

DOCKETED

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June 27, 2019

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Subject: Proposed for AltaGas Blythe Energy Inc.:
Petition to Amend CEC Project Number 99-AFC-08C

Ms. Dyas:

Blythe Energy requests the California Energy Commission (Commission) consider the attached Petition to Amend CEC Project Number 99-AFC-08C Conditions of Certification (COC), Specific Condition 15.

(Blythe Energy has also submitted under separate cover to the Mojave Desert Air Quality Management District a Permit Minor Modification request for Condition III (B) (15).)

Blythe Energy requests modification of Specific Condition 15, which requires quinquennial VOC characterization stack testing under cold-, warm-, and hot-startup conditions, and under shutdown conditions.

Testing all three startup types is costly and burdensome, as detailed in the attached documents.

Blythe Energy proposes amendment of AQ COC Specific Condition 15, replacing the requirement for characterization of VOC emissions under cold startup, warm startup, hot startup, and shutdown conditions with a requirement to calculate VOC emissions during each startup and shutdown using the CEMS and applied emissions factors.

The proposed Commission COC Permit Amendment would not result in any environmental impacts or inconsistency with any Laws, Ordinances, Regulations, or Standards.

If you have any questions please do not hesitate to contact Ramon Campos.

I declare, under penalty of perjury under the laws of the state of California, that, based on information and belief formed after reasonable inquiry, all information provided in this letter and the attached documents is true, accurate, and complete.

Blythe Energy Inc.



Digitally signed by Steven Brussee
DN: cn=Steven Brussee, o=ASUS, ou=AltaGas Services (U.S.) Inc.,
email=steven.brussee@altagas.ca, c=US
Date: 2019.06.27 14:08:59 -07'00'

Steven Brussee
Senior Manager, Environment & Safety – Power

copy to: Mr. Sean Gregory, DSG Solutions LLC

Petition to Amend Blythe Energy Project (99-AFC-08C)

Prepared by:

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June 27, 2019

PETITION TO AMEND BLYTHE ENERGY PROJECT

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ACRONYMS AND ABBREVIATIONS

AQ	Air Quality
BEP	Blythe Energy Project
Blythe Energy	Blythe Energy, LLC
CAISO	California Independent System Operator
CEC	California Energy Commission
CO	carbon monoxide
COC	Condition of Certification
CTG	Combustion Turbine Generator
District	Mojave Desert Air Quality Management District
Project	Blythe Energy Project
LORS	Laws, Ordinances, Regulations, and Standards
PTO	Permits to Operate
SCE	Southern California Edison
SU/SD	Startup/Shutdown
VOC	Volatile Organic Compounds

1.0 INTRODUCTION

1.1 Background

Blythe Energy Project (Blythe Energy) is a nominal 520-megawatt (MW) combined-cycle power plant located in the City of Blythe, north of Interstate 10 and approximately 7 miles west of the California/Arizona border. The California Energy Commission (CEC) issued a license for Blythe Energy, LLC (Blythe Energy) on March 21, 2001. Commercial operations began in July 2003.

AQ COC Specific Condition 15 requires VOC stack testing during a cold startup, a warm startup, a hot startup, and a shutdown – at least once every five years on each of the two natural gas-fired combustion turbines.

Testing all three startup types is costly and burdensome, as presented in Section 1.3, below.

Blythe Energy proposes amendment to this condition, as presented in Section 1.2, below.

An application for the same changes to the facility air permits is concurrently being submitted to the Mojave Desert Air Quality Management District (District).

1.2 Description of Proposed Amendment

Consistent with Sections 1769(a)(1)(A) and (B) of the Siting Regulations, this section includes a description of the proposed change; the necessity for the change is presented in Section 1.3.

Blythe Energy proposes an amendment to AQ COC Specific Condition 15, replacing the requirement for characterization of VOC emissions under cold startup, warm startup, hot startup, and shutdown conditions with a requirement to calculate VOC emissions during each startup and shutdown using the CEMS and applied emissions factors.

In accordance with AQ COC Specific Condition 15, Blythe Energy contracts Start Up/Shut Down (SU/SD) source tests at least once every five years on the each of the two natural gas-fired combustion turbines Units 1 and 2 (CTG1 and CTG2) (identical Siemens F Class V84.3A combustion turbines equipped with a supplementary fired heat recovery steam generator).

