

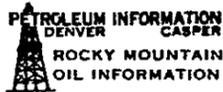
Mt States Exploration #1 State
NE/4 NE/4 Sec 29-T19S-R18E

192

102

P-W

192
ARIZONA
PIMA CO.
WILDCAT (W)



Twp 19s-18e
Section 29
nw nw
380 s/n 330 e/w
4950 fsl

OPR: Mountain States Exploration

WELL #: 1 State

ELEV: 4861 DF.
TOPS: Log ~~Sample~~
Valley Fill- surface to
TD. N

DSTS. & CORES:
No cores or tests.

SPUD: 7-6-62
TD: 1050
CSG: 10-3/4" @ 250 w/125

COMPL: 11-27-62
PB:

PERF:

PROD. ZONE:

INIT. PROD: D & A w/ junk in
hole.

Contr: Own

ARIZ-3-265221

October 30, 1963

Mr. George L. Meadows
P.O. Box 587
Yuma, Arizona

Dear Mr. Meadows:

Re: Mountain States Exploration
Company #1 State

The T.D. of the above well is 4413 feet in Cretaceous
age formation. Since they're changing drilling
contractors to go to 7000 feet, the project is at a
stand still, presently.

When the well is completed, this office will have
a driller's log and whatever other kind they run.

Thus far the formations have been sand and shale
with some bitumen showing on the drilling mud. It looks
much like oil and has been reported as such but it is not
crude oil proper and cannot be counted as such.

We, of course, look forward to the project being
deepened to 7000 feet and hope an oil well results.

Yours truly,

John K. Petty
Acting Executive Secretary

JKP:lk

Brochure mailed under separate cover

219

1/92

WATER WELL TRANSFER FORM

TO: OIL AND GAS CONSERVATION COMMISSION, STATE OF ARIZONA

This is to advise you that I accept the abandoned wildcat well,
known as the MOUNTAIN STATES EXPLORATION CO. #1 State, located on the
NE $\frac{1}{4}$, NE $\frac{1}{4}$ of Section 29, Township 19 S,
Range 18 E, as a water well to be used for domestic purposes.
Further, that I accept full responsibility for the proper maintenance
of the well in compliance with the provisions fo Arizona Revised
Statutes Title 27, Chapter Four, Articles 1 and 2, provided
however, that I do not by this acceptance assume any obligation
to pay for any of the drilling and casing of said well which has
already been done.

Frank S. Bain
(Signature)
Empire Road
(Street)
Tombata, Arizona
(City) (State)

Date: Nov. 26, 1962

(This form is to be filed in duplicate.)



Mountain States Exploration Company #1
State, Sec. 29-T19S-R18E Pima County
10 miles E. Sonoita. Drilling below 1000 feet

Aug. 1962

192

INSTRUCTIONS

READ CAREFULLY AND COMPLY FULLY

For the purpose of this determination attach hereto a neat, accurate plat, map or sketch of this lease, section, block or lot locating thereon the proposed site for this location. Plat shall be drawn to a scale which will permit the facile observation of all pertinent data. Show distances of the proposed well from the two nearest lease and section lines, and from the nearest wells on the same lease completed in or drilling to the same reservoir. If the location requested is not in conformance with the applicable well-spacing rules, show all off-setting wells to the proposed well, and the names and addresses of all adjoining lease or property owners.

In event plat is filed for the purpose of designating the drilling and producing unit, or proration unit, on which the proposed well is to be drilled, the boundaries of such unit shall be shown, also the boundaries of all other such units attributed to other wells on the same lease completed in or drilling to the same reservoir. The acreage contained within each unit shall also be shown.

Do not confuse survey lines with lease lines. The sketch or plat should show your entire lease if possible. If it is not practical to show the entire lease and the plat shows only a section, block or lot out of your lease, you should clearly show that same is only a part of the lease.

