out drums in the No. 2 Crude Unit. The purpose of this modification is to voluntarily reduce potential emissions from PRDs that currently vent to atmosphere in the event of a process upset.

2.1.3 Minalk/Merox Unit

The Minalk/Merox Unit converts sulfur compounds (mercaptans) to disulfides using a catalyst. The proposed modifications to the Minalk/Merox Unit are limited to rerouting PRDs to the proposed new Vapor Recovery and Safety Flare System via a new knock-out drum in the No. 2 Crude Unit. The purpose of this modification is to voluntarily reduce potential emissions from PRDs that currently vent to atmosphere in the event of a process upset.

2.1.4 Waste Gas Compressors

The Waste Gas Compressors (WGCs) at the No. 2 Crude Unit are currently connected to the Low Sulfur Fuel Oil (LSFO) vapor recovery system and safety flare. As part of connecting PRDs to the New Safety Flare, the Waste Gas Compressors (WGCs) will be rerouted to the New Vapor Recovery and Safety Flare System. The purpose of this modification is to align all PRDs from the No. 2 Crude Unit, No.2 RSU, Minalk/Merox Unit, and the WGCs to a common vapor recovery and safety flare system.

2.1.5 Fluidized Catalytic Cracking Unit

The purposes of the modifications to the FCCU are to increase reliability, consolidate existing equipment, more efficiently separate intermediate streams, increase production of CARB gasoline components, and to improve energy efficiency. The modifications and equipment additions includes; installing a new motorized main air blower replacing the existing steam turbine driven main air blower (the existing equipment will be idled and removed from the existing permit); installing a new depropanizer column replacing three smaller existing distillation columns; installing a new deethanizer column; installing new pumps; and, installing new heat exchangers.

2.1.6 Alkylation Unit

The Alkylation Unit combines light olefins (propylene, butylene and pentenes) with isobutane to produce an alkylate product for use as a gasoline blending component. The proposed modifications to the Alkylation Unit include supplemental cooling that will be supplied by a new cooling tower and additional heat exchangers. The depropanizer, located in the older section of the Alkylation area, will be removed. This column is one of the three depropanizer columns being removed as part of FCCU upgrades. The purpose of the modifications is to improve reliability through more efficient cooling (i.e., heat removal) and improve product separation in the Unit.

2.1.7 Vacuum Residuum Desulfurization Unit

The VRDS Unit desulfurizes and denitrifies gas oil feedstock for the FCCU. The purpose of the modification to the VRDS Unit is to allow taking one of the parallel reactor trains out of service to replace the catalyst while the other train remains in service. The unit modifications and additions include: installing valve manifolds to separate the reactor trains; installing a new, parallel high pressure separator; re-piping of the existing Recycle Hydrogen Heat Exchangers and Recycle Hydrogen Air Coolers to split them between the two trains; and, installing new facilities to allow sulfiding of fresh catalyst in one reactor train with the other train in operation. This includes installation of two new separator vessels, a new sulfiding recycle hydrogen compressor, and a new recycle hydrogen air cooler. In addition, the existing VRDS Product Coolers will be re-piped so they can be used in the catalyst sulfiding loop.

2.1.8 ISOMAX Unit

The ISOMAX Unit converts light and intermediate gas oils into jet fuel, motor gasoline, and Liquefied Petroleum Gas (LPG). The unit will be modified to increase the feed capacity by approximately 10,000 barrels per day (BPD), and to produce two additional products, Ultra Low Sulfur Diesel (ULSD) fuel and desulfurized FCCU feed. The purpose of the modifications is to accommodate gas oil production and optimize output from the Unit. Modifications will be made to the Century Type ISOMAX Catalyst for deNitrification (CKN) and distillation sections. A Pressure Swing Absorption (PSA) Unit will be installed to recover hydrogen for reuse in existing Refinery hydrocracking and hydrotreating processes. Heaters in the ISOMAX Unit will be retrofitted with low nitrogen oxides (NOx) burners to reduce NOx emissions. Firing rates for the heaters will operate within existing permit limits.

2.1.9 Cogeneration Facilities

The Refinery currently operates a multi-train cogeneration plant to supply most of the electricity and steam used by processing equipment. To supplement electrical needs, electricity is purchased from offsite sources (e.g., SCE). The existing cogeneration facility will be expanded by an additional 49.9 megawatts (MW). The new 49.9 MW Cogen Train D includes a natural gas and refinery gas-fired turbine electric generator, a new steam-driven turbine electrical generator, feed gas compressors, knockout and surge pots, waste heat boilers (including duct burners) to generate steam, a carbon monoxide (CO) oxidation catalyst unit, and a Selective Catalytic Reduction (SCR) unit to control emissions. Expansion of this facility will decrease the Refinery's need for offsite sources of electricity.

2.1.10 Railcar Loading/Unloading Rack

The Refinery currently ships and receives LPG by trucks and rail cars. As part of the PRO Project, the LPG Loading/Unloading Rack will be expanded by the addition of four new loading/unloading positions for added flexibility that will increase the ability to optimize CARB-gasoline blending.

2.1.11 Utility Improvements

SCE and the WBMWD will improve systems to service the proposed project. SCE improvements expected to be made include adding new 66 kilovolt (kV) circuit breakers in their existing Chevmain Power Substation, new transformers at their existing ISOMAX Power Substation, about 500 feet of overhead or underground cables between the Chevmain Power Substation and the ISOMAX Power Substation, and a new transformer at their Chevgen Power Substation. WBMWD currently provides boiler feed and cooling tower water from secondary-treated effluent from the Hyperion Wastewater Treatment Plant that has been further processed by filtration, chlorination, demineralization by reverse osmosis, and/or denitrification. Improvements as part of the PRO Project at WBMWD, include increasing reverse osmosis and denitrification water production facilities.

2.2 **Proposed New Process Units**

2.2.1 Sulfur Recovery Facilities

Sour Water Stripper

A new SWS with a capacity of 300 gallons per minute (gpm) will be constructed to supplement the existing plants. This stripper will allow for increased processing of sour water and production of commercial grade sulfur. The overhead stream from the stripper, containing hydrogen sulfide (H_2S), ammonia and water vapor, will be fed to a new SRU.

Sulfur Recovery Unit

A new SRU with a capacity of 175 long tons per day will be installed to process increased amounts of H_2S to commercial grade, molten sulfur for sale. Ammonia in the feed stream to the SRU will be converted to atmospheric nitrogen and water and exhausted through the TGU to the atmosphere.

<u>Tail Gas Unit</u>

The exhaust from the SRU will be vented to a new TGU for further processing before discharging to the atmosphere. The TGU will include a new incinerator.

2.2.2 Vapor Recovery and Safety Flare System

A new closed relief system, including vapor recovery compressors and an elevated safety flare, will be installed that is designed to be capable to handle emergency releases from the equipment that is connected to it. The PRDs on the No. 2 Crude Unit, the No. 2 RSU, and the Minalk/Merox Unit that currently may vent to atmosphere under upset conditions will be routed to this new Vapor Recovery and Safety Flare System. The existing WGCs currently routed to the LSFO vapor recovery system will be re-routed to this new Vapor Recovery and Safety Flare System. In addition, PRDs from the new SWS, SRU and TGU will be routed to this new Vapor Recovery and Safety Flare System. The recovered gases will be treated prior to being added to the existing refinery fuel gas system.

2.2.3 Additional Storage Capacity

The proposed project will require additional segregation and storage of intermediate hydrocarbon streams and products. A new LPG sphere (Tank 722), two new FCCU light gasoline tanks (Tanks 302 and 303), and a new ISOMAX diesel tank (Tank 447) with the flexibility to store other products will be added. In addition, new pumps will be added to transfer materials to and from the new tanks.

2.2.4 Cooling Tower

A new cooling tower with a water circulation rate of approximately 12,000 gpm will be constructed to support cooling needs at the existing Alkylation Unit, new SRU, new SWS, and new TGU.

2.2.5 Hydrogen Compression and Transfer Facilities

Hydrogen is currently produced onsite at the Refinery. Additional hydrogen compression and transfer facilities will be installed to supply Refinery units with hydrogen at the required pressures.

3.0 HAZARD IDENTIFICATION

The operation of the Refinery generates various air contaminants. Some of these chemical compounds are carcinogenic, toxic, or hazardous. Numerous federal, state, and local regulatory agencies have developed lists of toxic air contaminants (TAC). The list of potentially-emitted substances considered in the preparation of the HRA for the proposed project is that in Appendix A-I of the CARB AB2588 requirements and by OEHHA. The AB2588 toxic air contaminants emitted from the proposed project are shown in Table 2. Some of these pollutants were consolidated into one category, e.g., polycyclic aromatic hydrocarbons (PAHs). Health effects data are not available for all compounds. Therefore, a total of 38 toxic air pollutants were included in the air dispersion modeling (see Table 2). For carcinogens, cancer potency factors were used to compute cancer. For non-cancer health effects, reference exposure levels (REL) and acceptable oral doses (for multi-pathway pollutants) were used. The non-carcinogenic

hazard indices were computed for chronic and acute exposures with their respective toxicological endpoints shown.

4.0 EXPOSURE ASSESSMENT

The exposure assessment estimates the extent of public exposure to each toxic air contaminant emitted by the Refinery and determines the groundlevel concentrations of each compound through air quality modeling.

4.1 EMISSION SOURCES

There are a number of emission sources at the Refinery. These include aboveground tanks, heaters/boilers, flares, loading racks, pumps, valves, flanges, drains, process equipment, cooling towers, stack, and other miscellaneous sources of emissions. The proposed project will modify emissions from sources (i.e., valves, flanges, pumps, and compressors) in various locations throughout the Refinery.

The existing Refinery includes multiple types of sources including point sources and areas sources. A total of 21 sources at the Refinery were modeled as part of the proposed project. A point source is a source with emissions released from a single point with a velocity and vertical direction. An example of a point source is a flare or an exhaust for a fired source. An area source is a source with fugitive emissions throughout a specific location. An example would be a process unit that has various valves, flanges, pumps, compressors, and drains located throughout the unit. Emissions are assumed to be emitted continuously throughout "the area" of the process unit.

Table 3 summarizes the sources that were modeled for the proposed project HRA.

4.2 EMISSION ESTIMATES

Emission rates for proposed project are shown in Table 2. Emission rates are based on operating 24 hours per day, and 365 days per year.

VOC emission factors for fugitive components installed in conjunction with the proposed project were based on the latest SCAQMD guidelines for fugitive components, assuming the use of BACT and an inspection and monitoring program (SCAQMD, 1999). Speciation of VOC emissions was derived from speciation data used by the Refinery for annual emissions reporting and AB2588 reporting. Combustion source emissions are calculated based on fuel feed rate and standard emission factors or emission factor guarantees provided by the manufacturer.

4.3 AIR QUALITY MODELING

Modeling Scenarios

Air quality modeling was conducted for all emission sources from the proposed project. A total of 21 sources were modeled. The California Air Resources Board (CARB) Hotspots Analysis Reporting Program (HARP) model is the most appropriate model for determining the air quality impact from proposed project. The HARP model is well suited for refinery modeling since it can accommodate multiple sources and receptors. The HARP model (CARB, 2005) combines the US Environmental Protection Agency (EPA) Industrial Source Complex dispersion model (ISCST3) with a risk calculation model based on the Air Toxics Hot Spots Program Risk Assessment Guidelines (OEHHA, 2003). The dispersion portion of the HARP model provides estimates of source-specific annual and hourly maximum ambient ground level concentrations. The risk estimation portion of the HARP model is discussed in Section 5.

The following settings were used in running the ISCST3 dispersion model:

- Use stack-tip downwash;
- Use buoyancy-induced dispersion;
- Do not use gradual plume rise;
- Do not use calm wind processing routine;
- Do not use missing data processing routine;
- Use default wind profile exponents;
- Use default vertical potential temperature gradients;
- Use urban mode dispersion; and,
- Use simple terrain.

HARP was set to include algorithms to model the effects of building downwash on emissions from nearby or adjacent point sources. Terrain elevations were also taken into account even though the Refinery is located in a relatively flat area.

The release parameters for each source are shown in Table 3.

The maximum groundlevel concentrations based on the results of air quality modeling for each toxic air contaminant at the location of the facility MEIW and MEIR are provided in Tables 4 and 5, respectively. Maximum impact receptor location results from HARP are in Appendix A. A complete set of the input and output files have been submitted electronically and are available from the SCAQMD.

Meteorological Data

The 1981 meteorological data for the Lennox station was used for wind and surface data. The Lennox station is the closest to the Chevron El Segundo Refinery for which meteorological data is available in the HARP model.

Modeled Receptor Networks

The receptors used in the ISCST3 model included fenceline, fine, and sensitive receptors. The terrain surrounding the facility is relatively constant, however, terrain variations were included for the receptor networks identified below. Figure 3 shows all modeled source locations and receptors.

Fenceline Receptors

The fenceline receptors (maximal spacing every 100 meters(m)) were used to determine the maximum concentrations at the property line of the Refinery facility.

Fine Receptor Grid

A fine receptor grid (100 m x 100 m spacing) was used to identify locate maximum impact locations. The grid originates southwest of the facility and extends 1,500 meters to the south and west, and 4,000 meters to the north and east.

Sensitive Receptors

Discrete receptors for sensitive endpoints were modeled to determine the health risk for schools, parks, medical centers, etc. Table 6 shows the sensitive receptors that were used and the associated location and risk.

Coordinate System

All source and receptor locations were modeled with a Universal Transverse Mercator (UTM) type coordinate system. The terrain surrounding the Refinery is relatively flat, therefore, the terrain elevations were not included with the source receptors.

5.0 HEALTH RISK ASSESSMENT MODEL

5.1 CARCINOGENIC HEALTH IMPACTS

The HRA modeling was performed using the HARP model. The HARP model is designed for AB2588 risk assessments. It incorporates the algorithms and recommendations found in the *Air Toxics Hot Spots Program Risk Assessment Guidelines: The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk* OEHHA, 2003), and the *California Air Resources Board (CARB) Recommended Interim Risk Management Policy for Inhalation-Based Residential Cancer Risk* Memo (CARB/OEHHA, 2003).

The HARP model requires data to be input, such as, identification codes of modeled pollutants, receptor coordinates, population data, and peak 1-hour and annual emission rates. The model then generates ambient air concentrations and cancer risk estimates. In addition, the model also

computes excess cancer burden for carcinogens and hazard indices (acute and chronic) for non-carcinogens.

The HRA provides worst-case estimates of potential public exposure to each TAC for which cancer risk is to be quantified or for which chronic and acute non-cancer effects are to be evaluated. Exposure may occur by single or multiple routes and the duration may vary. Table 7 shows the chemicals emitted from the proposed project and their potential health impacts (carcinogens, and chemicals with acute and chronic health concerns).

On November 14, 2007, OEHHA established ethyl benzene as a carcinogen. The HARP model has not been updated to reflect this change and does not allow the end user to modify the health risk values used in the model. Therefore, to estimate the impact from ethyl benzene the risk associated with the project benzene emissions was scaled to adjust for the ethyl benzene emission rate and the carcinogenic risk using ratios of emission rates and unit risk factors.

The OEHHA Guidelines suggest that pathways such as inhalation, dermal absorption, crop ingestion, fish ingestion, soil ingestion, and mother's milk, be included in a risk assessment, as appropriate. Additionally, the Guidelines provide algorithms for use in estimating exposures attributable to various pathways. The following pathways were included in this HRA for residential exposure: (1) inhalation; (2) dermal absorption; (3) home grown produce; (4) soil ingestion; and (5) mother's milk. The potential for animal product ingestion was not included because animal and dairy farms are beyond the Refinery's area of influence. Furthermore, no commercial agricultural areas or basins for the storage of drinking water were found in the vicinity of the proposed project.

Receptor exposures are based on two likely exposure scenarios including living and working at a location impacted by toxic air emissions. These are the residential and worker receptor scenarios. Risk assessment modeling for the residential exposure assumes a continuous lifetime exposure of 70 years duration. The underlying assumption is that the residential population remains at one point for 24 hours a day, 7 days a week, 50 weeks a year, for 70 years. These assumptions are defined as the "Derived (Adjusted) Cancer Risk" method for multi-pathway exposure in HARP. This is considered conservative because most people change places of residence during their lifetime and do not remain at home all day, almost every day for a continuous 70-year period.

Workers are assumed to be exposed for 8 hours a day, 5 days a week, 49 weeks a year, for 40 years. The same pathways were included in this HRA for worker exposure as for residential exposure except ingestion of homegrown produce, which is not a valid route of exposure for occupational receptors.

Multi-pathway exposure was evaluated for the contaminant per the OEHHA Guidelines. Inhalation and oral slope factors, and RELs values that were used in the HRA were from the Heath Database included in the HARP modeling software. The updated database can be found at <u>http://www.arb.ca.gov/toxics/harp/downloads.htm</u>. Table 7 and 8 provides the health data used in the HRA for the facility.

The toxicity of polycyclic aromatic compounds (PACs), also known as PAHs, was based on the OEHHA potency equivalency factor weighting scheme. The carcinogenic PAHs are the sum of the Group 2A and 2B PACs (see page 106 of Part II Technical Support Document Describing Available Cancer Potency Factors, OEHHA, April 1999). Benzo(a)pyrene is the index compound for relative potency and for potency equivalency factors (PEFs) for PAHs and related derivatives. Under the OEHHA scheme, benzo(a)pyrene is assigned a PEF of 1. Most other PAHs of concern in this risk assessment (e.g., benz(a)anthracene, benzo(b)fluoranthene, and benzo(k)fluoranthene have a PEF of 0.1. Chrysene has a PEF of 0.01.

Exposed population risk (i.e., cancer burden) is usually limited to the one per million impact zone by census block. Since the maximum impact from the proposed project is expected to be less than one per million, no census blocks were modeled.

5.2 NON-CARCINOGENIC HEALTH IMPACTS

In the analyses of non-carcinogenic health effects, it is generally assumed that a threshold exists below which no health impacts are expected. The substances evaluated in this risk assessment can produce health effects due to acute or chronic exposures, although the concentration required to produce such effects may vary greatly depending on the compound. The concept of a threshold is based on studies, which indicate that the body can tolerate exposure to some chemicals at low levels of exposures.

The types of non-cancer health effects resulting from exposure to compounds vary according to the substance, the magnitude of exposure, and the period of exposure. These health effects generally can be classified into acute exposures (short-term exposures) and chronic exposures (long-term exposures, generally years).

Acute /Chronic Health Effects

The potential for acute/chronic health effects is evaluated herein by comparing the Reference Exposure Levels (RELs) with ground level concentration or dosage values developed by the HARP model. Ground level concentration values are used for the inhalation pathway, and dosage values are used for the oral pathway. The RELs represent the threshold for health effects. Exposure to contaminants at ground level concentrations or doses below the RELs is not expected to result in health effects. The acute/chronic RELs have been compared to the ground level concentration and dosage at the maximum impact point for each pollutant.

Little data is available on the interaction of mixtures of compounds, their fate in the environment, and the overall effect on the human body. The cumulative effects of chemicals in the body can be synergistic, additive, or antagonistic. It is not possible to evaluate chemical mixtures for synergistic or antagonistic health effects because the data available are very limited.

The use of a hazard index approach has been applied as a guideline for reviewing the cumulative non-carcinogenic health impacts of a mixture of compounds. The hazard index approach assumes that the health effects of chemical mixtures are additive. It is calculated by dividing the estimated exposure (ground level concentration for inhalation or dose for oral) to a given

substance by the REL for that substance, and adding the results for each chemical evaluated as shown below.

Hazard Index_(endpoint) = Sum of -----Health Standard;

Where: i = the number of pollutants reviewed

The calculated hazard index is for that combination of substances that exert their effect on the same target organs (endpoint). Therefore, a multi-pathway hazard index is calculated using all applicable exposure pathways (both inhalation and oral) and RELs for each endpoint. A hazard index is calculated for both acute and chronic health effects. The acute hazard index is based on the maximum 1-hour emissions and modeling results. The chronic hazard index is based on the annual average concentration and related air quality modeling results.

6.0 **RISK CHARACTERIZATION**

The health risk impacts associated with the proposed project emissions are evaluated in this section.

6.1 CANCER RISK ESTIMATES

Maximum Exposed Individual Worker (MEIW): The cancer risk estimates are shown in Table 9. Based on the air quality modeling and related assumptions, the proposed project cancer risk to the MEIW is 2.18×10^{-7} or about 0.22 per million for all sources. The MEIW is based on a 40-year exposure period. The ingestion of homegrown produce pathway is not valid for occupational exposures and is excluded from the calculated cancer risk. The MEIW location (Receptor No. 990:UTM coordinates 371054, 3752640) is graphically shown in Figure 4.

About 43 percent of the cancer risk at the MEIW is attributed to emissions from Source No. 8 (LPG rack) (see Table 10). Other sources that contribute to the MEIW cancer risk include about 29.1 percent from Source No. 9 (LPG rack fugitives) and 7.2 percent from Source No. 21 (Tank 722 Fugitives). Emissions of benzene are responsible for about 84.9 percent of the MEIW risk, followed by PAHs (4.8 percent) (See Table 11). Exposure via the inhalation pathway accounts for most of the cancer risk (See Table 9).

Individual Resident (MEIR): Based on the air quality modeling and related assumptions the proposed project cancer risk to the MEIR is 3.26×10^{-7} or about 0.33 per million for all sources. The MEIR risk was selected from the fine receptor grid that was zoned as residential. The MEIR location (Receptor No. 1118:UTM coordinates 368854, 3752340) is indicated graphically in Figure 4.

About 32.5 percent of the cancer risk at the MEIR is attributed to emissions from Source No. 7, (Tank 303), (see Table 12). Emissions from Source No. 5 (Tank 302) contributed about 25.9

percent. Emissions of benzene are responsible for about 52.8 percent of the MEIR risk, followed by naphthalene (30 percent), and PAHs (6.4 percent) (See Table 13). Exposure via the inhalation pathway accounted for most of the cancer risk (See Table 9).

Ethyl Benzene Carcinogenic Risk: For the MEIW, ethyl benzene is estimated to contribute 0.002×10^{-6} , which would adjust the cancer risk to 0.22×10^{-6} (no appreciable change). For the MEIR, ethyl benzene is estimated to contribute 0.02×10^{-6} , which would adjust the cancer risk to 0.35×10^{-6} .

6.2 SENSITIVE RECEPTORS

The peak cancer risk, chronic index, and acute index for a sensitive receptor occurs at St. Anthony's School just north of the Refinery. The cancer risk, chronic index, and acute index at St. Anthony's School is 1.62×10^{-7} or about 0.16 in a million, 0.0025, and 0.0203, respectively. (see Table 6).

6.3 NON-CARCINOGENIC HEALTH EFFECTS

Acute Health Effects: The proposed project emits pollutants which may have acute health effects. Therefore, the total hazard indices for acute health effects were estimated. As shown in Table 14, the maximum hazard index is the central nervous system (CNS) toxicological endpoint with a hazard index of 0.031. The acute hazard index is caused by exposure to H_2S (100 percent). The maximum acute hazard index location (Receptor No. 1899:UTM coordinates 369843, 3753533) is shown in Figure 4.

Chronic Health Effects: The proposed project emits pollutants which may have chronic health effects. As shown in Table 15, the developmental systems (DEVEL) have been predicted as the maximum toxicological endpoint for chronic exposure with a hazard index of 0.0066. Most of the chronic hazard index is due to exposure to phosphorus (98.9 percent). The maximum chronic hazard index location (Receptor No. 742:UTM coordinates 371254, 3753140) is shown in Figure 4.

7.0 **REFERENCES**

OEHHA, 2003. Air Toxics Hot Spots Program Risk Assessment` Guidelines: The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessment, August 2003.

CARB/OEHHA, 2003. Air Resources Board Recommended Interim Risk Management Policy for Inhalation-Based Residential Cancer Risk, October 2003.

CARB, 2005. *Hotspots Analysis and Reporting Program* (HARP Version 1.28 Build 23.03.27) and resources, <u>http://www.arb.ca.gov/toxics/harp/downloads.htm.</u>

SCAQMD, 1999. Jay Chen Memo, BACT/LAER for Valves as VOC Fugitive Sources, April 2, 1999.

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SUMMARY OF HRA RESULTS CHEVRON EL SEGUNDO REFINERY

	Proposed Project HRA Results
Excess Cancer Risk (per million) to the Maximum Exposed Individual Worker	2.18E-07
Excess Cancer Risk to the Maximum Exposed Individual Resident (per million)	3.26E-07
Excess Cancer Risk to the Maximum Exposed Sensitive Receptor (per million)	1.33E-07
Maximum Acute Hazard Index	0.0307
Maximum Chronic Hazard Index	0.0066

M:\MC\2505 Chevron - EIR\HRA2\2505 HRA Tables (rev1):Table 1 Sum HRA

EMISSIONS OF INDIVIDUAL CHEMICALS
CHEVRON EL SEGUNDO REFINERY

	Propose	d Project
	Emissions	Emissions
CHEMICAL	(Ibs/hr)	(lbs/yr)
1,2,4-Trimethylbenzene	1.94E-02	1.70E+02
1,3-Butadiene	1.30E-03	9.64E+00
Acetaldehyde	1.23E-02	1.08E+02
Acrolein	1.07E-04	9.34E-01
Ammonia	4.53E+00	3.97E+04
Benzene	2.11E-02	1.84E+02
Benzo[a]pyrene	2.64E-06	2.31E-02
Benzo[b]fluoranthene	3.44E-06	3.01E-02
Benzo[g,h,i]perylene	8.79E-06	7.70E-02
Cadmium	2.87E-04	2.52E+00
Carbon disulfide	1.37E-06	1.20E-02
Carbonyl sulfide	4.22E-06	3.70E-02
Chloroform	6.93E-07	6.07E-03
Chromium	2.29E-03	2.01E+01
Chromium(VI)	6.93E-07	6.07E-03
Cobalt	1.25E-04	1.10E+00
Copper	3.83E-03	3.36E+01
Cyclohexane	1.08E-02	9.46E+01
Ethyl benzene	2.00E-02	1.75E+02
Ethylene	5.30E-02	3.45E+02
Formaldehyde	3.50E-03	3.07E+01
Hexane	5.28E-02	4.63E+02
Hydrogen sulfide	1.09E-01	9.51E+02
Lead	6.47E-04	5.67E+00
Manganese	1.81E-03	1.59E+01
Mercury	3.20E-04	2.81E+00
Methane	8.48E-02	7.43E+02
Naphthalene	1.12E-02	9.79E+01
Nickel	1.47E-03	1.28E+01
PAHs	1.69E-05	1.48E-01
Phenol	4.05E-05	3.55E-01
Phosphorus	1.12E-02	9.82E+01
Propylene	1.73E-01	1.52E+03
Selenium	6.36E-04	5.57E+00
Toluene	6.41E-02	5.62E+02
Vanadium	7.20E-08	6.32E-04
Xylenes (mixed)	8.93E-02	7.82E+02
Zinc	1.68E-02	1.47E+02

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LIST OF REFINERY SOURCES CHEVRON EL SEGUNDO REFINERY

	Source					Release	-		Anale	Velocity	Diameter	Temp.
$\label{eq:labeleq:likely} \mbox{New Flare} \mbox{New Flare} \mbox{Lex} \mbox{New Flare} \mbox{Lex} \mbox{Lex} \mbox{Lex} \mbox{Acreal} \mbox$	Number	Description	Type	UTME	UTMN	Height (ft)	Width (ft)	Length (ft)	(degree)	(ft/min)	(ft)	E
New Flare FugitivesNew Flare Fugitives 3752746 6.6 240 240 240 1		New Flare	Point	370179	3752782	148				22.4	4.8	1832
PSV Compressors Area 369085 3752311 6.6 9.6 112 6.4 1 VRDS Modifications Area 369083 3753139 6.6 6.00 280 7 7 I NR JSD Modifications Area 3953139 6.6 6.0 280 7 7 7 Alkylation Modifications Area 37016 3752413 6.6 311 355 6.1 7 7 7 Alkylation Modifications Area 370163 3752403 4.8 155 155 7 7 7 7 LIPG Rack Area 36902 3753213 6.6 76.5 35 61 7 7 7 7 I ark 303 Minalk Modifications Area 36902 3753213 6.6 76.5 35 61 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 </td <td>2</td> <td>New Flare Fugitives</td> <td>Area</td> <td>370143</td> <td>3752746</td> <td>6.6</td> <td>240</td> <td>240</td> <td></td> <td></td> <td></td> <td></td>	2	New Flare Fugitives	Area	370143	3752746	6.6	240	240				
VRDS Modifications Area 369588 3753139 6.6 600 280 7 Tank 302 Tank 302 Area 369194 3752481 48 155 156	e	PSV Compressors	Area	369085	3753281	6.6	96	112	64			
Tank 302 Tank 302 Tank 302 Tank 302 Tank 303 Tank 305 3752682 6.6 345 35 6.1 1 1 1 1 1 1 1 1 355 6.1 1 </td <td>4</td> <td>VRDS Modifications</td> <td>Area</td> <td>369588</td> <td>3753139</td> <td>6.6</td> <td>600</td> <td>280</td> <td></td> <td></td> <td></td> <td></td>	4	VRDS Modifications	Area	369588	3753139	6.6	600	280				
Alkylation Modifications Area 370176 3752974 6.6 311 355 6 6 7 Tank 303 Tank 303 Area 369222 3752682 6.6 345 355 61 7 LPG Rack Area 370795 3752822 6.6 345 355 61 7 L LPG Rack Area 369075 3753282 6.6 76.5 290 64 7 Minalk Modifications Area 369077 3753282 6.6 76.5 290 64 7 New Cogen New Cogen 369293 3753109 87.5 20 90 64 7 New Cogen New Cogen 369293 375316 6.6 230 90 64 7 7 New Cogen New Cogen 375316 6.6 37.5 151 0 20 20 20 20 7 7 7 7 7 7 7 7	ນ	Tank 302	Area	369194	3752481	48	155	155				
	9	Alkylation Modifications	Area	370176	3752974	6.6	311	355				
LPG Rack LPG Rack Stack	7	Tank 303	Area	369222	3752403	48	155	155				
	ω	LPG Rack	Area	370795	3752682	6.6	345	35	61			
Minalk Modifications Area 369032 375321 6.6 76.5 290 64 ~ TAME modifications Area 36907 3752629 6.6 230 90 64 ~ 7 New Cogen Point 369203 3752629 6.6 230 90 64 ~ 7 New Cogen Area 369249 3752629 6.6 500 200 64 ~ 7 7 New Cogen Hugitves Area 369249 3752738 6.6 332 126 64 7 7 TGU Fugitves Area 369769 3752738 6.6 332 126.0 64 7 7 Tank 447 Area 370210 3752738 6.6 332 126.0 7 7 7 7 SRU SRU 3752738 6.6 332 126.0 7 7 7 7 7 7 7 SRU </td <td>6</td> <td>LPG Rack Fugitives</td> <td>Area</td> <td>370795</td> <td>3752682</td> <td>6.6</td> <td>345</td> <td>35</td> <td>61</td> <td></td> <td></td> <td></td>	6	LPG Rack Fugitives	Area	370795	3752682	6.6	345	35	61			
IAME modifications Area 369807 3752629 6.6 230 90 1 1 New Cogen New Cogen Point 369203 3753109 87.5 0 0 0 2707 1 New Cogen Hugitves Area 369249 3753146 6.6 500 200 64 2707 1 New Cogen Fugitves Area 369769 3752738 6.6 332 126 84.00 1	10	Minalk Modifications	Area	369032	3753321	6.6	76.5	290	64			
New Cogen New Cogen <t< td=""><td>11</td><td>TAME modifications</td><td>Area</td><td>369807</td><td>3752629</td><td>9.9</td><td>230</td><td>06</td><td></td><td></td><td></td><td></td></t<>	11	TAME modifications	Area	369807	3752629	9.9	230	06				
New Cogen Fugitives Area 369249 3753146 6.6 500 200 64 6 TGU Fugitives Area 369769 3752738 6.6 332 126 7 7 TGU Stack Point 369769 3752738 6.6 332 126 7 884.00 Tank 447 Area 370210 3752738 6.60 332.00 126.00 884.00 SRU Area 369769 3752738 6.60 332.00 126.00 7 7 SRU Area 369769 3752738 6.60 332.00 126.00 7 7 Swx Swx Area 369769 3752738 6.60 332.00 126.00 7 7 7 Swx Swx Area 375313 6.60 460.00 770.00 7 7 7 Swx Area 375313 6.60 460.00 770.00 7 7 7	12	New Cogen	Point	369293	3753109	87.5				2707	10.5	238
TGU Fugitives Area 369769 3752738 6.6 332 126 TGU Stack Point 369849 3752757 151.00 2	13	New Cogen Fugitives	Area	369249	3753146	9.9	500	200	64			
TGU Stack TGU Stack TGU Stack Point 369849 3752757 151.00 M M 884.00 884.00 1 Tank 447 Area 370210 3752997 50.00 125.00 125.00 884.00 1 SRU Area 369769 3752738 6.60 332.00 126.00 1	14	TGU Fugitives	Area	369769	3752738	6.6	332	126				
Tark 447 Area 370210 3752997 50.00 125.00 SRU Area 369769 3752738 6.60 332.00 SRU Area 369769 3752738 6.60 332.00 SWS Area 369769 3752738 6.60 332.00 SWS Area 369769 3752738 6.60 332.00 Isomax Modifications Area 370334 3752193 6.60 460.00 PSA Area 370334 3752193 6.60 460.00 17ak 722 Funitives 5.60 30.00	15	TGU Stack	Point	369849	3752757	151.00				884.00	227.20	8.30
SRU Area 369769 3752738 6.60 332.00 325.00 332.00 325.00 325.00 325.00 325.00 325.00 325.00 325.00 325.00 325.00 325.00 325.00 325.00 36.60 460.00 30.00 <th< td=""><td>16</td><td>Tank 447</td><td>Area</td><td>370210</td><td>3752997</td><td></td><td>125.00</td><td>125.00</td><td></td><td></td><td></td><td></td></th<>	16	Tank 447	Area	370210	3752997		125.00	125.00				
SWS Area 369769 3752738 6.60 332.00 Isomax Modifications Area 370334 3752193 6.60 460.00 PSA Area 370334 3752193 6.60 460.00 Tank 722 Funditives Area 370599 3752726 6.60 30.00	17	SRU	Area	369769	3752738		332.00	126.00				
Isomax Modifications Area 370334 3752193 6.60 460.00 PSA Area 370334 3752193 6.60 460.00 Tank 722 Funditives Area 370599 3752726 6.60 30.00	18	SWS	Area	369769	3752738		332.00	126.00				
PSA Area 370334 3752193 6.60 460.00 Tank 722 Fucilities Area 370599 3752726 6.60 30.00	19	Isomax Modifications	Area	370334	3752193	6.60	460.00	770.00				
Tank 722 Fugitives Area 370599 3752726 6.60 30.00	20	PSA	Area	370334	3752193	6.60	460.00	770.00				
	21	Tank 722 Fugitives	Area	370599	3752726	6.60	30.00	30.00				

