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February 14, 2011

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DOCKET
09-AFC-3
DATE Feb 14 2011
RECD. Feb 14 2011

Mr. Craig Hoffman
Project Manager
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Subject: Mariposa Energy Project (09-AFC-03)
Applicant's Rebuttal Testimony on Aviation and Hazardous Materials Handling

Dear Mr. Hoffman:

Attached please find 1 hard copy and 1 electronic copy of the Mariposa Energy Project Applicant's Rebuttal Testimony on Aviation and Hazardous Materials Handling.

If you have any questions about this matter, please contact me at (916) 286-0348.

Sincerely,

CH2M HILL

Doug Urry
AFC Project Manager

Attachment
cc: C. Curry, Mariposa Energy, LLC.
B. Buchynsky, Mariposa Energy, LLC.

Mariposa Energy Project

(09-AFC-03)

Applicant's Rebuttal Testimony on Aviation and Hazardous Materials Handling

Submitted to

California Energy Commission

Submitted by

Mariposa Energy, LLC

With Assistance from

CH2MHILL
2485 Natomas Park Drive
Suite 600
Sacramento, CA 95833

February 2011

Contents

Mariposa Energy Project: 09-AFC-3

AVIATION: REBUTTAL TESTIMONY OF BARRY YURTIS AND RYAN OLSON

Q1: Please state your names and occupations.

A1: My name is Barry Yurtis. I am an independent aviation consultant for Applicant. My experience includes aviation consulting over a broad range of aviation issues. My qualifications include over 40 years of aviation experience including: 25 year career with the FAA, retiring as a senior Air Traffic Manager; flight experience: over 2500 flight hours as United States Marine Corps Naval Flight Officer, and civilian pilot ratings: Commercial pilot, single and multi-engine land; Instrument rating; Certified Flight Instructor; Multi-engine Instructor; Instrument Instructor; Ground Instructor; Air Taxi, FAR Part 135 single pilot, multi-engine authorization; FAR Part 141 FAA Approved Flight School,Chief Flight Instructor.

A1: My name is Ryan Olson. I am flight test engineer with the National Test Pilot School/National Flight Test Institute and consultant for Applicant. My qualifications include over 8 years of experience as a pilot, flight instructor, and flight test engineer. My flight experience includes over 1000 hours of flight time and my certifications and ratings include: Commercial Pilot; Airplane Single Engine Land and Sea; Multiengine Land, Rotorcraft Helicopter, Glider; Certified Single/Multi-Engine Airplane and Helicopter Instructor; and Instrument Airplane and Helicopter Instructor.

Q2: Mr. Barry Yurtis, you provided Direct Testimony in this proceeding, and filed declarations and statement of qualifications as part of the Direct Testimony, is that correct?

A2: Yes.

Q3: Mr. Ryan Olson, have you provided Direct Testimony in this proceeding, and filed a declaration and statement of qualifications as part of the Direct Testimony?

A3: No, I did not provide Direct Testimony in this proceeding. My declaration and statement of qualifications are provided in Attachments A and B, respectively, to this Rebuttal Testimony.

Q4: What is the purpose of your Rebuttal Testimony?

A4: The purpose of my testimony is to provide rebuttal to the Exhibits 701, 702, and 703.

Q5: Please provide a brief description of those exhibits.

A5: Exhibit 701 is the Declaration of Clay Bonavito. Exhibit 702 is the Declaration of Randy Howell. Exhibit 703 is the declaration of Ron Wagner.

Q6: In Exhibit 702, Mr. Howell states that "With the diverse aircraft at the Byron airport such as ultra lights, parachute operations, glider ops, and many general aviation aircraft based at Byron as well many general aviation aircraft visitors, the flight patterns get very congested." Do you agree that the flight patterns at Byron Airport are congested?

A6: I do not agree that the Byron Airport is congested.

According to FAA standards, Byron Airport is neither a busy nor a congested airport. Byron airport management reports the Byron annual traffic count at 60,000 annual operations. Byron does not

even have the minimum number of aircraft operations and complexity factors to be considered for the FAA's lowest level of Airport Traffic Control Tower ("ATCT"). The FAA has five levels of ATCTs (Levels (I, II, III, IV, and V). ATCT levels are based on both complexity factors and the number of annual takeoffs and landings (traffic count) at the airport. Complexity factors include, but are not limited to the number and configuration (parallel/crossing) of runways, scheduled air taxi commuter operations and scheduled air carrier operations, number and type of instrument approach procedures servicing the airport, annual number of instrument approach procedures conducted at the airport and fleet mix (general aviation propeller driven aircraft, general aviation jet aircraft, air carrier jet aircraft, helicopters, etc). Level I ATCTs, the lowest level, are represented by airports such as Palmdale, Modesto, Santa Maria, and Oxnard, and are staffed with FAA contract controllers, not FAA employees. SFO, JFK, DFW, etc. are examples of Level V FAA ATCTs.

Although traffic count is only one of many factors considered by the FAA in its decision to establish an ATCT at a non-towered airport, experience has shown that an airport must report at least 90,000 to 100,000 annual operations, sustained for two consecutive years, before an FAA benefit/cost analysis will generally result in justification for a Level I ATCT.

Additionally, while diverse types of aircraft operating from an airport may contribute to airport complexity, the relatively low Byron airport traffic count, as reported by airport management and validated by FAA provided flight track data, indicates that times of "traffic pattern congestion" are relatively infrequent. Most notably, since MEP is not even located within the Byron airport traffic pattern airspace, alleged traffic pattern congestion, as presented by Intervenors as an argument against MEP, is irrelevant.

Intervenors have provided no evidence whatsoever to confirm that 1) diverse types of aircraft operating out of Byron airport constitute congested airport traffic patterns, and 2) MEP, which is located outside of Byron traffic pattern airspace, will negatively impact the Byron traffic patterns.

The FAA, however, in issuing the FAR Part 77 Determinations of No Hazard to Air Navigation for MEP, has already analyzed Byron airport operations and associated airspace, and has concluded that MEP will not present a Hazard to Air Navigation, either at the airport itself or in the en-route airspace adjoining the airport.

Q7: In Exhibit 702, Mr. Howell states that he has "concern[s] with the proposed construction of power plants if restrictions/limitations would be imposed to the flight pattern or instrument approaches." Will restrictions or limitations on flight patterns or instrument approaches be imposed as a result of the MEP?