Designate scale to which plat or sketch is drawn. Also designate northerly direction on the sketch or plat.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
10 3/4	32#	H 40	"	"	150 ft.	75#
5 1/2	15#	J 55	"	"	To be determined	To be determined

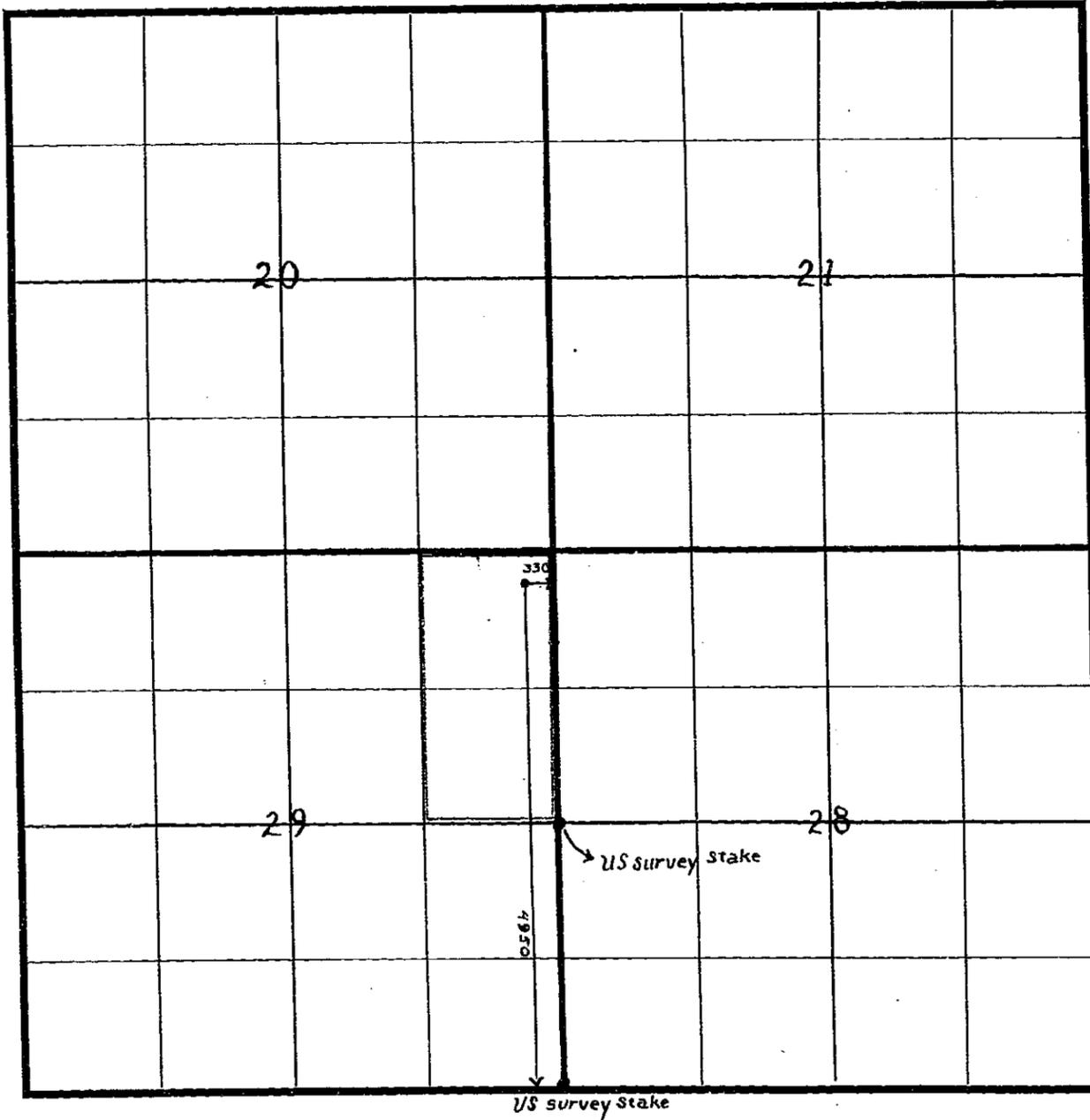
WE WILL PROTECT ALL FRESH WATER STRATA.

