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May 1, 1995

HAND DELIVERED

Mr. Michael E. Stogner
Hearing Examiner
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Re: ***NMOCD Case 11247***
Application of Richardson Operating Company for Compulsory Pooling, Downhole Commingling and an Unorthodox Location, San Juan County, New Mexico

NMOCD Case 11243
Application of Amoco Production Company for Compulsory Pooling, San Juan County, New Mexico

Dear Mr. Stogner:

On behalf of Richardson Operating Company, please find enclosed our proposed order for your consideration in this matter which was presented to you at the hearing held on April 20, 1995.

Very truly yours,

W. Thomas Kellahin

cc: William F. Carr, Esq.
Attorney for Amoco Production Company

cc: Richardson Operating Company
Attn: Cathy Colby

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASES NOS. 11243 & 11247
Order No. R-_____

APPLICATION OF AMOCO PRODUCTION COMPANY FOR COMPULSORY POOLING, SAN JUAN COUNTY, NEW MEXICO

APPLICATION OF RICHARDSON OPERATING COMPANY FOR COMPULSORY POOLING, DOWNHOLE COMMINGLING AND AN UNORTHODOX GAS WELL LOCATION SAN JUAN COUNTY, NEW MEXICO

RICHARDSON OPERATING COMPANY'S PROPOSED ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on April 20, 1995 at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this _____ day of _____, 1995, The Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction over the parties, of this cause and the subject matter thereof.

(2) The applicant in Case 11247, Richardson Operating Company, ("ROPCO"), seeks an order pooling all mineral interests from the surface to the base of the base of the Pictured Cliffs formation underlying the following described acreage in Section 12, Township 29 North, Range 13 West, NMPM, San Juan County, New Mexico, in the following manner:

(a) The SW/4 to form a standard 160-acre gas spacing and proration unit for any and all formations and/or pools developed on 160-acre spacing within said vertical extent, which presently includes but is not necessarily limited to the Undesignated West Kutz-Pictured Cliffs Pool;

(b) The W/2 to form a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent, which presently includes but is not necessarily limited to the Undesignated Basin Fruitland Coal Gas Pool.

Both units are to be dedicated to its proposed ROPCO Federal "12" Well No 3 to be drilled at a potential unorthodox gas well location within 200 feet of a point 870 feet from the South line and 1180 feet from the West line of said Section 12 for downhole commingling of West Kutz-Pictured Cliffs Gas Pool production and Basin-Fruitland Coal Gas Pool production within said wellbore.

(3) The applicant in Case 11243, Amoco Production Company ("AMOCO), seeks an order pooling the same spacing units as described above to be dedicated to its proposed Burnham Gas Com "B" Well No. 1 to be drilled at a standard gas well location 1230 feet from the West line and 850 feet from the South line (Unit M) of said Section 12.

(4) Each applicant (ROPCO and AMOCO) has the right to drill and each proposes to drill their respective well to a depth sufficient to test both the Pictured Cliffs and the Fruitland Coal for gas production.

(5) In addition, ROPCO also seeks authority to drill its well initially as a downhole commingled well and to "downhole commingle" that production.

(6) Cases Nos. 11243 and 11247 were consolidated for the purpose of hearing and should be consolidated for purpose of issuing an order since the cases involve common acreage and the granting of one application would require the denial of the other.

(7) In support of its application in Case No. 11247, ROPCO submitted the following evidence through its exhibits and the testimony of its witnesses:

(a) On January 11, 1993, and on December 2, 1993, ROPCO proposed to Amoco a voluntary agreement for ROPCO to drill a well on the subject acreage or in lieu thereof a purchase and sale of acreage but both were rejected by Amoco;

(b) On January 27, 1995 ROPCO commenced producing its ROPCO Federal "12" Well No. 2 in Unit H of said Section 12 as a downhole commingled Pictured Cliffs and Fruitland Coal Gas producing well for an actual completed well costs of $177,379 (excluding compression);

(c) On March 6, 1995, in response to Amoco's proposal for a single Pictured Cliffs well, ROPCO proposed a Pictured Cliffs-Fruitland Coal Gas well to be downhole commingled at an estimated total completed well costs of $193,979 which did not include a compressor;

(d) On March 9, 1995, Amoco filed a compulsory pooling application with the NMOCD seeking to pool ROPCO and other working interest owners;