GROUND LEVEL CONCENTRATIONS MAXIMUM EXPOSED INDIVIDUAL WORKER CHEVRON EL SEGUNDO REFINERY

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CHEMICAL	Maximum 1-hr	
	GLC (ug/m3)	GLC (ug/m3)
1,2,4-Trimethylbenzene	9.44E-02	2.90E-03
1,3-Butadiene	6.28È-03	1.40E-04
Acetaldehyde	8.40E-03	3.15E-04
Acrolein	2.79E-04	1.26E-05
Ammonia	2.99E+00	1.11E-01
Benzene	5.04E-01	3.24E-02
Benzo[a]pyrene	1.70E-06	6.27E-08
Benzo[b]fluoranthene	2.21E-06	8.16E-08
Benzo[g,h,i]perylene	5.66E-06	2.09E-07
Cadmium	1.85E-04	6.82E-06
Carbon disulfide	1.39E-05	2.75E-07
Carbonyl sulfide	2.03E-05	6.24E-07
Chloroform	4.46E-07	1.65E-08
Chromium	1.48E-03	5.45E-05
Chromium(VI)	4.46E-07	1.65E-08
Cobalt	8.07E-05	2.98E-06
Copper	2.47E-03	9.10E-05
Cyclohexane	6.01E-02	2.22E-03
Ethyl benzene	1.02E-01	3.75E-03
Ethylene	2.41E-01	5.80E-03
Formaldehyde	1.17E-02	5.45E-04
Hexane	6.76E-01	3.40E-02
Hydrogen sulfide	6.60E-01	2.65E-02
Lead	4.17E-04	1.54E-05
Manganese	1.17E-03	4.30E-05
Mercury	2.06E-04	7.61E-06
Methane	4.68E+00	1.18E-01
Naphthalene	4.41E-02	1.19E-03
Nickel	9.43E-04	3.48E-05
PAHs	3.87E-05	1.75E-06
Phenol	3.85E-04	8.59E-06
Phosphorus	7.22E-03	2.66E-04
Propylene	1.04E+00	2.45E-02
Selenium	4.09E-04	1.51E-05
Toluene	3.53E-01	1.25E-02
Vanadium	4.64E-08	1.71E-09
Xylenes (mixed)	4.77E-01	1.64E-02
Zinc	1.08E-02	3.99E-04

GROUND LEVEL CONCENTRATIONS MAXIMUM EXPOSED INDIVIDUAL RESIDENT CHEVRON EL SEGUNDO REFINERY

	Maximum 1-hr	Annual Average
CHEMICAL	GLC (ug/m3)	GLC (ug/m3)
1,2,4-Trimethylbenzene	3.88E-01	1.18E-02
1,3-Butadiene	1.01E-02	1.31E-04
Acetaldehyde	7.21E-03	8.41E-05
Acrolein	2.16E-04	5.64E-06
Ammonia	2.63E+00	2.95E-02
Benzene	2.09E-01	5.93E-03
Benzo[a]pyrene	1.48E-06	1.59E-08
Benzo[b]fluoranthene	1.92E-06	2.08E-08
Benzo[g,h,i]perylene	4.92E-06	5.32E-08
Cadmium	1.61E-04	1.74E-06
Carbon disulfide	5.35E-06	2.09E-07
Carbonyl sulfide	3.34E-05	4.58E-07
Chloroform	3.88E-07	4.19E-09
Chromium	1.28E-03	1.39E-05
Chromium(VI)	3.88E-07	4.19E-09
Cobalt	7.01E-05	7.58E-07
Copper	2.14E-03	2.32E-05
Cyclohexane	2.16E-01	6.54E-03
Ethyl benzene	2.61E-01	7.50E-03
Ethylene	4.38E-01	4.35E-03
Formaldehyde	8.04E-03	1.88E-04
Hexane	6.06E-01	1.79E-02
Hydrogen sulfide	8.43E-01	1.84E-02
Lead	3.62E-04	3.91E-06
Manganese	1.01E-03	1.09E-05
Mercury	1.79E-04	1.94E-06
Methane	1.29E+01	1.56E-01
Naphthalene	1.27E-01	2.82E-03
Nickel	8.20E-04	8.86E-06
PAHs	2.78E-05	6.26E-07
Phenol	1.87E-04	6.45E-06
Phosphorus	6.27E-03	6.78E-05
Propylene	1.01E+00	1.90E-02
Selenium	3.56E-04	3.84E-06
Toluene	1.03E+00	3.00E-02
Vanadium	4.03E-08	4.36E-10
Xylenes (mixed)	1.40E+00	4.07E-02
Zinc	9.39E-03	1.01E-04

LIST OF MODELED SENSITIVE RECEPTOR CHEVRON EL SEGUNDO REFINERY

Racantor			and a second	, 2000r	Chronio	
	Recentor Name		IITMN	Dick	Index	Acuta Indev
					Vanii	Vanie III av
SR001	SI ANTHONY'S SCHOOL	369950	3753775	1.62E-07	2.46E-03	2.03E-02
SR002	IMPERIAL SCHOOL	369775	3755100	6.09E-08	1.40E-03	6.28E-03
SR003	EL SEGUNDO MIDDLE	369275	3754500	8.48E-08	1.41E-03	8.85E-03
SR004	EL SEGUNDO PRESCHOOL	369350	3753900	1.45E-07	1.42E-03	1.55E-02
SR005	ST JOHNS LUTHERAN	370250	3754850	6.31E-08	1.18E-03	7.11E-03
SR006	CAROUSEL CHRISTIAN	369075	3754200	1.10E-07	1.28E-03	1.05E-02
SR007	1ST BAPTIST CHURCH DAY CARE	369750	3754575	8.06E-08	1.41E-03	8.90E-03
SR008	BEGG SCHOOL	371700	3750625	6.06E-08	1.62E-03	4.84E-03
SR009	LA MARINA	372125	3750600	5.62E-08	1.43E-03	4.24E-03
SR010	MEADOWS AVE SCHOOL	371425	3750500	5.83E-08	1.72E-03	5.01E-03
SR011	PACIFIC ELEMENTARY	370375	3750525	4.96E-08	9.91E-04	6.43E-03
SR012	CENTER SCHOOL	370250	3750475	4.87E-08	9.78E-04	6.33E-03
SR013	AMERICAN MARTYRS SCHOOL	370200	3750725	5.56E-08	9.83E-04	7.41E-03
SR014	GRAND VIEW SCHOOL	369475	3751150	8.24E-08	1.74E-03	1.02E-02
SR015	MANHATTAN HILLS SCHOOL	372025	3749875	4.14E-08	1.25E-03	3.52E-03
SR016	AVIATION HIGH SCHOOL	372875	3750450	4.45E-08	1.12E-03	3.31E-03
SR017	LADERA SCHOOL	369600	3751250	8.24E-08	1.32E-03	1.14E-02
SR018	MED CENTER OF MANHATTAN BEACH	370975	3751200	9.49E-08	2.19E-03	8.13E-03
SR019	MONTESSORI OF MANHATTAN BEACH	371775	3749725	3.76E-08	1.19E-03	3.56E-03
SR020	LITTLE RED SCHOOL HOUSE	371825	3750400	5.30E-08	1.45E-03	4.33E-03
SR021	1ST LUTHERAN CIRCLE OF LOVE	370625	3750275	4.03E-08	7.95E-04	5.43E-03
SR022	MANHATTAN BEACH ELE/MIDDLE	370275	3750425	4.75E-08	9.78E-04	6.15E-03
SR023	CAMP RUNAROUND INC	369600	3751175	8.01E-08	1.46E-03	1.07E-02
SR024	YOUNG VISIONS	369650	3751325	8.48E-08	1.28E-03	1.23E-02
SR025	RAINBOW RIVER	370300	3750375	4.63E-08	9.73E-04	5.95E-03
SR026	CENTER STREET ELEMENATRY	370275	3754500	8.17E-08	1.38E-03	9.01E-03

CHEMICALS EMITTED AND ASSOCIATED HEALTH EFFECTS CHEVRON EL SEGUNDO REFINERY

			Noncarcinogens	Noncarcinogens
CHEMICAL	CAS NO.	Carcinogens	Chronic	Acute
1,2,4-Trimethylbenzene	7440508		X	
1,3-Butadiene	75150	XX	X	
Acetaldehyde	7664417	Х	X	
Acrolein	71432		Х	Х
Ammonia	18540299		X	Х
Benzene	95636	Х	X	X
Benzo[a]pyrene	74851	Х	X	
Benzo[b]fluoranthene	50000	Х	X	
Benzo[g,h,i]perylene	110543		X	
Cadmium	7783064	Х	X	
Carbon disulfide	7440666		X	X
Carbonyl sulfide	463581		X	
Chloroform	7439921	Х	X	Х
Chromium	7439965	a De Manime and annu annu annu annu annu annu annu	X	
Chromium (VI)	7439976	X	X	
Cobalt	74828		X	
Copper	91203		X	Х
Cyclohexane	110827		X	
Ethyl benzene	50328		X	
Ethylene	67663		X	· · · · · · · · · · · · · · · · · · ·
Formaldehyde	106990	X	X	Х
Hexane	205992	······································	X	
Hydrogen sulfide	7440484		X	Х
Lead	7440020	X	X	· · · · · · · · · · · · · · · · · · ·
Manganese	1151		X	
Mercury	108952		X	Х
Methane	1210			
Naphthalene	107028	Х	Х	
Nickel	7723140	X	X	X
PAHs	75070	X	X	
Phenol	100414		X	X
Phosphorus	115071		X	
Propylene	7440473		X	
Selenium	7782492		X	
Toluene	191242		X	X
Vanadium	108883		X	X
Xylenes (mixed)	7440439		X	X
Zinc	7440622		X	

HEALTH DATA CHEVRON EL SEGUNDO REFINERY

	na znanovana na na na na na na na na dala kana ana na na hada wa na wana na na na hada wa na wa na na na na na Na na		
	Cancer Potency	Chronic RELs	Acute RELs
CHEMICAL	(mg/kg-day) ⁻¹	(ug/m ³)	(ug/m ³)
1,2,4-Trimethylbenzene	n an		Andread Charles and an
1,3-Butadiene	6.00E-01	2.00E+01	
Acetaldehyde	1.00E-02	9.00E+00	
Acrolein		6.00E-02	1.90E-01
Ammonia		2.00E+02	3.20E+03
Benzene	1.00E-01	6.00E+01	1.30E+03
Benzo[a]pyrene	3.90E+00		
Benzo[b]fluoranthene	3.90E-01		
Benzo[g,h,i]perylene			
Cadmium	1.50E+01	2.00E-02	
Carbon disulfide		8.00E+02	6.20E+03
Carbonyl sulfide			
Chloroform	1.90E-02	3.00E+02	1.50E+02
Chromium			
Chromium (VI)	5.10E+02	2.00E-01	a bayan kanan sana manan kané daria kénan manan sa sa sana sana dan kéné da
Cobalt			*****
Copper			1.00E+02
Cyclohexane	an a		NTANGLOGINE X 2 AMOUNTO I CONTRACTURE UNIT ON THE MONETHER STATEMENT
Ethyl benzene	an mar an	2.00E+03	9903199799997999797999999999999999999999
Ethylene			
Formaldehyde	2.10E-02	3.00E+00	9.40E+01
Hexane		7.00E+03	860263836079407977777777777777777777777777777777
Hydrogen sulfide		1.00E+01	4.20E+01
Lead	4.20E-02		
Manganese		2.00E-01	Christelin Marten an an an an an Africa Calabar Ballin Martin Calabar
Mercury	n ann an an an ann an ann an ann ann an	9.00E-02	1.80E+00
Methane		***************************************	
Naphthalene	1.20E-01	9.00E+00	Abdiliana ana amin'ny a
Nickel	9.10E-01	5.00E-02	6.00E+00
PAHs	3.90E+00		
Phenol		2.00E+02	5.80E+03
Phosphorus	e blakk klick sin his vielek kan en som som som en en som en som som som en en en		#9)449(***********************
Propylene		3.00E+02	1988 - Constant Const
Selenium		2.00E+01	
Toluene		3.00E+02	3.70E+04
Vanadium			8899
Xylenes (mixed)		7.00E+02	2.20E+04
Zinc			an a san an an an air air an an an an an air an
And a second s		CONTRACTOR DATA DATA DATA DATA DATA DATA DATA DAT	

Source: Consolidated Table of CEHHA/ARB Approved Risk Assessment Health Values, updated Dec. 19, 2003, except where noted.

*SCAQMD, Risk Assessment Proceedures for Rules 1401 and 212, Attachment K, Tables for Applications Deemed Complete on or after May 2, 2003

SUMMARY OF CANCER RISK CHEVRON EL SEGUNDO REFINERY

EXPOSURE PATHWAY	Maximum Exposed Individual Resident	Maximum Exposed Individual Worker
Inhalation	3.05E-07	2.07E-07
Dermal	8.68E-09	9.38E-09
Soil Ingestion	1.39E-09	1.33E-09
Ingestion of Home Grown Produce	1.11E-08	0.00E+00
Ingestion of Animal Products	0.00E+00	0.00E+00
Ingestion of Mother's Milk	0.00E+00	0.00E+00
Total Cancer Risk	3.26E-07	2.18E-07

CONTRIBUTION TO CANCER RISK BY EMISSION SOURCE FOR MEIW CHEVRON EL SEGUNDO REFINERY

Source No.	Source Name	Cancer Risk	% of Cancer Risk
8	LPG Rack	9.38E-08	43.01%
9	LPG Rack Fugitives	6.34E-08	29.07%
21	Tank 722 Fugitives	1.57E-08	7.20%
12	New Cogen	9.82E-09	4.50%
1	New Flare	8.88E-09	4.07%
11	TAME modifications	7.43E-09	3.41%
16	Tank 447	3.65E-09	1.67%
5	Tank 302	2.54E-09	1.16%
10	Minalk Modifications	2.51E-09	1.15%
7	Tank 303	2.29E-09	1.05%
4	VRDS Modifications	2.12E-09	0.97%
15	TGU Stack	1.99E-09	0.91%
2	New Flare Fugitives	1.33E-09	0.61%
19	Isomax Modifications	7.09E-10	0.33%
3	PSV Compressors	6.28E-10	0.29%
18	SWS	4.89E-10	0.22%
6	Alkylation Modifications	4.10E-10	0.19%
14	TGU Fugitives	3.46E-10	0.16%
13	New Cogen Fugitives	6.72E-11	0.03%
17	SRU	0.00E+00	0.00%
20	PSA	0.00E+00	0.00%
Total		2.18E-07	100.00%

CONTRIBUTION TO CANCER RISK BY CHEMICAL FOR MEIW CHEVRON EL SEGUNDO REFINERY

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	LEG LE	DAIRY	BEEF	CHICK	BIG	EGG	MEAT	ORAL	TOTAL	Contribution to MEIW
Benzene	1.85E-07	0 1	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.85E-07	84.86%
Formaldehyde	6.54E-10	6.54E-10 0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.54E-10	0.30%
PAHS	3.90E-10	8.95E-09		1.16E-09 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.01E-08	1.05E-08	4.82%
Naphthalene	8.18E-09	0.00E+00	0.00E+00	8.18E-09 0.00E+00 0.00E+00 0.00E+00 0.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.18E-09	3.75%
Acetaldehyde	1.80E-10		0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.80E-10	0.08%
Acrolein	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00%
Ethyl benzene	0.00E+00	0.00E+00 0.00E+00	0.00E+00		0	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Hexane	0.00E+00	0.00E+00 0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Toluene	0.00E+00	0.00E+00 0.00E+00 0.00E+00	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Xylenes (mixed)	0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00	Ó	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
1,3-Butadiene	4.80E-09	4.80E-09 0.00E+00 0.00E+00	0.00E+00	0.00E+00	°.	0.00E+00	0.00E+00	_		0.00E+00		0.00E+00	0.00E+00		4.80E-09	2.20%
Carbonyl sulfide	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Ethylene	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00	Ö	0.00E+00	0.00E+00	0.00E+00 0.00E+00		0.00E+00		0.00E+00	0.00E+00		0.00E+00	0.00%
Propylene	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Ammonia	0.00E+00	0.00E+00 0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00	_	_	0.00E+00	0.00%
Hydrogen sulfide	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00	o.	0.00E+00	0.00E+00	0.00E+00			0.00E+00	0.00E+00			0.00E+00	0.00%
1,2,4-Trimethylbenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00	Ö	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Cyclohexane	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Phenol	0.00E+00	0.00E+00	0.00E+00		Ó	0.00E+00	0.00E+00	0.00E+00		0.00E+00		0.00E+00	0.00E+00		0.00E+00	0.00%
[Benzo[a]pyrene	1.40E-11	3.21E-10	4.17E-11	0.00E+00	0	0.00E+00	0.00E+00	0.00E+00				0.00E+00	0.00E+00	3.62E-10	3.76E-10	0.17%
Benzo[b]fluoranthene	1.82E-12	4.18E-11	5.43E-12	5.43E-12 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.72E-11	4.90E-11	0.02%
Benzo[g,h,i]perylene	0.00E+00	0.00E+00	0.00E+00		o.	0.00E+00	0.00E+00		0.00E+00	_		0.00E+00			0.00E+00	0.00%
Cadmium	5.85E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.85E-09	2.68%
Chloroform	1.79E-14	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	_			0.00E+00			1.79E-14	0.00%
Chromium	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Chromium (IV)	4.80E-10	0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00 0.00E+00	0.00E+00			4.80E-10	0.22%
Cobalt	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00	o	_	0.00E+00		0.00E+00			0.00E+00			0.00E+00	%00.0
Copper		0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00					0.00E+00			0.00E+00	0.00%
Lead	3.69E-11	6.88E-11	1.16E-10	1.16E-10 0.00E+00	o'	0.00E+00	0.00E+00					0.00E+00			2.22E-10	0.10%
Manganese	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00	o	0.00E+00	0.00E+00					0.00E+00			0.00E+00	0.00%
Mercury	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00	o.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00		0.00E+00	0.00E+00	0.00%
Nickel	1.81E-09	0.00E+00	0.00E+00	1.81E-09 0.00E+00 0.00E+00 0.00E+00	ó		0.00E+00					0.00E+00	_	0.00E+00	1.81E-09	0.83%
Phosphorus	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00					0.00E+00		0.00E+00	0.00E+00	0,00%
Selenium	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00	Ö	0.00E+00	0.00E+00					0.00E+00	0.00E+00		0.00E+00	0.00%
Vanadium	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00 0.00E+00		0.00E+00	0.00%
Zinc	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00	o		0.00E+00					0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Methane		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Carbon disulfide		0.00E+00	0.00E+00		o				0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
SUM	2.07E-07	9.38E-09	1.33E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E-08	2.18E-07	100.00%

CONTRIBUTION TO CANCER RISK BY EMISSION SOURCE FOR MEIR CHEVRON EL SEGUNDO REFINERY

Source No.	Source Name	Cancer Risk	% of Cancer Risk
7	Tank 303	1.06E-07	32.52%
5	Tank 302	8.43E-08	25.86%
11	TAME modifications	2.70E-08	8.28%
10	Minalk Modifications	2.26E-08	6.93%
1	New Flare	1.64E-08	5.03%
12	New Cogen	1.27E-08	3.90%
8	LPG Rack	8.82E-09	2.71%
4	VRDS Modifications	8.64E-09	2.65%
16	Tank 447	7.86E-09	2.41%
21	Tank 722 Fugitives	6.28E-09	1.93%
9	LPG Rack Fugitives	5.97E-09	1.83%
15	TGU Stack	5.62E-09	1.72%
3	PSV Compressors	5.43E-09	1.67%
19	Isomax Modifications	2.73E-09	0.84%
2	New Flare Fugitives	1.95E-09	0.60%
18	SWS	1.72E-09	0.53%
14	TGU Fugitives	1.22E-09	0.37%
6	Alkylation Modifications	8.81E-10	0.27%
13	New Cogen Fugitives	4.49E-10	0.14%
17	SRU	0.00E+00	0.00%
20	PSA	0.00E+00	0.00%
Total		3.26E-07	100.00%

CONTRIBUTION TO CANCER RISK BY CHEMICAL FOR MEIR CHEVRON EL SEGUNDO REFINERY

				ant cm	- I O	ATED.	VEC 1								101	Contribution
Benzene	-02]e	0.00E+00			0.00F+00	F+00	6	00+	1C	0F+00	E+00	+00	00+	1 72F_07	52 76%
Formaldehyde	1.15E-09 C	0.00E+00	0.00E+00		0	0.00E+00	0.00E+00	0.00E+00	-	0,00E+001	0.00E+00	0.00E+00	0.00 + 00	0.00E+00	1.15E-09	0.35%
PAHs		8.44E-09	1.26E-09	1.26E-09 0.00E+00	0.00E+00	0.00E+00	1.07E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E-08	2.10E-08	6.44%
Naphthalene	9.79E-08 C	00+300.	0.00E+00 0.00E+00	0.00E+00	o	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00	0.00E+00	9.79E-08	30.03%
Acetaldehyde	2.44E-10 C	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00	0.00E+00	2.44E-10	0.07%
Acrolein		0.00E+00	0.00E+00		0		0.00E+00				0.00E+00			0.00E+00	0.00E+00	0.00%
Ethyl benzene	0.00E+00 C	00+300.	0.00E+00 0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Hexane		00+300.	0.00E+00	0.00E+00 0.00E+00 0.00E+00	o.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Toluene		00+300.	0.00E+00 0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Xylenes (mixed)		00+300.	0.00E+00 0.00E+00			0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
1,3-Butadiene		00+300.	0.00E+00 0.00E+00	0.00E+00	o.	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.27E-08	6.96%
Carbonyl sulfide		0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00	o.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Ethylene		0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00	0.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00%
Propylene	0.00E+00 C	00+300.	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Ammonia	0.00E+00 C	00+300.	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Hydrogen sulfide	0.00E+00 0	00+300.	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
1,2,4-Trimethylbenzene	0.00E+00 0.00E+00 0.00E+00 0.00E+00	00+300.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00%
Cyclohexane	0.00E+00 C	00+300.	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00%
Phenol		00+300.	0.00E+00 0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Benzo[a]pyrene		2.15E-10	3.22E-11			_				0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.20E-10	5.36E-10	0.16%
Benzo[b]fluoranthene	2.11E-12	2.80E-11	4.19E-12		0	0.00E+00	3.55E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.77E-11	6.98E-11	0.02%
Benzo[g,h,i]perylene		0.00E+00			Ö		0.00E+00			0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00	%00.0
Cadmium		0.00E+00	0.00E+00		o.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.54E-09	2.31%
Chloroform		0.00E+00	0.00E+00		0		0.00E+00			0.00E+00	0.00E+00	0.00E+00		0.00E+00	2.31E-14	0.00%
Chromium	0.00E+00 C	0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Chromium		0.00E+00	0.00E+00		0	0.00E+00		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00	6.19E-10	0.19%
Cobalt		0.00E+00			0					0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00%
Copper		0.00E+00	I		0		0.00E+00	_		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00%
Lead	4.27E-11	2.72E-12	8.97E-11		이				_	0.00E+00	0.00E+00	0.00E+00		1.56E-10	1.99E-10	0.06%
Manganese		0.00E+00	0.00E+00		0				0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	%00.0
Mercury		0.00E+00	0.00E+00	0.00E+00	o.	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Nickel	2.34E-09 (0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.34E-09	0.72%
Phosphorus		0.00E+00	0.00E+00		0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Selenium	0.00E+00 C	0.00E+00	0.00E+00		Ó			0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00	%00.0
Vanadium	0.00E+00 0.00E+00	00+300.0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Zinc	0.00E+00 (0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	%00.0
Methane	0.00E+00 0	0.00E+00		0.00E+00	o.		0.00E+00			0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Carbon disulfide		00+300.0			o.		_	0.00E+00		_		0.00E+00		0.00E+00	0.00E+00	%00.0
8UM	3.05E-07	8.68E-09	1.39E-09	0.00E+00	0.00E+00	0.00E+00	1.11E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-08	3.26E-07	100.00%

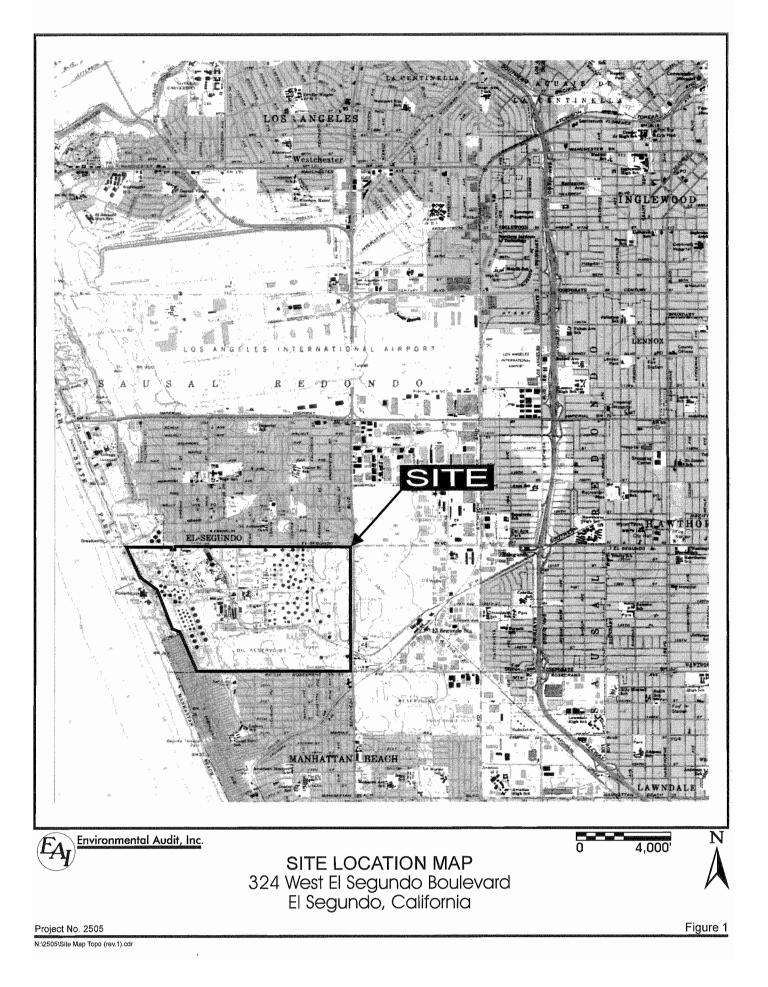
MAXIMUM ACUTE HAZARD INDEX BY POLLUTANT CHEVRON EL SEGUNDO REFINERY

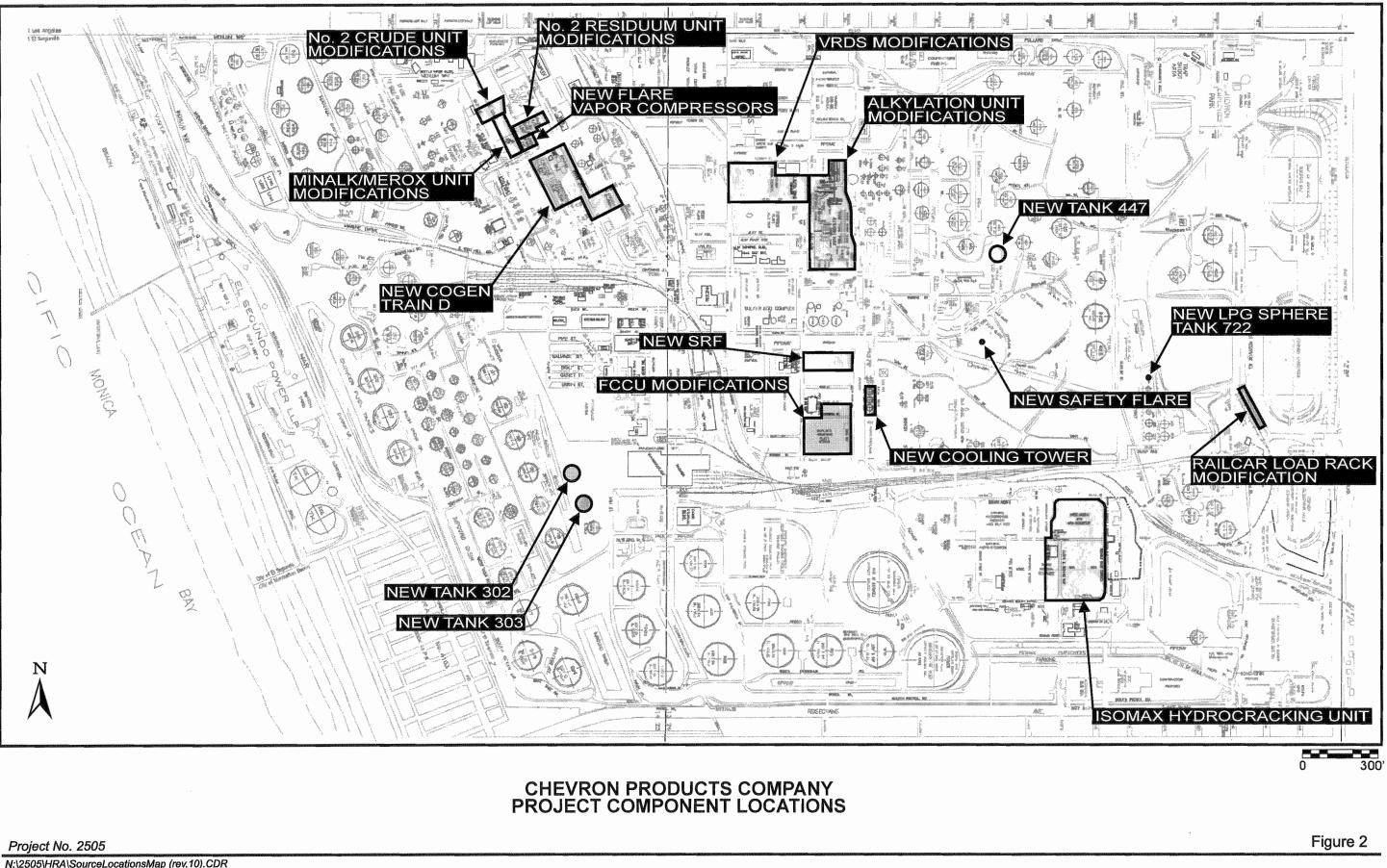
CHEM	2	SNC	BONF	DEVEI	ENDO	EVE	\ \ \ \ \ \ \ \	IMANI	NUIX	Caasa	DECD	CKIN		Contribution
Benzene	0.00E+00	0.00E+00 0.00E+00 0.00E+00	0.00E+00	6.38E-05	0.00F+00	8	0.00F+00	5	0.005+00	6 38F-05	0.00F+00	0.005+00	_	
Formaldehvde	0.00E+00	0.00E+00		0.00E+00	0.00E+00	_	0.00F+00		0.00E+00	0.005+00	1 12F-04	0.005+00		0.00%
PAHs	0.00E+00	0.00E+00		0.00E+00	0.00E+00	_	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00%
Naphthalene	0.00E+00	0.00E+00 0.00E+00 0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	%00.0
Acetaldehyde	0.00E+00	0.00E+00 0.00E+00 0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Acrolein	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.14E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.14E-04	0.00E+00	0.00E+00	0.00%
Ethyl benzene	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Hexane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Toluene	0.00E+00	1.59E-05	0.00E+00	1.59E-05	0.00E+00	1.59E-05	0.00E+00	0.00E+00	0.00E+00	1.59E-05	1.59E-05	0.00E+00	0.00E+00	0.05%
Xylenes (mixed)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.73E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.73E-05	0.00E+00	0.00E+00	0.00%
1,3-Butadiene	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	%00.0
Carbonyl sulfide	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Ethylene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	%00.0
Propylene	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Ammonia	0.00E+00	0.00E+00 0.00E+00		0.00E+00	0.00E+00	4.82E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.82E-04	0.00E+00	0.00E+00	%00.0
Hydrogen sulfide	0.00E+00	3.07E-02		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	100.00%
1,2,4-Trimethylbenzene	0.00E+00			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	%00.0
Cyclohexane	0.00E+00	0.00E+00 0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Phenol	0.00E+00				0.00E+00	4.12E-08	0.00E+00		0.00E+00	0.00E+00	4.12E-08	0.00E+00	0.00E+00	0.00%
Benzo[a]pyrene	0.00E+00	0.00E+00			0.00E+00	_	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	%00.0
Benzo[b]fluoranthene	0.00E+00	0.00E+00		0.00E+00	0.00E+00				0.00E+00		0.00E+00	0.00E+00		%00.0
Benzo[g,h,i]perylene	0.00E+00	0.00E+00 0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Cadmium	0.00E+00	0.00E+00 0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00		0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	%00.0
Chloroform	0.00E+00	7.97E-10	0.00E+00		0.00E+00	_			0.00E+00	7.97E-10	0.00E+00	0.00E+00		%00.0
Chromium	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	%00.0
Chromium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				0.00E+00		0.00E+00	0.00E+00		%00.0
Cobalt	0.00E+00	0.00E+00		00E+00	0.00E+00		· ·	0.00E+00	0.00E+00		0.00E+00	0.00E+00		%00.0
Copper	0.00E+00	0.00E+00 0.00E+00 0.00E+00			0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00	1.18E-05	0.00E+00	0.00E+00	0.00%
Lead	0.00E+00	0.00E+00			0.00E+00		0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00		%00.0
Manganese	0.00E+00			0.00E+00	0.00E+00				0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00%
Mercury	0.00E+00	0.00E+00 0.00E+00		5.46E-05	0.00E+00		0.00E+00		0.00E+00	5.46E-05	0.00E+00	0.00E+00		0.00%
Nickel	0.00E+00	0.00E+00 0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.49E-05	0.00E+00	0.00E+00	7.49E-05	0.00E+00	0.00E+00	0.00%
Phosphorus	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	00+300.0	0.00%
Selenium	0.00E+00	0.00E+00		0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		%00.0
Vanadium	0.00E+00	0.00E+00		0.00E+00	0.00E+00	7.36E-10	_		0.00E+00	0.00E+00	7.36E-10	0.00E+00		%00.0
Zinc	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Methane	0.00E+00		0.00E+00	00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	%00.0
Carbon disulfide	0.00E+00		6.03E-10 0.00E+00	_	0.00E+00				0.00E+00	6.03E-10	0.00E+00	0.00E+00	_	%00.0
SUM	0.00E+00		3.07E-02 0.00E+00	1.34E-04	0.00E+00	1.56E-03	0.00E+00	2.50E-04	0.00E+00	1.34E-04	1.65E-03	0.00E+00	6.38E-05	100.00%