A7: In accordance with the provisions of FAR Part 77, the FAA conducted an Aeronautical Study of the potential impact of MEP on the safety of the National Airspace system. This Aeronautical Study included an analysis of Visual Flight Rules (VFR) traffic patterns at and in the vicinity of Byron Airport. Also, as required by the provisions of FAR Part 77, the Aeronautical Study included an analysis of MEP as it related to the Byron instrument approach procedure (RNAV (GPS) RWY 30), by analyzing MEP against the standards set forth in the U.S. Standard for Terminal Instrument Procedures (TERPS). This FAA analysis determined that MEP would not conflict with any VFR airport traffic or flight patterns, or TERPS standard associated with the RNAV (GPS) RWY 30 instrument approach procedure, and was therefore issued a Determination of No Hazard to Air

Navigation by the FAA. In short, MEP will not impose restrictions or limitations on flight patterns or instrument approaches at Byron airport.

Q8: In Exhibit 702, Mr. Howell states: "with limitations to overflight of power plants in the flight patterns, safety could be compromised due to the increased workload in the cockpit during approach and landing, the most critical phase of flight." Do you agree with this statement?

A8: No. First, no limitations to over flight have been imposed. As I stated above, the FAA has made its Determinations of No Hazard for the MEP, and has not placed any restrictions on the airspace above MEP or on the Byron Airport airspace.

Second, even assuming for the sake of argument that airspace above the MEP site was restricted, which it is not, such a restriction would not compromise safety. The Aviation Act of 1958 charges the FAA with ensuring the safety of the National Airspace system. As such, the FAA cannot allow a hazard to flight to exist in the National Airspace system. For the MEP, the FAA has studied the project and determined that it is not a safety hazard to aviation. They have simply recommended that pilots be advised of the MEP location and avoidance information. Additionally, the FAA has recommended that pilots be provided with pilot education material on the location of the MEP facility and information on plume efflux rates. These measures recommended by the FAA are advisory measures designed to promote pilot awareness, and will enhance safety, not compromise it.

Q9: In Exhibit 703, Mr. Wagner expresses a similar concern that "new restricted areas on the approach path vicinity…would increase the pilot's already busy workload at a critical time." Will the MEP constitute a "new restricted area[ ] on the approach path vicinity" for the Byron Airport?

A9: No. First, as I stated above, the FAA has not imposed a restriction on the airspace over the MEP site.

Second, the MEP is not within the Byron Airport flight path. CalPilot's Exhibit 704, Figure No. 1, shows the flight patterns for the Byron Airport. It also shows that the MEP does not lie within the Byron Airport approach and departure paths. This is clearly shown in Figure A9-1, Additions to CalPilots Figure No. 1. This figure used CalPilots Figure No. 1 as a base document, and overlays this figure with an expanded depiction of the area around the Byron Airport showing the actual location of MEP outside of all approach and departure paths.

Q10: Mr. Wagner specifically discusses the usage of Runways 23/5 and 12/30 by several different flight platforms, including powered aircraft, Pison, Turbine, and Ultra Lights. Where is the MEP located in relation to the approach and departure paths for these runways?

A10: The MEP is located well outside the approach and departure paths for the Byron Airport.

The northernmost stack of MEP lies approximately 14,256 feet or 2.7 miles from the intersection of Runways 5/23 and 12/30. Moreover, MEP lies: (a) about 8,160 feet, or 1.54 miles, from the Runway 23 arrival flight path; (b) nearly 8,040 feet, or 1.52 miles, from the Runway 05 arrival flight path; (c) around 11,280 feet, or 2.13 miles, from the Runway 5/23 arrival flight pattern; (d) roughly 5,640 feet, or 1.06 miles, from the Runway 23 south departure flight path; and (e) almost 5,280 feet, or 1 mile, from the Runway 30 straight in arrival flight path. Real time, actual Byron airport flight track data obtained from the Federal Aviation Administration confirms that aircraft operating at and in the vicinity of the Byron airport rarely, if ever fly over the proposed MEP location, even though

MEP is not yet constructed and is not yet visible to pilots so as to be avoided. MEP will therefore place no limitations to existing or future flight patterns associated with the Byron airport.

Q11: In Exhibit 703, Mr. Wagner expresses his concern that "when runway delays or activities preclude landing," "restricted airspace to the south and east of the airport would add to the pilots already restricted options" in terms of circling around for another attempt to land. Do you agree that the MEP will "add to the pilots already restricted options"?

A11: No. Two points bears repeating: (1) the FAA has not restricted airspace over the MEP or in the airspace over the Byron Airport, and (2) the MEP is not within the flight patterns for the Byron Airport. Therefore, the MEP will not affect, in one way or another, whatever "options" a pilot currently chooses for approaching, departing, or circling the Byron Airport.

Specifically, the MEP is located about 2 miles west of the downwind leg and approximately 1 mile west of the final leg for the extended Runway 30 centerline. Based upon the flight tracks presented in Exhibit 16 – SQ25-1 the typical locations for circling are to the northeast of the Byron Airport, north of Clifton Court Forebay; directly east of the Byron Airport over the Delta; or south-southeast of Byron Airport just south of Old River. None of these locations are west of the Runway 30 approach or over the Altamont Hills, where MEP is proposed to be located.

Q12: In Exhibit 701, Mr. Bonavito states that "Jumpers need clear airspace to maneuver their canopies to the landing area." Will the MEP pose an obstacle to jumpers attempting to maneuver to the landing area?

A12: No. The Parachute Drop Landing Zone is on the other side (northwest side) of Byron Airport from the proposed location of MEP. The Parachute Drop Landing Zone for the Byron Airport is on the northwest side of the airport and about 17, 280 feet or 3.27 miles from the northern most stack of MEP.

PIPELINE SAFETY

By César de León, P.E. [1]
February 14, 2011

Mariposa Energy, LLC (Mariposa Energy) has requested that Pacific Gas & Electric (PG&E) provide natural gas service to the Mariposa Energy Project (MEP). This customer service line will be an eight inch line approximately 580 feet in length from the PG&E's existing Line 002 to MEP.