Blythe Energy in 2003, 2008, and 2014 conducted the required VOC characterization source testing on each Unit during four discrete SU/SD events:

- Cold Startup,

- Warm Startup,
- Hot Startup, and
- Shutdown

The definitions of each of the four events, as stated in a previous version of the Permits to Operate (PTO), are:

- Cold Startup: a startup when the combustion turbine generator (CTG) has not been in operation during the preceding 48 hours.
- Hot Startup: a startup when the CTG has been in operation during the preceding 8 hours.
- Warm Startup: as a startup that is not a hot or cold startup.
- Shutdown: the period beginning with the lowering of equipment from the base load and lasting until fuel flow is completely off and combustion has ceased.

Proposed text for this amendment is presented in Section 2.1.3, below.

The proposed amendment will have no additional impacts beyond those identified in the Commission Decision and subsequent amendments to the BEP COC. No increases in emissions or other environmental impacts will result from the proposed changes.

1.3 Necessity of Proposed Changes

Sections 1769 (a)(1)(B) and (C) of the CEC Siting Regulations (20 Cal. Code Reg. §§1701 et seq.) require a discussion of the necessity for the proposed changes to the Project and a discussion of whether this amendment is based on information that was known by the petitioner during the certification proceeding.

Blythe Energy is requesting this amendment because characterization of VOC emissions under the three startup types listed in Specific Condition 15 of the AQ COC is costly and burdensome:

- A cold startup requires offline status for 48 hours prior to the event.
- A warm startup requires offline status for 8 hours prior to the event.
- These offline periods reduce the facility's availability with the CAISO / Southern California Edison; the reduced availability results in lost capacity and lost ancillary services as required under respective contracts / agreements; which in turn results in lost revenue and penalties.
- Characterization of emissions under these three scenarios also requires the source testing vendor to be onsite for three discrete startup events (cold, warm, and hot), for four (plus) days, with possible multiple mobilizations.
- During source testing, the plant must moderate operations according to source test protocol, and not according to instruction from the CAISO or SCE, which negatively affects Bulk Electric System reliability / grid stability, and has further significant financial implications.

This proposed amendment provides a balance to ensure conservative calculation of VOC emissions during startups and shutdowns without the above-presented negative implications.

This amendment is not based on information that was known by the petitioner during the certification proceeding

1.4 Summary of Environmental Impacts

Section 1769 (a)(1)(E) of the CEC Siting Regulations requires that an analysis be conducted to address impacts that the proposed revision may have on the environment and proposed measures to mitigate significant adverse impacts. Section 1769 (a)(1)(F) requires a discussion of the impacts of proposed revisions on the facility's ability to comply with applicable laws, ordinances, regulations, and standards (LORS).

The proposed changes referenced in this Petition will not result in any additional impacts beyond those already analyzed in the Commission Decision and subsequent amendments or the Final Determination of Compliance. Section 2.0 discusses the potential impacts of the proposed changes on the environment, as well as the consistency of the proposed revision with LORS.

1.5 Consistency of Amendment with License

Section 1769 (a)(1)(D) of the CEC Siting Regulations requires a discussion of the consistency of each proposed project revision with the assumptions, rationale, findings, or other basis of the Commission Decision and whether the revision is based on new information that changes or undermines the bases of the Commission Decision. Also required is an explanation of why the change should be permitted.

The proposed amendment does not undermine the assumptions, rationale, findings, or other basis of the Commission Decision for the Project or subsequent approved amendments. Application of conservative emissions factors provides conservative calculation of VOC emissions, and continuous monitoring of CO provides the CEC with reasonable assurance that good combustion is being maintained – and therefore that VOC emissions are being minimized to the extent practicable. The proposed amendment will have no additional impacts beyond those analyzed in the Commission Decision and subsequent amendments.

2.0 ENVIRONMENTAL ANALYSIS OF THE PROJECT CHANGES

Blythe Energy has reviewed the amendment proposed herein to determine whether the change will result in any environmental impacts that were not analyzed by the CEC when it previously approved the Project and subsequent amendments.

The following disciplines will not be affected by the proposed change in this amendment and are not addressed below: Facility Design, Efficiency, Reliability, Transmission System Engineering, Transmission Line Safety and Nuisance, Biological Resources, Cultural Resources, Geologic Hazards and Resources, Hazardous Materials Handling, Land Use, Noise, Paleontological Resource, Socioeconomics, Soils, Traffic and Transportation, Visual Resources, Waste Management, Water Resources, Worker Safety and Fire Protection. In addition, although Air Quality-related amendments typically have the potential to affect Public Health impacts, the proposed amendment still requires SU/SD stack testing at least once every five years in addition to the annual compliance testing; therefore, Public Health is not addressed further. The only discipline that could be affected by the proposed amendment is Air Quality, which is discussed in detail below.