MAXIMUM CHRONIC HAZARD INDEX BY POLLUTANT CHEVRON EL SEGUNDO REFINERY

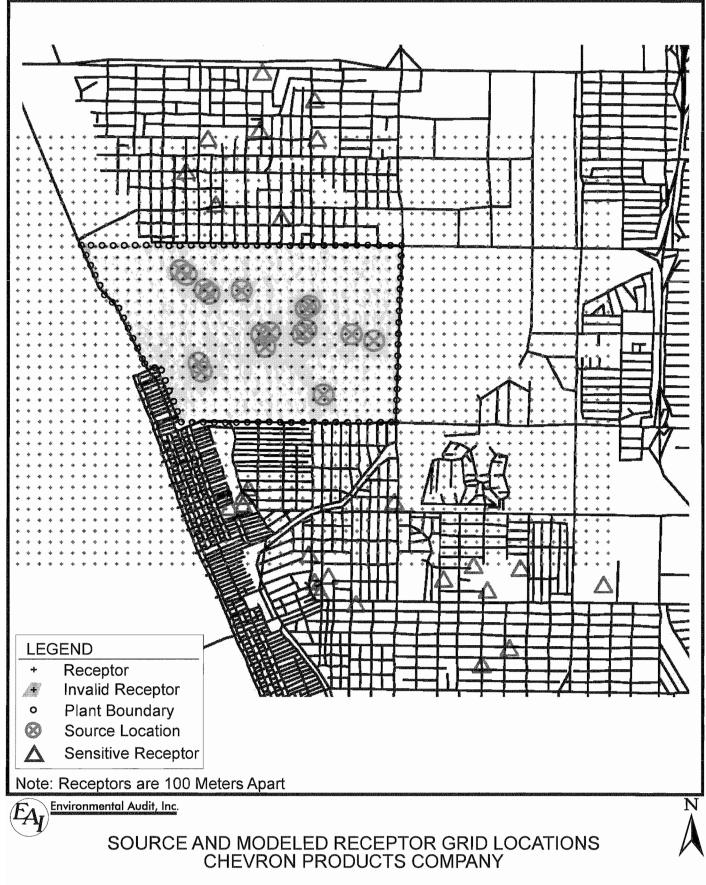
CHEM	S	CNS	BONE	DEVEL	ENDO	EYE	GILV	IMMUN	KIDN	REPRO	RESP	SKIN	BLOOD	Contribution to MCHI
Benzene	0.00E+00	4.98E-05	0.00E+00	4.98E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.98E-05	0.75%
Formaldehyde	0.00E+00		0.00E+00 0.00E+00	0.00E+00	0.00E+00	4.64E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.64E-05	0.00E+00	0.00E+00	0.00%
PAHS	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Naphthalene	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.27E-04	0.00E+00	0.00E+00	%00.0
Acetaldehyde	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.58E-05	0.00E+00	0.00E+00	0.00%
Acrolein	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.54E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.54E-05	0.00E+00	0.00E+00	0.00%
Ethyl benzene	0.00E+00		0.00E+00 0.00E+00	8.70E-07	8.70E-07	0.00E+00	8.70E-07	0.00E+00	8.70E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.01%
Hexane	0.00E+00	1.03E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Toluene	0.00E+00		2.13E-05 0.00E+00	2.13E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.13E-05	0.00E+00	0.00E+00	0.32%
Xylenes (mixed)	0.00E+00	1.25E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-05	0.00E+00	0.00E+00	%00.0
1,3-Butadiene	0.00E+00		0.00E+00 0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	7.67E-06	0.00E+00	0.00E+00		%00.0
Carbonyl sulfide	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00%
Ethylene	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	%00.0
Propylene	0.00E+00		0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.68E-06	0.00E+00	0.00E+00	0.00%
Ammonia	0.00E+00		0.00E+00 0.00E+00	0.00E+00	0.00E+00 0.00E+00		0.00E+00	0.00E+00	0.00E+00		9.30E-04	0.00E+00	0.00E+00	0.00%
Hydrogen sulfide	0.00E+00		0.00E+00 0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.68E-04	0.00E+00	0.00E+00	%00.0
1,2,4-Trimethylbenzene	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	%00.0
Cyclohexane	0.00E+00	-	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00	%00.0
Phenol	1.82E-08		1.82E-08 0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.82E-08	0.00E+00	1.82E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	%00.0
Benzo[a]pyrene	0.00E+00		0.00E+00 0.00E+00	0.00E+00	0.00E+00 0.00E+00	0.00E+00			0.00E+00	0.00E+00		0.00E+00	0.00E+00	%00.0
Benzo[b]fluoranthene	0.00E+00		0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	%00.0
Benzo[g,h,i]perylene	0.00E+00		0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	%00.0
Cadmium	0.00E+00		0.00E+00 0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00	8.77E-04	0.00E+00	5.87E-04		0.00E+00	0.00%
Chloroform	0.00E+00	0.00E+00	0.00E+00 0.00E+00	9.45E-11	0.00E+00	0.00E+00	9.45E-11	0.00E+00	9.45E-11	0.00E+00	0.00E+00		0.00E+00	%00.0
Chromium	0.00E+00		0.00E+00 0.00E+00	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	%00.0
Chromium	0.00E+00		0.00E+00 0.00E+00	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.42E-07	0.00E+00	6.70E-09	%00.0
Cobalt	0.00E+00		0.00E+00 0.00E+00	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00		0.00E+00	%00.0
Copper	0.00E+00		0.00E+00 0.00E+00	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00					0.00E+00	0.00%
Lead	0.00E+00		0.00E+00 0.00E+00	0	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00	%00.0
Manganese	0.00E+00		0.00E+00	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	%00.0
Mercury	0.00E+00		1.45E-04 0.00E+00	Ó	0.00E+00	0.00E+00	0.00E+00	1.32E-03	1.32E-03		0.00E+00	0.00E+00	_	%00.0
Nickel	0.00E+00		0.00E+00 0.00E+00	0	0.00E+00	0.00E+00	1.50E-05	0.00E+00	0.00E+00	-	1.20E-03	0.00E+00		0.00%
Phosphorus	0.00E+00		0.00E+00 0.00E+00	മ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.55E-03	0.00E+00	0.00E+00	0.00E+00	98.94%
Selenium	1.30E-06		1.30E-06 0.00E+00	0	0.00E+00	0.00E+00	1.30E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	%00.0
Vanadium	0.00E+00		0.00E+00 0.00E+00	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	%00.0
Zinc	1.96E-05		0.00E+00 0.00E+00	0	0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00		0.00E+00		%00.0
Methane	0.00E+00		0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-		0.00E+00		%00.0
Carbon disulfide	0.00E+00		1.65E-10 0.00E+00	0	0.00E+00	0.00E+00	0.00E+00	~	0.00E+00	1.65E-10		0.00E+00	0.00E+00	0.00%
MUS	2.09E-05		6.01E-04 0.00E+00	6.62E-03	8.70E-07	1.12E-04	1.72E-05	1.32E-03	2.19E-03	6.56E-03	4.10E-03	0.00E+00	1.27E-03	100.00%

FIGURES

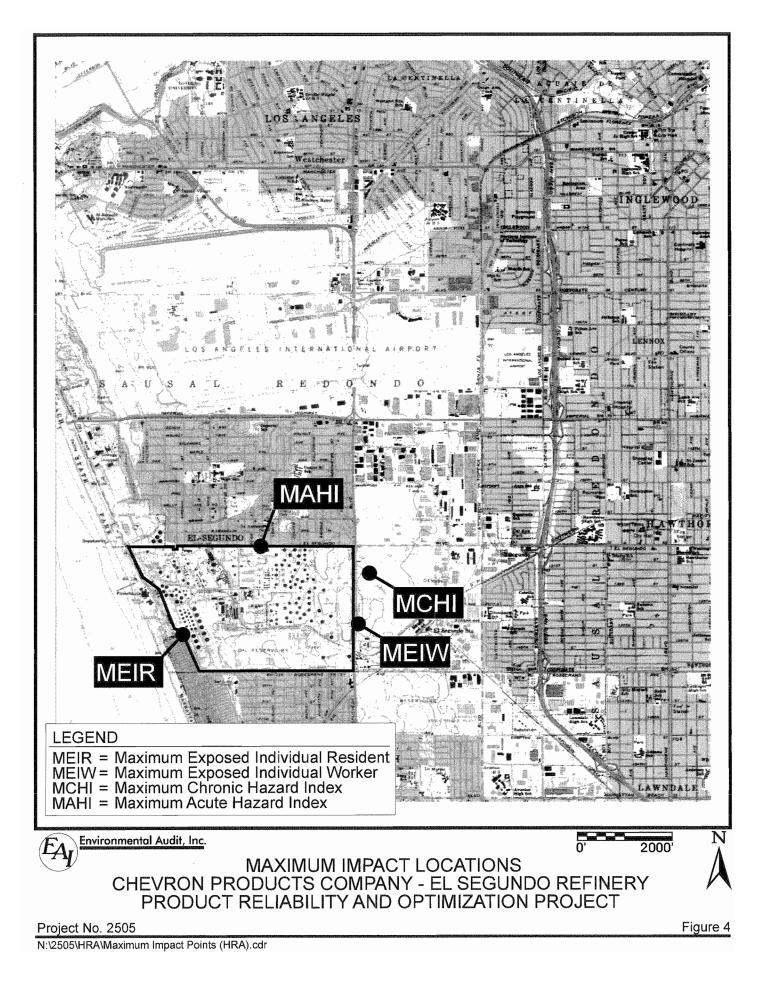




N:\2505\HRA\SourceLocationsMap (rev.10).CDR



Project No. 2505



ATTACHMENT A

HARP Results for Maximum Impact Locations

This file: C:\HARP\PROJECTS\2505Chev\HRA2\2505HRA2 MEIW.txt

Standard work schedule (49 wks/yr, 5 days/wk, 8 hrs/day, 40 yrs) Source-Receptor file: C:\HARP\PROJECTS\2505Chev\HRA2\2505HRA2.SRC Site parameters file: C:\HARP\PROJECTS\Pathway\worker pathway.sit Averaging period adjustment factors file: not applicable Emission rates file: database EXCEPTION REPORT (there have been no changes or exceptions) Build 23.04.05 0.02 ΡM Point estimate Creation date: 1/22/2008 1:36:59 Cancer Risk Created by HARP Version 1.3 Uses ISC Version 99155 Uses BPIP (Dated: 04112) Coordinate system: UTM NAD27 Deposition rate (m/s) *** Pathway disabled *** 990 All All Screening mode is OFF Exposure duration: Analysis method: SITE PARAMETERS Receptor(s): Sources(s): Chemicals(s): Health effect: DRINKING WATER INPUT FILES: DEPOSITION

SOIL INGESTION

*** Pathway enabled ***

DERMAL ABSORPTION

*** Pathway disabled ***

FISH

PASTURE

*** Pathway disabled ***

HOME GROWN PRODUCE

*** Pathway disabled ***

PIGS, CHICKENS AND EGGS *** Pathway disabled ***

*** Pathway enabled ***

MOTHER'S MILK

*** Pathway disabled ***

CHEMICAL CROSS-REFERENCE TABLE AND BACKGROUND CONCENTRATIONS

CHEMI	CAL CROSS-P	ъ	AND BACKGROUND CONCENTRATIONS	
CHEM	CAS	ABBREVIATION	POLLUTANT NAME	BACKGROUND (ug/m^3)
1000	71432	Benzene	Benzene	0.000E+00
0002	50000	Formaldehyde	Formaldehyde	0.000E+00
0003	1151	PAHs-w/o	PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA]	0.000E+00
0004	91203	Naphthalene	Naphthalene	0.000E+00
0005	75070	Acetaldehyde	Acetaldehyde	0.000E+00
0006	107028	Acrolein	Acrolein	0.000E+00
0002	100414	Ethyl Benzene	Ethyl benzene	0.000E+00
0008	110543	Hexane	Hexane	0.000E+00
6000	108883	Toluene	Toluene	0.000E+00
0010	1210	Xylenes	Xylenes (mixed)	0.000E+00
0011	106990	1,3-Butadiene	.0	0.000E+00
0012	463581	CarbonylSulfide	Carbonyl sulfide	0.000E+00
0013	74851	Ethylene	Ethylene	0.000E+00
0014	115071	Propylene	Propylene	0.000E+00
0015	7664417	NH3	Ammonia	0.000E+00
0016	7783064	H2S	Hydrogen sulfide	0.000E+00
0017	95636	1,2,4TriMeBenze	1,2,4-Trimethylbenzene	0.000E+00
0018	110827	Cyclohexane	Cyclohexane	0.000E+00
0019	108952	Phenol	Pheno1	0.000E+00
0020	50328	B[a]P	Benzo[a] pyrene	0.000E+00
0021	205992	B[b]fluoranthen	Benzo[b] fluoranthene .	0.000E+00
0022	191242	B[g,h,i]perylen	Benzo[g,h,i]perylene	0.000E+00
0023	7440439	Cadmium		0.000E+00
0024	67663	Chloroform	Chloroform	0.000E+00
0025	7440473	Chromium	Chromium	0.000E+00
0026	18540299	Cr(VI)	Chromium, hexavalent (& compounds)	0.000E+00
0027	7440484	Cobalt	Cobalt	0.000E+00
0028	7440508	Copper	Copper	0.000E+00
0029	7439921	Lead	Lead	0.000E+00
0030	7439965	Manganese	Manganese	0.000E+00
0031	7439976	Mercury	Mercury	0.000E+00
0032	7440020	Nickel	Nickel	0.000E+00
0033	7723140	Phosphorus	Phosphorus	0.000E+00
0034	7782492	Selenium	Selenium	0.000E+00
0035	7440622	Vanadium	Vanadium (fume or dust)	0.000E+00
0036	7440666	Zinc	Zinc	0.000E+00
0037	74828	Methane	Methane	0.000E+00
0038	75150	CS2	Carbon disulfide	0.000E+00
EMISS	IONS DATA 5	EMISSIONS DATA SOURCE: Emission rates loaded	cates loaded from database	
CHEMI	CALS ADDED	CHEMICALS ADDED OR DELETED: none		

NAME=CHEVRON EL SEGUNDO REFINERY STACK 1 EMS (lbs/yr) MAX (lbs/hr) 0.000428 0.00314 0.0000807 0.0000296 0.000116 AVRG (lbs/yr) 3.75 27.5 0.0707 0.259 1.01 00000 BG (ug/m^{*}3) PRO=1 STK=1 MULTIPLIER ÷, CO=1 DEV=1 EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 Formaldehyde PAHs-w/o Benzene ABBREV 71432 50000 1151 91203 75070 CAS

Naphthalene Acetaldehyde

100028 Acrolatine 1 0 0.335 0.000359 100021 Resent 1 0 0.000359 0.000359 100021 Statema 1 0 0.000359 0.000359 100021 Texploatine 1 0 0.000359 0.000359 11507 FED/Valenter 1 0 0		DYD. MTGHI PUNITOOOP PUNIT	LAL 1/ 22/2000	70:/C:T /		
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X-Tented Extry-tene E	Toluene			1.37	0.000156	
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Nickel10*Phospherus10**Phospherus10**Selenium10**Selenium10**Selenium10**Vanadium10**Selenium10**Vanadium10**SeleniumMethane10*Selenium01NME-CHEVRON EL SEGUNDO REFINERY STACKMethane10NME-CHEVRON EL SEGUNDO REFINERY STACKMULTIFLIER=1MULTIFLIERBenzene1Banzene100Formaldhyde10*Parsene10*Rabin10*Naphthalene10*Absectaldehyde100.000108Rabin10*Naphthalene100.000108Actorlein100.000108Rabin100.000108Systeme100.000108Systeme10*Rabin10*Perconstantene10*Systeme10*Systeme10*Systeme10*Systeme10*Systeme10*Systeme<		I	0	*	×	
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variadiumiiiZinciii0***Zinciii0****Serveriii0****Methane10****ServerServercs2co=1bEV=2FR0=2STK=1NAME=CHEVRON ELSERVERY STACKMutritulerABREVMULTIPLIERBdug/m^3)AVRG (lbs/yr)MAX (lbs/hr)ABREVMULTIPLIER10***ABREVMULTIPLIER10***ABREVMULTIPLIER10****ABREVMULTIPLIER10****ABREVMULTIPLIER10****ABREVMULTIPLIER10****ABREVMULTIPLIER10****ABREVMULTIPLIER10****ACCOLEN100*****ACOLEN100*****ACOLEN100*****ACOLEN100*****ACOLEN100*****ACOLEN100 <t< td=""><td></td><td>F</td><td>C</td><td>*</td><td>*</td><td></td></t<>		F	C	*	*	
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Methane10**SS2CS2IDEV=2 $FRO=1$ DEV=2 $FTF=1$ NAME=CHEVRON ELSEGUNDO REFINERY $TACK$ SS FOR FACILITY FAC=2505CO=1DEV=2 $FTP=1$ NAME=CHEVRON ELSEGUNDO REFINERY $TACK$ AUTTPLER=1ABBREVMULTTPLERBG UG/m^2 3)AVRG (1bs/yr)MAX (1bs/hr) $*$ ABBREVMULTTPLER10 $*$ $*$ $*$ $*$ ADDABENZENE100 $*$ $*$ $*$ PARS-w/o100 $*$ $*$ $*$ $*$ Naphthalene100 $*$ $*$ $*$ $*$ ACTOIEN100 $*$ $*$ $*$ $*$ Actorlein100 $*$ $*$ $*$ $*$ Actorlein1000 $*$ $*$ $*$ Actorlein1000 $*$ $*$ $*$ Actorlein1000 $*$ $*$ $*$ Actorlein10<			0	k ·	k ·	
CS2I0*IS FOR FACILITY FAC=2505CO=1DEV=2FRG=1NAME=CHEVRON ELSEGUNDO REFINERY STACKNULTIPLIERMULTIPLIEREG ug/m^2 3)AVEG (lbs/yr)MAX (lbs/hr)ABRENEMULTIPLIEREGUG/m^23)AVEG (lbs/yr)MAX (lbs/hr)ABRENEMULTIPLIEREG10*ABRENEMULTIPLIEREG0**ABRENEMULTIPLIEREG0**ABRENE100**PARALE100**Rothaldene100**Acctaldehyde100**Acctaldehyde100**Acctaldehyde100**Acctaldehyde100**Acctaldehyde100**Acctaldehyde100**Acctaldehyde100**Acctaldehyde100**Acctaldehyde100**Acctaldehyde100**Acctaldehyde100**Acctaldehyde100**Acctaldehyde100**Actolenee1000*Actolenee </td <td>Methane</td> <td>Ч</td> <td>0</td> <td>*</td> <td>*</td> <td></td>	Methane	Ч	0	*	*	
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$\begin{array}{cccccc} PAHS-w/O & & & & & & & & & & & & & & & & & & &$	Formaldehyde	1	0	*	*	
Naphthalene10Acetaldehyde10Acrolein 1 0Acrolein 1 0Acrohene 1 0B[a]P 1 0B[a,h,i]perylen 1 0Acrohene 1 0Acrohene 1 0Acrohene 1 0Acrohene 1 0B[a,h,i]perylen 1 B[a,h,i]perylen 1 Acrohene 1 Acrohene 1 Acrohene 1 <t< td=""><td>PAHS-w/O</td><td>Ч</td><td>0</td><td>*</td><td>*</td><td></td></t<>	PAHS-w/O	Ч	0	*	*	
Accetaldehyde10*AcroleinEthyl Benzene10*Bthyl Benzene10**Hexane100*Fixane100*Toluene100*Yoluene100*Toluene1008918Yylenes1000.8918I, 3-Butadiene10071.74Propylene1071.740.Rthylene10072.52NH31.2.4TriMeBenze10*Propylene100*NH31.2.4TriMeBenze10*Phenol100*B[a] P10**B[a] P10**B[b] fluoranthen10**B[c], h, il perylen10*B[c], h, il perylen10*Pigerylen10*Pigerylen10*Pigerylen10*Pigerylen10*Pigerylen10*Pigerylen10*Pigerylen10*Pigerylen10*Pigerylen10*Pigerylen10*Pigerylen	Naphthalene	Pred	0	*	*	
Acrolein 1 0 $*$ Ethyl Benzene1 0 $*$ Hexane1 0 $*$ Foluene1 0 $*$ Toluene1 0 0 Toluene 1	Acetaldehvde		C	*	*	
Ethyl Benzene10Hexane10 $*$ Hexane10 $*$ Toluene1,3-Butadiene10 $*$ Ylenes1,3-Butadiene100.89181,3-Butadiene100 71.74 CarbonylSulfide100 71.74 Ethylene100 71.74 Propylene1072.52NH31,2,4TriMeBenze10 $*$ Phenol101 $*$ B[a] P10 $*$ $*$ B[a] P10 $*$ $*$ B[b] fluoranthen10 $*$ B[b] fluoranthen10 $*$				*	*	
Heavy Formet10Heave10*Toluene10*Toluene100.89181,3-Butadiene100.89181,3-Butadiene100.89181,3-Butadiene100Sthylene1071.74Propylene1071.74NH31072.52NH31072.52NH310*Propylene10*NB310*Phenol10*B[a] P10*B[a] P10*B[a] P10*B[a] hillorranthen10*B[a, h, i] perylen10*B[a, h, i] perylen10*B[a, h, i] perylen10*	THUN DONGOOO			*	*	
Texane10Toluene10 $*$ Toluene100.8918Xylenes100.89181,3-Butadiene100.8918Sthylene10071.74Ethylene1071.740.Propylene1072.52NH31072.52NH31072.52NH31072.52NH310*Propylene10*NH310*H2S10*Nenol10*Phenol10*B[a] P10*B[a] Fluoranthen10*B[a, h, i] perylen10*Scadmiun10*		4 -			÷	
TolueneToluene1YlenesXylenes1Xylenes00.89181,3-Butadiene101,3-Butadiene1CarbonylSulfide10Ethylene10Ethylene10Propylene10NH310H2S10NH31,2,4TriMeBenze1N2cyclohexane10Phenol10E[a] P10B[a] P10B[a, h, i]perylen10Scadmiun10Scadmiun10N10Sial P10Sial P10<				κ.	¢ .	
Xylenes10*1,3-Butadiene100.891801,3-Butadiene100.89180CarbonylSulfide1071.74Ethylene1071.740Propylene1072.52NH31072.52NH310*Propylene10*NH31,2,4TriMeBenze101,2,4TriMeBenze10*Cyclohexane10*E[a]P10*B[a]P10*B[b]fluoranthen10*B[g,h,i]perylen10*Cadmiun10*		T	0	k	k .	
1,3-Butadiene100.89180 $1,3$ -Butadiene100.082610.0 $CarbonylSulfide1071.740.0Ethylene1071.740.0Propylene1071.740.0R131072.520.0R131072.520.0R131072.520.0R1310*0*1,2,4TriMeBenze10**1,2,4TriMeBenze10**1,2,4TriMeBenze10**1,2,4TriMeBenze10**1,2,4TriMeBenze10**1,2,4TriMeBenze10**1,2,4TriMeBenze10**1,2,4TriMeBenze10**1,2,4TriMeBenze10**1,2,4TriMeBenze10**1,2,4TriMeBenze10**1,2,4TriMeBenze10**1,2,4TriMeBenze10**1,2,4TriMeBenze10**1,2,4TriMeBenze10**1,2,4TriMeBenze10**1,2,4TriMeBenze10**1,2,4TriMeBenze10**1,2,4TriMeBenze1$, -1	0	*	*	
CarbonylSulfide 1 0 0.008261 0.0 Ethylene 1 0 71.74 0.0 Propylene 1 0 71.74 0.0 NH3 1 0 71.74 0.0 Propylene 1 0 71.74 0.0 NH3 1 0 72.52 * NH3 1 0 * * H2S 1 0 * * H2S 1 0 * * Cyclohexane 1 0 * * Phenol 1 0 * * B[a] P 1 0 * * B[b] fluoranthen 1 0 * * Cadmiu 1 0 * * Cadmiu 1 0 * *		1	0	0.8918	0.0001018	
Ethylene 1 0 71.74 Propylene 1 0 72.52 NH3 1 0 72.52 NH3 1 0 72.52 NH3 1 0 72.52 NH2 1 0 * 1,2,4TriMeBenze 1 0 * 1,2,4TriMeBenze 1 0 * Cyclohexane 1 0 * Phenol 1 0 * B[a]P 1 0 * B[a]F 1 0 * Cadmium 1 0 * Cadmium 1 0 *	CarbonylSulfid	1	0	۰.	ς.	
Propylene 1 0 72.52 NH3 11 0 * H2S 1 0 * H2S 1 0 * 1,2,4TriMeBenze 1 0 * Cyclohexane 1 0 * Phenol 1 0 * Phenol 1 0 * B[a]P 1 0 * B[g,h,i]perylen 1 0 * Cadmium 1 0 *		Ч	0	71.74	0.008189	
NH3 H2S H2S 1,2,4TriMeBenze Cyclohexane Phenol B[a]P B[a]P B[a]P B[b]fluoranthen B[g, i]perylen 10 0 8 (a) (a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c		Ч	0	72.52	0.008279	
H2S 1,2,4TriMeBenze Cyclohexane Phenol B[a]P B[a]P B[b]fluoranthen B[g,h,i]perylen Cadmin		1	0	*	*	
1,2,4TriMeBenze 1 Cyclohexane 1 Phenol 1 B[a]P 1 B[b]fluoranthen 1 B[g,h,i]perylen 1 Cadmium 1		-	0	*	*	
Cyclohexane Cyclohexane Phenol B[a]P B[b]fluoranthen B[g,h,i]perylen Cadmium				*	*	
Cyclonexane Phenol 1 B[a]P B[b]fluoranthen 1 B[g,h,i]perylen 1 Cadmium 1	L, Z, 4 LTIMEBENZ	-		× +	¢ +	
Phenol B[a]P B[b]fluoranthen B[g,h,i]perylen Cadmin		1,	0	k ·	k -	
B[a]P B[b]fluoranthen B[g,h,i]perylen Cadmium	Phenol	H	0	*	*	
B[b]fluoranthen 1 B[g,h,i]perylen 1 Cadmium 1		1	0	*	*	
B[g,h,i]perylen 1 Cadmium 1		Ч	0	*	*	
Cadmium 1			0	*	*	
		- F	C	*	*	

EMS (lbs/yr)

*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ч	г	Ч	Ч	Ч	Ч	Ч	1	1	г	Ч	1	г	Ч	1
Chloroform	Chromium	Cr(VI)	Cobalt	Copper	Lead	Manganese	Mercury	Nickel	Phosphorus	Selenium	Vanadium	Zinc	Methane	CS2
67663	7440473	18540299	7440484	7440508	7439921	7439965	7439976	7440020	7723140	7782492	7440622	7440666	74828	75150

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EMS (lbs/yr)

STACK 3		STACK 4
SEGUNDO REFINERY S	MAX (LDS/Int) 0.00003127 0.0002897 0.002897 0.022897 0.00	* * * * * * * * * * * * * * * * * * *
NAME=CHEVRON EL 2	AVKG (105/10) 0.0255 0.0220 0.022 0.	* * NAME=CHEVRON EL (
STK=1		0 0 STK=1
PRO=3		PRO=4
DEV=1	¥ d d d d d d d d d d d d d d d d d d d	1 1 DEV=1
C0=2		CO=3
OR FACILITY FAC=2505	ABBRENY Benzene Formaldehyde PAHS-W/o Naphthalene Acctaldehyde Acrolein Ethyl Benzene Hexane Toluene Xylenes 1,3-Butadiene Ethylene Propylene NH3 H2S 1,2,4TriMeBenze Cyclohexane Phenol B[a] P B[a] P Cyclohexane Phenol B[a] P B[a] P B[a] P B[a] P B[a] P Cyclohexane Phenol B[a] P Cyclohexane Phenol B[a] P Cyclohexane Phenol Cyclohexane Phenol B[a] P Cyclohexane Phenol B[a] P Cyclohexane Phenol Cyclohexane Cyclohexane Phenol Cyclohexane Cyclohexane Phenol Cyclohexane Phenol Cyclohexane Cyclohexane Phenol Cyclohexane Cyclohexane Cyclohexane Phenol Cyclohexane Cyclohe	74828 Methane 75150 CS2 EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1
EMISSIONS FOR FA	CAS 50000 51151 5151 51500 51203 75570 75570 1100414 1100543 1100543 1100543 1100543 1100599 7664417 765536 1108952 76464417 76464417 76464417 76464413 76464413 76464433 74400208 74400433 74400208 7440023 74400208 7440023 74400208 774539965 774539976 774539976 774539976 774539976 774539976 774539976 774539976 776522 777527 77757 777577 7775777 777577777777	74828 75150 EMISSIONS FOR FA SOURCE MULTIPLIE

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EMS (lbs/yr)

																																		6 EMS $(lbs/\gamma r)$																
	MAX (lbs/hr)	0.0007931	* *	0.0002746	> * •	*	0.0007955	0.005083	0.003281	0.0004785	*	*	0.0511	0.000621	1 *	*	* •	* +	< - *	*	*	*	*	* •	* *	* *	*	*	*	*	* *	₹ +	< *	SEGUNDO REFINERY STACK (MAX (1hs/hr)	0.002398	*		0.001167	* +	* 5,000	0.008048	0.01534	0.02045	0.00001692	* +	0.00006987	*	*	0.00677
1:37:02	AVRG (lbs/yr)	6.948	* *	2.405	•	*	6.969	44.53 26 0E	28.74	4.192	*	* (447. 067	0.9675 5.44	• * • •	*	* ·	* +	* *	*	*	*	*	* ·	* *	*	*	*	*	*	* *	: +	* *	NAME=CHEVRON EL SE	AVRG (1hs/vr)	21.01	*		10.23	* 4	* ((70.5	134.4	179.2	0.1482	* *	0 612	•	*	59.3
MEIW.txt 1/22/2008,	BG (ug/m ³)	0 (0	0	0 0	00		0	0	0	2 0	00	0	0	0	0 0		0	0	0	0	0 0			0	0	0	0	00		00	PRO=6 STK=1 N	RG (11α/m ² 3)		0	0	0	00			0	0	0	00		0	0	0
ev\HRA2\2505HRA2 MEIV	MULTIPLIER	н,		4		1	н ,			1	1						r-1 ,		-4 +	1	1		1		-1 F-	4		1	Ч			-1		CO=4 DEV=1 F	MITL, TT DT, TER	1	1	1	1	r-1 r	-1 -	-1		1						1
File: C:\HARP\PROJECTS\2505Chev\HR	ABBREV	Benzene	FOTMALGENYGE PAHS-W/O	Naphthalene	Acetaldehyde	Acrolein	Ethyl Benzene	Hexane Toliiene	Xylenes		CarbonylSulfide	Ethylene	Propylene NH2	NH3 H2S	1,2,4TriMeBenze	Cyclohexane	Phenol	B[a] P D[h] f]thon	B[a, h, j]nerv]en	Cadmium	Chloroform	Chromium	Cr(VI)	Cobalt	Lopper Lead	Manganese	Mercury	Nickel	Phosphorus	Selenium	Vanadium	A111C Mathana	CS2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1	ABBREV	Benzene	Formaldehyde	PAHS-W/O	Naphthalene	Acetaldehyde	ACTOLEIN Ethui Dongono	всиут вепаене Нехапе	Toluene	Xylenes	1,3-Butadiene	CarbonylSulfide	Propylene	NH3	H2S	l,2,4TriMeBenze
File: C:\HA	CAS	71432	50000 1151	91203	75070	107028	100414	108883	1210	106990	463581	74851	115071 7664417	/ 66441 / 7783064	95636	110827	108952	50328 20502	266602	7440439	67663	7440473	18540299	7440484	7439921	7439965	7439976	7440020	7723140	7782492	7440622 7110666		75150	EMISSIONS FOR FACII SOURCE MULTIPLIER=1	CAS	71432	50000	1151	91203	75070	10041A	110543	108883	1210	106990	463581 7/051	115071	7664417	7783064	95636