(e) On March 14, 1995, ROPCO filed a compulsory pooling application seeking to pool Amoco's interest;

(f) There are seven different working interest owners in the spacing units and, as of the date of the hearing, ROPCO had obtained the voluntary agreement from five of the seven working interest owners with Amoco refusing to join ROPCO and with Kerr-McGee electing to join which ever party prevailed before the Division;

(g) ROPCO's petroleum engineer testified that:

(i) ROPCO's AFE was substantially less than the Amoco's AFE and that that difference was significant;

(ii) by conservative estimates, operations by ROPCO would result in extending the life of the subject well an additional 4 years resulting in the recovery of an additional 146,413 MCF of gas for a potential increased net cash flow (undiscounted) of $205,224.00;

(iii) it was not physically possible to drill and complete the well as proposed by Amoco;

(iv) ROPCO's well proposal represented the greatest benefit at the least risk for all interest owners.

(h) Because the risk of a non-productive well is low, ROPCO's geologist requested a risk factor penalty of 150% for the Pictured Cliffs and 150% for the Fruitland Coal-Gas;

(i) ROPCO's landman testified in support of the use of its Joint Operating Agreement with overhead rates of $3,500/month drilling and $450/month producing;

(j) Mr. Rod Markham, one of the working interest owners in the spacing units, testified in support of ROPCO:

> because he had contacted Amoco's engineer, Greg Grotke, and was surprised that Amoco did not know that the PC produced water and required disposal; Amoco did not know that there was any potential for Fruitland Coal gas production; that Grotke had not looked at any logs in this area; that Amoco was planning to run 2-7/8" tubing for a production string when in fact nothing larger than 2-3/8" would physically fit in the well as proposed by Amoco; and
>
> because Amoco's AFE was too expensive and ROPCO's AFE was more typical of actual well costs in this area.

(8) To support its application in Case No. 11243, AMOCO presented the following evidence through its exhibits and the testimony of its witnesses:

> (a) On February 14, 1995, Amoco was the first working interest owner in the spacing unit to propose the drilling of a well for production from the Pictured Cliffs Gas Pool for an estimated completed well cost of $216,260 which included $30,000 for a compressor;
>
> (b) On March 6, 1995, Amoco received ROPCO's proposal for a Pictured Cliffs-Fruitland Coal Gas well to be downhole commingled at an estimated total completed well costs of $193,979 which did not include a compressor;
>
> (c) On March 9, 1995, Amoco filed a compulsory pooling application with the NMOCD seeking to pool ROPCO and other working interest owners:
>
> (d) On March 13, 1995 Amoco sent a revised well proposal to ROPCO and the other working interest owners now proposing a downhole commingled Pictured Cliffs-Fruitland Coal Gas well for an estimated completed well cost of $260,760 which included $30,000 for a compressor;

(e) As of the date of the hearing, Amoco has 50% working interest in the Pictured Cliffs spacing unit and a 66.69% working interest in the Fruitland Coal-Gas spacing unit;

(f) Amoco's petroleum engineer testified that it desired to package this well with five other PC wells in order for it to be economic and also proposed that this well be drilled with coiled tubing and use of slim-hole technology in an effort to test the application of this technology in the San Juan Basin.

(g) Amoco's petroleum engineer requested a risk factor penalty of 200% for the Pictured Cliffs and 156% for the Fruitland Coal-Gas with overhead rates of $3,582/month drilling and $498/month producing;

(9) The Division **FINDS** that it should decide the compulsory pooling issues in this case based upon its statutory obligation to prevent waste and protect correlative rights utilizing the following criteria and analysis:

(a) a well to be drilled, completed and produced for downhole commingling of production from both the Pictured Cliffs and the Fruitland Coal gas will be the most appropriate method by which to maximize recovery from both pools;

(b) within the last 90 days, ROPCO has successfully drilled, completed and now produces such a downhole commingled well in the NE/4 of said Section 12; (See Division Order R-10231);

(c) while on February 14, 1995, Amoco was the first working interest owner in this spacing unit to proposed a well, its well proposal was only for a Pictured Cliffs' well and failed to include any proposal for producing the Fruitland Coal Gas reserves;

(d) ROPCO's well proposal dated March 6, 1995 was the first to propose (with an appropriate AFE) that the subject well be drilled as a downhole commingled well:

(e) In response to ROPCO's proposal, Amoco on March 9, 1995, first files a compulsory pooling application with the Division and then on March 16, 1995 modifies its well proposal (including AFE) to now include downhole commingling but fails to amend its application to include approval from the Division for such downhole commingling;

(f) Amoco's case was continued from the April 6, 1995 docket to the April 20th docket during which time Amoco made no effort to amend its application to include downhole commingling;

(g) Amoco initiated compulsory pooling for a type of well which was substantially different from the well it had proposed;

(h) Amoco prematurely filed its compulsory pooling application without affording an opportunity to the other working interests owners to reach a voluntarily agreement with Amoco;

(i) Excluding Amoco and ROPCO, there are five other working interest owners in these two spacing units of which none have agreed to join with Amoco and of which four have agreed to join ROPCO with the fifth electing to join which ever party prevailed before the Division;

(j) ROPCO has proposed the drilling of a "conventional" Pictured Cliffs-Fruitland Coal Gas well for an estimated total completed well cost of $193,979;

(k) Amoco has proposed the drilling of an experimental well utilizing coiled tubing and slim-hole (2-7/8" tubing) technology for an estimated total completed well costs of $230,760 (said sum excludes Amoco's $30,000 compressor costs);

(l) Amoco's AFE is some $50,000 higher than the ROPCO's AFE despite the fact that Amoco proposes to reduce costs by "packaging" five other wells into a proposed drilling program;

(m) Amoco's proposed operating costs for the well were estimated to be substantially higher than ROPCO's costs and would include more than $300/month in additional costs plus additional unspecified amounts for Amoco's computerized "Jupiter" well monitoring system;

(n) Since risk of an unsuccessful completion is low, the risk penalty should be set at 150% for both pools;

(o) It would violate the correlative rights of the other working interest owners to allow Amoco to obtain a compulsory order which compels the other owners to pay for an experimental science project which Amoco desires to undertake with this well;

(p) the ROPCO well proposal and AFE represent an accurate and fair estimate of the costs of such a well when compared to ROPCO's actual costs of $177,379 for the offsetting well in the NE/4 of said Section 12 and therefore should be approved and adopted by the Division;

(q) Designation of ROPCO as operator and approval of its AFE and well proposal is conservatively estimated to extend the life of said well by approximately 4 years longer

than the Amoco proposal and thereby potentially recovering an additional 150,000 MCF of gas thereby preventing waste.

(10) ROPCO's application should be **GRANTED**.

(11) Amoco's application should be **DENIED.**

(12) No offset operator and/or interest owner appeared at the hearing in opposition to either ROPCO's proposed unorthodox gas well location or to ROPCO's proposed downhole commingling.

(13) Amoco waived any objection to the proposed ROPCO potential unorthodox well location which should be approved in order to minimize surface disturbance in the area.

(14) ROPCO's evidence concerning downhole commingling demonstrated that:

a) there should be no crossflow between the two commingled pools;

b) neither commingled zone exposes the other to damage by produced liquids;

c) the fluids from each zone are compatible with the other;

d) the bottomhole pressure of the lower pressure zone should not be less than 50 percent of the bottomhole pressure of the higher pressure zone adjusted to a common datum; and

e) the value of the commingled production is not less than the sum of the values of the individual production.

(15) Approval of ROPCO's proposed unorthodox gas well location and downhole commingling will allow the interest owners to recover the gas reserves in the Fruitland and Pictured Cliffs formations underlying each respective proration unit(s) without waste and without violating correlative rights.

(16) Subsequent to completion, ROPCO proposes to conduct a production test on each of the subject zones in order to obtain initial production data.

(17) The production tests should be of sufficient duration in order to obtain stabilized producing rates. In addition, ROPCO should notify the supervisor of the Aztec district office of the Division prior to conducting such production tests, in order that such test may be witnessed.

(18) ROPCO should present the results of the production tests to the supervisor of the Aztec district office of the Division in order that the results may be verified and approved for use in its allocation formula.

(19) Due to the nature of the Basin-Fruitland Coal Gas production, straight allocation of gas volumes from both zones is not appropriate. ROPCO therefore seeks the adoption of a monthly allocation formula, as shown on Exhibit "A" attached hereto and made a part hereof.

(20) ROPCO should be responsible for reporting the monthly gas production from said well by utilizing the proposed allocation formula.