SECTION PLAT

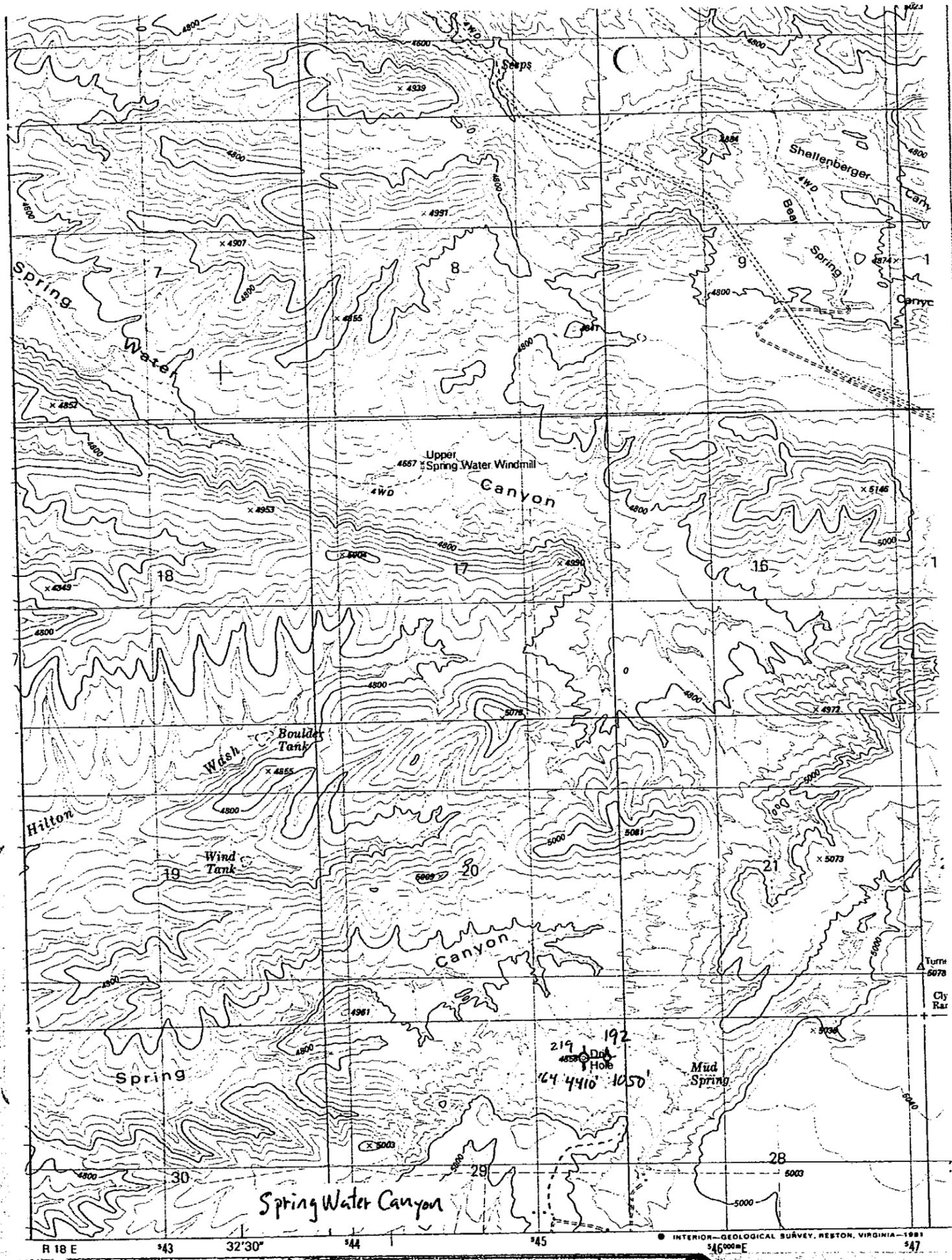
FORM NO. 5

FOR SALE BY LITTLE'S PTG. & STATY. CO., DUNCAN, OKLA.