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	STACK 7 EMS (lbs/yr)
0. 0 0 0 0 0 0	SEGUNDO REFINERY MAX (lbs/hr) 0.00002125 0.00004496 0.00004496 0.00003395 0.00003489 0.00003268 * * * *
C*************************************	NAME=CHEVRON EL AVRG (lbs/Yr) 0.1861 0.8743 0.3938 2.974 4.809 0.2944 4.809 0.2944 4.809 0.2963 *** ***
~~~~~~	PRO=7 STK=1 BG (ug/m ³ ) 0 0 0 0 0 0 0 0 0 0 0 0 0
	CO=5 DEV=1
Cyclohexane Phenol B[a] P B[b] fluoranthen B[g,h,i]perylen Cadmium Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform Chromform	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV 71432 Benzene 50000 Formaldehyde 50000 Formaldehyde 1151 Naphthalene 75070 Acctaldehyde 107028 Acctaldehyde 75070 Acctaldehyde 100414 Hexane 110543 Toluene 110543 Toluene 110543 Toluene 110543 Toluene 1106990 1,3-Butadiene 463581 Ethyl Benzene 106893 Yylene 74851 Propylene 7464417 H12S 7783064 1,3-Butadiene 463581 Ethylene 7464417 H12S 7783064 1,3-Butadiene 115071 NH3 7783064 1,3-CarbonylSulfide 7464417 H2S 95636 1,3-BlalP 7440439 Chloroform 7440484 Copper 191242 BlalP 7440484 Copper 7440484 Copper 7440608 BlalP 7440484 Copper 7440608 BlalP 7440484 Copper 7440608 BlalP 7440484 Copper 7440608 BlalP 7440608 BlalP 7440608 BlalP 7440608 Chromium 7440620 Phostocom 7440620 Phostoco
110827 108952 50328 50328 191542 7440439 7440433 7440433 7440433 7440484 7430965 74319965 74339965 7440622 7440622 74828 74828 74806666 77150	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABB 71432 ABE 71432 PAH 91203 PAH 91203 PAH 75070 PAH 91210 PAH 1106414 Hex 110543 Ace 100414 Hex 110543 Ace 1006990 Acr 110883 T701 1106990 1,3 463581 Pro 7664417 PH 115071 Pro 7664417 Phe 95664 1,2 115071 Pro 76643 Cor 7663 Cor 7663 Chr 115071 Pro 76643 Cor 768952 Phe 95663 Chr 1440473 Chr 115071 Pro 7440439 Cor 7440439 Cor 7440439 Cor 7439965 Phe 7440420 Pho 7439965 Phe 7440420 Pho 7439976 Phe 744020 Pho 7439976 Phe 744020 Pho 773140 Pho 773140 Pho 773140 Pho 773140 Pho 773140 Pho 773140 Pho 773140 Pho 7733140 Pho 773140 Pho 7733140 Pho 774865 Pho 7733140 Pho 7733140 Pho 774865 Pho 77

	(lbs/yr)																																		(lbs/yr)										
	EMS (]																																		12 EMS										
	STACK 9																																		STACK										
* * *	SEGUNDO REFINERY	MAX (lbs/hr)	0.002301	: *	0.001097	*	100	0 008043	0.01453	0.01926	0.00001684	* *	0.00006367	*	*	0.006363	8/00000 *	*	*	*	*	*	* ·	k +	*	*	*	*	*	* *	: *	*	*	*	SEGUNDO REFINERY	MAX (lbs/hr)	0.003344	* *	0.00001967	*	*	0.00005901	0 0000557	0.0001967	* * ) 1 1 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
* * *	NAME=CHEVRON EL S	~	20.16	*	9.607	*	* LL C C C	65.05 97 46	127.3	168.8	0.1475	* *	0.5578	*		55.7		*	*	*	*	*	* •	* *	*	*	*	*	*	* *	: *	*	*	*	NAME=CHEVRON EL	7	29.29	* *	0.1723		*	0.5169	70. LY	1.723	
000	STK=1 1	(ug/m^3)	00	00	0	0	00		0	0	0 0		00	0	0	0 0			0	0	0	0	0	0 0		0	0	0	0	00		00	0	0	STK=1	(ug/m^3)		00		0	0	0 0		00	0
	PRO=9	) DG																																	PRO=12	BG (									
	DEV=1	MULTIPLIER	-1 -		Ч	-	r-1 r	-1		Ч	r-i ,	-1	1 <del>-</del> 1	Ч	Ч	r-1 7	-1 +-	+	4	Ч	Ч	r-1			-t <del>-</del>	+ <del>-</del> -	Ч	г	Ч		-1	+ +	Ч	Ч	DEV=1	MULTIPLIER	Ч		-i	1 -1	Т	н,			
	CO=6	IUM																																	CO=8	MU									
Zinc Methane CS2	EMISSIONS FOR FACILITY FAC=2505	LLEK=L ABBREV	Benzene	Forma⊥u∈nyu∈ PAHs-w/o	Naphthalene	Acetaldehyde	Acrolein	всиут велгеле Неуара	Toluene	Xylenes	1,3-Butadiene	Carbonyisuiride Frhvlene	Propylene	NH3	H2S	1,2,4TriMeBenze	Cycronexane Dhenol	R [a] D	B[b]fluoranthen	B[g,h,i]perylen	Cadmium	Chloroform	Chromium		CODALC	Lead	Manganese	Mercury	Nickel	Phosphorus	Muthered	Zinc	Methane	CS2	EMISSIONS FOR FACILITY FAC=2505 SOUTPOR MULTIDLIER-1	ABBREV	Benzene	Formaldehyde	rans-w/O Nanhthalene	Acetaldehyde	Acrolein	Ethyl Benzene	Hexane Tolucuo	XVlenes	1, 3-Butadiene
7440666 74828 75150	EMISSIONS FOR	CAS MULTIFIEKEL	71432	1151	91203	75070	107028	110543	108883	1210	106990	463581 74851	115071	7664417	7783064	95636	108057	50228	205992	191242	7440439	67663	7440473	18540299 7110101	7440508	7439921	7439965	7439976	7440020	7723140	7440622	7440666	74828	75150	EMISSIONS FOR FACIL	CAS	71432	50000	1212 1203	75070	107028	100414	100003	1210	106990

	*	*	*	* *	78080000	0.00009834	*	*	*	* 1	k *	*	*	*	*	* +	k *	*	*	*	*	*	* •	¥	SEGUNDO REFINERY STACK 1	lbs/hr)	0.002262	*	*	0.0000133	* *	0003991	.002022	0.000173	*	*	* +	< *	*	0.00002661	0006652	* *	• *	*	*	* *	*	*	*	×
																									EL SEGUNDO	) XZM	N7C.71.1																							
, 1:37:02PM	*	*	*	* *	3772 U	0.8615	*	*	*	* 1	ĸ *	*	*	*	*	* 1	ĸ <b>-</b> ⊀	* *	*	*	*	*	* •	×	NAME=CHEVRON E	AVRG (1hs/vr)			*	0.1166	* *	0.3497	17.72	1.515	* * * *	*	* 1	« *	*	0.2331	0.5828	* *	< *	*	* .	* *	*	*	* ·	ĸ
1/22/2008,	0	0	0	0 0		0	0	0	0	0 0			0	0	0	0 0			0	0	0	0	0 0	0	STK=1	(110/m ² 3)	0	0	0	0 (		0	0	00	00	0	0 0		00	0	0	00	00	0	0 0	0 0	0	0	0	0
MEIW.txt																									PR0=13	ВG																								
	Ч	1	Г			1 -1	1	П				1	11	Н	1	r-1 r		1	11	r~1	1		r4 ;	1	DEV=2	MITL, T T PL, T E R	1	1	н	-1 1		4	г		1 -1	-	-1 -	-1	1 -1	-1	r=1	r-4 r-	-11	Г	r-1 1	r-1 r-	1 -1			-
HRA2\25																									CO=8	2	•																							
C:\HARP\PROJECTS\2505Chev\HRA2\2505HRA2	CarbonylSulfide	Ethylene	Propylene	NH3 H7S	1 2 4TriMeBenze	Cyclohexane	Phenol	B[a] P	B[b]fluoranthen	B[g, h, 1]perylen	Chloroform	Chromium	Cr (VI)	Cobalt	Copper	Lead	Mercilty	Nickel	Phosphorus	Selenium	Vanadium	Zinc	Methane	CSZ	FOR FACILITY FAC=2505		Benzene	Formaldehyde	PAHS-w/o	Naphthalene	Acetaldenyae Arrolein	Ethyl Benzene	Hexane	Toluene	1,3-Butadiene	CarbonylSulfide	Ethylene	ылат үрүү Мна	H2S	1,2,4TriMeBenze	Cyclohexane	Phenol Prair	B[b]fluoranthen	B[g,h,i]perylen	Cadmium	Chlorotorm	CIT (VI)	Cobalt	Copper	Lead
File: C:\HA	463581	74851	115071	7664417	95636	110827	108952	50328	205992	191242	1440439 67663	7440473	18540299	7440484	7440508	7439921	7439976	7440020	7723140	7782492	7440622	7440666	74828	NGTG/	EMISSIONS FOR	CAS	71432	50000	1151	91203	107028	100414	110543	108883	106990	463581	74851	T/0CTT	7783064	95636	110827	108952	205992	191242	7440439	67663 7440473	18540299	7440484	7440508	7439921

EMS (lbs/yr)

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	STACK 14 EMS (lbs/yr)	STACK 16 EMS (lbs/yr)
* * * * * * * *	SEGUNDO REFINERY : MAX (lbs/hr) 0.0001745 8. 0.00001745 9.000005594 0.000005594 8. 0.000005594 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8.	SEGUNDO REFINERY MAX (lbs/hr) 0.004273 * 0.0004157 *
1:37:02PM * * * * * * * *	NAME=CHEVRON EL AVRG (lbs/yr) 1.529 57.55 3.618 0.049 7.926 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.04 24.042	NAME=CHEVRON EL AVRG (1bs/yr) 37.43 * 3.642 *
MEIW.txt 1/22/2008, 1 0 1 0 1 1 0 0 1 1 0 0 1 1 0 0 1 1 0 0 1 1 0 0 1 1 1 0 0 1 1 1 0 0 1 1 0 1 1 0 0 1 1 0 0 1 1 0 0 1 1 0 0 1 1 0 0 1 1 0 0 0 1 1 0 0 0 1 1 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PRO=14 STK=1 BG (ug/m^3)	PRO=16 STK=1 BG (ug/m^3) 0 0 0
RA2\2505HRA2 MEIV	CO=9 DEV=1 MULTIPLIER MULTIPLIER	CO=10 DEV=1 MULTIPLIER 1 1 1 1
C:\HARP\PROJECTS\2505Chev\HRA2\2505HRA2 6 Manganese 6 Mercury 0 Phosphorus 2 Vanadium 6 Zinc Methane CS2	FOR FACILITY FAC=2505 TIPLIER=1 ABBREV ABBREV Benzene Formaldehyde PAHS-w/o Naphthalene Acctaldehyde Acctaldehyde Accolein Ethyl Benzene Hexane Toluene Toluene Toluene Toluene Ethyl Benzene Hexane Toluene Ethyl Benzene Bethylene Propylene NH3 H2S 1,2.4TriMeBenze Cyclohexane Propylene NH3 H2S 1,2.4TriMeBenze Cyclohexane Propylene NH3 H2S 1,2.4TriMeBenze Cyclohexane Propylene NH3 H2S 1,2.4TriMeBenze Cyclohexane Propylene NH3 H2S 1,2.4TriMeBenze Cyclohexane Propylene NH3 H2S Tocomium Chronform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform	MS FOR FACILITY FAC=2505 MULTIPLIER=1 ABBREV Benzene Formaldehyde PAHs-w/o Naphthalene Acetaldehyde
File: C:\H 7439965 7439976 744000 7723140 7782492 7440666 74828 74828 74828 75150	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS MULTIPLIER=1 CAS ABB 71432 PEM 50000 PAH 91203 Ace 1151 PAH 91203 Ace 107028 Acr 100414 Eth 110543 TTOI 100414 Eth 110543 TTOI 100414 Hex 7765461 Acr 108952 Acr 108883 TTOI 100414 Hex 7783064 11, 2 106990 Car 463581 Car 7664417 H22 7664417 Pro 7664417 Pro 7664417 Car 7664417 Car 761509 Car 7440439 Car 7440439 Car 7440439 Car 7440466 Man 7439965 Mer 7782492 Car 7782492 Car 7782492 Car 7782492 Car 7440666 Man 7439965 Mer 7782492 Car 7782492 Car 7440620 Car 7440620 Car 7440620 Car 7782492 Car 778299 Car 778299 Car 778299 Car 778299 Car 778290 Car 7440473 Car	EMISSIONS FOR SOURCE MULTIPI CAS 71432 50000 1151 91203 75070

	CK 18 EMS (lbs/yr)
0.003863 0.00131454 0.00131454 0.0000131365 0.00000131365 0.00000131355 0.0000000000000000000000000000000000	<pre>SEGUNDO REFINERY STACK MAX (lbs/hr) * 0.00005862 0.00018466 0.01209 * * * * * * * * * * * * * 0.00128136 0.000003436 0.00008793 0.00008793 0.00008793</pre>
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NAME=CHEVRON EL AVRG (lbs/yr) * 0.05135 1.617 1.617 1.617 1.617 1.617 1.617 1.617 3559 * * * * * * * * * * * * * * * * * *
	PRO=18 STK=1 BG (ug/π [*] 3) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	CO=11 DEV=1 MULTIPLIER
Acrolein Ethyl Benzene Hexane Toluene Xylenes 1,3-Butadiene Ethylene Propylene NH3 H2S 1,2,4TriMeBenze Cyclohexane Phenol B[a]P Phenol B[a]P B[b]fluoranthen B[a,,i]perylen Cadmium Chloroform Chromium Cr(VI) Copper Lead Manganese Manganese Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane	OR FACILITY FAC=2505 IPLIER=1 ABBREV Benzene Formaldehyde Formaldehyde Acrolein Ethyl Benzene Hexane Acrolein Ethyl Benzene Hexane Ylenes 1,3-Butadiene CarbonylSulfide Ethylene NH3 H2S 1,2,4TriMeBenze NH3 H2S 1,2,4TriMeBenze CarbonylSulfide Ethylene Propylene NH3 H2S 1,2,4TriMeBenze Cyclohexane Phenol B[a] P B[b] fluoranthen B[c,h,i] perylen B[d,h,i] perylen
107028 1007028 110543 120883 120883 120883 120699 463581 74851 106990 7783064 9564417 7783064 108955 1910827 19854029 7440633 18540299 7440633 7440623 7440508 7440508 7440622 7440622 7440622 7440622 7440623 7440623 7440623 7440623 7440623 75150	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABB 71432 AEB 1151 PAH 91203 PAH 91203 Acp 1151 Nap 75070 Acr 100414 HeX 110543 Acr 110543 Acr 110543 Acr 110543 Acr 110543 Acr 110543 Acr 110590 Acr 11, 3 463581 Car 7783064 11, 12, 3 463581 Car 7783064 12, 2 11827 Car 7783064 12, 2 108952 Pro 7783064 12, 2 11, 2 108952 Pro 7783064 12, 2 11,

0.000000693	0.002293	0.00000693	0.0001253	0.003832	0.000647	0.00181	0.0003202	0.001465	0.01121	0.000636	0.000000072	0.01678	*	*
0.006072	20.09	0.006072	1.098	33.57	5.668	15.85	2.805	12.84	98.2	5.571	0.0006321	147	*	*
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ц	г	г	г	1	1	г	Ч	г	1	г	1	1	Т	1
Chloroform	Chromium	Cr(VI)	Cobalt	Copper	Lead	Manganese	Mercury	Nickel	Phosphorus	Selenium	Vanadium	Zinc	Methane	CS2
67663	7440473	18540299	7440484	7440508	7439921	7439965	7439976	7440020	7723140	7782492	7440622	7440666	74828	75150

EMISSIONS FOR FACIL	EMISSIONS FOR FACILITY FAC=2505 Southore Muturiduter-1	CO=11 DEV=2	PRO=19 ST	STK=1 NAM	NAME=CHEVRON EL	SEGUNDO REFINERY	Y STACK 19 EMS (lbs/yr)
CAS	ARREV	MITLT PL.TER	רי <i>ר</i> שלא) אני	AVRC	(1hs/wr)	(1hs/hr)	
71432	Benzene		··· / 65 / 04	_			
50000	Formaldehyde			0	*	*	
1151	PAHs-w/o	1		0	*	*	
91203	Naphthalene	1		0	*	*	
75070	Acetaldehyde	1		0	*	*	
107028	Acrolein	1		0	*	*	
100414	Ethyl Benzene	г		0	*	*	
110543	Hexane	-1		0	*	*	
108883	Toluene	1		0	*	*	
1210	Xylenes	1		0	*	*	
106990	1,3-Butadiene	1		0	0.1978	0.0002258	
463581	CarbonylSulfide	1		0	*	*	
74851	Ethylene	1		0	13.21	0.01508	
115071	Propylene	1		0	120.8	0.01379	
7664417	NH3	-1		0	*	*	
7783064	H2S	1		0	*	*	
95636	1,2,4TriMeBenze	г		0	*	*	
110827	Cyclohexane	1		0	*	*	
108952	Phenol	1		0	*	*	
50328	B[a] P	1		0	*	*	
205992	B[b]fluoranthen	1		0	*	*	
191242	B[g,h,i]perylen	1		0	*	*	
7440439	Cadmium	г		0	*	*	
67663	Chloroform	г		0	*	*	
7440473	Chromium	-1		0	*	*	
18540299	Cr(VI)	Ч		0	*	*	
7440484	Cobalt	1		0	*	*	
7440508	Copper	Ч		0	*	*	
7439921	Lead	1		0	*	*	
7439965	Manganese	-		0	*	*	
7439976	Mercury	1		0	*	*	
7440020	Nickel	Ч		0	*	*	
7723140	Phosphorus	Ч		0	*	*	
7782492	Selenium	1		0	*	*	
7440622	Vanadium			0	*	*	
7440666	Zinc	1		0	*	*	
74828	Methane	1		0	743.2	0.08484	
75150	CS2	1		0	*	*	
EMISSIONS FOR FACIL SOURCE MULTIPLIER=1	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1	CO=12 DEV=1	PRO=20 ST	STK=1 NAM	NAME=CHEVRON EL	SEGUNDO REFINERY	Y STACK 20 EMS $(lbs/yr)$

	CK 21 E
MAX (lbs/hr) 0.0000041222 0.0003322 0.003316 0.003316 0.003352 0.003354 ***********************************	<pre>SEGUNDO REFINERY STACK MAX (lbs/hr) 0.0001712 0.000003631 0.000002952 0.000002952 0.000007971 0.00007971 0.00007924 0.00007824 * * 0.0005816 * * 0.0005816 * * 0.0005816 * * 0.0005816 * * 0.0005816 * * 0.0005816 * * * *</pre>
AVRG (lbs/yr) 0.003345 29.065 29.05 29.05 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.26 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36 20.36	NAME=CHEVRON EL AVRG (lbs/yr) 1.5 3.181 0.07759 0.07759 0.8017 0.6983 1.785 1.19 6.854 5.095 5.095 1.37.1 137.1
Bg (Lg/m ³ ) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PRO=21 STK=1 BG (ug/m ² 3) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	CO=12 DEV=2 MULTIPLIER
ABBREV Benzene Formaldehyde Patts-w/o Naphthalene Acrolein Ethyl Benzene Hexane Acrolein Ethyl Benzene Hexane Toluene Xylenes 1,3-Butadiene CarbonylSulfide Ethylene Propylene NH3 H2S 1,2,4TriMeBenze CarbonylSulfide Ethylene Propylene NH3 H2S 1,2,4TriMeBenze CarbonylSulfide Ethylene Propylene NH3 H2S 1,2,4TriMeBenze CarbonylSulfide Ethylene Propylene NH3 H2S 1,2,4TriMeBenze CarbonylSulfide Fthylene CarbonylSulfide Fthylene CarbonylSulfide Fthylene CarbonylSulfide Fthylene CarbonylSulfide Fthylene CarbonylSulfide Fthylene CarbonylSulfide Fthylene CarbonylSulfide Fthylene CarbonylSulfide Fthylene Selenium Vanadium Vanadium CS2 Methane	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV 71432 ABBREV 50000 Pathere 50000 PAHs-w/o 1151 Naphthalene 75070 Acctaldehyde 107028 Accolein 100414 Hexane 100414 Ethyl Benzene 100414 Hexane 100414 Ethyl Benzene 100883 Toluene 100883 Toluene 100883 Toluene 100883 Toluene 10543 Hexane 106990 1,3-Butadiene 46351 Ethylene 115071 NH3 7783064 1,2,4TriMeBenze 95636 1,2,4TriMeBenze
CAS 50000 51151 51151 51151 51151 51203 75070 107028 108883 108883 108883 108883 1008833 1100883 1100883 1100883 1100883 1100883 1100883 1115071 778364 1108883 1115071 778383 1115071 7783995 7440299 77440299 77440599 77440599 77424029 77426020 77782492 77440506 77782492 774502020 77782492 774502020 77782492 7745020 77782492 774502020 77782492 774502020 77782492 774502020 77782492 774502020 77782492 77450506 77782492 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150 775150000000000	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS 71432 ABB 71432 For 1151 PAH 91203 Acp 107028 Acp 107028 Acc 107028 Acr 10643 Hex 100414 Hex 10699 1,3 463581 Car 1210 1,3 463581 Eth 1210 Car 1733064 H2S 7783064 H2S

EMS (lbs/yr)

	(λ.τ.)
	STACK 24 EMS (lbs/yr)
* * * * * * * * * * * * * * * * * * * *	SEGUNDO REFINERY MAX (lbs/hr) 0.002161 0.001062 0.001334 0.0013588 0.0013588 0.0013588 0.001356 0.01334 0.001552 **
* * * * * * * * * * * * * * * * * * *	NAME=CHEVRON EL AVRG (lbs/yr) 9.304161 18.93124 9.304161 101.2666 101.2666 102.8352 0.1327 0.1327 53.948 53.948 53.948 53.948 **
000000000000000000000000000000000000000	PRO=24 STK=1 BG (ug/m ³ )
	CO=14 DEV=1
Cyclohexane Phenol B[a]P B[b]fluoranthen B[b]fluoranthen B[g,h,i]perylen Cadmium Chloroform Chloroform Chromium Cr(VI) Cobalt Copper Lead Manganese Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV 71432 BEBREV 71432 BEBREV 50000 Formaldehyde 50000 Formaldehyde 1151 Naphthalene 75070 Acctaldehyde 107028 Acrolein 100414 FALS- 75070 Acctaldehyde 107028 Acrolein 100414 Hexane 110543 Toluene 110543 Toluene 110543 Toluene 74851 Ethylene 74851 Propylene 74851 H2S 7783064 17 74851 Propylene 74851 H2S 7783064 17 7440439 Cyclohexane 110827 Phenol 50328 B[b]fluoranthen 110827 Phenol 50328 B[b]fluoranthen 110827 Chromium 110827 Chromium 110827 Chromium 110828299 B[b]fluoranthen 110827 Chromium 110827 Chromium 110827 Chromium 7440483 Chromium 11082865 Manganese 7439976 Marcury 7723140 Phosphorus 7723140 Phosphorus 7723140 Phosphorus 7723140 Selenium
110827 108252 50328 50328 205992 1205992 7440433 7440433 7440433 7440433 7440433 7440433 7440653 7440508 7439955 7440622 7440622 7440622 74828 75150	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABB 71432 Ben 50000 FOY 1151 PAH 91203 Nap 75070 Acr 100414 Hex 100414 Hex 100852 Cr 7783064 1,2 205992 Cr 7440439 6763 Cr 7440439 7440623 Cr 7440623 Cr 740070 Cr 740070 Cr 740070 Cr 740070 Cr 740070 Cr 740070

	(lbs/yr)																												(lbs/yr)									
	E) SMB																												E) SME									
	RY STACK 28																												RY STACK 29									
* * *	SEGUNDO REFINERY	MAX (lbs/hr) * *	* *	k *	* *	*	* *	*	* *	*	0.01159	* *	*	*	* *	* *	*	* 1	k *	*	* *	* *	*	* •	ĸ *	*	*	* *	SEGUNDO REFINERY	MAX (lbs/hr)	0.0003497	* +	* *	* '	* 0.0002637	*	0.001107	*
* * *	NAME=CHEVRON EL	AVRG (lbs/yr) * *	* -	k *	* *	*	* *	*	* *	*	101.5	744.0 *	*	*	* *	* *	*	* 1	K *	*	* *	* *	*	* •	* *	*	*	* *	NAME=CHEVRON EL	AVRG (lbs/yr)	3.063	* *	* *	*	* 2.31	*	9.695	*0.TT
000	STK=1	0 0 (E^m/gu)	000	00	00	0	00	0	00	00	00		0	0		00	0	0 0	о с	0	0 0		0	0 0		0	0	00	STK=1	(ug/m [*] 3)	0	00	00	0	00	0	00	00
	PRO=28	BG																											PR0=29	BG								
	DEV=3	MULTIPLIER 1	، ۱۰۰ <b>،</b>			- <del>-</del>					н,			н ,	-1		Ч	<del>,</del> н			н,	-1	H F-4	г <b>н</b> ,	1	H F-1	Ч		DEV=4	MULTIPLIER	ы	н,		r-i -	H H	1		
	C0=12	IUM																											C0=12	IUM								
Zinc Methane CS2	EMISSIONS FOR FACILITY FAC=2505	ABBREV Benzene Formaldehvde	PAHS-w/O	Naphchalene Acetaldehyde	Acrolein Ethvl Renzene	Hexane	Toluene Xvlenes	1,3-Butadiene	CarbonylSulfide Rthwlene	Propylene	NH3	nzo 1.2.4TriMeRenze	Cyclohexane	Phenol	B[A] <i>P</i> B[h]f]::Cranthan	B[g,h,i]perylen	Cadmium	Chloroform	CHEOMLUM	Cobalt	Copper	Leau Mancanece	Mercury	Nickel	rnospnorus Selenium	Vanadium	Zinc	Methane CS2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1	ABBREV	Benzene	Formaldehyde	rans-w/o Naphthalene	Acetaldehyde	Acrolein Ethyl Benzene	Hexane	Toluene	Aylenes 1,3-Butadiene
	EMISSIONS FOR FACIL								_			4	4				39	0									56		EMISSIONS FOR FACIL SOURCE MULTIPLIER=1				- 4					
7440666 74828 75150	EMISS	SCURCE CAS 71432 50000	1151	75070	100414	110543	1210	106990	463581 74851	115071	7664417	95636	110827	108952	50528 20592	191242	7440439	67663	18540299	7440484	7440508	7439965	7439976	7440020	7782492	7440622	7440666	74828 75150	EMISS	CAS	71432	50000	91203	75070	107028 100414	110543	1210	1066900

	Yr.)
* * * 0.00131313 * * * * * * * * * * * * * * * * * * *	SEGUNDO REFINERY STACK 30 EMS (lbs/yr) MAX (lbs/hr) 0.00002959 ** 0.00001338 0.00005395 0.00005395 0.00005326 * 0.00005326 * 0.00005326 * 0.00005326 * 0.00005326 * * 0.00003359 * * 0.00003359 * * * 0.00003359 * * * * 0.00003359 * * * * * * * * * * * * * * * * * * *
0 .0 .140 .17 .17 .17 .17 .17 .17 .17 .17 .17 .17	NAME=CHEVRON EL AVRG (lbs/yr) 0.2592 * 1.973 1.973 * 0.4726 5.548 6.548 6.548 6.548 6.548 6.548 7.4 433.4 433.4 * 433.4 *
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	PRO=30 STK=1 BG (ug/m ³ ) 0 0 0 0 0 0 0 0 0 0 0 0 0
	CO=17 DEV=1
CarbonylSulfide Ethylene Propylene NH3 H2S 1,2,4TriMeBenze Cyclohexane Phenol B[a]P B[b]fluoranthen B[g,h,i]perylen Cadmium Chloroform Chloroform Chromium Cr(VI) Cobalt Copper Lead Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane Cs2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS 50000 Formaldehyde 1151 ABBREV 50000 Formaldehyde 50000 Formaldehyde 1151 Naphthalene 75070 Acetaldehyde 107028 Acetaldehyde 107028 Accolein 100414 Hexane 110543 Hexane 110543 Toluene 1106990 1,3-Butadiene 463581 Ethyl Benzene 108883 Tylene 7783064 17 1,3-Butadiene 463581 Ethylene 74851 Propylene 7783064 1,3-Butadiene 463581 1,3-Butadiene 463581 1,3-Butadiene 108952 1,3-Butadiene 115071 NH3 7783064 1,2-4TriMeBenze 110827 B[a]P 50328 B[a]P 50328 B[a]P 50328 B[a]P 1,2,4TriMeBenze 1108952 B[a]P 205992 B[a]P 205992 B[a]P 1,2,4TriMeBenze 1191242 Cyclohexane 191242 Cyclohexane 191242 Cyclohexane 191242 Cyclohexane 191243 Chromium 18540299 Chloroform 7440484 Cobalt 744068 Cobalt
463581 74851 1165071 765071 778364117 7783064 1108952 50328 2018952 7440433 7440433 7440433 7440433 7440299 7440299 7440508 77431420 7782492 7440658 77828955 74828 74828 74828 7480655 77828921 74828 77828955 74828 77828955 77828955 77828955 77828555 77828555 77828555 77828555 77828555 77828555 77828555 77828555 77828555 77828555 77828555 77828555 77828555 77828555 77828555 77828555 77828555 77828555 77828555 77828555 77828555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 7785555 77855555 77855555 77855555 77855555 77855555 77855555 77855555 77855555 77855555 77855555 77855555 77855555555	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABB 71432 ABB 71432 PAH 50000 FOI 1151 PAH 9151 PAH 1107028 ACT 1007028 ACT 1006990 ACT 1006990 ACT 1006990 ACT 1006990 ACT 1006990 CAI 74851 Eth 1106990 1, 2 7664417 NH3 7664417 CCY 108952 B[a 205992 B[a 205992 B[a 205993 CCH 7440473 CCH 7440473 CCH 7440473 CCH 7440473 CCH 7440484 CCO 7440508 CCH

(1bs/yr)		(lbs/yr)
EMS (11		EMS (11
STACK 31		STACK 32
SEGUNDO REFINERY	MAX (lbs/hr)	SEGUNDO REFINERY MAX (lbs/hr) 0.00235 * * 0.0000138
* * * * * * * * * * * * * * * * * * *	AVRG (lbs/yr) *** 86.01 86.01 11.03 7.017 0.6115 *** *** *** 0.01203	NAME=CHEVRON EL AVRG (lbs/yr) 20.587 * 0.1211
0 0 0 0 0 0 PRO=31 STK=1	BG (Lc^m/pu) BB	PRO=32 STK=1 BG (ug/m ² 3) 0 0 0 0 0
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		CO=19 DEV=1 PI MULTIPLIER 1 1 1 1 1 1 1 1 1
7439965 Manganese 7439976 Mercury 7440020 Nickel 7723140 Phosphorus 7782492 Vanadium 7440622 Vanadium 7440666 Methane 75150 CS2 75150 CS2	IPLIER=1 ABBREV Benzene Formaldehyde PAHS-w/o Naphthalene Acrolein Ethyl Benzene Hexane Toluene Xylenes Toluene Toluene Toluene Ethyl Benzene Ethylene Sthylene Propylene NH3 H2S 1,3-Butadiene CarbonylSulfide Ethylene Propylene NH3 H2S 1,2-4TriMeBenze Cyclohexane Phenol B[a]P B[b]fluoranthen B[a,h,i]perylen Cadmium Cromium Cromium Cromium Cromium Cromium Cropper Lead Manganese Manganese Marcury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV 71432 BERZEN 50000 Formaldehyde 1151 PAHS-w/O 91203 Acetaldehyde 75070 Acetaldehyde
7439965 7439965 7440020 7723140 7723140 7440622 7440622 7440666 74828 75150 75150 8MISSIONS F0	SOURCE MULTIPLIER=1 CAS CAS 50000 1151 50000 1151 94H 91203 75070 75070 75070 75070 100414 100590 110543 100590 110543 110543 110543 110543 110590 11,2 110827 74851 110827 74851 110827 7783064 11,2 110827 7783064 11,2 110827 7783064 7440439 67663 7440439 67663 7440439 7440439 7440633 7440620 7440620 7440620 7440620 7440620 7440620 7440620 7440620 7440620 7440620 7440620 7440620 7440622 7440620 7440650 7440622 7440650 7440650 7440650 7440650 7440650 7440650 7440650 7440650 7440650 7440650 7440650 7440650 7440650 7440650 7440650 7440650 7440650 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 751	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABB 71432 Ben 50000 For 1151 PAH 91203 Acp

, 1:37:02PM	
22/2008	
2 MEIW.txt	
05Chev/HRA2/2505HRA2 MEIW.txt 1/	
2505Chev\HR2	
C:\HARP\PROJECTS\2505Ch	
.le: C:\HARP\I	
File:	States and a state of the state

*	0.0000415	0.002101	0.00018	0.0001383	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	0.3633	18.4072	1.5743	1.211	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	г	1	1	Т	г	Ч	г	Ч	г	1	г	1	Т	1	г	Ч	Ч	Ч	F	Ч	1	Ч	Ч	Ч	1	1	1	1	1	г
Acrolein	Ethyl Benzene	Hexane	Toluene	Xylenes	1,3-Butadiene	CarbonylSulfide	Ethylene	Propylene	NH3	H2S	1,2,4TriMeBenze	Cyclohexane	Phenol	B[a] P	B[b]fluoranthen	B[g,h,i]perylen	Cadmium	Chloroform	Chromium	Cr(VI)	Cobalt	Copper	Lead	Manganese	Mercury	Nickel	Phosphorus	Selenium	Vanadium	Zinc	Methane	CS2
107028	100414	110543	108883	1210	106990	463581	74851	115071	7664417	7783064	95636	110827	108952	50328	205992	191242	7440439	67663	7440473	18540299	7440484	7440508	7439921	7439965	7439976	7440020	7723140	7782492	7440622	7440666	74828	75150

CANCER RISK REPORT

	UTME																						
	TOTAL		85E-07	5.54E-10	05E-08	3.18E-09	1.80E-10	0.00E+00	0.00E+00	0.00E+00	).00E+00	0.00E+00	L.80E-09	0.00E+00	0.00E+00	0.00E+00	).00瓩+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.76E-10	90E-11
	ORAL		0.00E+00 1	0.00E+00 (	1.01E-08 ]	0.00E+00 8	0.00E+00 ]	0.00E+00 (		0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00 4	0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00 (	D.00E+00 (	0.00E+00 (	0.00E+00 (	3.62E-10 3	1.72E-11 4
	MEAT		0.00E+00 (	0.00E+00 (	0.00E+00	0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00	0.00E+00
	EGG		1.85E-07 0.00E+00 1.85E-07	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 6.54E-10	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.01E-08 1.05E-08	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 8.18E-09	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 4.80E-09	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	1.40E-11 3.21E-10 4.17E-11 0.00E+00 3.62E-10 3.76E-10	1.82E-12 4.18E-11 5.43E-12 0.00E+00 4.72E-11 4.90E-11
	PIG		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	CHICK		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	BEEF		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	DAIRY		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	VEG		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	WATER		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00		0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	FISH		0.00E+00	0.00E+00	1.16E-09 0.00E+00 0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+0	0.00E+00 0.00E+00 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