As detailed below, the proposed amendment does not cause significant impacts in any disciplines beyond those previously analyzed.

2.1 Air Quality

Blythe Energy proposes to eliminate stack testing as required by AQ COC Specific Condition 15.

The proposed change in AQ COC Specific Condition 15 will not involve any physical changes to or changes in the method of operation of the gas turbines, and will therefore not increase emissions.

Conversely, the proposed change will eliminate emissions associated with startups that occur for the sole purpose of conducting VOC stack testing.

2.1.1 Previously Submitted VOC Test Results

Table 1-1 summarizes the previous VOC source test results for Blythe Energy conducted by Delta Air Quality Services, as measured/calculated in 2003, 2008, and 2014. These VOC test results were previously submitted to the District in accordance to the COC AQ-T15.

Emissions factors for VOCs under startup and shutdown conditions are calculated from these data.

Table 1-1: VOC Test Results Summary for Blythe Energy

		Unit 1 / CTG1		Unit 2 / CTG2	
		lb/hr	lb/mmBtu	lb/hr	lb/mmBtu
2014	cold startup	2.08	0.0033	0.00	0.0000
2008	cold startup	14.57	0.0120	13.19	0.0120
2003	cold startup	0.00	0.0000	0.43	0.0010
2014	warm startup	0.00	0.0000	0.00	0.0000
2008	warm startup	10.95	0.0100	12.37	0.0120
2003	warm startup	4.26	0.0040	0.00	0.0100
2014	hot startup	0.00	0.0000	0.00	0.0000
2008	hot startup	15.79	0.0140	14.37	0.0130
2003	hot startup	0.00	0.0000	1.08	0.0020
2014	shutdown	0.00	0.0000	0.00	0.0000
2008	shutdown	12.32	0.0640	21.40	0.0290
2003	shutdown	2.50	0.0020	0.40	0.0030
average	cold startup	5.55	0.0051	4.54	0.0043
average	warm startup	5.07	0.0047	4.12	0.0073
average	hot startup	5.26	0.0047	5.15	0.0050
average	shutdown	4.94	0.0220	7.27	0.0107
average startup EF		0.0048 lb/mmBtu		0.0056 lb/mmBtu	
shutdown EF		0.0220 lb/mmBtu		0.0107 lb/mmBtu	

By applying the average emissions factors as presented in the two highlighted rows, VOC emissions can be conservatively calculated by the CEMS.

Blythe Energy is proposing to modify COC AQ-T15 – replacing the requirement to characterize VOC emissions by quinquennial stack testing with a requirement to calculate the VOC emissions

during every startup and shutdown event using the stated emissions factors. Therefore, an edit to COC AQ-T15 is necessary.

2.1.2 Consistency with Laws, Ordinances, Regulations, and Standards

The Commission Decision for BEP found the facility to be in compliance with all applicable LORS. As amended, the BEP will continue to comply with all applicable LORS; the proposed amendments do not alter the conclusions or assumptions in the Commission Decision and subsequent amendments.

2.1.3 Conditions of Certification

Consistent with the requirements of the CEC Siting Regulations Section 1769 (a)(1)(A), this section addresses the proposed amendment to the Project's Conditions of Certification.

Current AQ-15 text, proposed for replacement:

The o/o shall, at least as often as once every five years (commencing with the initial compliance test), include the following supplemental source tests in the annual compliance testing:

- a. Characterization of cold startup VOC emissions;*
- b. Characterization of warm startup VOC emissions;*
- c. Characterization of hot startup VOC emissions;*
- d. Characterization of shutdown VOC emissions.*

Proposed AQ-15 language:

The o/o shall apply emissions factors of:

0.0048 lb/mmBtu / 0.0056 lb/mmBtu for all CTG1 / CTG2 startup events, respectively.

The o/o shall apply emissions factors of

0.0220 lb/mmBtu / 0.0107 lb/mmBtu for all CTG1 / CTG2 shutdown events, respectively.

VOC emissions during startup and shutdown periods will be calculated by the CEMS using these emissions factors.

Blythe Energy will propose revision of these emission factors if future stack tests allow calculation of emission factor averages with greater statistical confidence.