SECTION 29 TWP. 19 S RANGE 18 E COUNTY PIMA STATE ARIZONA



REMARKS: _____





Amoco Production Company

Denver Region
Amoco Building
17th & Broadway
Denver, Colorado 80202
303-830-4040

July 1, 1980

H. Wesley Pierce, Principal Geologist
Bureau of Geology and Mineral Technology
845 North Park Avenue
Tucson, AZ 85719

Dear Wes:

Enclosed are the results of Amoco's source rock analyses of certain drill cuttings we borrowed from the Arizona Bureau of Geology. It is my understanding that only parts of the samples were used for the analyses.

The enclosed tables give detailed information on the analyses. A description and guide to interpretation of the analyses is also included.

The following is a brief summary of the results:

The Ted Jones No. 1 Juanita State samples are all past peak gas, but have high enough organic carbon content to have made good source rocks for gas (structured kerogen dominant).

2-07 Some tar encountered in the Waddell Duncan No. 1 McComb well was interpreted by our lab to be a refined petroleum contaminant.

192 The Mountain States well contained rocks with fair to good petroleum generating capabilities, based on organic carbon contents, but the stage of diagenesis was peak gas to past peak gas. Presence of both amorphous and structured kerogen suggests the rocks were capable in the past of generating both oil and gas.

Several other wells with insufficient organic material to warrant complete source rock analyses were run for vitrinite reflectance to determine the stages of thermal diagenesis. The results are presented in Table I.

CONFIDENTIAL

H. Wesley Pierce
July 1, 1980
Page Two

We request that the information in this report be held confidential. That is, the data may be used internally by the Bureau of Geology, but it is not to be released to the public. Incorporation of this data into Bureau publications requires the written consent of authorized staff of Amoco Production Company.

We hope this information is helpful to your staff.

Respectfully yours,



Noel B. Waechter
Senior Geologist

NBW:jl

Attachments

GZ320

CONFIDENTIAL

DESCRIPTION AND EVALUATION OF SOURCE ROCK ANALYSES

Petroservices Group, 5-8-79

A variety of analyses on the extractable and nonextractable organic matter are used to determine the organic richness of source rock samples and their stages of petroleum generation. Ranges of values listed in the following pages are for ideal cases; such a listing does not include subtleties of interpretation necessary when analytical problems are encountered, or when the samples are weathered or contaminated.

DESCRIPTION OF ANALYSES

Organic Carbon: Organic carbon is an easily measured index of the quantity of organic matter in a rock; it is determined by burning the carbonate-free rock in an oxygen atmosphere and measuring the evolved carbon dioxide. Percent organic carbon is one indicator of petroleum generation ability.

Thermal Evolution Analysis (TEA): TEA pyrolysis of powdered whole rock measures both the pre-existing volatile and oil-like hydrocarbons in the rock and the remaining ability of the sample to generate hydrocarbons. The volatile hydrocarbons are measured during low temperature heating of the rock, and the generated hydrocarbons are measured during higher temperature heating. The quantity of generated hydrocarbons is a primary measure of the source richness for thermally immature samples. The ratio of generated hydrocarbons to total organic carbon is an index of the liquid and/or gas generating ability of the kerogen. Temperature of the generated hydrocarbon peak maximum appears to indicate the thermal maturity of the kerogen.

Solvent Extraction: Organic matter in the rock sample that is removed by organic solvent extraction is called bitumen. The amount and character of the bitumen is a function of the quantity and quality of the kerogen and the stage of thermal maturity.

Bitumen is separated by liquid column chromatography into saturated and aromatic hydrocarbon fractions. Saturates are the most oil-like part of the bitumen.

Gas Chromatography: Gas chromatographic analysis (similar to a boiling point separation) of either the bitumen or saturated hydrocarbons gives the molecular distribution and relative proportions of paraffins and naphthenes, as well as the amounts of specific genetic marker hydrocarbons such as pristane and phytane. Odd-carbon predominance (C₂₄-C₃₀ range), deficiency of normal paraffins, or erratic molecular distribution in the bitumen or saturated hydrocarbon chromatogram implies,

T.S. 799431CR

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Approved for Release by

Enclosure 2

depending on the appearance, thermal immaturity, biodegradation, or contamination.

