model Mobil Maryo # 3, 9-26-18



HELIUM OPERATIONS

United States Department of the Interior

BUREAU OF MINES

BOX H 4372, HERRING PLAZA AMARILLO, TEXAS 79101 November 15, 1977

Branch of Helium Resources

Mr. G. E. McIver Mobil Research and Development Corporation P.O. Box 900 Dallas, Texas 75221

Dear Mr. McIver:

Enclosed are copies of two reports on the analysis of gas samples that were analyzed as part of the Bureau of Mines survey for helium-bearing natural gases. The samples were obtained from your Navajo-Tocito No. 3 Well located in Tocito Dome Field, Section 9, Township 26 North, Range 18 West, San Juan County, New Mexico; and your Hovenweep Federal No. 1 Well located in Section 19, Township 38 North, Range 18 West, Montezuma County, Colorado.

The Bureau of Mines, Helium Operations, at Amarillo, Texas, provides a current file on analyses of natural gases, which is open to public inspection. In addition, the analyses are published periodically in Bureau of Mines information circulars and bulletins. We would like to obtain permission to utilize the enclosed data for the foregoing purposes along with similar data released by other operators. It will be appreciated if you will sign the "Permission for Release" on one copy of each report and return to us. A preaddressed envelope, which requires no postage, is enclosed. If you desire permission to publish or circulate the analytical results, please contact us.

To be sure that the well data are accurate, please check the data on the reports of analysis and indicate in the appropriate space whether they are accurate without correction or as corrected on the sheets. If the data sheets are not complete, please supply the missing information.

We wish to thank you for your cooperation in furnishing us with samples of gas for analysis.

Sincerely yours,

B. J. Moore, Chief Section of Helium

Resources Evaluation

15 / 1/2 miles

Enclosures

HA - 1 (2/2/68) REPORT OF ANALYSIS F. S. -15122 M.S. M=64715 e H 1,40 OBS. PRES. 66.5 CAL. PRES. 65.5 STATE-NEW MEXICO COUNTY-SAM JUAN FIELD-TOCITO DOME WELL NAME-LOCATION-SEC. 9. T26N. R18W OWNER-MOBIL OIL CORP. DATE COMPLETED-NOT GIVEN DATE SAMPLED-10/06/77 SAMPLED BY-NOT GIVEN NAME OF PRODUCING FORMATION-PENN-D DEPTH IN FEET- LOT GIVEN 6414_ 19 THICKNESS IN FEET-NOT GIVEN SHUT IN WELLHEAD PRES., PSIG-NOT GIVEN OPEN FLOW, MCF/D-NOT GIVEN CHECK OF DATA-THE WELL DATA ARE ACCURATE, (_____) WITHOUT CORRECTION,(__X__) AS CORRECTED ABOVE. REMARKS-

ANALYSIS-

				TOTAL	100.10%
SPECIFIC GRAV 0.762				HELIUM	1.47%
ISOBUTANE	0.2%	NITROGEN	25.9 %	CO2	3.4 %
NORMAL BUTANE	0.5%	HEXANES PLUS	0.2 %	H2S ×	0.0 %
PROPANE	1.5 %	CYCLOPENTANE	U.1 %	HYDROGEN	0.0 %
ETHANE	5.8%	ISOPENTANE	U.1 %	ARGON	0.3 %
METHANE	60.0%	NORMAL PENTANE	0.2 %	OXYGEN	0.0 %

CALCULATED GROSS BTU/CU.FT., DRY AT 60 DEG.F AND 30 IN. MERCURY- 811

* DUE TO THE ABSORPTION OF H2S DURING SAMPLING. THE REPORTED RESULTS MAY NOT BE RELIABLE

PERMISSION FOR RELEASE:

Permission is hereby granted for the <u>Bureau of Mines</u> to release the above data, together with similar data released by other operators as public information and as parts of a series of papers on analyses of gases from various fields, states, or regions.

Copies to: USGS-FARMINGTON (2), MCGRATH

NMOCC-KENDRICK, AZTEC (2) COMPANY

BY QUINTERY ENGINEERING SUPERVISION

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