	MOTHER		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EPTOR 990	SOIL		0.00E+00	0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.17E-11	5.43E-12
RISK, REC	DERM		0.00E+00	6.54E-10 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	8.95E-09	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+0	80E-10 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+0	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+0	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	3.21E-10	4.18E-11
AVERAGE CANCER RISK, RECEPTOR 990	INHAL		1.85E-07	6.54E-10	3.90E-10	8.18E-09	1.80E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.80E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E - 11	1.82E-12
AVERAG	CHEM	NIMITU	1000	0002	0003	0004	0005	0006	0007	0008	6000	0010	1100	0012	0013	0014	0015	0016	0017	0018	0019	0020	0021

	371054
0.00E+00 0.0	2.07E-07 9.38E-09 1.33E-09 0.00E+00 1.07E-08 2.18E-07 371054 0
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This file: C:\HARP\PROJECTS\2505Chev\HRA2\2505HRA2 MEIR.txt

Build 23.04.05 ЪМ Creation date: 1/22/2008 1:13:38 Created by HARP Version 1.3 Uses ISC Version 99155 Uses BPIP (Dated: 04112)

EXCEPTION REPORT (there have been no changes or exceptions)

INPUT FILES:

Site parameters file: C:\HARP\PROJECTS\Pathway\resident pathway.sit Source-Receptor file: C:\HARP\PROJECTS\2505Chev\HRa2\2505HRa2.SRC Averaging period adjustment factors file: not applicable Emission rates file: database

Coordinate system: UTM NAD27

Screening mode is OFF

70 year (adult resident) Derived (Adjusted) Method Cancer Risk 1118 All Exposure duration: Analysis method: Health effect: Chemicals(s): Receptor(s): Sources(s):

SITE PARAMETERS

DEPOSITION

Deposition rate (m/s)

0.02

DRINKING WATER

*** Pathway disabled ***

FISH

*** Pathway disabled ***

PASTURE

*** Pathway disabled ***

HOME GROWN PRODUCE

HUMAN INGESTION

ingested protected vegetable 0.052 0.052 0.052 ingested exposed vegetable Fraction of ingested leafy vegetable ingested root vegetable grown source grown source grown source from home Fraction of from home from home Fraction of Fraction of

PIGS, CHICKENS AND EGGS

0.052

grown source

from home

*** Pathway disabled ***

DERMAL ABSORPTION

*** Pathway enabled ***

SOIL INGESTION

*** Pathway enabled ***

MOTHER'S MILK

*** Pathway enabled ***

	BACKGROUND (ug/m ² 3)		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
ουστηκατηκαρικου αικιστάρουνα αικά αιαδη αρικαστάστας του	D DACAGANOUND CONCENTRALIONS POLLITTANT NAME	Benzene	Formaldehyde	PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA]	Naphthalene	Acetaldehyde	Acrolein	Ethyl benzene	Hexane	Toluene	Xylenes (mixed)	1,3-Butadiene	Carbonyl sulfide	Ethylene	Propylene	Ammonia	Hydrogen sulfide	1,2,4-Trimethylbenzene	Cyclohexane	Phenol	Benzo[a] pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Cadmium	Chloroform	Chromium	Chromium, hexavalent (& compounds)	Cobalt	Copper	Lead	Manganese	Mercury	Nickel	Phosphorus	Selenium	Vanadium (fume or dust)	Zinc	Methane	Carbon disulfide	
AA HIAAT TANTATA	EFERENCE LADUE AU ABBREVIATION	Benzene	Formaldehyde	PAHs-w/o	Naphthalene	Acetaldehyde	Acrolein	Ethyl Benzene	Hexane	Toluene	Xylenes	1,3-Butadiene	CarbonylSulfide	Ethylene	Propylene	NH3	H2S	1,2,4TriMeBenze	Cyclohexane	Phenol	B[a]P	B[b]fluoranthen	B[g,h,i]perylen	Cadmium	Chloroform	Chromium	Cr(VI)	Cobalt	Copper	Lead	Manganese	Mercury	Nickel	Phosphorus	Selenium	Vanadium	Zinc	Methane	CS2	
	CAS	71432	50000	1151	91203	75070	107028	100414	110543	108883	1210	106990	463581	74851	115071	7664417	7783064	95636	110827	108952	50328	205992	191242	7440439	67663	7440473	18540299	7440484	7440508	7439921	7439965	7439976	7440020	7723140	7782492	7440622	7440666	74828	75150	
LManu	CHEM	0001	0002	0003	0004	0005	0006	0007	0008	6000	0010	0011	0012	0013	0014	0015	0010	0017	0018	0019	0020	0021	0022	0023	0024	0025	0026	0027	0028	0029	0030	0031	0032	0033	0034	0035	0036	0037	0038	

EMISSIONS DATA SOURCE: Emission rates loaded from database CHEMICALS ADDED OR DELETED: none

EMS (lbs/yr)	EMS (lbs/yr)
STACK 1	STACK 2
<pre>SEGUNDO REFINERY MAX (lbs/hr/) 0.000428 0.000396 0.000116 0.0001166 0.0001166 0.0001266 0.0001266 0.0001266 1</pre>	SEGUNDO REFINERY MAX (lbs/hr) ** ** ** 0.0001018 0.0000943 0.008279
AAME=CHEVRON EL S AVRG (lbs/yr) 27.5 0.0707 0.236 0.683 1.011 0.683 1.37 0.683 1.37 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	NAME=CHEVRON EL S AVRG (lbs/yr) * * * * * * * * * * * * * * * * * * *
STK=1 (ug/m ³ ) ( 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	TK=1 T=2TK=1 1 1 1 1 1 1 1 1 1 1 1 1 1
PRO≡1 BG	PRO= 2 BG
	DEV=2 DEV=2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
CO CO	CO=1 M
EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS CAS 50000 FACILITY FAC=2505 50000 FABBREV 50000 PAHS-W/o 91203 Benzene 75070 Acetaldehyde 75070 Acetaldehyde 75070 Acetaldehyde 100714 Ethyl Benzene 1008883 Collene Accolein Fthyl Benzene 1008883 Toluene 110543 Toluene 110543 Toluene 74851 Propylene 74851 Propylene 7440439 CarbonylSulfide 7440439 CarbonylSulfide 7440439 Clanon 7440484 Coper 100852 B[b]fluoranthen 100852 B[b]fluoranthen 7440439 Cchonium 7440484 Coper 7440484 Coper 7440666 Mercury 7723140 Selenium 7440666 Methane 7440666 Methane	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV CAS ABBREV 71432 Benzene 50000 PAHS-W/O 91203 Naphthalene 75070 Acctaldehyde 107028 Acctaldehyde 107028 Acctaldehyde 107028 Acctaldehyde 107028 Acctaldehyde 100414 Ethyl Benzene 110643 Toluene 1106990 1,3-Butadiene 463581 Ethylenes 1066990 1,3-Butadiene 463581 Propylene 7664417 MH3
EMISSIONS FOR FACIL SOURCE MULTIPLIER-IL SOURCE MULTIPLIER-IL SOURCE MULTIPLIER-IL ABB71432ABB71432PAH50000For PAH50000For PAH50000For PAH50000For PAH50000For PAH50000For PAH50000For PAH50000Acc Pac100414Hex Prol100414Fth Prol100414Hex Prol110543Tol 1,312101,312101,312101,31210Tol 1,31210Tol 1,31210Tol 1,31210Tol 1,31210Tol 1,1,31200Fth 1,2115071Pro 1,2115071Pro 1,212031,2115071Pro 1,2115071Pro 1,2115071Pro 1,2115071Pro 1,2115071Pro 1,2115071Pro 1,2115071Pro 1,2115071Pro 1,2115071Pro 1,2115071Pro 1,2115071Pro 1,2115071Pro 1,2115071Pro 1,2115071Pro 1,2115072Pro 1,2115073Pro 1,2115074Pro 1,2115075Pro 1,2115075Pro 1,211	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABB 71432 ABB 71432 PAH 5000 PAH 91203 PAH 91203 PAH 91203 PAH 1151 PA 91203 PAH 91203 PAH 91203 PAH 106414 Hex 100414 Hex 100414 Hex 100590 1,3 106990 1,3 106990 1,3 106990 1,3 115071 Pro

	STACK 3 EMS (lbs/yr)
* * * * * * * * * * * * * * * * * * * *	SEGUNDO REFINERY 5 MAX (lbs/hr) ** ** 0.0000127 0.02543 0.02543 ** ** ** ** **
* * * * * * * * * * * * * * * * * * * *	NAME=CHEVRON BL 5 AVRG (1bs/yr) ************************************
000000000000000000000000000000000000000	PRO=3 STK=1 BG (ug/m ⁻³ ) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	CO=2 DEV=1
H2S 1,2,4TriMeBenze Cyclohexane Phenol B[a] P B[b] fluoranthen B[g,h,i] perylen Cadmium Chloroform Chromium Chromium Chorit Coper Lead Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV 71432 BBREV 50000 Formaldehyde 50000 Formaldehyde 50000 FAHS-w/o 91203 Naphthalene 75070 Acetaldehyde 107028 Acetaldehyde acrolein 100414 Hexane 100690 Acrolein Ethyl Benzene 100690 1, 3-Butadiene 463581 Ethyl Benzene 100890 1, 3-Butadiene 463581 Fropylene 7783064 17 7783064 1, 7, 4TriMeBenze 108952 B[a] P 7783064 1, 2, 4TriMeBenze 110827 CarbonylSulfide 74851 Propylene 7783064 1, 2, 4TriMeBenze 108952 B[a] P 7783064 1, 2, 4TriMeBenze 108952 B[a] P 7783064 1, 2, 4TriMeBenze 108952 B[a] P 7783064 1, 2, 4TriMeBenze 108952 B[a] P 7440433 Chromium 191242 Chloroform 7440439 Chromium 18540299 Chloroform 7440430 Chromium 18540299 Chloroform 7440430 Chromium 18540209 Nickel 7430976 Mercury 7430976 Mercury 7440020 Phosphorus
7783064 95636 110827 108952 505992 191242 7440439 67663 7440443 18540299 7440508 7440508 7439921 7439921 7439921 7439921 7439921 7439921 743828 7440666 7782492 7440666 7782492 7440666 7782828 7440666	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABB 71432 ABE 71432 ABE 71432 Parl 100000 PAL 75070 PAL 100414 Eth 100414 Eth 100414 Eth 100590 Acr 1006990 Acr 1006990 Acr 1006990 Acr 1006990 Acr 1006990 Car 74851 Eth 1006990 1,3 7664417 NH3 7664417 Phe 76536 207 108952 B[b 110827 Cyc 108952 B[b 110827 Cyc 108952 B[b 110827 Cyc 7440439 Cch 7440439 Cch 7439965 B[c 7440484 Ccb 7439965 Phe 7439976 Man 7723140 Pho 7723140 Pho

	(1bs/yr)	(lbs/yr)
	EWS	EWS
	STACK	STACK 6
* * * * *	SEGUNDO REFINERY MAX (lbs/hr) 0.0007931 0.0007955 0.002974 0.002974 0.002974 0.002974 0.002974 0.002974 0.002974 8************************************	SEGUNDO REFINERY MAX (lbs/hr) 0.002398 * 0.002398 * 0.002398 * 0.003676 0.003676 0.003676
* * * * *	121 です 。 あらってう うづす しょう うちょう あっちょう うちょう うちょう うちょう うちょう うちょう うちょう そうちょう キャッキャット キャット・キャット オート・アート ひょう オート・アート ロート アート ロート オート・アート ロート オート・アート ロート オート・アート ロート オート・アート ロート オート・アート ロート オート・アート ロート オート ロート オート ロート ロート ロート ロート ロート ロート ロート ロート ロート ロ	NAME=CHEVRON EL AVRG (lbs/yr) 21.01 21.01 * 10.23 * 32.2 70.5 134.4
00000	G (ug/m ³ ) (ug/m ³ ) (ug/m ³ )	PRO=6 STK=1 BG (ug/m ³ 3) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
н н н н н		CO=4 DEV=1 I MULTIPLIER 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Selenium Vanadium Zinc Methane CS2	ITTY FAC=250 REV zene maldehyde ikthalene is-w/o ikthalene is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o is-w/o	FOR FACILITY FAC=2505 ABBREV ABBREV Benzene Formaldehyde PAHs-w/o Naphthalene Acetaldehyde Acrolein Ethyl Benzene Hexane Toluene
7782492 7440622 7440666 74828 75150	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 ABB 71432 50000 50000 50000 50000 50000 50000 50000 50000 5000 5000 1151 110543 100414 110543 100414 110543 100414 110543 100414 110543 100414 100414 100528 4654417 100883 108883 100414 100528 56536 11,3 4654417 110827 108853 5664417 110827 110827 110827 110827 5614 110827 110827 5636 564417 110827 7783064 11,3 46563 67663 7440439 5616 7440439 5616 7440439 5617 7440430 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7440666 7440522 77839976 77839976 7440666 7440522 7440666 7440522 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 75150 7515	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS 50000 50000 1151 91203 75070 75070 75070 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 107028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100020 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 100028 10000000000

0.02045	0.00001692	*	*	0.00006987	*	*	0.00677	0.003729	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
179.2	0.1482	*	*	0.612	*	*	59.3	32.67	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
гт.	1	1	Ч	1	1	г	1	1	г	1	1	1	1	1	г	1	1	1	г	1	г	1	1	Г	1	н	1	1
Xylenes	1,3-Butadiene	CarbonylSulfide	Ethylene	Propylene	NH3	H2S	1,2,4TriMeBenze	Cyclohexane	Phenol	B[a]P	B[b]fluoranthen	B[g,h,i]perylen	Cadmium	Chloroform	Chromium	Cr (VI)	Cobalt	Copper	Lead	Manganese	Mercury	Nickel	Phosphorus	Selenium	Vanadium	Zinc	Methane	CS2
1210	106990	463581	74851	115071	7664417	7783064	95636	.110827	108952	50328	205992	191242	7440439	67663	7440473	18540299	7440484	7440508	7439921	7439965	7439976	7440020	7723140	7782492	7440622	7440666	74828	75150

NAME=CHEVRON EL SEGUNDO REFINERY STACK 7 EMS (lbs/yr)0.0003395 0.0005489 0.00005323 0.00002125 0.0000998 0.00004496 * 0.00003268 MAX (lbs/hr) 0.00003361 2.974 4.809 AVRG (lbs/yr) 0.1861 0.4663 0.8743 0.3938 0.2863 0.2944 000 0000 0 0 0 0 0 00 0000 0 00 BG (ug/m^3) STK=1 PRO=7 MULTIPLIER DEV=1 CO=5 EMISSIONS FOR FACILITY FAC=2505 B[b]fluoranthen
B[g,h,i]perylen 1,2,4TriMeBenze Cyclohexane CarbonylSulfide Ethyl Benzene 1,3-Butadiene Acetaldehyde Formaldehyde Naphthalene Chloroform Propylene PAHs-w/o Acrolein Ethylene Chromium Toluene Xylenes Benzene Cadmium ABBREV Hexane Phenol Cobalt Cr(VI) B[a]P H2S NH3 SOURCE MULTIPLIER=1 7440473 18540299 7440484 7783064 95636 110827 108952 50328 7664417 7440439 100414 110543 108883 1210 106990 463581 71432 50000 1151 91203 75070 107028 74851 115071 205992 191242 67663 CAS

	EMS (lbs/yt)	12 EMS (lbs/yr)
	e STACK	STACK
* * * * * * * * * * *	SEGUNDO REFINERY MAX (lbs/hr) 0.002301 ** 0.001097 ** 0.003464 0.01453 0.01453 0.01453 ** 0.01453 ** 0.001684 ** **	REGUNDO REFINERY MAX (lbs/hr) 0.003344 *
* * * * * * * * * * *	NAME=CHEVRON EL AVRG (lbs/Yr) 20.16 9.607 9.607 30.35 70.46 1127.3 1127.3 1127.3 127.3 31.1475 8.8 8.8 168.8 8.8 127.3 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8	NAME=CHEVRON EL AVRG (lbs/yr) 29.29 *
000000000000000000000000000000000000000	PRO=9 STK=1 1 BG (ug/m ³ 3) BG (ug/m ³ 3)	PRO=12 STK=1 BG (ug/m ³ ) 0 0
	CO=6 DEV=1	CO=8 DEV=1 1 MULTIPLIER 1 1 1
Copper Lead Manganese Mercury Nickel Phosphorus Selenium Zinc Methane CS2	FOR FACILITY FAC=2505 FOR FACILITY FAC=2505 Benzene Formaldehyde PaHs-w/o Naphthalene Acctaldehyde Accrolein Ethyl Benzene Hexane Toluene Xylenes 1,3-Butadiene Fropylene NH3 H2S 1,2,4TriMeBenze Propylene NH3 H2S 1,2,4TriMeBenze Cyclohexane Phenol B[g,h,i]perylen Phenol B[g,h,i]perylen Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Choroform Cadmium Cr(VI) Cobalt Copper Lead Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV 71432 Benzene 50000 Formaldehyde 1151 PAHs-w/o
7440508 7439921 7439965 7439965 7440026 7723140 7723140 7782492 7440622 7440666 74828 75150	EMISSIONS FOR FACIL SOURCE MULTIPLIER=11 CAS ABB 71432 ABB 71432 For 11151 PAH 91151 PAH 91151 PAH 91151 PAH 911003 PAC 1100414 Hex 110543 ACC 110543 ACC 110543 ACC 110543 ACC 110590 ACC 110883 TO 11,2 463581 CAI 126090 CAI 1263417 NH3 7783064 1,2 126390 CC 764417 PPC 7783064 1,2 126390 CAI 126328 CAI 126328 B[a 126328 CAI 7440699 CAI 7440699 CC 7440020 PPC 7440020 PPC 7440622 CC 7440622 CC 7440656 CC 7723140 CC 7440656 CC 7440656 CC 7723150 CC 75150 C	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS 71432 Ben 50000 For 1151 PAH

Page: 7

EMS (lbs/yr)

, 1:13:45PM	
1/22/2008	
SIR.txt	
2\2505HRA2	
B: C:\HARP\PROJECTS\2505Chev\HRA2\2505HRA2 MEIR.txt	
\PROJECTS\2	
C:\HARP	
File:	

0.00001967	* -	* 0.00005901	0.00299	0.0001967	*	* *	*	*		0.00009834 0.00009834	* 1	* *	*	* .	* *	: *	*	*	*	* •	* •	c +x	*	*	* •	* *	SEGUNDO REFINERY STACK 13 EMS $(lbs/yr)$	MAX (lbs/hr)	0.002262	* •	, 0,000 0	n+0000.	*	0.00003991	0.002022	0.000173	22100.0 *	*	*	* -	* *	0.00002661	0.00006652	*	
0.1723	* -	16	26.19	1.723	*	* *	*	*	* 50 0	0.34460.8615		* *	*	* '	* *	: *	*	*	*	* •	* *	< *	*	*	* •	* *	NAME=CHEVRON EL SEG		19.81	* +	× 5511 0	> * + +	*	0.3497	17.72	1.515	991.1	*	*	* -	* *	0.2331	0.5828	*	
0	0 (	00	00	00	0	00	0	0	00	00	0	00		0	00		0	0	0	0 0	00		0	0	0	0 0	PRO=13 STK=1	BG (ug/m ² 3)	0	00		0	0	0	0	00	> C	00	0	0 (		0	0	0	
	н,	- <del>-</del> -	<b>←</b> 1 ←		Ч	r-1 r-		Т	r-1 r-	4 r-1		1	; <del>, -</del> 1			4 ल्ल	I <del></del> 1	F	н	н <b>,</b>	r-1 r-		11	-1	r-1 1		CO=8 DEV=2	MULTIPLIER	-1	r-1 r	-1			-1	r-4 ·	-1 -	-1 F	<b>⊣</b>		<b>,</b> ⊣ ,	-1		Ч		
Naphthalene	Acetaldehyde	Acrolein Ethyl Benzene	Hexane	Xylenes	1,3-Butadiene	CarbonylSulfide Ethvlene	Propylene	NH3	H2S 1 2 Amri MoDonzo	1, 2, 4171MeBenze Cyclohexane	Phenol	B[a]P B[b]f]noranthen	B[g,h,i]perylen	Cadmium	Chlorotom		Cobalt	Copper	Lead	Manganese	Mercury	Phosphorus	Selenium	Vanadium	zinc	Methane CS2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1	ABBREV	Benzene	Formaldehyde	FARS-W/O Narhthalore	Acetaldehvde	Acrolein	Ethyl Benzene	Hexane	Toluene	Ayrenes 1_3-Butadiene	carbonylSulfide	Ethylene	Propylene	NH3 H2S	1,2,4TriMeBenze	Cyclohexane	Phenol	
91203	75070	10/028 100414	10543	1210	106990	463581 74851	115071	7664417	7783064 05636	110827	108952	50328 205992	191242	7440439	67663 7440472	18540299	7440484	7440508	7439921	7439965	7439976 7440020	7723140	7782492	7440622	7440666	75150 75150	EMISSIONS FOR FACII SOURCE MULTIPLIER=1	CAS	71432	50000	TCTT	75070	107028	100414	110543	1210	106990 106990	463581	74851	115071	7664417 7783064	95636	110827	108952	

	14 EMS (lbs/yr)
* * * * * * * * * * * * * * * *	SEGUNDO REFINERY STACK MAX (lbs/hr) 0.0001745 * 0.00001745 * 0.000005594 0.000005594 * * 0.002745 * * * * * * * * * * * * * * * * * * *
* * * * * * * * * * * * * * *	NAME=CHEVRON EL S AVRG (lbs/yr) 57.55 3.618 0.049 7.956 24.04 *** *** **** **** *****
	PRO=14 STK=1 BG (ug/m ³ )
	CO=9 DEV=1 PR MULTIPLIER
B[g,h,i]perylen Cadmium Chloroform Chromium Cr(VI) Cobalt Copper Lead Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2	<pre>LITTY FAC=2505 REV REV REV REV REV Revo Revo Leene Leenes Lenes Len</pre>
191242 7440439 6746043 18540473 18540473 18540299 7440508 7440509 7439921 7439921 7439921 744020 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 778231400 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 77823140 778240 778240 778240 778240 778240 778240 778240 778240 778240 778240 778240 778240 778240 778240 778240 778240 778240 778240 778240 7782400000000000000000000000000000000000	EMISSIONS FOR FACTI SOURCE MULTIPLIER-1 CAS MULTIPLIER-1 CAS ABE 71432 Ber 50000 Fox 1151 PAH 91203 Nap 75070 Fox 110543 Nap 75070 Fox 110543 Nap 75070 Fox 110543 Nap 75070 Cat 110543 Nap 750328 Acr 1106990 Acr 1106990 Cat 7783064 H20 106990 Cat 7783064 11, 2 106990 Cat 7783064 11, 2 108952 Cat 7664417 NH2 7783064 11, 2 115071 115071 Cat 7783064 11, 2 108952 Cat 7783064 Cat 77839922 B[6 7440473 Ch1 7440473 Ch1 7440484 Cot 7439956 Mer 77339965 Mer 77339965 Mer 77339966 77339966 751 77430976 Nic 77439966 Nic 77439966 Nic 77839976 Nic 77839966 Cot 7440622 Cat 7440666 Nic 77839976 Nic 7783977 Nic 7783978 Nic 778398 Nic 77838 Nic 77838 Nic 778398 Nic 77838 Nic 77838 Nic 7788 Nic

EMS (lbs/yr)

16

SEGUNDO REFINERY STACK	MAX (lbs/hr) * 0.004273 * 0.004157 * 0.003632 0.003632 0.001315 0.01315 * 0.002844 0.01315 * 0.002128 * * 0.00006914 * * * * * * * * * * * * * * * * * * *	<pre>     SEGUNDO REFINERY STACK     MAX (lbs/hr)     *     0.000005862     0.001846     0.01209     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *</pre>
NAME=CHEVRON EL	AVRG (lbs/Yr) 37.43 37.43 31.82 31.82 24.91 115.2 116.4 46.05 * * * * * * * * * * * * * * * * * * *	NAME=CHEVRON EL AVRG (lbs/Yr) * 0.05135 1.617 105.9 * * * * * * * * * * * * * * * * * * *
STK=1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	STK=1 (ug/m ³ ) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PR0=16		BG (
DEV=1		1 DEV=1 MULTIPLIER 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
CO=10		CO=11 MUI
AC	Maphthalene Formaldehyde PAHS-w/o Benzene Formaldehyde PAHS-w/o Naphthalene Accrolein Ethyl Benzene Hexane Toluene Xylenes Troluene Xylenes Toluene Ethylene Propylene MH3 H2S 1,3-Butadiene CarbonylSulfide Ethylene Propylene MH3 H2S 1,2,4TriMeBenze Cyclohexane Phenol B[b]fluoranthen B[c,h,i]perylen Chloroform Cromium Cromium Cromium Cropper Lead Manganese Manganese Marcury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2	FOR FACILITY FAC=2505 LTIPLIER=1 ABBREV Benzene Formaldehyde PAHs-w/o Naphthalene Actolein Ethyl Benzene Hexane Toluene Xylenes 1,3-Butadiene CarbonylSulfide Ethylene Propylene NH3
EMISSIONS FOR F	SCURCE MULTIFLL CAS 50000 1151 91203 71432 91203 75070 91203 110543 110544 1106990 463581 74851 74851 74851 74851 74851 7440439 7440439 7440439 7440439 7440439 7440439 7440439 7440652 7440299 7440666 7723140 7782492 7440622 7440622 7440622 7440622 7440622 7440622 7440622 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77828 77827 77828 77827 77827 77827 77827 77827 77827 77877 77877777777	EMISSIONS FOR F SOURCE MULTIPLI CAS 71432 50000 1151 91203 75070 107028 100414 110543 1106990 106990 1210 1106990 463581 74851 115071 7664417

EMS (lbs/yr)

18

	STACK 19
0.000002638 0.000002638 0.000003436 0.000008793 0.000006933 0.00006933 0.0001253 0.0001253 0.0001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001253 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.001255 0.0012	SEGUNDO REFINERY MAX (lbs/hr) ** 0.00002558 0.01508 0.01379 ** ** **
0.02311 0.03011 0.03011 0.07702 2.5156 0.006072 1.098 15.668 15.668 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.805 12.8	NAME=CHEVRON EL AVRG (lbs/yr) ** ** 0.1978 13.21 13.21 13.21 13.4 ** ** ** **
	PRO=19 STK=1 BG (ug/π ³ ) 0 0 0 0 0 0 0 0 0 0 0 0 0
	CO=11 DEV=2
H2S 1,2,4TriMeBenze Cyclohexane Phenol B[a]P B[b]fluoranthen B[g,h,i]perylen Cadmium Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Cobell Cobel Manganese Mercury Nickel Phosphorus Selenium Vanadium Vanadium CS2 CS2	R FACILITY FAC=2505 PLIER=1 ABBREV Benzene Formaldehyde PAHS-w/o Naphthalene Acctaldehyde Accolein Ethyl Benzene Acrolein Ethyl Benzene Acrolein Ethyl Benzene Acrolein Ethylene Xylenes 1, 3-Butadiene CarbonylSulfide Ethylene NH3 H2S 1, 2, 4TriMeBenze Cyclohexane Phenol B[a] P B[b] fluoranthen B[ch,i] perylen Chromium Cr(VI) Cobalt Copper Lead Manganese Manganese Marcury Nickel Phosphorus
7783064 95636 110827 108952 205992 191242 7440433 67663 7440433 18540299 7440508 7440508 7439921 7439921 7439921 7480208 7440522 7480208 7782492 7480208 77826666 77828921 7480208 77828921 7480208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280208 778280000000000	EMISSIONS FOR FACHI SOURCE MULTIPLIER=1 CAS ABE 71432 ABE 50000 FOI 1151 PAH 91203 AGE 1151 PAH 75070 FOI 75070 FOI 110543 AGE 100414 Hex 100414 Hex 1006990 ACT 100883 ACT 1006990 ACT 1006990 ACT 106990 CA 74851 PPrC 7783064 11, 2 115071 10827 Ch 7783064 A17 7783064 A17 7783064 A17 7783064 A17 7783064 CCA 7783064 A12 7783064 A12 7783064 A12 7783064 CCA 7440439 CCT 7440439 CCT 7433976 Man 7433976 Man 7433976 PprC 7440020 PprC 7440020 PprC 7723140 PprC 77231

EMS (lbs/yr)

	(lbs/yr)	(lbs/yr)
	S W H	S WE
	STACK 2	Y STACK 21
0.0 * * * * * * * * * * * * * * * * * * *		<pre>SEGUNDO REFINERY MAX (lbs/hr) 0.0001712 0.00003631 0.000002952 0.000008857 0.00009152 0.00009152 0.00007971 0.0002037 0.0001358</pre>
* * * C. *		NAME=CHEVRON EL AVRG (lbs/yr) 1.5 3.181 0.02586 0.07759 0.8017 0.6983 1.785 1.785 1.785 6.854
00000	бл)	=21 STK=1 BG (ug/m ³ ) 0 0 0 0 0 0 0 0 0 0 0 0
	PRO=20 BG	PRO=21 BG
← ⊢ ⊢ ⊢ ⊢	2 DB DA DA DA DA DA DA DA DA DA DA DA DA DA	2 DEV=2 MULTIPLIER 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	CO=12 MUI	CO=12 MUI
Selenium Vanadium Zinc Methane CS2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIFLER=1 CAS ABBREV 71432 Benzene 50000 Pahls-w/o 91203 Maphthalene 75570 Acetaldehyde 100414 Benzene 100414 Benzene 100414 Benzene 100414 Benzene 100414 Benzene 100414 Benzene 100414 Benzene 100414 Benzene 100414 Benzene 100823 Colluene 74851 Propylene 74851 Propylene 74851 BlalP 7783064 1,3 -Butadiene 74851 BlalP 7783064 1,3 -Butadiene 110827 Cyclohexane 110827 Blblfluoranthen 7440439 Colloroform 7440439 Chloroform 7440508 Blblfluoranthen 191242 Blblfluoranthen 191242 Blblfluoranthen 7440439 Chloroform 7440508 Cr(VI) 744066 Mercury 7783065 Mercury 744066 Mercury 7783065 Mercury 7783065 Mercury 7783065 Mercury 744066 Mercury 744066 Methane 744066 Methane 744066 Methane 744066 Methane 744066 Methane	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABREV 71432 BENZENE 50000 FAHS-V/O 91203 Naphthalene 75070 Acetaldehyde 107028 Acrolein 100414 Ethyl Benzene 110543 Hexane 10883 Toluene
7782492 7440622 7440666 74828 75150	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABE 71432 Ben 50000 FOI 1151 PAH 91203 Nap 75070 Acr 107028 Acr 100414 Eth 110543 Acr 100414 Eth 110543 Acr 100414 Eth 110543 Acr 100414 Eth 110543 Acr 100883 Acc 100414 Eth 110543 Cal 7664417 Prc 115071 Prc 7783064 11, 2 463581 Eth 115071 Prc 16763 Cal 7440439 Cab 115071 Prc 7783952 B[6] 7440439 Cab 7440508 Cab 7440508 Cab 7440508 Cab 7440508 Prc 7733956 Prc 7439976 Nric 7733956 Prc 7440508 Cab 7440508 Cab 7440508 Prc 7733956 Prc 7440508 Cab 7440508 Prc 7733956 Prc 7733956 Prc 7733956 Prc 7440508 Prc 7733956 Prc 773356 Prc 7733956 Prc 7743056 Prc 7743056 Prc 7743056 Prc 7743056 Prc 7744056	EMISSIONS   SOURCE MUL' CAS 71432 50000 1151 91203 75070 107028 100414 110543 1105883

	EMS (lbs/yr)
о. 000 01 00 00 00 00 00 00 00 00 00 00 00	NDO REFINERY STACK 24 (lbs/hr) 0.002161 * 0.001062 * 0.01156 0.01156 0.01158 0.01158 0.01158 0.01158 0.01158 0.00152 * * * 0.006158 * 0.006158 * * * * * * * * * * * * * * * * * * *
о с с с с с с с с с с с с с с с с с с с	NAME=CHEVRON EL SEGU AVRG (lbs/yr) MAX 18.93124 9.304161 * 29.26221 101.2666 121.7658 162.8352 0.1327 0.1327 * 53.948 29.3887 * * * * * * * * * * * * * * * * * *
	PRO=24 STK=1 BG (ug/π ³ ) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	CO=14 DEV=1
Aylenes 1,3-Butadiene CarbonylSulfide Ethylene Propylene Propylene NH3 H2S 1,2,4TriMeBenze Cyclohexane Phenol B[a]P B[a]P B[a]P B[a]P B[a]P B[a]P B[a]P B[a]P B[a]P Cadmium Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chlo	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV T1432 Benzene 50000 Formaldehyde 50000 Formaldehyde 1151 Naphthalene 75070 Acrolein Rethyl Benzene 107028 Acrolein Benzene 107028 Acrolein Fthyl Benzene 100414 Hexane 100414 Hexane 100414 Ethyl Benzene 110543 Toluene 110543 Toluene 74851 Propylene 74851 Propylene 74851 NH3 7783064 1, 2,4TriMeBenze 115071 NH3 7783064 1,2,4TriMeBenze 115071 Propylene 7664417 H2S 7783064 1,2,4TriMeBenze 110827 Cyclohexane 100852 B[D]fluoranthen 7440473 Chloroform 7440473 Chomium 7440473 Chromium
1210 468590 468590 115071 7664417 7664417 7664417 7783064 110827 110827 110827 110827 110823 1191242 7440433 74460433 74440433 74440433 74440433 74440433 74440533 7444059 774824140 777824140 777824140 77824140 77824140 77824140 77824140 77824140 77824140 77824140 77826666 778266666666666666666666666666	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABB 71432 ABB 71432 Ben 50000 FOT 1151 Nap 710028 FOT 1100414 Hex 100414 Hex 100414 Hex 100414 Hex 100533 ACC 100883 ACC 100883 ACC 100883 ACC 100883 ACC 100883 ACC 100883 ACC 100883 ACC 1008952 BE 5536 CC 11,2 46536 CC 11,2 205992 BE 5017 1440439 CCh 18540299 CCh