I have reviewed Robert Sarvey's Rebuttal Testimony; Hazardous Materials; Exhibit 405 in Docket #09-AFC-03; In the Matter of: Mariposa Energy Project before the State of California - State Energy Resources Conservation and Development Commission. Mr. Sarvey's testimony raises several of his concerns that based on over 40 years of engineering management experience in oil industry, Federal government, and private industry I believe are unfounded, and I will address each of his concerns.

Pressure fluctuations from cycling. The last paragraph on Mr. Sarvey's testimony raises concerns about the pipeline pressure fluctuations from the cycling of the MEP and the conversion of Tracy Peaker Project to combined cycle. Cycling of the MEP refers to the plants ability to turn on and off, thus causing a change in pressure within the gas pipeline. The effects of pressure cycles on gas pipelines were studied by John Kiefner and Michael Rosenfeld on a contract for the Gas Research Institute ("Effects of Pressure Cycles on Gas Pipelines"; GRI Project, GRI-04-0178, contract no.:8749, submitted on September 17, 2004). The objective of the study was to establish whether or not gas pipelines have a significant degree of exposure to failure from seam defects that could be enlarged by pressure-cycle-induced fatigue. That study concluded gas pipelines are not at significant risk of failure from the pressure-cycle-induced growth of seam defects that may exist after a hydrostatic test. The times to failure for this mode of crack growth are much longer than the expected useful life of a typical gas pipeline. The predicted time to failure was from 170 years to more than 400 years, indicating that, in most circumstances gas pipelines are not at risk of failure from the pressure-cycle-induced growth of seam defects that may exist after a hydrostatic test.

The conclusion of the Kiefner and Rosenfeld report was further endorsed serving as the basis for the conclusions in a letter from the Pipeline and Hazardous Material Safety Administration (PHMSA) to the National Transportation Safety Board, dated August 10, 2009. The PHMSA letter referenced the Kiefner and Rosenfeld report, and stated, in pertinent part, that:

- Typically, gas pipelines are not at significant risk of failure from the pressure-cycle-induced growth of original manufacturing-related or transportation-related defects.

[1] César de León, P.E., pipeline safety engineering consultant with PanAm Pipeline Technology, Inc., was with the Office of Pipeline Safety (now PHMSA), DOT for 23 years including 5 years as head and 5 years as Deputy of the program. In those positions, he directed or co-directed the nation's Federal pipeline safety program. In the oilfield well servicing industry, he was V.P. of GeoCondor, Inc. and Engineering Manager of the Western Company. He holds a B.S. in Petroleum Engineering from the University of Texas/Austin and a M. Eng. from Texas A&M University/College Station. His CV is at www.pipelinesafetyconsultant.com.

- PHMSA records do not contain any known incidents involving failure of steel natural gas transmission pipe from the pressure-cycle-induced growth of original manufacturing-related or transportation-related defects.
- Test pressure levels of at least 1.25 times the Maximum Allowable Operating Pressure (MAOP) tend to eliminate the risk of failure from pressure-cycle-induced fatigue crack growth of defects, or other failure modes, for steel pipe in natural gas service.

The issues in Kiefner and Rosenfeld report, as well as the PHMSA letter, are directly related to the issues regarding the Mr. Sarvey's concerns about pipeline pressure fluctuations from the cycling of these projects causing additional stress to Line 002. The PG&E pipeline has been pressure tested to establish the MAOP, so there is no basis to conclude that these additional stresses from the cycling of these projects will cause the PG&E line to fail.

Prone to corrosion. In the 1st paragraph, Sarvey posits that "The coating on L-002 is a double tape wrapped coating which no longer meets Federal standards because it is prone to corrosion." This is incorrect. The PG&E pipeline is in compliance with the Federal pipeline safety regulations in 49 CFR Part 192. In that respect, the pipeline meets Federal standards regarding corrosion protection pursuant to §192. 457 requiring that this pipeline must be cathodically protected along the entire area that is effectively coated. Therefore, this pipeline is not "…prone to corrosion" because it is fully protected against corrosion in accordance with applicable pipeline safety regulations related to potential for corrosion. There is no prohibition in §192.461 "External corrosion control: Protective coating**"** to the use of double tape wrapped coating.

Further in the 1st paragraph, Mr. Sarvey's testimony states that "Recent pipe-to-soil data have indicated corrosion on Line 002 within the Tracy area." According the §192.465, cathodic protection must be tested at least once each calendar year, to assure that it meets an adequate protection against corrosion. If pipe-to-soil readings indicate that remedial action must be taken, those corrections are made promptly in accordance with §192.465(d). Therefore, if recent pipe-to-soil data had in fact indicated inadequate corrosion monitoring readings on Line 002 within the Tracy area, remedial action taken by PG&E, as required by the Federal regulations, corrected the problem.

Pig examination in 2001. In the 1st paragraph, Mr. Sarvey's testimony discusses a smart pig examination of the PG&E pipeline in 2001 claiming wall loss of 61% and the temporary lowering the pressure to 530 psig while making repairs. I have reviewed the February 22, 2001 e-mail from Alan Eastman regarding these repairs. These repairs were conducted in conformance with the Federal regulations in §192.485 using the RSTRENG pipeline assessment procedure to assure the continued integrity of the pipeline after repairs to the identified corrosion area are made to the pipeline. The pig examination in 2001 does not, as Mr. Sarvey suggests, indicate any problems with this test method or the repairs made.

Utility corridors. At the end of the 3rd paragraph Mr. Sarvey's testimony raises concerns about "The presence of three pipelines in this one pipeline corridor triples the consequences of a failure of Line 002." This is speculation. There is no support for Mr. Sarvey's perception of increased risk from the PG&E pipeline being adjacent to other pipelines. Indeed, industry standards and practices for pipeline separation within pipeline corridors are intended precisely to avoid the hazards that are the subject of Mr. Sarvey's speculation.

There are thousands of miles of pipelines adjacent to other pipelines, all operating safely. Constructing a pipeline adjacent to another pipeline in order to increase capacity is a common industry practice called "looping." In addition, for many years, there has been a national effort to develop utility corridors to construct new energy transmission facilities in a safe, cost effective and timely manner. The latest Presidential response to this effort was the Executive Order 13212 issued by President George W. Bush on May 18, 2001, where he created the White House Task Force on Energy Project Streamlining.