(21) An annual report should be submitted by ROPCO to both the Aztec and Santa Fe offices of the Division showing the complete computation for each month.

(22) Any condensate production from the subject well should be allocated entirely to the Pictured Cliffs interval.

(23) Any change in the method of gas allocation between the two pools should be made only after due notice and hearing.

(24) To afford the Division an opportunity to assess the potential of waste and to expeditiously order the appropriate remedial action, the operator should notify the Aztec district office of the Division any time the subject well is shut-in for seven consecutive days.

(25) Approval as set forth above and in the following order will avoid the drilling unnecessary wells, protect correlative rights, prevent waste and afford the owner of each interest in said unit the opportunity to recover or receive without unnecessary expense his just and fair share of the production in any pool resulting from this order.

IT IS THEREFORE ORDERED THAT:

(1) The application of Richardson Operating Company ("ROPCO") in Case No. 11247 as described in Finding (2) of this order is hereby **GRANTED**.

(2) The application of Amoco Production Company ("Amoco") in Case 11243 as described in Finding (3) of this order is hereby **DENIED.**

(3) all mineral interests, WHATEVER THEY MAY BE, from the surface to the base of the base of the Pictured Cliffs formation underlying the following described acreage in Section 12, Township 29 North, Range 13 West, NMPM, San Juan County, New Mexico, are hereby pooled in the following manner:

(a) The SW/4 to form a standard 160-acre gas spacing and proration unit for any and all formations and/or pools developed on 160-acre spacing within said vertical extent, which presently includes but is not necessarily limited to the Undesignated West Kutz-Pictured Cliffs Pool;

(b) The W/2 to form a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent, which presently includes but is not necessarily limited to the Undesignated Basin Fruitland Coal Gas Pool.

Both units are to be dedicated to its proposed ROPCO Federal "12" Well No. 3 to be drilled at a potential unorthodox gas well location within 200 feet of a point 870 feet from the South line and 1180 feet from the West line of said Section 12 for downhole commingling of West Kutz-Pictured Cliffs Gas Pool production and Basin-Fruitland Coal Gas Pool production within said wellbore.

(4) Richardson Operating Company ("ROPCO") is hereby designated operator of the subject well and the two corresponding spacing units.

(5) ROPCO's proposed drilling-completion program and the corresponding Authority for Expenditures ("AFE") as described in ROPCO Exhibit 16 is hereby **APPROVED**.

(6) The terms and conditions of the AAPL Form 610-1989 Model Form Operating Agreement (ROPCO Exhibit 7) are incorporated herein by reference and shall be binding upon all parties pooled.

PROVIDED HOWEVER THAT, the operator of said unit shall commence the drilling of said well on or before the ____th day of _____, 1995, and shall thereafter continue the drilling of said well with due diligence to a depth sufficient to test both the Fruitland Coal Gas and the Pictured Cliffs formations.

PROVIDED FURTHER THAT, in the event said operator does not commence the drilling of said well on or before the ____th day of _____, 1995, Decretory Paragraph No. (2) of this order shall be null and void and of no effect whatsoever, unless said operator obtains a time extension from the Division for good cause shown.

PROVIDED FURTHER THAT, should said well not be drilled to completion, or abandonment, within 120 days after commencement thereof, said operator shall appear before the Division Director and show cause why Decretory Paragraph No. (2) of this order should not be rescinded.

(7) After the effective date of this order and prior to commencing said well, the operator shall furnish the Division and each known working interest owner in the subject unit an itemized schedule of estimated well costs.

(8) Within 30 days from the date the schedule of estimated well costs is furnished to him, any non-consenting working interest owner shall have the right to pay his share of estimated well costs to the operator in lieu of paying his share of reasonable well costs out of production, and any such owner who pays his share of estimated well costs as provided above shall remain liable for operating costs but shall not be liable for risk charges.

(9) The operator shall furnish the Division and each known working interest owner an itemized schedule of actual well costs within 90 days following completion of the well; if no objection to the actual well cost is received by the Division and the Division has not objected within 45 days following receipt of said schedule, the actual well costs shall be the reasonable well costs; provided however, if there is an objection to actual well costs within said 45-day period the Division will determine reasonable well costs after public notice and hearing.

