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MEMORANDUM
Point Arguello Index pricing Formula Submitted By US Oil & Refining

TO: Linda Shishido MMS

FROM: Andrew Novak, Specialist - Oil and Gas Unit, CA State Controller's Office

DATE: May 22, 1998

SUBJECT: My Brief Review of the Pricing Formula Submitted By US Oil & Refining

Linda: I have included a map that should serve as a decent schematic to show the flow of Santa Ynez oil production from the platforms to its destination in the Long Beach area of Southern California.

First, a word or two about the map. It is not drawn to scale. I looked at all the available maps of oil fields in my office and none showed enough of the total area that is covered by the movement of the Santa Ynez oil production. So, I pulled out the report that the consultant prepared for John Russo and the MMS Chevron team. Appendix A of that report includes a Map titled "California Crude Oil Fields of Interest" which I doctored up a bit to show the major points of interest addressed in this memo.

Now, let's talk about the pricing formula and the related movement/transport of the oil. Here is the movement of the oil as I understand it. The platform production is moved to shore via an offshore pipeline to the Las Flores Canyon onshore Oil Plant. I do not know much about this oil plant, but maps in my possession show that Exxon owns a Separation, Treatment and gas Processing Plant and that an entity called POPCO owns a gas processing plant near the location of the Exxon facility. My best guess is the Exxon's Las Flores facility serves much the same purpose as the Gaviota Oil Plant (GOP) - which is to receive the platform production, separate the gas from it (that was not separated on the platform) and remove water and sulfur to make the oil into a shipping pipeline grade.

Next, the oil is moved up the coast in a pipeline the name of which I do not know. It apparently connects to the Gaviota Marine Terminal (GMT). Please note that the GMT is entirely separate from the GOP. The GMT is owned by the following companies:

- Chevron 25%
- Phillips 20%
- Texaco 20%
- Oryx 15%
- Exxon 20%

I believe that the GMT is operated by Texaco. It was originally built for the purpose of delivering Point Arguello oil production to oil tankers for transport to Los Angeles and San Francisco markets and refineries. But, the earthy, ecology and environmentally minded residents and members of the local government (Santa Barbara County) revoked the Tanker permits, being afraid of another spill like the large one that occurred in 1969 or 1970, caused by a leak in a line

on a nearby Unocal Platform. The inability to move the oil by tanker necessitated the need for the All American Pipeline (AAPL) to build a line connecting to the GMT. So the 30 cent GMT tariff listed in the proposed Point Arguello Index Pricing Formula (hereafter IPF) is really for the GMT to inject the oil into the AAPL. We all need to learn more about what goes on at the GMT. But I believe that the GMT Tariff was to be for storing the oil in tanks located at the GMT and then pumping the oil into waiting tankers. I've been to the GOP and the GMT is located across US Highway 101 next to the Pacific Ocean. You have been to Santa Barbara so you know US 101. I have heard the GMT Tariff, as listed on the IPF, more often referred to as a "Terminalling Fee". In any event, since we do not have tankers in the picture, the 30 cents appears to be unnecessary. Also, if it is Exxon who bears the 30 cent GMT Tariff (where does the sale or RIK delivery to US Oil take place?) bear in mind that Exxon would share in any profits generated by 30 cents as part owner of the GMT. So the 30 cents is not really 30 cents anymore. But, when Chevron claims to John Russo and his crew that the GMT Tariff is really $2.00, the 30 cents does not look that bad.

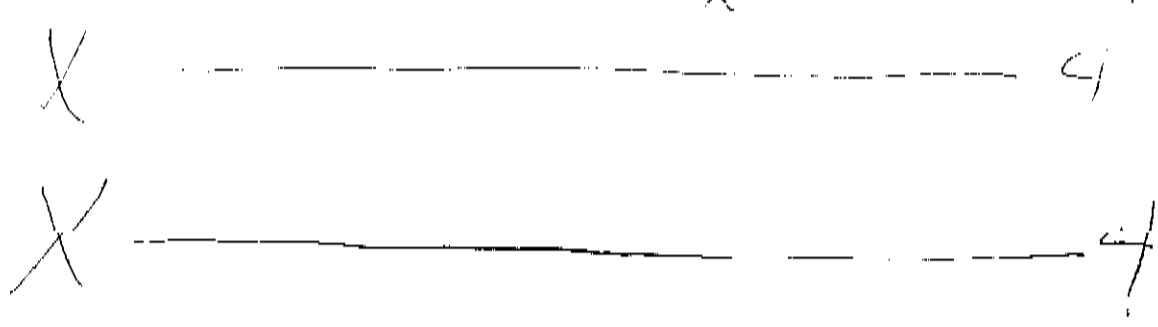
When the oil gets into the AAPL at the GMT connection, it must go to the point where it must connect to Arco's Four Corners Pipeline, Line 63 as shown on the map I have attached as Schematic. There is no other pipeline that connects to the AAPL between the GMT and the point of connection to Line 63. I have a large map in my office that I got from the Pacific OCS region office that shows that the AAPL and Line 63 connect near the intersection of State Highway 166 and Interstate 5, near a place called Pentland. I have a copy of an AAPL Tariff effective August 1, 1991 (sorry, for some reason this is the most current that I have) that shows the AAPL Tariff is $1.20 for movement between the "Gaviota Station" and the "Pentland Station" It also shows a 3 cent "Transfer Fee and Pumping Charge" for injecting oil into Line 63. So the IPF 3 cent "AAPL to Line 63 Fee" is valid and the IPF's AAPL Tariff of $1.44 is in the ballpark. We should get a set of the AAPL Tariff for the Years 1993 to current. Three sources come to mind: 1) John Russo's Team may have some; 2) The FERC Web Page - Tariffs are public information (hey maybe AAPL has Web page) and 3) I got mine in the Mail from FERC after I requested them by mail. What is funny about the AAPL tariffs is that 8/1/91 AAPL tariff shows that you send oil Pentland to McCamey Texas for just one thin dollar!

That brings us to the two unknowns. The Fudge Factor and the Line 63 Tariff. To verify the Line 63 Tariff, which is an intrastate pipeline, I could call our state's Public Utilities Commission which would regulate Line 63. You will have to find out what the fudge factor is and when you do, I sure would like to know.

Finally, why US Oil references the Buena Vista Oil Field postings is not only a mystery, it is suspect. Buena Vista is located about 40 miles northwest of the AAPL/Line 63 connection point, its oil gravity is high by California standards, around 28 degrees; its sulfur content is low. What are the Santa Ynez statistics? If you need more specific information about Buena Vista, I am your man. I did the first ever audit of the field when we were doing some work for the DOE in years past. There are other fields closer by.

So, when I look at the IPF methodology, (many of the numbers on the document are hard to read) they take the ANS price and subtract out the Transportation Adjustment of $2.06, then subtract out the difference between Buena Vista and Point Arguello postings and compare this "Index Price" to the Point Arguello price. I do not understand what this is suppose to mean. There are no adjustments for gravity differences.

You should counter with the method used by consultant.



I still do not know how Buena Vista factors in.

These are my comments and I hope this helps in some small way. Look forward to hearing from soon or anytime you feel like it. Andrew

California Crude Oil Fields of Interest