Hot taps. "Hot taps" is a pipeline term used in describing connections made to transmission lines, mains, or other facilities while they are in operation. The connecting and tapping is done while the facility is under pressure. Mr. Sarvey also has concerns about "Hot taps".

Hot taps have been used extensively and successfully worldwide not only for pipelines but for making connections to refinery process piping, vessels, tanks, water lines, heat exchangers, and many other similar components while they are under pressure. In the pipeline industry, hot taps are a common practice that is subject to the procedural requirements in §192.151. In addition, §192.627 requires that hot taps be performed by a crew that is qualified to make hot taps. The training, testing, and qualification of pipeline personnel and pipeline contractor personnel, which includes hot tap crews, are extensively addressed in Part 192, Subpart N – "Qualification of Pipeline Personnel." The Gas Piping Technology Committee (ANSI Z-380), a committee of pipeline industry, State and Federal regulators, and manufacturer personnel that provide a "how-to" guide to complying with the Federal pipeline regulations also provides ample guidance in this important subject. The manufacturers of pipeline equipment have developed excellent hot tap equipment and have well trained hot tap crews that will assure a safe procedure in performing hot taps.

There are many companies worldwide that offer these services using similar tapping techniques, but sometimes having unique specific features. The most common installation is where two tapping saddles, one having a built-on flange, completely encircle the pipe tightly and are welded along the adjoining seams of the two tapping saddles and circumferentially onto the pipe. Then a gate valve with opposing flanges has one flange bolted onto the upward facing flange on the tapping saddle. After the installation of the gate valve is tested, a tapping machine (that can contain the pipeline pressure) is bolted onto the flange on the gate valve opposite to the flange bolted onto the tapping saddle. The gate valve is then opened and a round cutter with a pilot drill, both part of the tapping machine, drills through the pipe that is under pressure. The piece of pipe that has been removed by the round cutter is then removed through the opening where the round cutter entered to the pipe through the tapping machine. The gate valve is closed, the round cutter and pilot drill are retracted, and the tapping machine is removed. Then a lateral pipeline can be bolted onto the flange and the gate valve opened to initiate the transportation of gas through the lateral pipeline transporting gas to the new gas user.

Setback distance. There is no Federal requirement regarding the setback distance for buildings from a gas transmission pipeline. The PHMSA position in this regard, based on letters over the years, is that the right-of-way must be kept clear of buildings or obstructions in order that the pipeline operator has access to the pipeline to conduct operation and maintenance functions. In most cases, the right-of-way

is 50 feet wide with the pipeline being centered within the right-of-way, so the setback is 25 feet. This is the normal setback all over the country. Setback distances are left to local government entities to establish such requirements if the local government entity determines that such setback distances are needed.

PHMSA, while not recommending specific setback distances, has issued a report regarding setbacks from gas transmission pipelines. The DOT/PHMSA/OPS Report on "Building Setbacks from Transmission Pipelines" dated June 18, 2008 included criteria for local governments to consider in establishing setbacks, including the cost to landowners of prohibiting buildings within the setback zone. That report had a list of 15 "Court Positions on Regulatory Takings" that recommended setbacks from 25 feet to 100 feet based on various parameters and provides exceptions based on various criteria.

I have reviewed the Pipeline Risk Analysis of the Community of Mountain House, California by J House Environmental[2]. That analysis concludes, based on probability of risk of the pipeline, that there should be a setback of 68 feet of no build zone, from 68 feet to 249 feet of notification zone, and beyond 249 feet there is no constraint. If Mountain House and the affected landowners in the "no build zone" thought those setback distances were needed, then the local government has met its obligations in deciding an appropriate setback distance for that community.

Pipelines are safe. Mr. Sarvey's testimony in the 3rd paragraph quotes the Transportation Research Board (TRB): "In the last 3 years, hazardous liquid pipeline incidents have resulted in an average of 2 deaths, 11 injuries, and $97 million in property damage each year; natural gas transmission pipeline incidents have resulted in an annual average of 6 deaths, 10 injuries, and $20 million in property damage."

However, this is a quote from the Executive Summary of the TRB Report 281 -Transmission Pipelines and Land Use, published in 2004. It is important to note that the 10 year period prior to those 3 years mentioned in the TRB report, there was an annual average of 1 fatality and 12 injuries.

Notwithstanding the unfortunate accident in San Bruno, pipelines have an excellent safety record and the safety record continues to improve. Over the past 10 years, there has been an average of 2 fatalities per year (including fatalities from the San Bruno accident) on the 310,000 miles of gas transmission lines; and an annual average of 2.7 fatalities over the previous 10 year period. This decline should continue because of additional stringent Federal requirements regarding Integrity Management Plans for populated areas issued in 2003.

The likelihood of a person in this country being fatally injured from a gas transmission pipeline accident is 1 in 1,000,000. The likelihood of a person in this country being fatally injured in an automobile accident is 1 in 85 (i.e., 1 person out of a group of 85 in the U.S. will die from an automobile accident

[2] J House Environmental (2004), *Pipeline Risk Analysis, Mountain House Specific Plan III, San Joaquin County, California*. June 4, 2004.

during their expected 65 year lifetime); in an airline accident is 1 in 5,862; and being killed by lightning is 1 in 81,710.

Summation: **After reviewing the data regarding the concerns about the MEP, I conclude the following regarding the PG&E pipeline - (a) the combined pressure cycles from MEP and the Tracy Peaker Project will not affect the pipeline (b) the pipeline is not prone to corrosion, (c) that the remedial action in 2001 was in conformance with the Federal regulations and industry practice and does not indicate any problems, (d) not-withstanding the unfortunate incident in San Bruno, pipelines have an excellent safety record and the safety record continues to improve, (e) industry standards and practices for pipeline separation within pipeline corridors avoid the hazards that are the subject of Mr. Sarvey's speculation, and (f) hot taps to be performed are a common and safe pipeline practice that is subject to requirements in the Federal regulations. Pipelines in this country have a good safety record and that safety record continues to improve.**

Figure

LEGEND

- Airport boundary
- Off-airport road
- On-airport road

FLIGHT TRACKS

- Departure flight paths
- Arrival flight paths, 1000' Pattern Altitude AGL
- Touch and go flight paths, 1,000' Pattern Altitude AGL
- Helicopter flight training flight paths
- Ultralight flight paths, 500' Pattern Altitude AGL
- Glider flight paths, 1000' Pattern Altitude AGL
- Parachute Drop Landing zone

CALPILOTS
FLIGHT PATHS
Byron Airport C83
Figure No. 1

N

600 0 600 1200
Graphic Scale in Feet

Parachute Drop Landing Zone
17,280 ft. - 3.27 miles

Rwy 5/23 Arriving Pattern
11,280 ft. - 2.13 miles

Rwy 5 Approach
8,040 ft. - 1.52 miles

Rwy 30 Approach
5,280 ft. - 1 mile

Rwy 23 Approach
8,160 ft. - 1.54 miles

MEP Northernmost Stack

Rwy 23 Departure
5,640 ft. - 1.06 miles

FIGURE A9-1
ADDITIONS TO CALPILOTS
FIGURE NO.1

Additions by CH2M HILL.