Visual Kerogen Analysis: Microscopic examination of kerogen (insoluble organic matter) separated from the rock matrix by hydrochloric and hydrofluoric acid treatment gives information about the morphology of the kerogen particles and hence the type of hydrocarbons generated. Structured type kerogens are usually associated with gas generation, whereas amorphous kerogens are associated with oil generation.

The color of the pollen and spores in the kerogen assemblage gives an indication of the level of thermal maturity of the kerogen. Palynomorphs change from yellow (immature), through various shades of brown (mature), to black (expended). These color changes have been subdivided into a seven-stage (1-7) visual carbonization scale.

Vitrinite Reflectance: The percentage of light reflected by microscopic vitrinite particles is another index of thermal maturity. This measurement is made using a photometer equipped microscope and polished slides of the kerogen embedded in plastic.

Elemental Analysis: This is a measurement of the four principal elements in kerogen-carbon, hydrogen, oxygen, and nitrogen. The concentrations of these four elements are normalized so that the values total 100%. The percent carbon and O/C are indices to thermal maturity; the hydrogen content and H/C ratio are indices to both thermal maturity and the liquid generating ability of immature kerogens.

RJH:ksb
79129ART0004

PETROLEUM GENERATING CAPABILITY

Rating	Total Organic Carbon Wt. %	Generated Hydrocarbons PPM by TMA*
Nonsource	< 0.4	< 600
Poor	0.4-0.6	600-1800
Fair	0.6-1.0	1800-3000
Good	1.0-1.5	3000-6000
Very Good	> 1.5	> 6000

*Thermal evolution analysis on thermally immature samples

KEROGEN TYPE

Petroleum Type	Visual Kerogen Type	Generated Hydrocarbons*/ Total Organic Carbon	Elemental W/C**	Bitumen/Total Organic Carbon***
Gas	Structured	< .15	< 0.8	< .05
Gas and condensate	Mixed	.15-.25	< 1.0	< .05
Oil	Amorphous (sometimes mixed)	> .25	> 1.0	> .05 < .30****

*From thermal evolution analysis for thermally immature kerogens

**For thermally immature samples

***For uncontaminated samples, and where bitumens are not thermally cracked to gas

****Values > .30 indicate non-indigenous oil or contamination; ratio > .70 also indicates non-indigenous oil or contamination.

KEROGEN THERMAL MATURITY

Diagenesis Stage	Pre-generation	Early peak oil-early gas	Peak oil-early peak gas (Oil expulsion)	Post peak oil-peak gas	Advanced
Visual Scale	1-3	4	5	6-7	7
Vitrinite Reflectance %	< 5	.5-.8	.8-1.2	1.2-2.0	> 2.0
Elemental W/C	< .78	78-81	81-85	85-90	> 90
TEA Gen HC/TOC*	> 1.0 (oil source)	> 1.0 (oil source)	> .80 (oil source)	.40-.80	< .40
TEA Vol HC/TOC*	> .25 (oil source)	> .25 (oil source)	> .15 (oil source)	< .15	< .05
TEA Gen HC Max °C	< .05	> .05 (oil source)	> .05 (oil source)	510-540	> 540
Bitumen/TOC*	480-490	> .05 (oil source)	490-530	< .05	< .01
Bitumen Chromatogram	Immature (odd-carbon predominance, sterane hump)	Immature (odd-carbon predominance, sterane hump)	Mature, oil-like molecular distribution	Mature	Insufficient extract for analysis

*Total organic carbon wt. %

RJH:ksh
7/11/04RT0007

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Amoco Production Company

November 18, 1964

Mrs. James White telephoned, complaining that Mr. Bill Cooper's letter of 9-11-64 and Mr. John Petty's letter of 1-29-64, concerning File 192, contradicted each other.

In checking Petty had merely related the drilling difficulties and had not indicated that the well was completed as a water well; whereas Cooper's letter stated the well had been accepted as a water well in November 1962.