3.0 POTENTIAL EFFECTS ON THE PUBLIC AND PROPERTY OWNERS

This section addresses potential effects of the proposed project amendment on nearby property owners, the public, and parties in the application proceeding, pursuant to CEC Siting Regulations (Title 20, CCR, Section 1769 [a][1][I]).

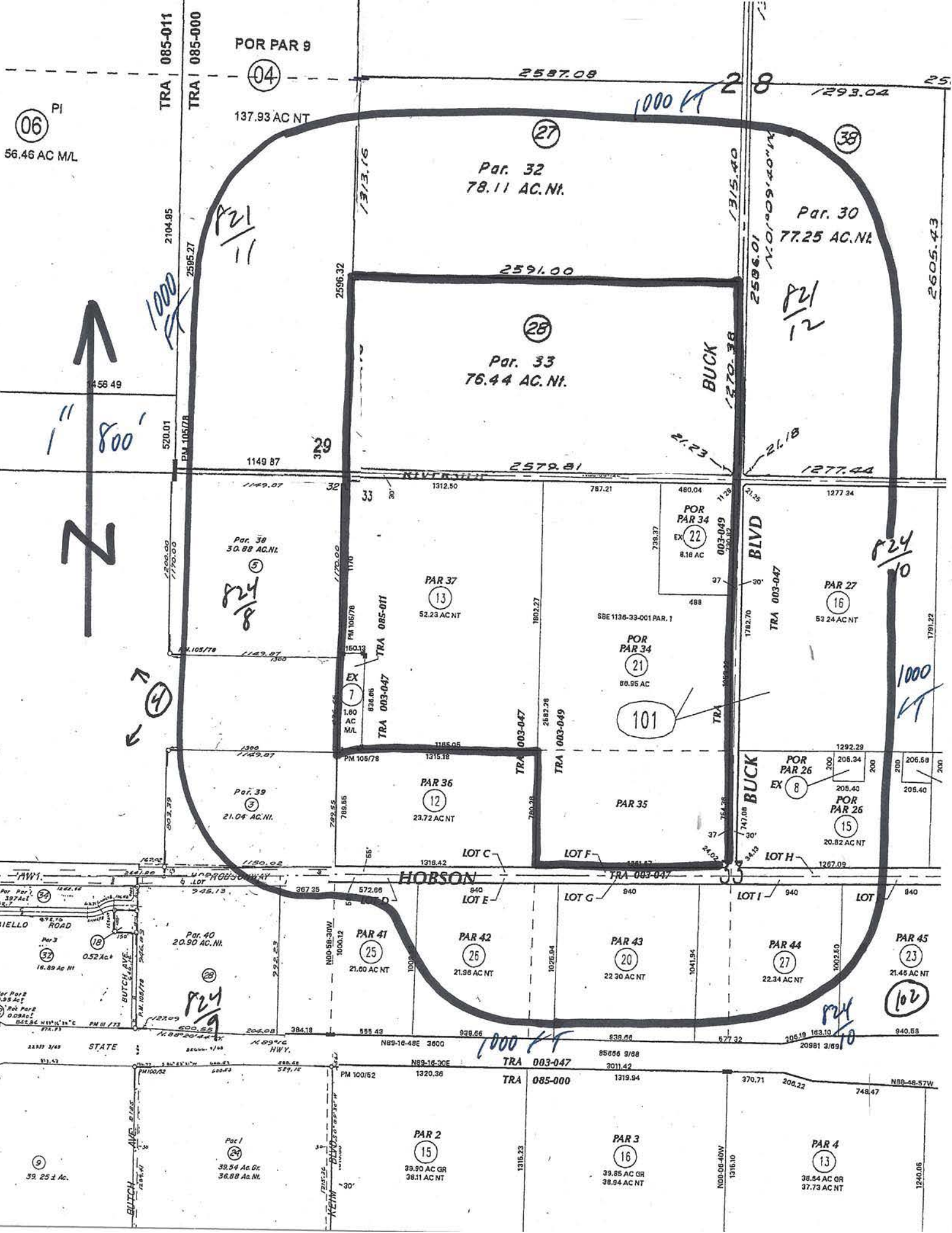
The proposed amendment will not differ significantly in potential effects on nearby property owners, the Public, and Parties to the proceeding beyond those previously analyzed.

4.0 LIST OF PROPERTY OWNERS

As required by CEC Siting Regulations Section 1769(a)(1)(H), a list of property owners potentially affected by this amendment is to be provided with this Petition. The list of property owners within 1,000 feet of the project site is provided as Appendix A.