CH2MHILL

Appendix A
Resumes

Curriculum Vitae

César de León, P.E.

Pipeline Safety Engineering Consultant ● PanAm Pipeline Technology, Inc.
218 Hoskins Trail; Boerne, Texas 78006
T: 830.537.6009 C: 210.452.0235 cesardeleon@gvtc.com www.pipelinesafetyconsultant.com

SUMMARY OF CAREER

Over 40 years of engineering mgmt. experience in oil industry, Federal government, & consulting includes:

IN GOVERNMENT– Director of Office of Pipeline Safety in U.S. Department of Transportation.

IN OIL INDUSTRY – V.P. of Marketing & Admin. of company manufacturing oilfield well service equipment & (2) Engineering Manager of oilfield well servicing company.

IN CONSULTING - Principal pipeline safety engineering consultant in PanAm Pipeline Technology

EXPERIENCE

PanAm Pipeline Technology, Inc. Aug 1997 - Present **[A]sequential career chronology**
Boerne, Texas [Texas - F-10282; Texas HUB; SBA 8(a)] ● Pipeline Safety Engineering Consultant

Provide gas and oil pipeline safety consulting services to industry, government, and public regarding:

- **Code compliance and safety practices regarding Federal, State, and industry pipeline standards for design, construction, operation, and maintenance of gas transmission, gas distribution, and petroleum pipelines, including anti-drug and LNG standards.**
- **Expert witness and technical analysis in litigation for plaintiffs' & defendants' attys.**
- **Pipeline accident investigations ● Pipeline inspections and safety audits ● Training**

● ***Clients*** include: Koch Pipeline; Conoco Pipeline; Duke Energy; Enogex; Stephens Production; Southwest Gas; DFW Airport; Nicor; El Paso Gas; Sonat Exploration; Tejas Gas; Southern Union Gas; Pacific Gas & Electric; Oasis Pipeline; Grey Forest Utilities; Kinder Morgan Pipeline; NI Gas; Nat'l Fuel Gas; Allianz insurers; Port of Brownsville; Public Service Electric & Gas; Salt River Project; Atmos Energy; Messer Constr; Columbia Gas Trans; Dept. of Defense; Dominion E. & P.; Transwestern Pipeline; Equitable Production; Columbia Gulf Trans; Belle Fourche Pipeline; Butte Pipeline; Bridger Pipeline; Airmaster Equipment; Peoples Gas; PHMSA; GTS Technologies; TD Int'l; TransCanada; Eagle Pipeline Constr; Brewski Constr; Centurion Pipeline; Ferrellgas; City of Palo Alto; plaintiffs'/defendants' attys. ***Int'l Clients*****:** Ente Nacional Regulador de Gas, Argentina; McKinsey & Co, Russia; Puerto Rico Energy Power Authority; ITIS, Mexico; Sofregaz, France; Organización Iberoamericana de Protección Contra Incendios, Colombia. ***Associates*** include**:** Booz Allen Hamilton, Inc; Protection Engineering Consultants, Inc; Kiefner & Assoc; Stannard & Co; D. Peterson & Assoc; Asesores Ambientales y Educativos, Inc

● ***Almost 100 projects*** include gas and oil pipeline consulting & litigation regarding:

- ♦ cathodic protection, construction, seam failure, corrosion, emergency response, excavation damage, gathering lines, restoration of service, leakage surveys, O&M Manuals, One-Call Systems, pipeline markers, pipe locating, temporary pipeline marking, MAOP, training, ILI pig, customer meters, coating, hydrostatic testing, pipeline integrity, offshore valves, public awareness, storm drainage pipe, depth of cover, ROW easement, threaded pipe, IMP, 80% SMYS, pipeline design, propane, pipeline route, setback, statistics, regulatory jurisdiction, Subject Matter Expert, DIMP
- ♦ Pipeline technology assessment in France & Belgium for determining market in U.S.
- ♦ Design and construction consultant on gas transmission pipeline in Puerto Rico.
- ♦ Pipeline training in Colombia. ♦ Pipeline inspection & research in Argentina and England.

Office of Pipeline Safety June 1983 - August 1997 **[B]**

Research & Special Programs Admin. (now PHMSA)
Department of Transportation
Washington, D.C.

- Deputy Assoc Administrator for Pipeline Safety
- Director, Standards and Technology
- Regional Chief, Southern Region (Atlanta)
- Engr. Inspector, Western Region (Denver)

September 1971 - June 1980 **[E]**

- Acting Director/Director/Associate Bureau Dir.
- Deputy Director
- Compliance Officer

Directed the U.S. national program for the safe, reliable, and environmentally sound transportation by over 2 million miles of petroleum and natural gas pipelines in the country, including:

- Directed the issuance and enforcement of design, construction, operation, and maintenance regulations for all gas transmission, gas distribution, and petroleum pipelines, including anti-drug and LNG regulations (includes 49 CFR Parts 190 through 199).
- Directed cooperative Federal/State pipeline safety program & associated grant-in-aid program.
- Directed or co-directed over 60 pipeline research projects (Attachment A).
- Directed DOT inspection of construction & initial operation of the Trans-Alaska Pipeline System.
- Testified on pipeline safety before U.S. Congress, state legislatures, and U.N. organization.
- Charter member of Federal Senior Executive Service [ES-4].
- Pipeline failures, deaths, & injuries were each reduced about 50% during 23 years with program.
- Personally conducted projects, include:
  - ♦ developed & interpreted regulations. ♦ investigated & determined cause of pipeline failures
  - ♦ inspected and conducted regulatory audits of gas and oil pipelines, including LNG facilities.
  - ♦ prescribed and conducted pipeline safety training at DOT Transportation Safety Institute.
  - ♦ developed and wrote anti-drug regulations for pipeline company employees.
  - ♦ developed initial DOT pipeline inspection and compliance program.