Mrs. White felt that Mr. Cooper was in error and still in contradiction with Mr. Petty because she knew there was drilling on the well in 1963. It then became apparent she was concerned and interested in another well of the same description, our File 219. When this was made clear to her she was satisfied-----but then wanted to know whether they should hold onto their leases on adjoining land.

Gave her no advice---didn't even tell her where to go for advice-- that was her decision to make---but did make sure that she understood this well was plugged and that a new application would be necessary for anyone to re-enter.

192

31-221-18

XXXXXXXXXX
XXXXXXXXXX

XXXXXXXXXX
XXXXXXXXXX

September 11, 1964

Mr. James J. White
California Peanut Company
P.O. Box 157, Point Station
Richmond, California

RE: Your letter of September 5, 1964

Dear Mr. White:

In reply to the above referenced letter please be advised that the Mountain States Exploration Company's State #1 well, located in Section 29 Township 19S Range 18E was accepted on November 26, 1962, as a water well by the Empire Ranch, of Sonoita, Arizona. Mountain States also drilled another well in the same section as above and this well known as #1A was plugged and abandoned on January 28, 1964. These two transactions complete the files on these wells as far as this commission is concerned.

I hope that this information answers your letter and if I may be of further service to you, will you please advise.

Very truly yours,

Bill Cooper
Records Section

cc/File

192

219

STATE of ARIZONA
OIL and GAS CONSERVATION COMMISSION
CAPITOL ANNEX
ROOM 202
1624 WEST ADAMS STREET
PHOENIX, ARIZONA

COMPANY Mountain States Exploration Company DATE 9-1-1964
RE: WELL NAME & NUMBER: State #1
LOCATION: SECTION 29 TWP. 19S R. 18E COUNTY Pima
FILE NUMBER 192

Gentlemen:

We have reviewed our files and find that we need the below checked item (s) in order to complete same. Will you please fill in the enclosed form (s), at your earliest convenience, and return them to this office. May we remind you that your bond (# Not Applicable,

issued by Not Applicable (Cash bond refunded)) can be forfeited for failure to comply.

In addition we request a copy of any log run on this ~~(these)~~ well. ~~(s)~~

Your cooperation is appreciated. If we may be of service to you please advise.

Yours very truly,

Bill Cooper

Bill Cooper
Records Section

Completion Record

Plugging Record

Well Log
cc/Bonding Company

Application to plug and abandon



VALLEY NATIONAL BANK

7th AVE. & THOMAS RD. OFFICE PHOENIX, ARIZONA

August 25, 1964

Oil and Gas Conservation Commission
State of Arizona
1624 West Adams, Room 202
Phoenix, Arizona

Attention: John Bannister, Executive Secretary

Dear Mr. Bannister:

We are enclosing photostatic copies of the certificates of deposit you inquired about in your letter of August 20, 1964; namely, #204 dated December 21, 1961 payable to Mr. Stanley Adams and #211 dated June 21, 1962 payable to Mr. Stanley Adams.

Very truly yours,

Grace K. Connelly

Operations Officer

Grace K. Connelly
mg

Enclosures

192-
219



VALLEY NATIONAL BANK

7th AVENUE & THOMAS RD. OFFICE

91-252
1221

PHOENIX, ARIZONA

No. 204

December 21, 1961

10 61

02 62

Mr. Stanley Adams - - - - - HAS DEPOSITED IN THIS BANK

VALLEY NATIONAL BANK
DOLLARS \$ 2,500.00

PAYABLE TO THE ORDER OF Mr. Stanley Adams

ON THE RETURN OF THIS CERTIFICATE, PROPERLY ENDORSED, NOT SUBJECT TO CHECK.

THIS CERTIFICATE IS HEREBY MADE PAYABLE SIX MONTHS AFTER DATE WITH INTEREST THEREON AT THE RATE OF THREE PER CENT PER ANNUM.