AltaGas Blythe Energy
California Energy Commission Petition to Amend AQ-T15

Petition to Amend
AQ-T15 – Appendix A
Property Owners within 1,000 ft of the Subject Site



PI
06
56.46 AC M/L

TRA 085-011
TRA 085-000

POR PAR 9

04

137.93 AC NT

2587.08

1000 FT 28

293.04

25

Par. 32
78.11 AC. NT.

27

Par. 30
77.25 AC. NT.

38

Par. 33
76.44 AC. NT.

28

p21/12

1" 800'



1000 FT

p21/11

BUCK

N. 01°09'40"W

2605.43

520.01

PM 105/78

1149.87

329

2579.81

1277.44

Par. 38
30.88 AC. NT.

5

p24/8

PAR 37
13

52.23 AC NT

POR PAR 34
EX 22
8.18 AC

003-049

PAR 27
16

53.24 AC NT

101

101

p24/10

1000 FT

Par. 39
21.04 AC. NT.

7

PAR 36
12

23.72 AC NT

PAR 35

POR PAR 26
EX 8

208.40

POR PAR 26
15

20.82 AC NT

HOBSON

LOT C
LOT E

LOT F

BUCK

LOT H

AWY.

Par. 37
397 Ac.

Par. 3
0.52 Ac.

Par. 32
16.82 Ac NT

Par. 32
0.95 Ac

Par. 32
0.08 Ac

STATE

1233 3/48

913.43

1100/52

Par. 1
39.54 Ac. Gr

36.88 Ac. NT

39.25 Ac.

9

Par. 40
20.90 AC. NT.

28

p24/9

PAR 41
25

21.60 AC NT

PAR 42
26

21.98 AC NT

PAR 43
20

22.30 AC NT

PAR 44
27

22.34 AC NT

PAR 45
23

21.46 AC NT

102

NB9-16-48E 3600

1020.38

TRA 003-047

TRA 085-000

85866 9/88

3011.42

PAR 3
16

39.85 AC GR

38.94 AC NT

PAR 4
13

38.84 AC GR

37.73 AC NT

1240.06

940.68

940.68

APN_D	FIRSTNAME	LASTNAME	TITLE	ORG	ADDRESS	ADDRESS_2	CITY	STATE	ZIP
821-110-004				GILA FARM LAND LLC	113 S LA BREA AVE		LOS ANGELES	CA	90036
821-120-027				GILA FARM LAND LLC	113 S LA BREA AVE		LOS ANGELES	CA	90036
821-120-028				ALTAGAS POWER HOLDINGS US INC	1411 THIRD ST #A		PORT HURON	MI	48060
821-120-038				GILA FARM LAND LLC	113 S LA BREA AVE		LOS ANGELES	CA	90036
824-080-003				GILA FARM LAND LLC	113 S LA BREA AVE		LOS ANGELES	CA	90036
824-080-003				OCCUPANT	15550 W HOBSON WAY		BLYTHE	CA	92225
824-080-004				COUNTY OF RIVERSIDE	P.O. BOX 1180		RIVERSIDE	CA	92502
824-080-004				OCCUPANT	16870 W HOBSON WAY		BLYTHE	CA	92225
824-080-005				GILA FARM LAND LLC	113 S LA BREA AVE		LOS ANGELES	CA	90036
824-101-007				COUNTY OF RIVERSIDE	P.O. BOX 1180		RIVERSIDE	CA	92502
824-101-012				ALTAGAS SONORAN ENERGY Inc.	1411 THIRD ST #A		PORT HURON	MI	48060
824-101-013				ALTAGAS SONORAN ENERGY Inc.	1411 THIRD ST #A		PORT HURON	MI	48060
824-101-015				GILA FARM LAND LLC	113 S LA BREA AVE		LOS ANGELES	CA	90036
824-101-016				GILA FARM LAND LLC	113 S LA BREA AVE		LOS ANGELES	CA	90036
824-101-021				BLYTHE ENERGY	P.O. BOX 1210		BLYTHE	CA	92226
824-101-021				OCCUPANT	385 N BUCK BLVD		BLYTHE	CA	92225
824-101-022				USA	P.O. BOX 281213		LAKEWOOD	CO	80228
824-102-020				GILA FARM LAND LLC	113 S LA BREA AVE		LOS ANGELES	CA	90036
824-102-026				GILA FARM LAND LLC	113 S LA BREA AVE		LOS ANGELES	CA	90036
824-102-027				GILA FARM LAND LLC	113 S LA BREA AVE		LOS ANGELES	CA	90036