GEO Condor, Inc. October 1981 - June 1983 **[C]**

Denver, CO

- Vice-President, Mktg. & Admin.

Managed marketing & administration of the largest manufacturer of well servicing equipment, including:

- Administered the company's personnel, contracts, budget, and business planning.
- Assisted in the engineering design of fracturing, acidizing, cementing, and blender units.
- Directed domestic & international (Mexico, India, Abu Dhabi, Argentina) marketing of equipment.
- Doubled annual sales the first year to $32 million.

Western Company June 1980 - October 1981 **[D]**

Ft. Worth, TX

- Engineering Manager

December 1964 - September 1971 **[F]**

- Engineering Manager
- Project Engineer

Managed the Engineering Department of the second largest oilfield well servicing company in the country ($650 million annual revenue; over 6,000 employees), including:

- Directed design of oilfield pumps, pump trucks, auxiliary equipment, and oilfield plant facilities.
- Directed design of fracturing, acidizing, blenders, cementers, and similar well servicing units.
- Meeting "management by objectives" goals that lowered manufacturing costs by 15%, equipment operating costs by 35%, and engineering design costs by 40% over a 3 year period.

- Personally conducted projects, include:
  - ♦ initial organizing of Eng. Dept., incl. procedures, records, & drawing and design criteria.
  - ♦ co-designed 300, 500, & 1000 hydraulic horsepower fracturing & cementing pumps.
  - ♦ designed high pressure fracturing piping, oilfield cementing plants, inland well servicing barges, & fracturing and cementing skid-units for offshore platforms.
  - ♦ designed equipment for introducing nitrogen fracturing service to the company.

CHRONOLOGICAL SUMMARY OF CAREER

[A] Aug. 1997 – Present	PanAm Pipeline Technology, Inc.
[B] June 1983 – Aug. 1997	Office of Pipeline Safety, DOT
[C] Oct. 1981 – June 1983	GEO Condor, Inc.
[D] June 1980 – Oct. 1981	Western Company
[E] Sept. 1971 – June 1980	Office of Pipeline Safety, DOT
[F] Dec. 1964 – Sept. 1971	Western Company
[*] Jan. 1958 – Dec. 1964	Grad school; LTV Aeronautics; Corps of Engrs; TX Hwy Dept.
[*] Sept. 1953 – Aug. 1955	U.S. Army; PFC; Bad Kissingen, Germany; honorable discharge

EDUCATION

M. Eng. in Civil Engineering	Texas A&M University/College Station (with honors)	May 1962
B.S. in Petroleum Engineering	University of Texas/Austin	Jan. 1958
A.A. in Pre-Engineering	Texas Southmost College/Brownsville (with honors)	May 1953

SPECIAL SKILLS OR RECOGNITION, include

- Fluent in Spanish.
- Licensed Professional Engineer in Texas (#23146 - since 1964) and Colorado (#21046- since 1983)
- Published over 20 articles, including: hydraulic systems, pneumatic systems, LNG, cement blender, pipeline regulations, offshore pipeline standards, & underground gas storage (Attachment B).
- Presented speeches regarding pipeline safety to virtually every pipeline organization in the country, and before many foreign organizations (Attachment C).
- Public Member of DOT Technical Hazardous Liquid Pipeline Safety Standards Committee (pipeline experts appointed by Secretary of Transportation to advise DOT on pipeline regulations).
- Member of pipeline research committees in the NRC of National Academy of Engineering.
- Role model in "Making It in Engineering" (ASME brochure on accomplished minority engineers distributed to most high schools nationwide).
- TX & VA civic advisory boards, include: Arlington (TX) Hospital, American G.I. Forum, Ft.Worth Boys Club, Ft.Worth United Way, Ft.Worth Human Relations Comm., Virginia Advisory Board to U.S. Comm. on Civil Rights, Sembradores de Amistad Educational Foundation, Cross Mountain Ranch POA, River Mountain Ranch POA

PROFESSIONAL ORGANIZATIONS, include

- International Standards Organization (pipeline technical committees)
- ASME Pipeline Safety Research Committee
- Gas Piping Technology Committee (ANSI Z-380)
- Integrity Management Task Force, Gas Piping Technology Committee (ANSI Z-380)
- American Society of Civil Engrs; Society of Petroleum Engrs; Nat'l Society of Professional Engrs.

Attachments available upon request 1/15/2011

Ryan T. Olson

306 Makin Ave
Palmdale, CA 93551
Phone: (386)562-1213
Email: Ryan.Thomas.Olson@gmail.com

EDUCATION

National Test Pilot School/National Flight Test Institute – Mojave, CA
Master of Science in Flight Test Engineering anticipated Dec 2011
Thesis: Surrogate Unmanned Aerial Vehicle (SUAV) Development, Optimization, and Flight Testing

Embry-Riddle Aeronautical University – Daytona Beach, FL
Bachelor of Science in Aerospace Engineering
Bachelor of Science in Aeronautical Science
Minor in Mathematics
3.9/4.0 CGPA

FLIGHT EXPERIENCE

Certificates and Ratings:

Commercial Pilot
Airplane Single Engine Land and Sea,
Multiengine Land, Rotorcraft Helicopter, Glider
Certified Single/Multi-Engine Airplane and Helicopter Instructor
Instrument Airplane and Helicopter Instructor
First Class Medical

Flight Time:

Total Time	**1060**
Instruction	395
Helicopter	87
Multi Engine	93
Turbine	46
Aerobatic	170

ENGINEERING EXPERIENCE

National Test Pilot School Project Flight Test Engineer – Mojave, CA (Jan 2010 – Present)
Responsible for Surrogate Unmanned Aerial Vehicle (SUAV) development, optimization, ground and flight testing, flight simulator development and enhancement, telemetry/control room operation, and various flight test projects