INTEREST CEASES AT MATURITY

Charles W. Green
AUTHORIZED SIGNATURE

Pay to the order of State of Arizona, Oil and Gas Conservation Commission

Stanley Adams

Pay to the order of Stanley Adams

Executive Secretary, Arizona Oil and Gas Conservation Commission

Stanley Adams

Valley National Bank, Phoenix, Arizona

18

02

02

02

August 20, 1964

Mr. J.M. Tucker
P.O. Box 638
Willcox, Arizona

Re: Mountain States Exploration Company
State Nos. 1 and 1A wells
NE/4NE/4, Section 29, T19S, R18E, Pima County

Dear Mr. Tucker:

Pursuant to our verbal conversation of August 18, 1964, this is to advise that the Mountain States Number 1 well originally was scheduled to be the A & L Company Number 1 well. Operations were assumed by Mountain States.

Number 1 well is located 330 feet from the north and east lines of Section 29. As near as can be determined from our files this well reached a total depth of 1,413 feet and was in the cretaceous formation.

This well as subsequently been turned over to the Empire Ranch as a water well.

Our file does not reflect the depth to which water was encountered.

The 1A well is located 330 feet from the north and 610 feet from the east line of Section 29. This well reached a total depth of 4,410 feet and the completion report indicates water at 800 feet. It also indicates oil shows at 1,300 feet, 1,500 feet, 1,600-1,700 feet, and at 1,900 feet. This well has been plugged and abandoned.

According to the report, there are 940 feet of 7-inch pipe in the hole, which hole was set with mud and with 260 sacks of cement through the 7-inch casing.

If we may be of any further service, please advise.

Yours very truly,

John Bannister
Executive Secretary

mF

August 20, 1964

Valley National Bank
7th Avenue and W. Thomas Road
Phoenix, Arizona

Re: Mountain States Exploration, State No. 1
and State No. 1A wells
Our Files No. 192 and 219

Gentlemen:

In reviewing our files we find that your bank held certificates of deposit No. 204 and No. 211, both payable to Stanley Adams and endorsed by him in favor of this Commission.

These deposits were made available to the Commission for the captioned wells in lieu of a performance bond. In verification of this we are attaching therewith copies of letters dated June 11, 1962 and November 16, 1962, both letters executed by Stanley Adams.

Would you please advise us as to the status of these certificates of deposit? We believe these deposits have been released; however we are unable to verify same.

If you have any questions would you please advise.

Very truly yours,

John Bannister
Executive Secretary

nr
enc.

cc: Mr. Stanley Adams
6544 E. Indian Bend Rd.
Scottsdale, Arizona

195

December 5, 1962

Mountain States Exploration Company
c/o Mr. Otis Sullivan
6th Floor - Arizona Bank Building
1st Avenue and Monroe Street
Phoenix, Arizona

Re: Mountain States Exploration Company State No. 1-A
Sec. 29, T19S, R18E, Pima County, Arizona

Gentlemen:

Since we received the water well transfer form from
Mr. Boice yesterday, we are enclosing your approved
copy of application for permit to drill the above
test.

We wish you the greatest success in this venture.

Yours very truly,

John K. Petty
Petroleum Geologist

enc 1

6192

319

192

November 23, 1962

Mr. Wilbert E. Dolph, Jr.
Valley National Bank
Tucson, Arizona

Re: Water Well NE/4 Sec. 29, T19S, R18E, Pima County, Arizona

Dear Mr. Dolph:

Attached find copy of water well transfer and a copy of the Arizona Oil and Gas Conservation Commission rules and regulations. You can find what is pertinent, I believe, with ease.

The commissions in other states deal with this situation similarly and I've never heard of any dissatisfaction on the landowners part. In this case, the well is a very valuable piece of property.

Mr. Ted Spurlock, ranchman at Navajo, Arizona, just sent in similar papers on a flowing water well.

Yours truly,

John K. Petty
Petroleum Geologist

cc Mr. H. B. Pixley
1737 West Elm
Phoenix 15, Arizona

192

192

Handwritten notes and scribbles at the top of the page.