		EMS (lbs/yr)
* * * * * * * * * * *	STACK 2	FFINERY STACK 29 hr) 497 *
		EL SEGUNDO REFINERY MAX (lbs/hr) 0.0003497 *
* * * * * * * * * * *	NAME=CHEVRON EL AVRG (lbs/yr) ** ** ** ** 944.8 944.8 944.8 ** ** **	NAME=CHEVRON EL AVRG (1bs/yr) 3.063 *
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		PRO=29 STK=1 BG (ug/m ³ ) 0 0
		CO=12 DEV=4 MULTIPLIER 1 1 1
Copper Lead Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2		EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV 71432 Benzene 50000 Formaldehyde 1151 PAHS-w/o
7440508 7439508 7439965 74430920 7443020 7723140 7723140 7782492 7440666 7440666 75150	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1SOURCE MULTIPLIER=1CASTAB7432For500005000050000115191203750707507075070750707507075070750707507075070750707507075070750444100543110543100414110543750717503476441776536765367663766376536766376637663766376641776895276641776895276643376643376644337664433766433766433766433766433766433766433766433766433744043974404397440666744066674406667440666751507515075150751507515075150	EMISSIONS FOR FACII SOURCE MULTIPLIER=1 CAS ABB 71432 ABB 50000 FOX 1151 PAH

FILE: U: NARF	U: /HAKF/FROUGCIS/SUDGOCHEA/HKAZ/ZUDHKAZ	ZANNEUCZ / ZAD	MEIK.TXC	XC T/77/	<008,</th <th>M4C4:21:1</th> <th></th> <th></th> <th></th>	M4C4:21:1			
50515	Narhthal and		÷		¢	+	÷		
75070	Aretaldehord		F		5 C	: *	: *		
107028	Accountac		-i		> c	: *	: *		
100414	Ethvl Benzene					15 2	0 0002637		
110543	Hexane		-		0	*	*		
108883	Toluene		Ч		0	9.695	0.001107		
1210	Xylenes		H		0	11.01	0.001257		
106990	1,3-Butadiene		<del></del>		0	*	*		
63581	CarbonylSulfide		r-4 r		0 (	* ·	* •		
115071	ECHYLENE Propylene		-1		5 0	* *	* *		
7664417	vita NH3				> c		512100 U		
783064	H2S		+ ++		00	0.04711	0.00005377		
95636	l,2,4TriMeBenze		Ч		0	*	*		
10827	Cyclohexane		Ч		0	*	*		
08952	Phenol		г,		0	*	*		
0328	B[a]P		<del>, -</del> 1		0	*	*		
05992	B[b]fluoranthen		Ч		0	*	*		
191242	B[g,h,i]perylen		Ч		0	*	*		
7440439	Cadmium		н,		0	*	*		
67663	Chloroform		-1		0	*	*		
7440473	Chromium		r-1		0	*	*		
18540299	Cr(VI)				0	*	*		
7440484	Cobalt		H		0	*	*		
7440508	Copper		<del>г</del> і ,		0	*	* ·		
12665	Lead				0	*	*		
7439965	Manganese				0 0	* 1	* 1		
7440020	Nickel		-1			* *	< *		
7723140	Phosphorus		4 ल		00	*	*		
82492	Selenium				0	*	*		
7440622	Vanadium		гı		0	*	*		
40666	Zinc		Ч		0	*	*		
74828	Methane		<del>, 1</del>		0	*	*		
150	CS2		Ч		0	*	*		
EMISSIONS FOR FACIL SOURCE MULTIPLIER=1	ITY FAC=2505	CO=17 DEV=1		PRO=30 S	STK=1	NAME=CHEVRON EL	SEGUNDO REFINERY STACK 30	EMS $(lbs/yr)$	
CAS	ABBREV	MULTIPLIER	LER	BG (uq/I	/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)		
71432	Benzene		1	È.	0	0.2592	0.00002959		
50000	Formaldehyde		Ч		0	*			
1151	PAHs-w/o		1		0	*	*		
91203	Naphthalene		н		0	1.973	0.0002252		
75070	Acetaldehyde		н		0	*	*		
107028			<del>, -</del> 1		0	*	*		
0414	Ethyl Benzene				0 (	0.9091	0.0001038		
100002	Hexane mol::		-4 -		0 0	0.4726	0.0005395		
8883 10	anaruz Vivi anara				-	2.89 6 640	0,0005299		
2000	Artence 1 3-Butadiono					0.4666			
463581	CarbonylSulfide		4 ल		00	•	· · · · · · · · · · · · · · · · · · ·		
74851	Ethylene				0	*	*		
5071	Propylene		<del>с</del> т -		0	433.4	0.04948		
7664417	NH3		, <b>1</b> ,		0 0	* •	* ·		
7783064	H2S				0 0	* -	* -		
710807	L, Z, 4 ITIMEBENZE Cvclohevane				<b>)</b> c	ĸ -¥	× *		
8952 8952	er cronome Phenol		-1		o c	576C U	0 00003359		
328	B[a]P		11		0	1 1 1			
205992	B[b]fluoranthen		-		0	*	*		

	STACK 31 EMS (lbs/yr)
* * * * * * * * * * * * * * * *	BEGUNDO REFINERY MAX (lbs/hr) ** 0.009818 ** 0.000801 0.000698 ** 0.0000698 ** ** 0.0000698 ** ** 0.0000638 ** ** 0.0000638 ** ** 0.0000638 ** ** 0.0000638 ** ** 0.0000638 ** ** 0.0000638 ** ** 0.0000638 ** ** ** 0.0000638 ** ** ** 0.0000638 ** ** 0.0000638 ** ** ** ** 0.0000638 ** ** ** 0.0000638 ** ** ** ** 0.0000638 ** ** ** 0.0000638 ** ** ** ** ** 0.0000638 ** ** ** ** 0.0000638 ** ** ** ** ** ** ** ** ** *
* * * * * * * * * * * * * * * *	NAME=CHEVRON EL AVRG (lbs/yr) ** ** 86.01 ** 11.03 7.017 7.017 ** ** ** ** ** ** 0.6115 **
000000000000000000000000000000000000000	PRO=31 STK=1 BG (ug/m ² 3) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	CO=18 DEV=1
B[g,h,i]perylen cadmium chloroform chromium cr(vI) cobalt copper Lead Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV 71432 BERZENE 50000 PAHS-W/O 91203 Naphthalene 75070 Acetaldehyde 75070 Acetaldehyde 75070 Acetaldehyde 75070 Acetaldehyde 700414 Hexane 100414 Hexane 100414 Hexane 1008883 Toluene 110543 Toluene 74851 Ethyl Benzene 110543 Toluene 74851 Ethyl Benzene 110543 Toluene 74851 Ethyl Benzene 110543 Toluene 74851 Benzene 115071 NH3 7783064 1,2 4TriMeBenze 764417 H2S 7783064 1,2 4TriMeBenze 110827 Phenol 764417 H2S 763653 Cyclohexane 108952 B[D]fluoranthen 764417 H2S 763653 Cyclohexane 108952 B[D]fluoranthen 191242 Copher 7440473 Chromium 7440473 Chromium 7440473 Chromium 7440473 Chromium 7440473 Chromium 7440473 Chromium 7440473 Chromium 744066 Mercury 7440622 Vanadium 744066 Mercury 7782492 Vanadium 744066 Methane 74828 CS2
191242 7440439 67663 18464043 18464047 7440408 7440508 7439926 7439926 7439926 7440020 77823140 77823140 77823140 77826 7440622 7440652 7440652 75150	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS 50000 PAH 50000 FOI 91203 FOI 91203 FOI 91203 ACE 100414 Eth 110543 ACE 100414 Eth 110543 ACE 100414 Hex 100414 Hex 100414 Hex 1005990 Car 463581 Car 764417 NH2 108883 Trol 108883 Car 463581 Eth 115071 Eth 115071 Eth 125038 Car 463581 Eth 12503990 Car 463581 Eth 1250390 Car 463581 Eth 1250390 Car 7783964 11, 2 10827 Car 463581 Eth 125038 Car 7439956 B[0 7440439 Car 7433952 B[0 7440508 Car 7433955 Mer 7433955 Mer 7433955 Mer 7440666 Nic 7782492 Van 7440666 Nic 773140 Pho 7440666 Nic 778288 Car 7440666 Nic 778288 Car 7440666 Nic 778288 Car 7440666 Nic 778288 Car 778289 Car 778289 Car 7783952 Car 7440508 Car 74508 C

EMS (lbs/yr)

RON EL SEGUNDO REFINERY STACK 32	/yr) MAX (lbs/hr)	2	*	* *	0.1211 0.0000138	* *	* *	0.3633 0.0000415	18.4072 0.002101		1.211 0.0001383	*	*	* *	* *	* *	* *	* *	*	*	*	*	*	* *	*	*	*	*		: *	: * *	* * * *	* * * * *	* * * * * *	* * * * * * *	* * * * * * * *	* * * * * * * * *	* * * * * * * * * *	* * * * * * * * * * *	* * * * * * * * * * * *	* * * * * * * * * * * *	* * * * * * * * * * * *
NAME=CHEVRON EL	AVRG (lbs/yr)	20			0			0.	18.	-	г																															
STK=1	(uq/m ² )	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	00	000	0000	00000	000000	0000000	00000000	000000000	00000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00000000000
PR0=32	BG (																																									
DEV=1	MULTIPLIER	г	щ	Ч	Ч	Ч	-1	H	1	-1	Ч	Ч	г	Ч	-4	Ч	г	Ч	щ	Ч	гĦ	Ч	-1	г	щ	1		г	щ	,	1	+ <del>, ,</del>		4 m m m	1 A A A A		1 A A A A A A	нааааааа 	наааааааа	ч ल ल ल ल ल ल ल ल <b>ल</b>		
CO=19	LUM																																									
DR FACILITY FAC=2505 IPLIER=1	ABBREV	Benzene	Formaldehyde	PAHs-w/o	Naphthalene	Acetaldehyde	Acrolein	Ethyl Benzene	Hexane	Toluene	Xylenes	1,3-Butadiene	CarbonylSulfide	Ethylene	Propylene	NH3	H2S	1,2,4TriMeBenze	Cyclohexane	Phenol	B[a]P	B[b]fluoranthen	B[g,h,i]perylen	Cadmium	Chloroform	Chromium	Cr (VI)	Cobalt	Copper	Lead	2	Manganese	Manganese Mercury	Manganese Mercury Nickel	manganese Mercury Nickel Phosphorus	Manganese Mercury Nickel Phosphorus Selenium	Manganese Mercury Nickel Phosphorus Selenium Vanadium	Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc	Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane	Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane	Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2	Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2
EMISSIONS FOR FACIL SOURCE MULTIPLIER=1	CAS	71432	50000	1151	91203	75070	107028	100414	110543	108883	1210	1.06990	463581	74851	115071	7664417	7783064	95636	110827	108952	50328	205992	191242	7440439	67663	7440473	18540299	7440484	7440508	7439921	7439965		7439976	7439976 7440020	7439976 7440020 7723140	7439976 7440020 7723140 7782492	7439976 7440020 7723140 7782492 7440622	7439976 7440020 7723140 7782492 7440622 7440666	7439976 7440020 7723140 7782492 7440622 7440666 7482828	7439976 7440020 7723140 7782492 7440662 7440666 74828	7439976 7440020 7723140 7440622 7440666 7480666 74828 75150	7439976 7440020 7723140 7782492 7440622 7440666 74828 75150

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CANCER RISK REPORT

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Created by HARP Version 1.3 Build 23.04.05 Uses ISC Version 99155 Uses BPIP (Dated: 04112) Creation date: 1/22/2008 1:13:12 PM

EXCEPTION REPORT

(there have been no changes or exceptions)

INPUT FILES:

Source-Receptor file: C:\HARP\PROJECTS\2505Chev\HRA2\2505HRA2.SRC Averaging period adjustment factors file: not applicable Emission rates file: database Site parameters file: C:\HARP\PROJECTS\Pathway\resident pathway.sit

Coordinate system: UTM NAD27

Screening mode is OFF

Exposure duration: resident Analysis method: Derived (OEHHA) Method Health effect: Chronic HI Receptor(s): 742 Sources(s): All Chemicals(s): All

SITE PARAMETERS

DEPOSITION

Deposition rate (m/s)

0.02

DRINKING WATER

*** Pathway disabled ***

FISH

*** Pathway disabled ***

PASTURE

*** Pathway disabled ***

HOME GROWN PRODUCE

HUMAN INGESTION

Fraction of ingested leafy vegetable from home grown source 0.052 Fraction of ingested exposed vegetable from home grown source 0.052 Fraction of ingested protected vegetable from home grown source 0.052 Fraction of ingested root vegetable

PIGS, CHICKENS AND EGGS

from home grown source

0.052

SON CUTCVENS AND PROS

*** Pathway disabled ***

DERMAL ABSORPTION

*** Pathway enabled ***

SOIL INGESTION

*** Pathway enabled ***

MOTHER'S MILK

*** Pathway enabled ***

	BACKGROUND (ug/m ² 3)	0.000E+00	0.000E+00	HRA]	0.000E+00	0.0000000	0.000E+00	0.000E+00	0.000E+00	0.0000000	0.000E+00	0.000E+00	0.0000000	0.000E+00	0.000E+00	0.0000000	0.0000000	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AND BACKGROUND CONCENTRATIONS	POLLUTANT NAME	Benzene	Formaldehyde	PAHs, total, w/o individ. components reported [Treated as $B(a) P$ for	Naphthalene	Acetaldehyde	Acrolein	Ethyl benzene	Hexane	Toluene	Xylenes (mixed)	1,3-Butadiene	e Carbonyl sulfide	Bthylene	Propylene	Ammonia				Phenol	Benzo[a] pyrene			Cadmium	Chloroform	Chromium	Chromium, hexavalent (& compounds)	Cobalt	Copper	Lead	Manganese	Mercury	Nickel	Phosphorus	Selenium	Vanadium (fume or dust)	Zinc	Methane	Carbon disulfide
CHEMICAL CROSS-REFERENCE TABLE 2	ABBREVIATION	Benzene	Formaldehyde	PAHs-w/o	Naphthalene	Acetaldehyde	Acrolein	Ethyl Benzene	Hexane	Toluene	Xylenes	1,3-Butadiene	CarbonylSulfide	Ethylene	Propylene	NH3	H2S	1,2,4TriMeBenze	Cyclohexane	Phenol	B[a]P	B[b]fluoranthen	B[g,h,i]perylen	Cadmium	Chloroform	Chromium	Cr(VI)	Cobalt	Copper	Lead	Manganese	Mercury	Nickel	Phosphorus	Selenium	Vanadium	Zinc	Methane	CS2
TAL CROSS-R	CAS	71432	50000	1151	91203	75070	107028	100414	110543	108883	1210	106990	463581	74851	115071	7664417	7783064	95636	110827	108952	50328	205992	191242	7440439	67663	7440473	18540299	7440484	7440508	7439921	7439965	7439976	7440020	7723140	7782492	7440622	7440666	74828	75150
CHEMIC	CHEM	0001	0002	0003	0004	0005	0006	0007	0008	0000	00100	1100	0012	0013	0014	0015	0016	0017	0018	0019	0020	0021	0022	0023	0024	0025	0026	0027	0028	0029	0030	0031	0032	0033	0034	0035	0036	0037	0038

EMISSIONS DATA SOURCE: Emission rates loaded from database CHEMICALS ADDED OR DELETED: none

EMS (lbs/Yr)	EMS (lbs/yr)
STACK 1	STACK 2
SEGUNDO REFINERY MAX (1bs/hr) 0.0000428 0.0000296 0.0001166 0.0001166 0.0001166 0.0001166 0.0001166 0.0001166 1	SEGUNDO REFINERY MAX (lbs/hr) ** ** ** ** ** ** ** ** ** ** ** ** **
NAME=CHEVRON EL S AVRG (1bs/yr) 3.75 0.0707 0.236 0.236 0.683 1.37 0.683 1.37 8.************************************	NAME=CHEVRON EL S AVRG (lbs/yr) * * * * * * * * * * * * * * * * * * *
PRO=1 STK=1 P BG (ug/m ³ )	PRO=2 STK=1 BG (ug/m ² 3) 0 0 0 0 0 0 0 0 0 0 0 0 0
CO=1 DEV=1 P MULTIPLIER MULTIPLIER	CO=1 DEV=2 P MULTIPLIER
EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS CAS T1432 BBREV 71432 Benzene 50000 PAHS-W/O 91203 Muphthalene 75070 Acetaldehyde 75070 Acetaldehyde 7007028 Acetaldehyde 700414 Hexane 100712 Bthyl Benzene 1007028 Toluene 100883 Toluene 100883 Toluene 100883 Toluene 100883 Toluene 100883 Toluene 100883 Toluene 74851 Propylene 74851 Bthylene 74851 Bthylene 74851 CarbonylSulfide 74851 Bthylene 74851 Bthylene 74851 CarbonylSulfide 74851 CarbonylSulfide 74851 Coloexane 108952 Bthfluoranthen 1110827 Coloexane 108952 Bthfluoranthen 1091242 Coloexane 108952 Bthfluoranthen 7440473 Chloroform 7440473 Chloroform 7440473 Chloroform 7440678 Cobalt 7440020 Phosphorus 7440020 Phosphorus 7782492 Vanadium 7440656 Active 7440656 Active 7440656 Cobalt 7723140 Selenium 7440656 Active 7440656 Active 7440656 Active 744052 Cobalt 7723140 Selenium 7440656 Active 744056 Active 744055 Cobalt 7723140 Selenium 7440656 Active 744056 Active 744055 Cobalt 7723140 Cobalt	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS MULTIPLIER=1 CAS Benzene 50000 PAHS-W/O 1151 Naphthalene 1151 Naphthalene 75070 Acctaldehyde 107028 Acctaldehyde 100414 Hexane 100414 Hexane 100414 Hexane 1005883 Toluene 110543 Toluene 110543 Fthyl Benzene 110543 Toluene 110543 Toluene 110543 Toluene 110541 Propylene 115071 NH3
EMISSIONS FOR FACIL SOURCE MULTIPLIER-IL SOURCE MULTIPLIER-I CASABB ABB71432ABB71432PAH50000For For50000For For91203Nap Acc91203Acc Acc100414Hex Lood110543Acc Acc100414Hex Acc110543Tol 1,3100414Hex Acc110543Tol 1,31200Xyl 100883121011,31265901,3126591For Cor126592Cad 61082710827115071Pro Cor74851For Cor74852Cad 6744053Cr Cor7439965Mer 77439965Mer 77439965Mer 77440620Pho 774829965Mer 774829965Mer 774829965Mer 774829965Mer 774829965Mer 774828Cr 774828Cad 774828Cad 775107515075150Cas 775150Cas 7	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABB 71432 ABB 71432 Ben 1151 PAH 91203 PAH 91203 Ace 107028 Acr 100414 Hex 100414 Hex 100414 Cor 1005381 Tol 1210 1,3 463581 Cor 7664417 NH3

* * * * * * * * * * * * * * * * * * * *	SEGUNDO REFINERY STACK 3 MAX (lbs/hr) ** ** ** 0.000002897 0.0003127 0.02543 ** ** ** ** ** ** ** ** ** ** ** ** **
* * * * * * * * * * * * * * * * * * * *	NAME=CHEVRON EL SEG AVRG (lbs/yr) *** *** 0.02533 222.7 222.7 *** *** *** *** ***
000000000000000000000000000000000000000	G (ug/m ³ ) (ug/m ³ ) 00 00 00 00 00 00 00 00 00 00 00 00 00
	CO=2 DEV=1 PR0=3 MULTIPLIER B MULTIPLIER B 11 11 11 11 11 11 11 11 11 11 11 11 11
H2S 1,2,4TriMeBenze Cyclohexane Phenol B[a]P B[a]P B[b]fluoranthen B[g,h,i]perylen Cadmium Chloroform Chloroform Chromium Cr(VI) Cobalt Corper Lead Manganese Manganese Manganese Mercury Nickel Phosphorus Selenium Vamadium Zinc Methane CS2	CTLUTY FAC=2505 R=1 ABBREV Benzene Formaldehyde PAHs-w/o Naphthalene Actolein Actolein Actolein Actolein Fornes Toluene Xylenes 1,3-Butadiene Toluene Toluene Toluene Toluene Toluene Toluene Toluene Toluene Toluene Carbonylsulfide Ethylene Fropylene Propylene Propylene Propylene Propylene Propylene Carbonylsulfide Ethylene Propylene Propylene Propylene Carbonylsulfide Ethylene Carbonylene Propylene Carbonylene Coronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium Cronium
7783064 95636 110827 108952 505992 205992 1912423 7440439 7440439 7440508 7440508 7439965 7439965 7439965 7440020 7723140 7723140 77828 7440666 77828 74828 75150	EMISSIONS FOR FA SOURCE MULTIPLIE CAS 71432 50000 1151 91203 75070 107028 1161 91503 11699 100414 110543 110643 1006414 110543 1106414 116599 126690 1666417 7783064 9565417 7783064 116071 115071 16883 115071 7783064 956336 116852 1110827 1110827 1110823 115071 74851 115071 74851 748529 7440439 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7440508 7723140

EMS (lbs/yr)

		EMS (lbs/yr)
	STACK 4	STACK 6
* * * * *	SEGUNDO REFINERY MAX (lbs/hr) 0.0007931 0.0007955 0.0007955 0.0002746 0.0002974 0.0002974 0.000201104 **********************************	SEGUNDO REFINERY MAX (lbs/hr) 0.002398 * 0.002398 * 0.001167 * 0.003676 0.003676 0.003648
* * * * *		NAME=CHEVRON EL AVRG (lbs/yr) 21.01 * 10.23 32.2 70.5 134.4
00000	STK=1 STK=1 (ug/m ³ ) 00 00 00 00 00 00 00 00 00 0	PRO=6 STK=1 BG (ug/m ³ 3) 00 00 00 00 00 00 00 00 00
ਰ ਰ ਰ ਰ ਰ		CO=4 DEV=1 1 MULTIFLIER MULTIFLIER 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Selenium Vanadium Zinc Methane CS2	ITY FAC=250 REV zene maldehyde s-w/o hthalene taldehyde olein vyl Benzene uene enes -Butadiene bonylSulfid ylene pylene pylene pylene pylene pylene pylene pylene pylene pylene pylene pylene pylene pylene pylene pylene pylene pylene pylene pylene pylene pylene pylene portann tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di ant tu di tu di ant tu di ant tu di tu di ant tu di ant tu di ant tu di tu di ant tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di tu di t	FOR FACILITY FAC=2505 ABBREV Benzene Formaldehyde PAHs-w/o Naphthalene Acetaldehyde Acrolein Ethyl Benzene Hexane Toluene
7782492 7440622 7440666 74828 75150	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABB 71432 ABB 71432 For 50000 Nap 75070 For 91203 Ace 100414 Eth 110543 Trol 100414 Eth 110543 Trol 100414 Eth 110543 Trol 100414 Eth 110543 Acr 100883 Acr 100414 Eth 110543 Car 463581 Car 7664417 NH2 7664417 NH2 7664417 Car 7664417 Car 7664417 Car 7664417 Car 7664417 Car 7664417 Car 7783064 21 Car 7783064 Car 7440439 Car 7440508 Car 7439976 NH2 7733140 Pho 7439976 NH2 7733140 Pho 7733140 Pho 7439976 NH2 7733140 Pho 7733140 Pho 7439976 NH2 7733140 Pho 7733140 Pho 7439976 NH2 7723140 Pho 7440666 NH2 77839976 NH2 7783976 NH2 778396 NH2 77850 NH2 77850 NH2 77850 NH2 77850 NH2 77850 NH2 77850 NH2 7	EMISSIONS FOR FACIL SOURCE MULTIPLIERE1 CAS 71432 ABB 71432 Ben 50000 For 1151 Nap 75070 PAH 91203 Ace 107028 Ace 107028 Acr 100414 Eth 106413 Hex

0.02045 0.00001692 *	* 0.00006987	* *	0.00677	0.003729 *	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
179.2 0.1482 *	* 0.612	* *	59.3	32.67 *	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
000	00	00	0	00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<u>ң</u> ң ң		~ ~	4 -4	┍┥┍┥	н	Ч	гł	1	Ч	Ţ	ч	ч	4	ч	ч	Ч	Ч	Ч	Ч	-1	г	ri	Г
Xylenes 1,3-Butadiene CarbonvlSulfide	Ethylene Propylene	NH3	1,2,4TriMeBenze	Cyclohexane Phenol	B[a] P	B[b]fluoranthen	B[g,h,i]perylen	Cadmium	Chloroform	Chromium	Cr (VI)	Cobalt	Copper	Геад	Manganese	Mercury	Nickel	Phosphorus	Selenium	Vanadium	Zinc	Methane	CS2
1210 106990 463581	74851 115071	7664417 7783064	95636	110827 108952	50328	205992	191242	7440439	67663	7440473	18540299	7440484	7440508	7439921	7439965	7439976	7440020	7723140	7782492	7440622	7440666	74828	75150

STK=1 NAME=CHEVRON EL SEGUNDO REFINERY STACK 7 EMS (lbs/yr) PRO=7 DEV=1 CO=5 EMISSIONS FOR FACILITY FAC=2505 SOURCE MINITID.IFE-1

	MAX (lbs/hr)	0.00002125	*	*	0.0000998	*	*	0.00005323	0.00004496	0.0003395	0.0005489	0.00003361	*	*	0.00003268	*	*	*	*	*	*	*	*	*	*	*	*	*	
	AVRG (lbs/yr)	0.1861	*	*	0.8743	*	*	0.4663	0.3938	2.974	4.809	0.2944	*	*	0.2863	*	*	*	*	*	*	*	*	*	*	*	*	*	
	BG (ug/m^3)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MULTIPLIER	-1		r-I	Н	H		r.	Ч		гЧ	r-i	1		r-i		Ч		T			н	ri	гĦ	Ч	Ч	Ч	-1	
IPLIER=1	ABBREV	Benzene	Formaldehyde	PAHs-w/o	Naphthalene	Acetaldehyde	Acrolein	Ethyl Benzene	Hexane	Toluene	Xylenes	1,3-Butadiene	CarbonylSulfide	Ethylene	Propylene	NH3	H2S	1,2,4TriMeBenze	Cyclohexane	Phenol	B[a]P	B[b]fluoranthen	B[g,h,i]perylen	Cadmium	Chloroform	Chromium	Cr(VI)	Cobalt	
SOURCE MULTIPLIER=1	CAS	71432	50000	1151	91203	75070	107028	100414	110543	108883	1210	106990	463581	74851	115071	7664417	7783064	95636	110827	108952	50328	205992	191242	7440439	67663	7440473	18540299	7440484	

	(lbs/yr)	(lbs/yr)
	) SWE	EMS
	STACK	STACK 12
* * * * * * * * * * *	SEGUNDO REFINERY : MAX (lbs/hr) 0.002301 0.003464 0.003464 0.01453 0.01453 0.01453 0.01453 ** ** ** ** ** **	SEGUNDO REFINERY MAX (lbs/hr) 0.003344 *
* * * * * * * * * *	NAME=CHEVRON EL S AVRG (lbs/yr) 20.166 20.166 30.355 10.475 0.1475 0.1475 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.136 31.13	NAME=CHEVRON EL AVRG (lbs/yr) 29.29
000000000000000000000000000000000000000	STK=1 (ug/m ³ ) (ug/m ³ ) (ug	STK=1 (ug/m [^] 3) 0 0
	PRO=9	PRO=12 BG
		DEV=1 MULTIPLIER 1 1 1
	CO=6	CO=8 ML
Copper Lead Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV 71432 BERZENE 50000 PAHS-W/o 91203 Naphthalene 75070 Acctaldehyde 1151 Naphthalene 75070 Acctolein 100414 Hexane 100414 Ethyl Benzene 100413 Toluene 110543 Toluene 110543 Toluene 11, 3-Butadiene 463581 Ethyl Benzene Hexane 115071 NH3 7783064 17, H2S 95636 1, 3-Butadiene 463581 Ethylene 115071 Propylene 7664417 H2S 95636 1, 2, 4TriMeBenze 118071 Propylene 7664417 H2S 95636 1, 3-Butadiene 7664417 NH3 7783064 1, 1] Perylen 7440439 Cchonum 7440484 Copper 7440484 Copper 7440484 Copper 7440484 Copper 7440020 Phosphorus 7440622 Phosphorus 7723140 Prosphorus 7723140 Prosphorus 7723140 Prosphorus 7782492 Vanadium 7440666 Methane	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV 71432 Benzene Formaldehyde 1151 PAHs-w/o
7440508 7439921 7439965 7430976 7440020 7723140 7723140 7782492 7440666 7440666 75150	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABE 71432 ABE 71432 PAH 50000 For 1151 PAH 91203 Nap 75070 Ace 1000414 Eth 1100414 Eth 1100414 Eth 110543 Ace 1006990 Acr 1006990 Acr 1006990 Acr 100614 Eth 110541 Fth 110827 Col 7783064 11, 2 108883 Trol 100614 Hex 1006990 Cad 48551 Eth 115071 Prc 7783064 11, 2 10883 Fth 10827 Cad 6763 Cad 7440473 Ch 115071 Fth 115071 Fth 12205992 B [6 7440473 Ch 115071 Fth 12404473 Ch 115071 Fth 1240299 Cad 7440473 Ch 7440658 B [6 744020 Nh 7440620 Nh 7440620 Nh 7440620 Nh 7440622 Van 7440656 Nh 7440656 Nh 75150 Cad	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABB 71432 Ben 71432 For 50000 For

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		EMS (lbs/yr)
0.00001967 * 0.00005901 0.0002557 0.0001967 *	0 00 0000 00000 000000 000000 000000 00000	<pre>SEGUNDO REFINERY STACK 13 MAX (lbs/hr) 0.002262 * 0.0000133 * 0.0000133 0.0000173 * * 0.0000173 * * 0.0000173 * * 0.00001655 * * * 0.00002661 * * * 0.00002661 * * * * 0.00006652 * * * * * * * * * * * * * * * * * * *</pre>
0.172 0.511 0.5116 2.5169 1.7234 1.7234 ******	оо  д.ц 4.0 а.п а.п а.п а.т а.п	NAME=CHEVRON EL SE AVRG (lbs/yr) 19.81 * 0.1166 * 0.3497 17.72 1.515 1.166 1.166 * * 0.3497 0.3497 1.72 1.515 1.166 * * * * 0.5828
000000000000000000000000000000000000000		PRO=13 STK=1 BG (ug/m ³ 3) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		CO=8 DEV=2 F MULTIPLIER 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Naphthalene Acetaldehyde Acrolein Ethyl Benzene Hexane Toluene Xylenes 1,3-Butadiene CarbonylSulfide Ethylene Propylene NH3	H2S Cyclohexane Cyclohexane Phenol B[a] P B[a] P B[b] fluoranthen B[g,h,i] perylen Cadmium Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chlorofo	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS SOURCE MULTIPLIER=1 CAS 50000 Formaldehyde 50000 Formaldehyde 1151 Naphthalene 75070 Acetaldehyde 107028 Acetaldehyde Acrolein 100414 Hexane 110543 Hexane 110543 Toluene 100990 1,3-Butadiene 463581 Ethylene 106990 1,3-Butadiene 463581 Fthylene 106990 1,3-Butadiene 463581 Fthylene 7783064 1,2-4TriMeBenze 115071 NH3 7783064 1,2-4TriMeBenze 1108952 B[a] P
91203 75070 100414 100414 100543 108883 1210 165990 16591 74851 16571 15671	7783064 95636 10108827 108852 50328 50328 50328 50328 7440433 7440433 7440483 7440484 7439965 74339965 74430508 7440508 7440508 7440508 7482828 75150 75150	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABB 71432 ABB 71432 PAH 91201 PAH 91203 Acr 100414 Hex 100414 Hex 100414 Hex 100414 Hex 100414 Eth 110543 100 1210 20 106990 1, 2 106990 1, 2 108952 6th 108952 6th 108952 7 205992 8 [a

																EMS $(lbs/yr)$																																			
	*	* -	* 1	k *	*	*	*	*	* •	x +	ĸ ჭ¢	< *	*	*	*	SEGUNDO REFINERY STACK 14		MAX (IDS/NI)	• • • • • • • • •	*	0.00657	*	*	0.000413	0.00005594	U.UUU9U83 D DD2745		*	*	* •		T/ 570000.0	< *	*	*	*	* *	*	*	*	*	*	* •	× +	: *	*	*	*	*	* .	*
, 1:13:18РМ	*	* +	* 1	k +k	*	*	*	*	* *	< 4	× <b>*</b>	: *	*	*	*	NAME=CHEVRON EL S		AVKG (IDS/YT)	ト 20・T	*	57.55	*	*	3.618	0.049	96Y.1 40 AC	τ, τ, τ, τ, τ, τ, τ, τ, τ, τ, τ, τ, τ, τ	*	*	*		//070.0 *	*	*	*	*	* *	*	*	*	*	*	*	* +	*	*	*	*	*	*	*
MCH1. TXT 1/22/2008	0	0 0	0 0			ò	0	0	0 0				0	0	0	PRO=14 STK=1		15 m/gu) ea			0	0	0	0				0	0	0 (				0	0	0		0	0	0	0	0	0 0			0	0	0	0	0	0
SHKA2		r-1 -			4	1	г	Ч	<b>-</b> -1 <b>-</b> -		-1 F-		H <b>←</b> H	I	1	CO=9 DEV=1 I		F YATUATINOW		44	Ľ	r~1	r-1	r-4 1	-1 +		4 -	1	н ,	н ,		-1 ←			1		-1	1	-1	Ч	ы		н ,		4 -	41	1	1	Ч		Т
U: \HARF \FKUUECIS \SUDGUEC \HARZ \250	B[g, h, 1]perylen	Cadmium	Chromitim		Cobalt	Copper	Lead	Manganese	Mercury Wickel	Dhoenhorije	selenium Selenium	Vanadiium	Zinc	Methane	CS2	EMISSIONS FOR FACILITY FAC=2505	TPLIER=1	ABBKEV Donrowo	Formaldehvde	PAHS-W/O	Naphthalene	Acetaldehyde		Ethyl Benzene	rexane relinent	XVTenes	1.3-Butadiene	CarbonylSulfide	Ethylene	Propylene	NH3 UDS	1 2 4TriMeRenze	L/L/LOHEXANE	Phenol	B[a] P	B[b]fluoranthen	B[g,n,ı]peryıen Cadminm	Chloroform	Chromium	Cr(VI)	Cobalt	Copper	Lead	Merchinit	Nickel	Phosphorus	Selenium	Vanadium	Zinc	Methane	CS2