Gulfstream Quiet Supersonic Jet – Empennage Structural Design (Aug 2009 – Dec 2009)
Managed an 18-member student design team performing structural design of the horizontal tail actuation system and the rudder interface to the vertical tail using advanced anisotropic materials

Extra Flugzeugproduktions Design Engineer – Hünxe, Germany (Summer 2007)
Responsible for design and modification of parts, performed extensive technical drawing using SolidWorks and AutoCAD, assisted with certification of the EA 300SR, and provided support to ongoing projects

Freewing Research Project (Aug 2002 – Dec 2009)
Served as the leader of a 7-person team that analyzed the characteristics of a freewing aircraft. The project objective was to prove that turbulence effects are alleviated with the freewing configuration, using experimental flight test data

OTHER EXPERIENCE

Barnes Aviation Flight Instructor – Lancaster, CA (Feb 2010 – Present)
Aerospace Engineering Design Lab Tutor – Daytona Beach, FL (Aug 2010 – Dec 2010)
Air America Flight Center Flight Instructor – Daytona Beach, FL (May 2007 – December 2010)
WHM Motor Sports Lear 25/35 First Officer – Ormond Beach, FL (April 2008 – Mar 2009)
Inverted.US Ferry Pilot – Edgewater, FL (Feb 2007 – Jan 2009)
Continental Airlines Flight Operations Intern Coordinator – Houston, TX (Summer 2008)
Procter & Gamble Corporate Aviation Student Development Program – Cincinnati, OH (Aug 2008)
Eagle Sport Aviation Flight Instructor – Port Orange, FL (Dec 2005 – Apr 2007)

HONORS

Tau Beta Pi National Engineering Honor Society: President
Sigma Gamma Tau National Aerospace Engineering Honor Society: Activities Coordinator
Omicron Delta Kappa National Leadership Honor Society
Embry-Riddle Honors Program
2007 Boeing Engineering Student of the Year
2006 National Aerobatic Competition: 2nd Place Collegiate Division
2005 Intel International Science and Engineering Fair: Phoenix, Arizona – Grand Award, Engineering
Eagle Scout and Brotherhood Member of Order of the Arrow
Congressional Gold Award

SOCIETY MEMBERSHIPS

Society of Flight Test Engineers: Student Member
American Institute of Aeronautics and Astronautics: Student Member

SOFTWARE EXPERIENCE

Working knowledge of Symvionics IADS, SolidWorks, AutoCAD, Catia V5, NEi Nastran, MatLab/Simulink, Autodesk Inventor, Digital Datcom, FlightGear, X-Plane, FSX, Adobe Photoshop CS4, Microsoft Office 2010 Suite, C++, Java, Cloud Cap Piccolo Command Center

Barry A. Yurtis

PROFESSIONAL HISTORY

2007-Present: Williams Aviation Consultants: Vice President of Domestic Operations
Aviation consulting on a broad range of aviation related issues including, but not limited to:

- Accident/incident review and analysis relating to the adequacy of air traffic control services, airspace and air traffic control procedures analysis
- Pilot actions and responsibilities relating to aircraft accidents and incidents
- Environmental analysis as it relates to Environmental Impact Statements concerning Air Traffic Control, Instrument Procedures and aircraft routes
- Advice and counsel to government agencies, cities, corporations, attorneys and individuals on a broad range of technical and regulatory issues including Airport/Airspace Obstruction Analysis relating to FAR Part 77 and Terminal Instrument Procedures (TERPS)
- Expert witness testimony and international aviation master planning and system development

2004-Present: Barry Yurtis & Associates
Aviation consultant in private practice specializing in the review of aircraft accidents and incidents, including the evaluation of air traffic control services, pilot actions and responsibilities and related expert witness testimony.

1994-1997; 2002-2004: FAA Quality Assurance Staff, Safety Manager, Western Terminal Operations, Air Traffic Organization
ATC Subject Matter Expert primarily concerned with measuring the quality and effectiveness of the air traffic control services provided to commercial, private, and military users of the National Airspace System. As Quality Assurance Specialist and Manager from 1994 through 1997, and as Quality Assurance/Safety Manager from 2002 to 2004, duties included:

- Responsibility for Quality Assurance and Safety oversight of 147 terminal (ATCT and TRACON), four ARTCC, and eight AFSS facilities in the Western-Pacific Operations Area (Western USA, Pacific Ocean and Alaska).
- Serving as FAA Regional Air Traffic on-site representative in FAA and National Transportation Safety Board (NTSB) accident and incident investigations involving air traffic control services.
- Reviewing and analyzing air traffic control performance relating to aircraft accidents, near-midair collisions, pilot deviations, runway incursions and operational errors in the ATCT, TRACON, ARTCC, and AFSS environments.

- Sampling air traffic services and assessing the efficiency of new and/or current air traffic control procedures, clarity and effectiveness of clearances and instructions, and operational adequacy of flight assistance and aeronautical information services.
- Participating in FAA National Evaluation Branch facility evaluations.
- Providing technical assistance to FAA General and Regional Counsel in litigation matters that involved pilot actions and/or air traffic control issues.

1999-2002: FAA Manager, Los Angeles ARTCC
Responsible for planning and directing all air traffic activities at Los Angeles ARTCC; managed over 400 employees (300 controllers and 100 staff and subordinate managers) and provided management guidance and direction for the application of air traffic control procedures, techniques, and associated functions; also responsible for ensuring the facility was in compliance with all operational, administrative, financial, technical and training requirements, including personnel policies and practices and labor-management relations.

1998: Acting FAA Manager, Reno ATCT/TRACON
Responsible for the daily operations at the combined airport traffic control tower and TRACON; provided management guidance and direction for the application of air traffic control procedures and techniques; responsible for ensuring the facility was in compliance with all operational, administrative, financial, technical, and training requirements, including personnel policies and practices and labor-management relations.