November 16, 1962

Mr. John K. Petty, Petroleum Geologist
Oil and Gas Conservation Commission
3500 North Central Avenue
Phoenix 12, Arizona

Re: Mountain States Exploration Company Permit No. ~~187~~

Dear Mr. Petty:

This will be your authority to transfer and hold Certificate of Deposit No. 211 of the Valley National Bank, Seventh Avenue and Thomas Road office, in the sum of \$2,500. This certificate is payable to Stanley Adams, the undersigned, and bears his endorsement to your commission.

I am herewith agreeing that this Certificate of Deposit be used as a bond for a new permit to be issued for a well to be located 50 feet east of the location contained in Permit No. 192; new location is as follows:

330 ft. FNL and 610 ft. FEL, Sec. 29, T19S
R18E, Pima County, Arizona

As stated in a letter to Mr. D. A. Jerome dated June 11, 1962, the interest accruing on the certificate of deposit above named and the certificate of deposit itself is to be returned to Mr. Stanley Adams, the undersigned, as, if and when the Mountain States Exploration Company completes its well as a producer or said well is plugged and abandoned or Mountain States Exploration Company furnishes a bond in lieu of the said certificate of deposit.

It is my understanding that the new permit number to be issued to the Mountain States Exploration Company for the new location will be No. 219.

Yours very truly,

Stanley Adams
Stanley Adams

≡ 219

192

192

June 11, 1962

Mr. D. A. Jerome, Executive Secretary
Oil and Gas Conservation Commission
3500 North Central Avenue
Phoenix 12, Arizona

Re: A & L Oil Company Permit No. 172

Dear Mr. Jerome:

This will be your authority to transfer and hold Certificate of Deposit No. 204 of the Valley National Bank, Seventh Avenue and Thomas Road office, in the sum of \$2,500. This certificate is payable to Stanley Adams, the undersigned, and bears my endorsement to your commission.

I am herewith agreeing that this certificate of deposit be used as a bond for a new permit which will be issued to Mountain States Exploration Company.

It is further understood and agreed that as between A & L Oil Company and Mountain States Exploration Company that the interest accruing on the certificate of deposit above named and the certificate of deposit itself is to be returned to Mr. Stanley Adams, the undersigned, as, if and when the Mountain States Exploration Company completes its well as a producer or said well is plugged and abandoned or Mountain States Exploration Company furnishes a bond in lieu of the said Certificate of Deposit.

Yours very truly,

Stanley Adams.
Stanley Adams

THIS WILL BECOME IN FORCE AND EFFECTIVE AS TO TRANSFER AS, IF AND WHEN MOUNTAIN STATES EXPLORATION COMPANY FURNISHES THE OIL AND GAS CONSERVATION COMMISSION WITH AN APPLICATION FOR PERMIT TO DRILL, AN ORGANIZATION REPORT AND PERMIT FEE OF \$25.00

D. A. Jerome
D. A. Jerome, Executive Secretary

S. Adams
WH 53729

PERRY & PERRY
LAWYERS

ALAN S. PERRY
ALAN S. PERRY
R. G. BOULTER, JR.

STATE BAR
2000 NORTH CENTRAL EXPRESS
PHOENIX 12, ARIZONA
CHARTERED 1908

December 22, 1961

State of Arizona, Oil and
Gas Conservation Commission
Suite 221
3500 N. Central Building
Phoenix 12, Arizona

Attention: Mr. Jerome

Re: A & L Oil Company

Gentlemen:

We hand you herewith Certificate of Deposit No. 204
of the Valley National Bank, Seventh Avenue and Thomas Road
office, in the sum of \$2,500.00. The certificate is payable
to Stanley Adams and bears Mr. Adams' endorsement to your
commission.

The purpose of this certificate is to fulfill the
bond requirements in regard to A & L Oil Company.

It is understood that any interest accruing on the
enclosure will be payable to Mr. Stanley Adams.

Very truly yours,

PERRY & PERRY

By

A. R. Perry

ARP:kcr

Enclosure

cc: Stan Adams

*Transferred from
172*

175

192