FILE: U: \HA	191242	7440439	6/663 7//0/72	18540299	7440484	7440508	7439921	7439965	7439976	0202140	7782492	7440622	7440666	74828	75150	EMISSIONS F	SOURCE MULTIPLIER=1	CEALT	50000	1151	91203	75070	107028	100414	100003	1210	106990	463581	74851	115071 2664435	77654417	1/00/04 95626	110827	108952	50328	205992	7440439	67663	7440473	18540299	7440484	7440508	7439921	7433495 7700277	7440020	7723140	7782492	7440622	7440666	74828	75150

EMS (lbs/yr)

<pre>L SEGUNDO REFINERY STACK 16 MAX (1bs/hr) 0.004157 * 0.0004157 * 0.0036332 0.0036332 0.001315 0.002128 0.001315 * 0.002128 0.001315 * 0.00005256 * * 0.00005256 * * 0.00005256 * * * 0.00006914 * * * * * * * * * * * * * * * * * * *</pre>	L SEGUNDO REFINERY STACK 18 MAX (lbs/hr) * 0.00005862 0.0001846 0.001846 0.01209 * * * * * * * * * * * * * * * * * * *
NAME=CHEVRON EL AVRG (lbs/Yr) 37.43 37.43 37.43 31.82 24.91 115.2 186.4 46.05 * * * * * * * * * * * * * * * * * * *	NAME=CHEVRON EL AVRG (lbs/yr) * 0.05135 1.617 1.617 1.05.9 * * * * * * * * * * * * * * 39595.19
STK=1 STK=1 (ug/m [^] 3) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	STK=1 (ug/m [^] 3) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PRO=16 BG (u	PRO=18 BG (u
0 DEV=1 MULTTIPL LER	1 DEV=1 MULTIPLIER
CO=10 MUL	CO=11 MUL
EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV CAS ABBREV T1432 Benzene 50000 FAHS-W/O 91203 Naphthalene 75070 Formaldehyde 75070 Acctaldehyde 75070 Acctaldehyde 107028 Acctaldehyde Accrolein Accrolein Acrolein 110543 Toluene 110543 Toluene 110543 Toluene 110543 Toluene 463581 Ethyl Benzene 110543 Toluene 110543 Toluene 764417 H42 7783064 1,2,4TriMeBenze 764417 H2S 7783064 1,2,4TriMeBenze 110827 Toluene 110827 Toluene 764417 H2S 95636 1,2,4TriMeBenze 110827 Toluene 110827 B[b] fluoranthen 764417 H2S 7783064 1,2,4TriMeBenze 110827 Cyclohexane 10820228 B[b] fluoranthen 191242 B[c,h,i] perylen 7440439 Cchnomium 7440484 Copper 7440484 Copper 7440484 Copper 7440484 Copper 7440484 Copper 7440484 Copper 7440484 Copper 7783140 Phosphorus 7723140 Phosphorus 7723140 Phosphorus 7723140 Selenium 7440666 Methane 74828 Vanadium	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV 71432 ABBREV 50000 Formaldehyde 1151 Naphthalene 75070 PAHs-w/o PAHs-w/o PAHs-w/o PAHs-w/o PAHs-w/o PAHs-w/o PAHs-w/o PAHs-w/o PAHs-w/o PAHs-w/o PAHs-w/o PAHs-w/o PAHs-w/o PAHs-w/o PAHs-w/o PAHs-w/o PAHs-w/o Patter Acrolein 100414 Hexane 100414 Hexane 100414 Hexane 100414 Hexane 100414 Ethylene 74851 Carbonylsulfide 74851 Propylene 115071 NH3
EMISSIONS FOR FACILSOURCE MULTIPLIERSOURCE MULTIPLIERCASCAST432ForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForForFor </td <td>EMISSIONS FOR FACII SOURCE MULTIPLIER=1 CAS ABE 71432 Ber 50000 Fox 1151 Nar 91203 Ace 107028 Acr 100414 Hex 100414 Eth 110543 100 110543 10 110543 Acr 100414 Eth 110543 1,3 463581 Can 74851 1,3 7664417 NH3</td>	EMISSIONS FOR FACII SOURCE MULTIPLIER=1 CAS ABE 71432 Ber 50000 Fox 1151 Nar 91203 Ace 107028 Acr 100414 Hex 100414 Eth 110543 100 110543 10 110543 Acr 100414 Eth 110543 1,3 463581 Can 74851 1,3 7664417 NH3

EMS (lbs/yr)

	(TDS/YT)
	MAX (lbs/hr) MAX (lbs/hr) ** 0.00258 0.01379 0.01379 ** ** ** ** ** ** ** ** ** ** ** ** **
* * * * ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	NAMME=CHEVKON EL AVRG (lbs/yr) ** 0.1978 ** 13.21 13.21 13.21 13.8* ** ** ** **
	BG (ug/m ² ) BG (ug/m ² ) BG (ug/m ² ) BG b BG b BG b BG b BG b BG b BG b BG b
H2S 1,2,4TriMeBenze Cyclohexane Phenol B[a]P B[b]fluoranthen B[g,h,i]perylen Cadmium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Cadmium Chromium Chromium Cadmium Cadmium Cadmium Cadmium Cadmium Cadmium Cadmium Cadmium Chromium Chromium Cadmium Cadmium Chromium Chromium Cadmium Cadmium Cadmium Chromium Chromium Cadmium Chromium Chromium Cadmium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Cadmium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromium Chromiu	ENTISIONS FOR FACTULITY FACEZDOS SOURCE MULTIPLIER=1 CAS 50000 TA32 BEREV 50000 Formaldehyde 50000 Formaldehyde 50000 PAHS-w/o 91203 Naphthalene 75070 Acetaldehyde 700414 Ethyl Benzene 1007028 Acrolein Accolein 1007038 Acrolein Fthyl Benzene 100883 Toluene 100883 Toluene 1008990 1,3-Butadiene 465381 Ethylene 74851 Propylene 7464417 H2S 7783064 1,3-Butadiene 746336 1,2,4TriMeBenze 110827 Cyclohexane 110827 Cyclohexane 110827 Cyclohexane 110827 Cyclohexane 1008952 B[a] F 7440473 Chloroform 7440473 Chloroform 7440473 Chromium 18540299 Cobalt 7440484 Copper 7440473 Cr(VI) 7440608 Cobalt 7440608 Cobalt 7440020 Phosphorus 7723140 Phosphorus
7783064 95636 110852 108952 108952 205992 191242 191242 7440439 67663 7440439 7440439 7440508 7439976 7439976 7439976 7440622 7440622 7440622 7440622 7440622	EMISSIONS FOR FACIL EMISSIONS FOR FACIL CAS SOURCE MULTIPLIEREI CAS 50000 1151 91203 91203 91203 91203 91203 91203 91203 91203 91203 91203 91203 91203 91203 91203 91203 91203 91203 91242 91242 91303 91323 91323 91323 9140433 9140433 9142 91242 91242 91323 91323 9140433 9140433 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 91242 912 912 912 912 912 912 912 912 912 91

	EMS (lbs/yr)	EMS (lbs/yr)
	STACK 20	STACK 21
0.08484	SEGUNDO REFINERY MAX (lbs/hr) ** 0.00000122 0.00000382 0.003316 0.003316 ** ** ** ** ** ** ** ** ** ** ** ** **	SEGUNDO REFINERY MAX (lbs/hr) 0.0001712 0.00003631 0.000008857 0.00009152 0.00009152 0.00009152 0.0000337 0.0000337 0.0001358
743.2	NAME=CHEVRON EL AVRG (lbs/yr) *** 0.03345 29.05 29.05 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 29.45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45 20,45	NAME=CHEVRON EL AVRG (lbs/yr) 1.5 3.181 0.02586 0.07559 0.07559 0.6983 1.785 1.785 1.785 1.785 6.854
00000	PRO=20 STK=1 BG (ug/m ² 3) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PRO=21 STK=1 BG (ug/m ² 3) 0 0 0 0 0 0 0 0
		CO=12 DEV=2 PRC MULTIFLIER 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Selenium Vanadium Zinc Methane CS2	<pre>LTTY FAC=2505 REV REV REV rene REV rele Re woo hthalene taldehyde taldehyde taldehyde rolein rolein rolein rolein rolein rolein rolein rol rolein rol rolein rol rolein rol rolein rol rolein rol rol rol rol rol rol rol rol rol rol</pre>	ITY FAC=2505 REV Zene maldehyde s-w/o hthalene taldehyde olein yl Benzene ane uene
7782492 7440622 7480666 74828 75150	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS 50000 FOX 1151 50400 1151 91203 75070 FOX 91203 FOX 91203 FOX 100414 Hex 100414 Eth 110543 ACC 100414 Eth 110543 TOJ 106990 ACC 110583 ACC 1006990 ACC 1106990 CA 463581 Eth 1106990 CA 764417 NH3 764417 PHC 110827 20592 Eth 110827 CA 764903 CA 7440439 5636 CA 7440439 CC 7440484 CC 7440420 PhC 7433976 Man 7433976 Man 7433976 Man 7433976 Nic 7440622 CC 7440622 CC 7440622 Van 7480209 PhC 7480209 CC 7440622 Van 7480209 CC 7440622 Van 748022 Van 748066 Met 748066 Met	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABB 71432 ABB 71432 For 50000 For 1151 PAH 91203 Nap 75070 Act 107028 Act 100414 Eth 1106413 Hex 10883 Tol

×	Xylenes		1	0	5.095	0.0005816			
Ч,	1,3-Butadiene		1	0	*	*			
ບຶ	CarbonylSulfide		F	0	*	*			
Ĥ	Ethylene		г	0	*	*			
р.	Propylene		F	0	137.1	0.01565			
E	NH3		H	0	*	*			
H	H2S		ч	0	*	*			
Ч	1,2,4TriMeBenze		г	0	*	*			
U	Cyclohexane		Ч	0	*	*			
겂	Phenol		Т	0	*	*			
ф	B[a] P	-	L L	0	*	*			
Щ	B[b]fluoranthen		T	0	*	*			
щ	B[g,h,i]perylen		г	0	*	*			
Ŭ	Cadmium		г	0	*	*			
ប	Chloroform	-		0	*	*			
U	Chromium		г	0	*	*			
ΰ	Cr(VI)	1	F	0	*	*			
Ŭ	Cobalt	-	г	0	*	*			
Ŭ	Copper		1	0	*	*			
Ā	Lead		1	0	*	*			
Σ	Manganese	1	г	0	*	*			
Σ	Mercury	г	1	0	*	*			
Z	Nickel	-	ч	0	*	*			
ቪ	Phosphorus	1	T	0	*	*			
ŵ	Selenium		T	0	*	*			
Σ	Vanadium	П	-	0	*	*			
N	Zinc	П	г	0	*	*			
ž	Methane	п	г	0	*	*			
Ü	CS2	1	г	0	*	*			
EMISSIONS FOR FACIL SOURCE MULTIPLIER=1	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1	CO=14 DEV=1	PRO=24	STK=1	NAME=CHEVRON EL	NAME=CHEVRON EL SEGUNDO REFINERY STACK	STACK 24	EMS	(lbs/yr)
Å	ABBREV	MULTIPLIER		BG (ug/m ² 3)	AVRG (lbs/vr)	MAX (lbs/hr)			
й	Benzene	-	-	0	18.93124	0.002161			
Ē.	Formaldehyde	1	1	0	*	*			
Д	PAHs-w/o		L	0	*	*			
Na	Naphthalene	П	-	0	9.304161	0.001062			

	hr)	161	*	*	062	*	*	334	156	139	588	152	*	*	*	*	*	158	334	*	*	*	*	*	¥	*	*	*	
	MAX (lbs/hr)	0.002161			0.001062			0.00334	0.01156	0.0139	0.018588	0.0000152						0.006158	0.00334										
	AVRG (lbs/yr)	18.93124	*	*	9.304161	*	*	29.26221	101.2666	121.7658	162.8352	0.1327	*	*	*	*	*	53.948	29.3887	*	*	*	*	*	*	*	*	*	
	BG (ug/m ² 3)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MULTIPLIER	г	г	г	г	г	1	1	г	ч	1	-1	Ч	н	1	Ч	Ч	1	Ч	-1	н	1	г	н	Ч	1	1	г	
IPLIER=1	ABBREV	Benzene	Formaldehyde	PAHS-w/o	Naphthalene	Acetaldehyde	Acrolein	Ethyl Benzene	Hexane	Toluene	Xylenes	1,3-Butadiene	CarbonylSulfide	Ethylene	Propylene	NH3	H2S	1,2,4TriMeBenze	Cyclohexane	Phenol	B[a] P	B[b]fluoranthen	B[g,h,i]perylen	Cadmium	Chloroform	Chromium	Cr(VI)	Cobalt	
SOURCE MULTIPLIER=1	CAS	71432	50000	1151	91203	75070	107028	100414	110543	108883	1210	106990	463581	74851	115071	7664417	7783064	95636	110827	108952	50328	205992	191242	7440439	67663	7440473	18540299	7440484	

	(H	( + X
	(1bs/yr) (1bs/vr)	
	N W H H	22
	RY STACK 28 STACK 28 STACK 28	
* * * * * * * * * * *	SEGUNDO REFINERY MAX (lbs/hr) ** ** ** ** ** 0.01159 0.1079 ** ** ** ** ** ** ** ** ** **	
* * * * * * * * * *	NAME=CHEVRON EL AVRG (lbs/yr) ** ** ** ** 944.8 944.8 ** ** ** ** ** ** ** **	AVRG (lbs/yr) 3.063 *
000000000000000000000000000000000000000	PRO=28 STK=1 BG (ug/m ² 3) 0 0 0 0 0 0 0 0 0 0 0 0 0	fn)
	CO=12 DEV=3 MULTIPLIER MULTIPLIER	ULT
Copper Lead Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV 71432 BEDREN 71432 BEDREN 71432 BEDREN 75070 Fronmaldehyde 75070 Naphthalene 75070 Naphthalene 75070 Acctaldehyde 107028 Acctaldehyde 107028 Acctaldehyde 77028 Acctaldehyde 77028 Acctaldehyde 100414 Ethyl Benzene 110543 Toluene 1106990 1,3-Butadiene 7664417 NH3 7783064 1,3-Butadiene 7664417 Propylene 7783064 1,3-Butadiene 86536 1,3-Butadiene 7783064 1,3-Butadiene 7783064 1,3-Butadiene 86536 1,3-Butadiene 7783064 1,3-Butadiene 108952 1,3-Butadiene 7783064 1,3-Butadiene 7440473 Carbonylsulfide 7440473 Chloroform 7440439 Cobalt 7733140 Copper 744065 Mercury 7782492 Vanadium 7440666 Mercury 7782492 Vanadium 7440666 Mercury 7782492 Copper 7440666 Mercury 7782492 Cobalt 7723140 Copper 7782492 Cobalt 7723140 Copper 774305 FOR FACILITY FAC=2505 FMISSIONS FOR FACILITY FAC=2505	ripurer racessor ABBREV Benzene Formaldehyde PAHs-w/o
7440508 7439921 7439965 744005 744005 7723140 7723140 7782492 7440622 7440666 74828 75150	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS T1432 Ben 50000 FOX 1151 Dab 71432 FOX 91203 FOX 100414 Hex 100414 Hex 100414 Eth 100414 Hex 1006990 Acr 1006990 Acr 1006990 Acr 1006990 Acr 1006990 Acr 1006990 Car 7783064 Hex 1006990 1, 2 100822 FOX 100822 FOX 1008952 FOX 1008952 FOX 1008952 FOX 7440439 Cad 7440439 Cad 7440666 Man 7439976 Mar 7439976 Mar 7440620 Nic 7723140 Pho 7782492 Van 7440622 Van 7440666 Mac	EMILSIONS FOR FACIL SOURCE MULTIPLIEREI CAS ABB 71432 Ben 50000 For 1151 PAH

* * * * * * * 0.0002637	0.001107 0.001257 * * * * * * * * * * * * * * * * * * *	0 00 00 00 00 00 00 00 00 00 00 00 00 0	* * * * * * * * * * *	<pre>SEGUNDO REFINERY 5 MAX (lbs/hr) 0.00002959 * 0.00002395 0.00002395 0.00002395 * 0.00002395 * 0.0003299 * * 0.0003359 * * 0.0003359 * * *</pre>
2. 	9 6 6 9 6 1 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0 1 . 0	0.0471 1474 1474 1474 1474 1474 1474 1474	* * * * * * * * * * *	NAME=CHEVRON EL AVRG (lbs/yr) 0.2592 1.973 1.973 4 0.4726 2.89 6.548 6.548 6.548 0.4666 8 1.973 4 8 0.2943 4 8 0.2943
00000	00000000			STK=1 STK=1 (ug/m ³ ) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
				PRO=30 BG (u
				7 DEV=1 MULTIPLIER
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Naphthalene Acetaldehyde Acrolein Ethyl Benzene Hexane	Toluene Xylenes 1,3-Butadiene CarbonylSulfide Ethylene Propylene NH3	H2S 1,2,4TriMeBenze Cyclohexane Phenol B[a]P B[b]fluoranthen B[g,h,i]perylen Cadmium Chromium Cr(VI) Cobalt	Copper Lead Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIFLIER=1 CAS 50000 PABBREV 71432 Benzene 50000 PAHs-w/o 91203 Naphthalene 75070 Acctaldehyde 107028 Accrolein 100714 Ethyl Benzene 110543 Toluene 110543 Toluene 1106990 1,3-Butadiene 463581 Ethyl Benzene 1106990 1,3-Butadiene 463581 Fthylene 115071 NH3 7783064 1,2,4TriMeBenze 15071 NH3 7664417 H2S 76536 1,2,4TriMeBenze 110827 Phenol 56328 B[b] fluoranthen
91203 75070 107028 100414 110543	108883 1210 106990 463581 74851 115071 7664417	7783064 95636 110827 108952 50328 205992 191242 191242 1940439 1854023 18540299 7440482	7440508 7439921 7439965 7440020 7723140 7723140 7782492 7440666 7440666 75150	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABB 71432 PAH 50000 For 1151 PAH 91203 Acr 106414 Eth 1106414 Eth 1106414 Eth 110543 Trol 1210 Xyl 108883 Trol 1210 1, 3 463581 Eth 1108883 Tyl 1220 Car 7664417 NH2 7783064 1, 3 1, 2 108952 Eth 115071 Eth 115071 Eth 115071 Eth 115071 20328 95636 1, 2 108952 Eth 110827 Car 7783064 1, 2 108952 Eth 110827 Car 8000 2000 1, 2 1, 2 1, 2 1, 2 1, 2 1, 2 1, 2 1, 2

STACK 30 EMS (lbs/yr)

Page: 15

	Y STACK 31
* * * * * * * * * * * * * * * *	<pre>ABGUNDO REFINERY MAX (lbs/hr) ** 0.009818 ** 0.000801 ** ** 0.0000698 ** ** ** 0.0000698 ** ** ** ** ** ** ** ** ** ** ** ** **</pre>
* * * * * * * * * * * * * * *	NAME=CHEVRON EL AVRG (lbs/yr) ** 86.01 11.03 7.017 0.6115 ** ** ** ** ** **
	=31 STK=1 BG (ug/m ³ ) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	DEV=1 DEV=1 ULTT PL IER IER IER IER IER IER IER IER IER IER
en	M M de de M M M M M M M M M M M M M M M
B[g,h,i]perylen Cadmium Chloroform Chromium Cr(VI) Cobalt Copper Lead Manganese Mercury Mickel Phosphorus Selenium Vamadium Zinc Methane CS2	<pre>% FACILITY FAC=2505 % LIER=1 ABBREV Benzene Benzene Formaldehyde PAHs-w/o Naphthalene Acctaldehyde Acrolein Ethyl Benzene Acrolein Ethyl Benzene Acrolein Ethylene Xylenes 1,3-Butadiene CarbonylSulfide Ethylene Xylenes 1,3-Butadiene CarbonylSulfide Ethylene Ruh3 H2S 1,2.4TriMeBenze Cyclohexane Propylene Propylene Propylene Propylene CarbonylSulfide Ethylene CarbonylSulfide Ethylene Ruh3 H2S 1,2.4TriMeBenze Cyclohexane Propylene Ruh3 H2S 1,2.4TriMeBenze Cyclohexane Propylene Ruh3 Ruh3 Ruh3 Ruh3 Ruh3 Ruh3 Ruh3 Ruh3</pre>
191242 7440439 64663 18540473 18540473 18540299 7440208 7439955 7439955 7440020 7723140 7782492 7440656 7440656 75150	EMISSIONS FOR FACI SOURCE MULTIPLIER= CAS MULTIPLIER= 71432 Be 71432 Be 71600 1151 PP 75070 75070 110543 Nam 75070 766414 110543 Nam 766451 100883 Ac 110583 Ac 110583 Ac 1105990 Ac 74851 100883 Ac 74851 100895 Ac 74851 100895 Ac 7440484 117 7440484 117 7440484 117 7440508 Cc 7440484 Cc 7440508 Cc 7450508 Cc 74

EMS (lbs/yr)

EMS (lbs/yr)

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CHRONIC HI REPORT

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NIMTU

	UTME																																	
	MAX	4.98E-05	4.64E-05	0.00E+00	1.27E-04	5.58E-05	6.54E-05	8.70E-07	1.03E-06	2.13E-05	1.25E-05	7.67E-06	0.00E+00	0.00E+00	6.68E-06	9.30E-04	9.68E-04	0.00E+00	0.00E+00	1.82E-08	0.00E+00	0.00E+00	0.00E+00	8.77E-04	9.45E-11	0.00E+00	1.42E-07	0.00E+00	6.53E-05	0.00E+00	3.70E-04	1.32E-03	ЭO	6.55E-03
	BLOOD	4.98E-05 4	0.00E+00 4	0.00E+00 (	0.00E+00	0.00E+00	0.00E+00 (	0.00E+00 8	0.00E+00	0.00E+00 3	0.00E+00	0.00E+00.0	0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00	0.00E+00	0.00E+00 (	0.00E+00 (	0.00E+00	0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00 8			6.70E-09	0.00E+00 (	0.00E+00 (	0.00E+00 (	0.00E+00		1.20E-03	0.00E+00 (
	SKIN	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	O.OOE+00	0.00E+00
	RESP	0.00E+00	4.64E-05	0.00E+00	1.27E-04	5.58E-05	6.54E-05	0.00E+00	0.00E+00	2.13E-05	1.25E-05	0.00E+00	0.00E+00	0.00E+00	6.68E-06	9.30E-04	9.68E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.87E-04	0.00E+00	0.00E+00	1.42E-07	0.00E+00	6.53E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-03	0.00E+00
	REPRO	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.67E-06	0.00E+00	0.00E+00	O.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		6.55E-03
	KIDN	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.70E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.82E-08	0.00E+00	0.00E+00	0.00E+00	8.77E-04	9.45E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.32E-03	0.00E+00	0.00E+00
	IMMUN	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.32E-03	0.00E+00	0.00E+00
	GILV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.70E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.82E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.45E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.50E-05	0.00E+00
	EYE	0.00E+00	4.64E-05	0.00E+00	0.00E+00	0.00E+00	6.54E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	O.00E+00
	ENDO	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.70E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	DEVEL	4.98E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.70E-07	0.00E+00	2.13E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.45E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ЭO	6.55E-03
RECEPTOR 742	BONE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	CNS	4.98E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-06	2.13E-05	1.25E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.82E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.70E-04	1.45E-04	0.00E+00	0.00E+00
DERIVED CHRONIC HI	CV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.82E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
DERIVE	CHEM	1000	0002	0003	0004	0005	0006	0007	0008	6000	0010	0011	0012	0013	0014	0015	0016	0017	0018	0019	0020	0021	0022	0023	0024	0025	0026	0027	0028	0029	0030	0031	0032	0033

1.30E-06 1.30E-06 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.30E-06 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.30E-06 0.00E+00 1.96E-05 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.96E-05 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.96E-05 0.00E+00 1.96E-05 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.96E-05 0.00E+00 1.65E-10 0.00E+00 1.65E-10 0.00E+00 0.0 0034 0035 0036 0037 0038 SUM

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Build 23.04.05 Created by HARP Version 1.3 Build 2 Uses ISC Version 99155 Uses BPIP (Dated: 04112) Creation date: 1/22/2008 1:12:29 PM

EXCEPTION REPORT (there have been no changes or exceptions)

INPUT FILES:

Source-Receptor file: C:\HARP\PROJECTS\2505Chev\HRA2\2505HRA2.SRC Averaging period adjustment factors file: not applicable Emission rates file: database Site parameters file: C:\HARP\PROJECTS\Pathway\resident pathway.sit

Coordinate system: UTM NAD27

Screening mode is OFF

CHEMICAL CROSS-REFERENCE TABLE AND BACKGROUND CONCENTRATIONS	IATION POLLUTANT NAME BACKGROUND (ug/m ⁻³ )	Benzene	Formaldehyde	/o PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA] 0.000B+00	Naphthalene	e Acetaldehyde	. Acrolein	Bthyl benzene	Hexane	Toluene	Xylenes (mixed)	adiene 1,3-Butadiene	Carbonyl sulfide	Bthylene	e Propylene		Hydrogen sulfide 0.000E+00	1,2,4-Trimethylbenzene	Cyclohexane	Phenol	Benzo [a] pyrene 0.000E+00	uoranthen Benzo[b]fluoranthene	Benzo[g,h,i]perylene	-	Cadmium	Cadmium Jrm Chloroform	Cadmium orm Chloroform n Chromium	Cadmium orm Chloroform n Chromium Chromium, hexavalent (& compounds)	cadmium srm Chloroform n Chromium Chromium, hexavalent (& compounds) Cobalt	cadmium crim Chloroform n Chromium Chromium, hexavalent (& compounds) Cobalt Copper	cradmium crhoroform n Chhromium Chromium, hexavalent (& compounds) cobalt Copper Lead	cradmium criteria chloroform chromium chromium, hexavalent (& compounds) cobalt copper Lead se Manganese	cradmium Drm Chloroform n Chromium Chromium, hexavalent (& compounds) Cobalt Copper Lead Se Manganese Mercurv
AND BALAGAC	POLLUTANT	Benzene	Formaldef	PAHs, tot	Naphthal€	Acetalder	Acrolein		Hexane	Toluene	Xylenes (			Ethylene	Propylene	Ammonia	Hydrogen		Cyclohexe	Phenol	Benzo[a]ț				Caamiu	Chlorofor	Chlorofor Chromium	Caamluu Chlorofor Chromium Chromium,	caamıuın Chlorofor Chromium Chromium, Cobalt	Cadmium Chlorofor Chromium Cobalt Copalt	Cadmium Chlorofor Chromium Chromium, Cobalt Copper Lead	cadmium Chlorofor Chromium Chromium, Cobalt Copper Lead Manganesé	Cadmium Chlorofor Chromium Chromium, Cobalt Copper Lead Manganesé Marcurry
REFERENCE TABLE	ABBREVIATION	Benzene	Formaldehyde	PAHs-w/o	Naphthalene	Acetaldehyde	Acrolein -	Ethyl Benzene	Hexane	Toluene	Xylenes	1,3-Butadiene	CarbonylSulfide	Ethylene	Propylene	NH3	H2S	1,2,4TriMeBenze	Cyclohexane	Phenol	B[a] P	B[b]fluoranthen	B[g,h,i]perylen	Cadminm		Chloroform	Chloroform Chromium	Chloroform Chromium Cr(VI)	Chloroform Chromium Cr(VI) Cobalt	Chloroform Chromium Cr(VI) Cobalt Copper	Chloroform Chromium Cr(VI) Cobalt Copper Lead	Chloroform Chromium Cr(VI) Cobalt Copper Lead Manganese	Chloroform Chromium Cr(VI) Cobalt Copper Lead Manganese Mercurv
CAL CROSS-I	CAS	71432	50000	1151	91203	75070	107028	100414	110543	108883	1210	106990	463581	74851	115071	7664417	7783064	95636	110827	108952	50328	205992	191242	7440439		67663	67663 7440473	67663 7440473 18540299	67663 7440473 18540299 7440484	67663 7440473 18540299 7440484 7440508	67663 7440473 18540299 7440484 7440508 7439921	67663 7440473 18540299 7440484 7440508 7439921 7439965	67663 7440473 18540299 7440484 7440508 7439921 7439965 7439965
CHEMI	CHEM	0001	0002	0003	0004	0005	0000	0007	0008	6000	0010	0011	0012	0013	0014	0015	0016	0017	0018	0019	0020	0021	0022	0023		0024	002400025	0024 0025 0026	0025 0025 0026 0027	0024 0025 0026 0028 028	0024 0025 0026 0028 0028	0025 0025 0025 0028 0028 0028 0028	00020 0020 00225 00228 00228 00228 00228 00228 00228 00228 00228

0032	7440020	Nickel	Nickel	0.000E+00
0033	7723140	Phosphorus	Phosphorus	0.000E+00
0034	7782492	Selenium	Selenium	0.000E+00
0035	7440622	Vanadium	Vanadium (fume or dust)	0.000E+00
0036	7440666	Zinc	Zinc	0.000E+00
0037	74828	Methane	Methane	0.000E+00
0038	75150	CS2	Carbon disulfide	0.000E+00
EMISS	IONS DATA CALS ADDED	EMISSIONS DATA SOURCE: Emission : CHEMICALS ADDED OR DELETED: none	MISSIONS DATA SOURCE: Emission rates loaded from database CHEMICALS ADDED OR DELETED: none	

database	
from	
loaded	
rates	41
Emission	TED: none
SOURCE:	OR DELETED
DATA	ADDEI
ISSIONS	EMICALS

EMS (lbs/yr)																																								EMS $(lbs/yr)$							
STACK 1																																								STACK 2							
SEGUNDO REFINERY	MAX (lbs/hr)	0.000428	0.00314	0.00000807	0.0000296	0.000116	0.0000269	0.00388	0.000078	0.000156	0.000078	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	SEGUNDO REFINERY		MAX (lbs/hr)	*	*	*	*	
NAME=CHEVRON EL	AVRG (lbs/yr)	3.75	27.5	0.0707	0.259	1.01	0.236	34	0.683	1.37	0.683	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	NAME=CHEVRON EL		AVRG (lbs/yr)	*	*	*	*	
STK=1	(ng/m ² )	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	STK=1		(ug/m^3)	0	0	0	0	
PRO=1	BG																																							PRO=2		BG					
DEV=1	MULTIPLIER	1	1	1	1	Ч	Ч	1	1	ч	1	Ч	Т	Ч	1	1	Т	1	Ч	1	Т	1		1	Ч	-		Ч	1	1	Ч	Ч	Ч	1	Ч	1	Ч	Ч	Ч	DEV=2		MULTIPLIER	1	1	Ч	Ч	
C0=1	MC																																							C0=1		MC					
EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1	ABBREV	Benzene	Formaldehyde	PAHs-w/o	Naphthalene	Acetaldehyde	Acrolein	Ethyl Benzene	Hexane	Toluene	Xylenes	1,3-Butadiene	CarbonylSulfide	Ethylene	Propylene	NH3	H2S	1,2,4TriMeBenze	Cyclohexane	Phenol	B[a]P	B[b]fluoranthen	B[a,h,i]pervlen	Cadmium	Chloroform	Chromium	Cr(VI)	Cobalt	Copper	Lead	Manganese	Mercury	Nickel	Phosphorus	Selenium	Vanadium	Zinc	Methane	CS2	EMISSIONS FOR FACILITY FAC=2505	TIPLIER=1	ABBREV	Benzene	Formaldehyde	PAHS-w/o	Naphthalene	
EMISSIONS FOR FACIL SOURCE MULTIPLIER=1	CAS	71432	50000	1151	91203	75070	107028	100414	110543	108883	1210	106990	463581	74851	115071	7664417	7783064	95636	110827	108952	50328	205992	191242	7440439	67663	7440473	18540299	7440484	7440508	7439921	7439965	7439976	7440020	7723140	7782492	7440622	7440666	74828	75150	EMISSIONS F	SOURCE MULTIPLIER=1	CAS	71432	50000	1151	91203	

		(lbs/yr)
		STACK 3 EMS
* * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	SEGUNDO REFINERY MAX (lbs/hr) ** ** 0.0003127 0.02543 0.02543 **
0.8918 0.008261 71:74 72:52	* * * * * * * * * * * * * * * * * * * *	NAME=CHEVRON EL AVRG (lbs/Yr) *** *** 222:7 222:7 222:7 ***
000000000000000		
Acetaldehyde Acrolein Ethyl Benzene Hexane Toluene Xylenes 1,3-Butadiene Ethylene Propylene MH3 H2S 1,2,4TriMeBenze	Cyclohexane Phenol B[a]P B[b]fluoranthen B[g,h,i]perylen Cadmium Chloroform Chloroform Cr(VI) Cobalt Copper Lead Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV 71432 BENZENE FORMALGENYde 1151 Naphthalene 75070 PAHS-w/o 91203 Naphthalene 75070 Acetaldehyde 107028 Accolein 100414 Hexane 100414 Hexane 100414 Hexane 100414 Hexane 100414 Hexane 100990 1,3-Butadiene 463581 Fthylene 108990 1,3-Butadiene 463581 Fthylene 108990 1,3-Butadiene 463581 Fthylene 7783064 1,7 NH3 7783064 1,2 HTriMeBenze 108952 B(a)P 50328 B[a]P 50328 B[a]P 50328 B[a]P 50328 B[a]P 50328 B[a]P
75070 107028 100414 110543 110543 108883 1210 106990 463581 1664417 7783064 7783064	110827 108952 50328 50328 50328 191242 7440433 7440433 7440433 7440508 7440508 74399965 74399965 7440623 7440665 7440622 7482492 7482492 7482822 7482822 7482822 7482822 7482822 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 74828282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 748282 74828282 748282 748282 748282 748282 74828282 7482828	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS 71432 BEEN 50000 FOI 1151 PAH 91203 ACE 107028 ACE 107028 ACE 107028 ACE 10712 Nap 75070 ACE 100414 Eth 106433 TOI 106883 TOI 106883 TOI 106990 1, 2 7664417 NH3 7664417 PIC 106990 1, 2 76636 1, 2 76636 1, 2 106990 2, 2 10827 20592 2, 2 108952 205992 B[a