1997-1999: Assistant Air Traffic Manager, Los Angeles ARTCC

1994-1997: FAA Western-Pacific Regional Air Traffic Staff and Manager

- Quality Assurance
- Airspace, Procedures and Military Operations

1975-1985; 1989-1994: Air Traffic Controller, Memphis ARTCC and Los Angeles ARTCC, ARTCC Staff Specialist, Air Traffic Control Supervisor, Los Angeles ARTCC

SYNOPSIS OF EXPERIENCE

Mr. Yurtis' qualifications as an aviation Subject Matter Expert include over 38 years of aviation experience. Included in those are over 25 years of air traffic control experience obtained as a Controller, Staff Specialist, Supervisor, Facility Manager, and Branch Manager with the U.S. Federal Aviation Administration (FAA). He also has vast experience in both civilian and military aviation as a civilian commercial pilot and flight instructor, and as a U.S. Marine Corps Naval Flight Officer. Barry's air traffic experience includes radar and non-radar training and certifications in Air Route Traffic Control Centers (ARTCC), with specific controller experience gained at Memphis ARTCC and Los Angeles ARTCC. In addition, he has broad staff experience in safety, quality assurance, airspace, procedures, and military operations at FAA field facilities and FAA regional headquarters.

As FAA Western-Pacific Regional Air Traffic Quality Assurance/Safety Manager, he conducted hundreds of reviews of air traffic controller and system performance following aircraft accidents, near mid-air collisions, runway incursions, operational errors and pilot deviations. In these reviews, Mr. Yurtis evaluated the quality of air traffic control services provided by Airport Traffic Control Towers (ATCTs), Terminal Radar Approach Control facilities (TRACONs), FAA Air Route Traffic Control Centers (ARTCCs), and Automated Flight Service Stations (AFSSs). These reviews included an assessment of air traffic controller performance, the correct operation of equipment, the adequacy and application of air traffic control procedures and aeronautical information services, the performance of the National Airspace System (NAS) in general and an assessment of pilot actions related to non-compliance with Federal Air Regulations.

As Regional Quality Assurance/Safety Manager, Mr. Yurtis participated in numerous NTSB-led aircraft accident investigations including Korean Air 801 (Guam), Philippine Air 110 (Guam), N146PM/N8604N (North Las Vegas, NV), N304PA (Julian CA), N1828A/N7199U (Carlsbad, CA), N206TV/N442RH (Torrance, CA) and N30DK (San Diego, CA). During his tenure as Los Angeles ARTCC Air Traffic Manager, Mr. Yurtis conducted an independent management review of controller performance following the commercial aircraft accident involving Alaska 231.

Over the rest of his career, Mr. Yurtis participated in numerous evaluations of FAA and military air traffic control facilities, with a focus on air traffic controller performance, airspace utilization, adequacy of procedures, adherence to FAA directives and the efficient and effective collecting, formatting, distribution and retention of aeronautical information. He has held positions as Safety Manager, Western Terminal Operations (formerly Manager, Quality Assurance Staff, FAA Western-Pacific Region), Air Traffic Manager, Los Angeles ARTCC, and Acting Manager, Reno ATCT/TRACON, and notably, was Chairman of the FAA National Terminal Quality Assurance Board. This board's charter was national in scope, and tasked with the integration of quality assurance procedures, practices, and policies into the newly-organized Terminal Operations Division of the Air Traffic Organization. The Board was also tasked with devising and implementing national initiatives for the reduction of the number and severity of operational errors in the terminal environment.

He also has extensive experience in military and commercial civilian aviation. Barry served in the United States Marine Corps as a Naval Flight Officer aboard the A-6 Intruder and as a civilian commercial pilot; logging over 2500 flight hours in single and multi-engine aircraft. He has managed two general aviation Fixed Base Operations (FBOs) and developed an FAR Part 135 (Air Taxi) and 141 (FAA Approved Flight School) Operations Manual for Hart Aviation, while simultaneously procuring operational approvals for both entities. Mr. Yurtis experience includes an FAR Part 135 single-pilot certificate for aircraft commercial charter operations and has held the position of Chief Flight Instructor at FAR Part 141 FAA Approved Flight Schools in both Tennessee and North Carolina.

GENERAL AVIATION EXPERIENCE

Military Flight Experience

United States Marine Corps, 1st Lieutenant, Naval Flight Officer- A-6A Intruder.

- Over 500 hours logged in various military jet and propeller aircraft.

Civilian Pilot Experience

Over 2,100 hours logged in various civilian general aviation aircraft.

- Certificates and Ratings: Commercial pilot, single and multi-engine land; Instrument rating; Certified Flight Instructor; Multi-engine Instructor; Instrument Instructor; Ground Instructor; Air Taxi, FAR Part 135 single pilot, multi-engine authorization; FAR Part 141 Chief Flight Instructor.

AFFILIATIONS

Air Traffic Controller Association (ATCA)
Aircraft Owners and Pilots Association (AOPA)

EDUCATION

Bachelor of Science Degree, University of Illinois, Champaign-Urbana, 1970
Teaching Credential, Secondary Education

Barry Yurtis January 29, 2010

Appendix B
Signed Declarations

DECLARATION OF

CESAR DE LEON, P.E.

I, Cesar de Leon, declare as follows:

1. I am presently employed by PanAm Pipeline Technology, Inc. as a pipeline safety engineering consultant.

2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.

3. I prepared the attached testimony on Pipeline Safety for the Mariposa Energy Project based on my independent analysis, supplements thereto, data from reliable sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed herein.

5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: Feb 12, 2011 Signed: Cesar de Leon

At: Boerne, TX

DECLARATION OF
RYAN OLSON

I, Ryan Olson, declare as follows:

1. I am presently employed by the National Test Pilot School as a Project Flight Test Engineer.

2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.

3. I contributed to the preparation of the attached testimony on the Traffic and Transportation, Aviation for the Mariposa Energy Project based on my independent analysis, supplements thereto, data from reliable sources, and my professional experience and knowledge. I am sponsoring the Plume effects on Aircraft Loads and Handling Analysis of this testimony and the exhibits which are referenced therein.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed herein.

5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: Feb 14, 2011 Signed: _____

At: Mojave, CA

DECLARATION OF

BARRY YURTIS

I, Barry Yurtis, declare as follows:

1. I am presently employed by Williams Aviation Consultants, Inc. as Vice President of Domestic Operations.

2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.

3. I contributed to the preparation of the attached rebuttal testimony on the Traffic and Transportation, Aviation, for the Mariposa Energy Project based on my independent analysis, supplements thereto, data from reliable sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed herein.

5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 2/14/2011 Signed: _____

At: Gilbert, AZ