* * * * * * * * * * * * * * *	SEGUNDO REFINERY STACK 4 MAX (lbs/hr) 0.0007931 0.0002746 0.0007955 0.0007955 0.0007955 0.0007955 0.0007746 * * * * * * * 0.0001104 0.0001104 * * * * * * * * * * * * * * * * * * *	SEGUNDO REFINERY STACK 6
* * * * * * * * * * * * * * *	NAME=CHEVRON EL S AVRG (lbs/yr) 6.948 2.405 2.405 6.969 44.53 26.05 28.74 4.192 28.74 4.192 5.447.7 0.9675 5.44 *********************************	NAME=CHEVRON EL 2
	STK=1 (ug/m ³ ) (ug/m ³ ) ( 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	STK=1
	PRO=4 BG	PRO=6
		DEV=1
	MC CO=3	CO=4
Cadmium Chloroform Chromium Cr(VI) Crobalt Copper Lead Manganese Mercury Netcel Phosphorus Selenium Vanadium Zinc Methane CS2	FOR FACILITY FAC=2505 TIPLIER=1 ABBREV Benzene Formaldehyde PAHs-w/o Naphthalene Accetaldehyde Accetaldehyde Accolein Ethyl Benzene Hexane Toluene Xylenes T,3-Butadiene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthylene Fthyl	FOR FACILITY FAC=2505
744063 67663 18540473 18540473 7440508 7440508 7439956 7439956 7440020 7723140 7723140 778492 7440622 7440622 7440622 74828 74828 75150	EMISSIONS FOR FA SOURCE MULTIPLIE CAS 50000 1151 50000 1151 50000 1151 1151	IONS

EMS (lbs/yr)

Page: 4

EMS (lbs/yr)

	(lbs/hr)	0.002398	*	*	0.001167	*	*	0.003676	0.008048	0.01534	0.02045	0.00001692	*	*	0.00006987	*	*	0.00677	0.003729	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	REFINER
	MAX								Ũ			0.0			0.0				0																					SEGUNDO
	AVRG (lbs/yr)	21.01	*	*	10.23	*	*	32.2	70.5	134.4	179.2	0.1482	*	*	0.612	*	*	59.3	32.67	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	NAME=CHEVRON EL SEGUNDO REFINERY
	BG (ug/m ² 3)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	STK=1
		1	1	1	1	1	1	1	1	1	1	1	Ч	1	1	1	г	1	1	7	1	1	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	ц.	PRO=7
	MULTIPLIER																																							DEV=1
																																								CO=5
MULTIPLIER=1	ABBREV	Benzene	Formaldehyde	PAHs-w/o	Naphthalene	Acetaldehyde	Acrolein	Ethyl Benzene	Hexane	Toluene	Xylenes	1,3-Butadiene	CarbonylSulfide	Ethylene	Propylene	NH3	H2S	1,2,4TriMeBenze	Cyclohexane	Phenol	B[a] P	B[b]fluoranthen	B[g,h,i]perylen	Cadmium	Chloroform	Chromium	Cr(VI)	Cobalt	Copper	Lead	Manganese	Mercury	Nickel	Phosphorus	Selenium	Vanadium	Zinc	Methane	CS2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1
SOURCE MULT	CAS	71432	50000	1151	91203	75070	107028	100414	110543	108883	1210	106990	463581	74851	115071	7664417	7783064	95636	110827	108952	50328	205992	191242	7440439	67663	7440473	18540299	7440484	7440508	7439921	7439965	7439976	7440020	7723140	7782492	7440622	7440666	74828	75150	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1

EMS (lbs/yr)																	
EMS																	
NAME=CHEVRON EL SEGUNDO REFINERY STACK 7																	
REFINERY	MAX (lbs/hr)	0.00002125	*	*	0.0000998	*	*	0.00005323	00004496	0.0003395	0.0005489	.00003361	*	*	0.00003268	*	*
SEGUNDO	) MAX	0.0			.0			0.0	0.0	0.	0.	0.0			0.0		
EVRON EL	AVRG (lbs/yr)	0.1861	*	*	0.8743	*	*	0.4663	0.3938	2.974	4.809	0.2944	*	*	0.2863	*	*
NAME=CH																	
STK=1	BG (ug/m ² 3)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRO=7																	
DEV=1	MULTIPLIER	г	П	г	1	г	г	1	1	FI	-1	-1	г	г	1	г	1
C0=5	MC																
PAC=2505			shyde		ene	shyde	T	enzene				diene	Sulfide.		le		
CILITY F R=1	ABBREV	Benzene	Formaldehyde	PAHs-w/o	Naphthalene	Acetaldehyde	Acrolein	Ethyl Benzene	Hexane	Toluene	Xylenes	1,3-Butadiene	CarbonylSulfi	Ethylene	Propylene	NH3	H2S
EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1																	
EMISSION SOURCE M	CAS	71432	50000	1151	91203	75070	107028	100414	110543	108883	1210	106990	463581	74851	115071	7664417	7783064

	STACK 9 EMS (lbs/yr)
* * * * * * * * * * * * * * * * * * * *	<pre>SEGUNDO REFINERY MAX (lbs/hr) 0.002301 0.003464 0.003464 0.000043 0.01926 0.01453 0.01453 0.01453 0.01453 0.01453 0.0006367 ** 0.0006367 ** ** ** ** ** ** ** ** ** ** ** ** **</pre>
* * * * * * * * * * * * * * * * * * * *	NAME=CHEVRON EL 5 AVRG (lbs/yr) 20.16 20.16 30.35 70.46 127.3 168.8 0.1475 0.1475 31.136 31.136 31.136 **
	PRO=9 STK=1 N BG (ug/m ³ ) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	CO=6 DEV=1 P MULTIPLIER MULTIPLIER
1,2,4TriMeBenze Cyclohexane Phenol B[a]P B[b]fluoranthen B[g,h,i]perylen Cadmium Chloroform Chloroform Chromium Cr(VI) Cobalt Copper Lead Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV 71432 BBREV 50000 PAHS-W/O 91203 Benzene 50000 PAHS-W/O 91203 Benzene 75070 Acetaldehyde 75070 Acetaldehyde 707028 Actrolein 100414 Hexane 100414 Hexane 100883 Toluene 110543 Toluene 110543 Toluene 1105431 Toluene 1105990 1,3-Butadiene 465381 Ethylene 7464417 H2S 95636 1,3-Butadiene 74851 Propylene 7464417 H2S 95636 1,3-Butadiene 74851 Propylene 7440473 Cyclohexane 110827 Cyclohexane 110827 Phenol 50328 B[a]P 7440473 Chromium 191242 Cadmium 67663 Chromium 191242 Cadmium 7440473 Cr(VI) 7440678 Cobalt 7440678 Cobalt 7440297 Cobalt 744020 Phosphorus 744020 Phosphorus 7782492 Selenium
95636 1108952 50328 50328 50328 12915992 7440439 67666 7440439 7440484 7440508 7440508 744020 7723140 7723140 77823120 7440666 77828 7440620 77828 7440620 77828 7440508	EMISSIONS FOR FACIL SOURCE MULTIPLIER-IL SOURCE MULTIPLIER-IL CASCASMULTIPLIER-IL ABB71432PPAH50000For For50000For50000For50000For50000For50000For50000For50000For50010For50010For50010Acc100414Hex110543Acc100414Fth110543Car1005901, 310053361, 3115071Pro7664417H2S115071Pro7683641, 2115071Pro7683641, 2115071Pro7683641, 2115071Pro77830641, 2115071Pro7483952B [b11507174339657440508Cch7433965Man7433965Man7782492Pho7782492Pho7782492Pho7782492Pho7782492Pho7782492Pho7782492Pho7782492Pho7782492Pho7782492Pho7782492Pho7782492Pho7782492Pho7782492Pho7782492Pho7782492Pho7782492Pho7782492 <td< td=""></td<>

	EMS (lbs/yr)	EMS (lbs/Yr)
	STACK 12	STACK 13
* * * *	SEGUNDO REFINERY MAX (1bs/hr) 0.003344 0.0001967 0.0002991 0.0002991 0.0001967 0.0001967 ** 0.00003934 ** 0.00003934 **	* SEGUNDO REFINERY MAX (lbs/hr) 0.002262 * 0.000133 * 0.000133 * 0.000133
* * * *	NAME=CHEVRON EL AVRG (lbs/yr) 29.29 20.1723 0.1723 0.5169 26.19 2.24 1.723 1.723 1.723 	* NAME=CHEVRON EL AVRG (lbs/yr) 19.81 * 0.1166 0.3497 17.72 1.515 1.166
0000	PRO=12 STK=1 BG (ug/m ² )	PRO=13 STK=1 BG (ug/m ² 3) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	CO=8 DEV=1 PR	
Vanadium Zinc Methane CS2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS CAS 50000 71432 BBREV 71432 BBREV 71432 Benzene 50000 PAHS-W/O 91203 Maphthalene 75570 Accetaldehyde 75070 Accetaldehyde 70028 Accetaldehyde 700414 Hexane 100414 Hexane 700414 Hexane 100414 Hexane 100414 Hexane 100828 Accolution 74851 Toluene 74851 Toluene 74851 Propylene 7783064 17, 3-Butadiene 74851 Propylene 7783064 17, 3-Butadiene 7783064 17, 3-Butadiene 7783064 17, 1, 2, 4TriMeBenze 115071 NH3 7783064 17, 1, 2, 4TriMeBenze 116072 B[b]fluoranthen 7440439 Corlohexane 1008552 B[b]fluoranthen 7440484 Copher 7440484 Copher 7440665 Mercury 7723140 Selenium 7782976 Mickel 77828 Methane	CS2 CR FACILITY FAC=2505 FPLIER=1 ABBREV BBBREV Benzene Formaldehyde PAHS-W/O Naphthalene Actolein Ethyl Benzene Hexane Toluene Xylenes
7440622 7440666 74828 75150	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 50000 For 1151 PAH 50000 For 1151 PAH 91203 Ace 1151 PAH 91203 PAC 91203 PAC 91203 PAC 1106414 Hex 110643 Acc 100414 Eth 110543 Prol 1106414 Eth 110643 Acc 1, 3 46531 Prol 115071 Pro 7783064 11, 2 1664417 Pro 115071 108883 Car 1664417 Pro 115071 115071 Pro 7783064 11, 2 1664417 Pro 115071 115071 Pro 7783064 11, 2 1664417 Pro 7783064 Car 7440439 Car 7440439 Car 7440656 Mar 7439976 Nic 77339976 Nic 77339976 Nic 77439976 Nic 77339976 Nic 77439976 Nic 77440622 Van 77440652 Van 7440666 Zar 7440666 Zar 7440666 22 Van 7440666 Zar 7440666 Zar 744067 Zar 74	75150 CS2 EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABB 71432 Fox Fox 1151 Nap 71000 FAH 91203 Ace 107028 Acr 100414 Hex 100414 Hex 100414 Hex

	EMS (lbs/yr)
х х х х х х х х х х х х х х х х х х х	SEGUNDO REFINERY STACK 14 MAX (lbs/hr) 0.0001745 * 0.00001745 * 0.0009083 0.0009083 0.0009083 0.0009083 * * * * * * * * * 0.000002371
* * * * * H @ * * * * * * * * * * * * *	NAME=CHEVRON EL SI AVRG (lbs/yr) 1.529 57.55 3.618 0.049 7.956 24.04 ** ** 0.02077 **
	PRO=14 STK=1 BG (ug/m ³ )
	CO=9 DEV=1 P MULTIPLIER MULTIPLIER 11 11 11 11 11 11 11 11 11 11 11 11 11
1, 3-Butadiene Ethylene Fropylene NH3 H2S L2S L,2,4TriMeBenze Cyclohexane Phenol B[a] P B[b]fluoranthen B[g,h,i]perylen Cadmium Chloroform Crhomium Crhomium Crhomium Croper Lead Manganese Mercury Nickel Phosphorus Selenium Vanadium Vanadium Vanadium	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV 71432 BENZENE 50000 PAHS-W/O 51203 BenZene 1151 Naphthalene 75070 Acctaldehyde 107028 Acctaldehyde 100414 Hexane 100414 Hexane 100414 Hexane 100414 Hexane 100414 Hexane 100883 Toluene 100883 Toluene 100883 Toluene 100883 Toluene 100883 Toluene 100883 Toluene 100883 Toluene 100883 Toluene 100883 Tylenes 1210 1,3-Butadiene 465381 Ethylene 1,2,4TriMeBenze 115071 NH3 7783064 1,2,4TriMeBenze 115071 NH3 7783064 1,2,4TriMeBenze 115071 Propylene 7664417 H2S 95636 1,2,4TriMeBenze 110827 Cyclohexane 100852 B[b]fluoranthen 1010827 Phenol 00852 B[b]fluoranthen 191242 Cyclohexane 191242 Cyclohexane 191
106990 463581 74851 115071 7664417 77664417 7783064 95636 67680527 1108952 6766413 67664 1908952 7440433 7440433 7440508 7440508 7440508 7440508 7440508 7440508 7440508 74829955 7440508 74828265 74828265 74828265 74828265 748282655 74828655 74828655 74828655 74828655 74828655 74828655 74828655 74828655 74828655 748287 75150	EMISSIONS FOR FACII SOURCE MULTIPLIER=1 CAS ABE 71432 ABE 71432 Ben 50000 For 1151 Nap 75070 Acr 1100414 Hex 1100414 Hex 110543 Ace 100414 Hex 110543 Acr 110543 Acr 110543 Acr 110543 Acr 110543 Acr 110543 Acr 110543 Acr 110543 Acr 110599 Acr 1105990 1,3 463581 Eth 115071 Prc 7783064 1,3 7783064 1,2 1663 Car 7440439 Car 11220592 B[6 7440439 Cch 191242 Car 67663 Ch 191242 B[6 7440484 Cop 7440508 Cch

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	STACK 16 EMS (lbs/yr)	STACK 18 EMS $(lbs/yr)$
* * * * * * * * * *	<pre>SEGUNDO REFINERY MAX (lbs/hr)     0.004273     0.0004157     *     0.003632     0.003632     0.003632     0.001315     0.001315     *     0.00006914     *     *     0.00006914     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *</pre>	SEGUNDO REFINERY MAX (lbs/hr) * 0.000005862 0.0001846
* * * * * * * * * *	NAME=CHEVRON EL AVRG (lbs/Yr) 37.43 3.642 3.642 31.82 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.91 115.2 24.5 24.5 24.5 24.5 24.5 24.5 24.5 2	NAME=CHEVRON EL AVRG (lbs/yr) * 0.05135 1.617
	PRO=16 STK=1 BG (ug/m ³ )	PRO=18 STK=1 BG (ug/m ³ ) 0 0 0
	CO=10 DBV=1	CO=11 DEV=1 MULTIPLIER 1 1 1 1
Lead Marganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2	FOR FACILITY FAC=2505 CTIPDLER=1 ABBREV Benzene Formaldehyde PAHS-w/o Naphthalene Acctaldehyde Acrolein Ethyl Benzene Hexane Acrolein Ethylene Toluene Xylenes Tylene Tylene Tylene Tylene Tylene Tylene Tylene Tylene Tylene Tylene Tylene Tylene Tylene Tylene Tylene Tylene Tylene Tylene Tylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene Tylylene	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV 71432 Benzene 50000 PAHs-w/o 1151 Naphthalene 91203 Naphthalene
7439921 7439965 7439976 7440020 7723140 7782416 7782492 7440666 7440666 74828 75150	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABE 71432 Ber 50000 Fou 1151 ABE 71151 ABE 71151 ABE 71151 ABE 71151 ABE 7000 Fou 100414 Hex 100414 Hex 100414 Hex 100414 Hex 100414 Hex 100414 Hex 100590 Act 100883 Act 1006990 Act 11,2 463581 Col 7783064 A17 115071 Cor 7664417 NH3 7664417 Cor 7783064 A17 115071 Cor 7783064 A17 115071 Cor 7783064 A17 115071 Cor 7783064 A17 115071 Cor 7783064 Cor 7440439 Cor 7440650 BC 7440620 Nic 7723140 Phc 7723140 Phc 7723140 Phc 7723140 Phc 7723140 Phc 7723140 Phc 7723140 Phc 7440650 Nic 7723140 Phc 778265 Nic 7440650 Cor 7440650 Cor 778260 Cor 7440650 Cor 745000 Cor 775000 Cor 775000 Cor 775000 Cor 775000 Cor 775000 Cor 775000 Cor 77500 Cor 775000 Cor 775000 Cor 775000 Cor 775000 Cor 775000 Cor 77500	EMISSIONS FOR FACII SOURCE MULTIPLIER=1 CAS ABB 71432 Ben 50000 FOX 1151 PAH 91203 Nap

	STACK 19 EMS (lbs/yr)
0.01209 ************************************	<pre>SEGUNDO REFINERY MAX (lbs/hr) ** ** 0.0002258 0.01379 ** ** ** ** ** ** ** ** ** ** ** ** **</pre>
105.9 105.9 ** 39595.19 39595.19 ** 0.00301 0.07702 2.214 0.006072 1.098 1.098 1.098 1.2.805 1.098 1.2.84 0.0006072 1.098 1.2.84 0.0006072 1.2.84 0.006072 1.2.84 0.006072 1.2.84 1.2.84 0.006072 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.84 1.2.	NAME=CHEVRON EL AVRG (lbs/yr) ** ** 0.1978 13.21 13.21 120.8 **
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	PRO=19 STK=1 BG (ug/m^3) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	CO=11 DEV=2 MULTIPLIER
Acetaldehyde Accrolein Ethyl Benzene Hexane Toluene Xylenes 1,3-Butadiene Ethylene Propylene NH3 H2S 1,2,4TriMeBenze Cyclohexane Phenol B[g], i]perylen Cyclohexane Phenol B[g], i]perylen Cyclohexane Phenol B[g], i]perylen Cadmium Chloroform Chloroform Chromium Chromium Cr(VI) Copper Lead Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV 71432 ABBREV 71432 Benzene Formaldehyde 1151 Naphthalene 75070 Acetaldehyde 107028 Acetaldehyde 107028 Accolein 100414 Hexane 100414 Hexane 100414 Hexane 100414 Hexane 100414 Hexane 100414 Hexane 100883 Toluene 108883 Toluene 108883 Toluene 108883 Toluene 108920 1,3-Butadiene 74851 Ethylene 108920 1,3-Butadiene 74851 Ethylene 108952 10,2,4TriMeBenze 110827 Cyclohexane 108952 B[a]P 20592 B[a]P 20592 B[b]fluoranthen 191242 B[g,h,i]perylen
75070 100414 110058 110543 110543 110543 120543 120543 463581 76536 7654417 7664417 7664417 7644043 108952 1912825 7440823 7440853 7440833 7440508 7440508 7440508 7440508 7482892 7482892 7482892 7482892 7482895 748285 751500 75150000000000	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS T1432 ABB 71432 For 50000 For 1151 Nap 75070 PAH 91203 Ace 107028 Acr 107028 Acr 100414 Hex 100543 Tol 110543 Tol 110543 Tol 110543 Cor 7783064 1,7 106990 1,3 7783064 1,7 7783064 1,7 7,7 7,7 7,7 7,7 7,7 100827 1,7 7 7,7 7 7,7 7 7 7 7 7 7 7 7 7 7 7 7

	K 20 EMS (lbs/yr)	K 21 EMS (lbs/yr)
0. 0. 4. * * * * * * * * * * * * * 4. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	SEGUNDO REFINERY STACK MAX (lbs/hr) ** ** ** 0.000001122 0.00003316 0.0003316 0.0003316 ** ** ** ** ** ** ** ** ** ** ** ** **	SEGUNDO REFINERY STACK
44 44 44 44 44 44 44 44 44 44 44 44 44	NAME=CHEVRON EL AVRG (lbs/yr) ** ** ** 0.3611 0.003345 29.36 29.36 29.36 29.36 ** **	NAME=CHEVRON EL
000000000000000000000000000000000000000	PRO=20 STK=1 BG (ug/m ³)	PRO=21 STK=1
	CO=12 DEV=1	CO=12 DEV=2
Cadmium Chloroform Chromium Cr(VI) Cr(VI) Cobalt Cobper Lead Manganese Mercury Nercury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIFLIER=1 CAS 50000 PabBREV 71432 Benzene 50000 PAHS-W/O 91203 Benzene 75570 PAHS-W/O 91203 Maphthalene 100414 Herane 100414 Herane 100414 Herane 100414 Herane 100414 Herane 100414 Herane 100414 Herane 100414 Herane 100414 Herane 100414 Herane 100883 Toluene 100883 Toluene 100883 Toluene 100883 Toluene 100883 Toluene 100883 Toluene 100890 1,3-Butadiene 7480417 H12S 7783064 1,3-Butadiene 7480417 H12S 7783064 1,3-Butadiene 7480417 H12S 7783064 1,3-Butadiene 115071 NH3 7783064 1,3-Butadiene 7440439 Corlonexane 1008952 B[b]fluoranthen 7440484 Copher 7440484 Copher 7440685 Mercury 7440665 Mercury 7783976 Mercury 7440665 Methane 7440665 Methane	EMISSIONS FOR FACILITY FAC=2505
7440439 67663 7440473 18540299 7440508 7439976 7439976 7439976 7439976 7440020 7723140 7723140 7782492 7440622 7440666 7782492 7782892 7782892 7782892 7782892	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABB 71432 Pent 1151 Path 91203 Path 91203 Path 75070 Path 70028 Path 1151 Path 1151 Path 700414 Eth 110543 Path 70128 Path 7012883 Path 701110543 Path 7011115071 Path 701242 Path 701242 Path 701242 Path 7020592 Path 7020592 Path 7020592 Path 7121242 Path 7122124 P	EMISSIONS

<pre>MAX (lbs/hr) 0.0001712 0.00003631 0.000008857 0.00009152 0.00009152 0.00009152 0.00007824 0.0001358 0.0007824 *</pre>	с О С О	SEGUNDO REFINERY STACK MAX (lbs/hr) 0.002161 * 0.001062 * 0.01156 0.01156 0.01156 0.01156 0.01156 0.01156 0.01156 0.01156 0.01152 * *
AVRG (lbs/yr) M 1.5 3.181 0.05586 0.07759 0.8017 0.8017 0.8083 1.785 1.785 1.785 1.795 6.854 5.095 *		NAME=CHEVRON EL SE AVRG (1bs/yr) M 18.93124 9.304161 * 29.26221 101.2666 121.7658 162.8352 162.8352 0.1327 * *
BG (ug/m ² 3) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		PRO=24 STK=1 BG (ug/m [^] 3) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
MULTIPLIER MULTIPLIER 11 11 11 11 11 11 11		CO=14 DEV=1 MULTIPLIER 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Щ	Propyler Propyler NH3 H2S Cyclohe Phenol Phenol B[a]P B[a]P B[a]P B[a]P B[a]P Chromiu	OR FACILITY FAC=2505 IPLIER=1 ABBREV Benzene Formaldehyde PAHs-w/o Naphthalene Acetaldehyde Actolein Ethyl Benzene Hexane Toluene Xylenes Xylenes 1,3-Butadiene Ethylene Propylene NH3 H2S
SOURCE MULTIPLI CAS 71432 50000 1151 91203 75070 110743 100414 110543 100414 110543 100883 1210 106990	148051 115021 766364 7683617 110827 110823 503952 7440432 7440432 7440443 7440443 7439964 74339952 74339952 74400208 74400208 74400208 74400208 74400208 74840522 74840522 7555 7555 7555 7555 7555 7555 7555	EMISSIONS FOR F SOURCE MULTIPLI CAS 71432 50000 1151 91203 75070 10414 100414 100414 100414 110543 1200 106990 463581 74851 74851 7783064

EMS (lbs/yr)

24

	STACK 28 EMS (lbs/yr)
0.0 0010 0015 0315 0315 0315 0315 0315 031	SEGUNDO REFINERY MAX (lbs/hr) ** ** ** ** ** ** ** 0.01159 0.1079 ** ** ** ** **
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NAME=CHEVRON EL AVRG (lbs/yr) *** *** 101.5 944.8 944.8 ***********************************
	PRO=28 STK=1 BG (ug/m ³)
	CO=12 DEV=3
<pre>1,2,4TriMeBenze Cyclohexane Phenol B[a]P B[b]fluoranthen B[g,h,i]perylen Cadmium Chloroform Chloroform Chromium Cr(VI) Cobper Lead Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2</pre>	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV 71432 BEBREV 50000 PAHS-WO 91203 Benzene 50000 PAHS-WO 75070 Actualdehyde 10543 Formaldehyde 107028 Actaldehyde 100414 Hexane 100414 Hexane 100414 Hexane 100883 Toluene 746381 Toluene 108883 Toluene 74851 Penylene 74851 Propylene 74851 Hizs 7783064 1,2,4TriMeBenze 108952 B[a]P 7440473 Cyclohexane 108952 B[a]P 7440473 Chromium 67663 Chromium 67663 Chromium 110827 Cobalt 7440473 Cr(VI) 7440484 Cobalt 7439956 Manganese 743020 Phosphorus 7430976 Mickel 743020 Phosphorus 744020 Phosphorus 7782492 Selenium
95636 110827 10827 10852 10852 250328 250328 7440433 67663 7440433 7440433 7440433 7440433 7440484 7433951 7433951 74828 74828 74828 74828 74828 74828 7782895 7782895 7782895 7782895 7782895 778285 778585 778585 778585 778585 778585 778585 778585 778585 778585 778585 7785855 778585 778555 778555 778555 778555 7785555 7785555 7785555 7785555 7785555 7785555 77855555 7785555 7785555 77855555 77855555 778555555 77855555 77855555555	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABB 71432 ABB 71432 PAH 91203 For 71510 For 710128 Acr 1151 Nap 75070 Acr 1100414 Hex 1100414 Eth 110543 Acr 110883 Acr 110883 Acr 11, 2 1210 Col 7664417 NH3 7664417 Pro 7664417 1, 2 10883 Acr 11, 2 1230590 Col 74851 Cor 7664417 Hex 7783064 Acr 108852 Cor 7664417 Acr 7783064 Cop 7440439 Cor 7440439 Cor 744063 Cor 744063 Cor 744063 Cor 7440020 Ner 7440020 Ner 7783976 Ner 7782492 Sel

(lbs/yr)

		EWS
	STACK 29	STACK 30
* * * *		SEGUNDO REFINERY MAX (lbs/hr) 0.00002959 * 0.0002252 * 0.0001038 0.00005395 0.0003299 0.0007474
* * * *	NAME=CHEVRON EL AVRG (lbs/yr) 3.063 3.063 4. 2.31 9.695 11.01 11.01 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.	NAME=CHEVRON EL AVRG (lbs/yr)
0000	STK=1 (ug/m ³) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	STK=1 (ug/m ² 3) 0 0 0 0 0 0 0 0 0 0 0 0 0
	PRO=29	PRO=30 BG (u
~ ~ ~ ~	22 MM 17 17 18 19 4 19 19 19 19 19 19 19 19 19 19 19 19 19	7 DEV=1 MULTIPLIER
		CO=17 MUL
3 O	EMISSIONS FOR FACILITY FAC=2500 CAS ABREV SOURCE MULTIPLIER=1 SOURCE MULTIPLIER=1 SOURCE MULTIPLIER=1 T1432 Benzene T151 Naphthalene T5070 Formaldehyde T07028 Formaldehyde T07028 Acrolein T07028 Acrolein T07028 Acrolein T07028 Acrolein T07028 Acrolein T07028 Acrolein T070290 L, 3-Butadiene T64417 Hexane T06990 1, 3-Butadiene T664417 H128 T783064 1, 2, 4TriMeBenze T664317 H128 T664417 H128 T664417 H128 T783064 1, 2, 4TriMeBenze T664317 H128 T664317 H128 T664317 H128 T664317 H128 T664317 H128 T664317 H128 T664317 H128 T783064 1, 2, 4TriMeBenze T664317 H128 T6001 L9001 T6001 L9001 T6001 L900 T6001 L900 T6001 L900 T744043 C0001 C000 C000 Form T44043 C0001 C000 Form T744043 C0001 C000 Form T744043 C0001 C000 Form T744066 Marganese Marganese T733140 Selenium T7440620 Selenium T744065 Selenium T744065 Selenium T74828 Methane T74828 T5150 CS2	EMISSIONS FOR FACILITY FAC=2505 SOURCE MULTIPLIER=1 CAS ABBREV 71432 Benzene 50000 Formaldehyde 1151 Naphthalene 75070 Acetaldehyde 107028 Acetaldehydehydehydehydehydehydehydehydehydehy
7440622 7440666 74828 75150	EMLISSIONS FOR FACILEMLISSIONS FOR FACILRent CASSOURCE MULTIPLIEREICAS500001151 PAH91203 Nap75070 PAH91203 Nap7007028 Eth110543 Nap75071 PAH110543 Acr100414 Eth110543 Trol108983 Trol1,3463581 Car7664417 NH2S95636 1,377830644 Hets108952 Phe7664417 NH2S95636 Car1,37664417 NH2S95636 Car1,37664417 Car7664417 Car7783064 Car7440473 Chr1108952 Phe7440473 Chr1108952 Phe7440473 Chr1108952 Phe7439955 Phe7439955 Phe7440666 Nic7723140 Pho7723140 Pho773140 20 Cal7440655 Nic7723140 Pho7723140 Pho77241	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ADB 50000 For 1151 PAH 91203 Ace 75070 Ace 107028 Acr 100414 Eth 1106413 Hex 100883 Tol 1210 Xyl

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(lbs/yr)

	MAX (lbs/hr) MAX (lbs/hr) ** 0.009818 ** 0.001259 0.000801 ** ** ** ** ** **
0 0 4. 4. 0 4. 4. 0 7. 7 7. 7 7. 7 7. 7 7. 7 7. 7 7. 7 7	AVRG (1bs/yr) AVRG (1bs/yr) 86.01 86.01 11.03 7.017 7.017 8.** *** *** ***
	BG (ug/m ²) BG (ug/m ²) 1 = 112 1
1, 3-Butadiene CarbonylSulfide Ethylene Propylene NH3 H2S 1,2,4TriMeBenze Cyclohexane Phenol B[a] P B[a] P B[b]fluoranthen B[a] P B[b]fluoranthen Phenol B[a] P B[b]fluoranthen Cadmium Chloroform Claron Cobalt C	Bandeshors for the formal dehydeSOURCE MULTIPLIER=1ABBREV71432Formaldehyde50000Formaldehyde50000Formaldehyde1151Naphthalene75070Accetaldehyde91203Naphthalene91203Accetaldehyde91203Accetaldehyde100414Hexane100414Hexane100414Hexane100414Hexane100414Hexane100414Hexane100414Hexane1005901,3-Butadiene100883Toluene110543Toluene110591NH374851Propylene77830641,2,4TriMeBenze110827Cyclohexane110827Cyclohexane110827Phenol108952B [a] P205992B [b] fluoranthen110827Cyclohexane110827Cyclohexane110827Cyclohexane110827Cyclohexane110827Cyclohexane110827Cyclohexane110827Cyclohexane110827Cyclohexane110827Cyclohexane110827Cyclohexane110827Cyclohexane110827Cyclohexane110827Cyclohexane110827Cyclohexane110827Cyclohexane110828Cyclohexane110829Cyclohexane110829Cyclohexane110829Cyclohexane
106990 148390 148591 148591 148591 148541 7485411 10827 110827 1032952 1032952 1032952 1032952 7440403 7440403 7440508 7440508 7440508 7440522 7480622 7480622 7480622 75150 75150	$\begin{array}{llllllllllllllllllllllllllllllllllll$

		MAX 6.38E-05 1.12E-04 0.00E+00
	(lbs/yr)	BLOOD 6.38E-05 0.00E+00 0.00E+00
	S ME	SKIN 0.00E+00 0.00E+00 0.00E+00
	STACK 32	RESP 0.00E+00 0. 1.12E-04 0. 0.00E+00 0.
0.00001373	REFINC 05(hr/ 00210113 00210113 00210113 00210113 00000000	REPRO 6.38E-05 0.000 0.00E+00 1.122 0.00E+00 0.001
0	BEGU MAX	KIDN .00E+00 (
0.01	NAME=CHEVRON I AVRG (lbs/yr) 20.587 0.12111 11.2111 1.5743 1.5743 1.5743 1.5743 ************************************	IMMUN 6.38E-05 0. 1.12E-04 0. 0.00E+00 0.
		GILV 0.00E+00 0.00E+00 0.00E+00
	BG (ug/m [*] 3) BG (ug/m [*] 3) BG (ug/m [*] 3) 00 00 00 00 00 00 00 00 00 00 00 00 00	EYE 0.00E+00 1.12E-04 0.00E+00
	Жааааааааааааааааааааааааааааааааааа а ш н Хааааааааааааааааааааааааааааааааааа	ENDO 0.00E+00 0.00E+00 0.00E+00
	CO=19 D MULTI	DEVEL 6.38E-05 0.00E+00 0.00E+00
a a	<pre>/ FAC=2505 // ie cdehyde cdehyde cdehyde in in</pre>	BONE 0.00E+00 0.00E+00 0.00E+00
Lead Manganese Mercury Nickel Phosphorus Selenium Vanadium Zinc Methane CS2	ACILITY ABBREV ABBREV Benzer Formal Accetal Accole Ethyle Ethyle Frouluer Xylene Toluer Xylene Toluer Xylene Toluer Carbor Cyclof Phenol B[g]hf B[g]hf B[g]hf B[g]hf Copper Coppe	TOR 1899 CNS 0.00E+00 0.00E+00
ουνοοφα	EMISSIONS FOR FACIL SOURCE MULTIPLIER=1 CAS ABB 71432 ABB 71432 Ben 50000 FOX FOX 71151 PAH 91203 FOX 75070 ACC 75070 ACC 100414 Eth 1007028 ACC 100883 Trol 1007028 ACC 100883 Trol 1210 1, 3 465581 Cox 74851 Pro 74851 Pro 7783064 11, 2 108952 Phe 74851 Pro 7783064 Cop 7440439 Cob 7440439 Cob 7440439 Cob 7440439 Cob 7440439 Cob 7440439 Cob 7440439 Cob 744066 Mer 7439976 Nic 7439976 Pho 743020 Pho 7440622 Cob 7440622 Cob 744066 Mer 775150 COb	HI, RECEP CV 0.00E+00 0.00E+00 0.00E+00
7439921 7439965 7439965 7440020 7723140 7782492 7440666 74828 74828 75150	EMISSION SOURCE M SOURCE M CAS 50000 11151 91151 91203 71690 1004144 110543 110543 110543 110543 1210 7664417 7783064 108952 1915636 746633 7440439 550328 50328 50328 108952 50328 7440439 7440439 7440439 7440439 7440439 7440666 7440666 77839926 7440666 77839926 77430200 77824923 7440666 77839926 77430200 77824923 7440666 77839926 77440666 77824923 77440666 77480666 7782492 77824926 77480666 7782492 7782492 7782492 77480666 7782492 7782492 7782492 77480666 7782492 778269 7787777787777777777777777777777777777	ACUTE H CHEM 0001 (0002 (0003 (

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