(10) Within 60 days following determination of reasonable well costs, any non-consenting working interest owner who has paid his share of estimated costs in advance as provided above shall pay to the operator his pro rata share of the amount that reasonable well costs exceed estimated well costs and shall receive from the operator his pro rata share of the amount that estimated well costs exceed reasonable well costs.

(11) The operator is hereby authorized to withhold the following costs and charges from production:

A. The pro rata share of reasonable well costs attributable to each non-consenting working interest owner who has not paid his share of estimated well costs within 30 days from the date of schedule of estimated well costs is furnished to him; and

B. As a charge for the risk involved in the drilling of the well, 150 percent of the pro rata share of reasonable well costs attributable to each non-consenting working interest owner who has not paid his share of estimated well costs within 30 days from the date the schedule of estimated costs is furnished to him.

(12) The operator shall distribute said costs and charges withheld from production to the parties who advanced the well costs.

(13) $3,500 per month while drilling and $450 per month while producing are hereby fixed as reasonable charges for supervision (combined fixed rates); the operator is hereby authorized to withhold from production the proportionate share of such supervision charges attributable to each non-consenting working interest, and in addition thereto, the operator is hereby authorized to withhold from production the proportionate share of actual expenditures required for operating such well, not in excess of what are reasonable, attributable to each non-consenting working interest.

(14) The operator shall furnish the Division and each known working interest owner an itemized schedule of actual **operating** well costs to be charged on a monthly basis in the form of a joint interest billing within 90 days following completion of the well; if no objection to the actual operating well cost or the joint interest billing is received by the Division and the Division has not objected within 45 days following receipt of said schedule, the actual well costs shall be the reasonable well costs; provided however, if there is an objection to actual well costs within said 45-day period the Division will determine reasonable well costs after public notice and hearing.

(15) Any unleased mineral interest shall be considered a seven-eighths (7/8) working interest and a one-eighth (1/8) royalty interest for the purpose of allocating costs and charges under the terms of this order.

(16) Any well costs or charges which are to be paid out of production shall be withheld only from the working interest's share of production, and no costs or charges shall be withheld from production attributable to royalty interests.

(17) All proceeds from production from the subject well which are not disbursed for any reason shall be placed in escrow in San Juan County, New Mexico, to be paid to the true owner thereof upon demand and proof of ownership; the operator shall notify the Division of the name and address of said escrow agent within 30 days from the date of first deposit with said escrow agent.

(18) Should all the parties to this compulsory pooling reach voluntary agreement subsequent to the entry of this order, this order shall thereafter be of no further effect.

(19) The operator of the subject well and units shall notify the Director of the Division in writing of the subsequent voluntary agreement of all parties subject to the compulsory pooling provisions of this order.

IT IS FURTHER ORDERED THAT:

(20) ROPCO is hereby authorized to downhole commingle Basin-Fruitland Coal and Undesignated West Kutz-Pictured Cliffs Gas Pool production within the wellbore of its ROPCO Federal "12" Well No. 3 to be drilled at a potential unorthodox gas well location within 200 feet of a point 870 feet FSL and 1180 feet FWL (Unit M) of said Section 12.

(21) Subsequent to completion, ROPCO shall conduct a production test of sufficient duration on each of the zones in order to obtain initial stabilized producing rates. In addition, the applicant shall notify the supervisory of the Aztec district office of the Division prior to conducting such production tests, in order that such test may be witnessed.

(22) ROPCO shall present the results of the production tests to the supervisor of the Aztec district office of the Division in order that the results may be verified and approved for use in its allocation formula.

(23) The allocation of gas produced from both zones shall be in accordance with the allocation formula adopted for this well as further described in Exhibit"A" attached hereto and made a part hereof.

(24) ROPCO is responsible for reporting the monthly gas production from the subject well to the Division utilizing the allocation formula adopted herein. An annual report shall be submitted by the operator to both the Aztec and Santa Fe offices of the Division showing the complete computations for the previous twelve month period.

(25) Condensate production from the subject well shall be allocated entirely to the Pictured Cliffs formation. Water production shall be reported in a manner acceptable to the supervisor of the Aztec district office of the Division.

(26) Any variance in the method of gas allocation between the two pools shall be made only after due notice and hearing.

(27) ROPCO shall immediately notify the supervisor of the Aztec district office of the Division any time the subject well has been shut-in for seven consecutive days and shall concurrently present to the Division a plan for remedial action.

(28) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE, at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY,
Director

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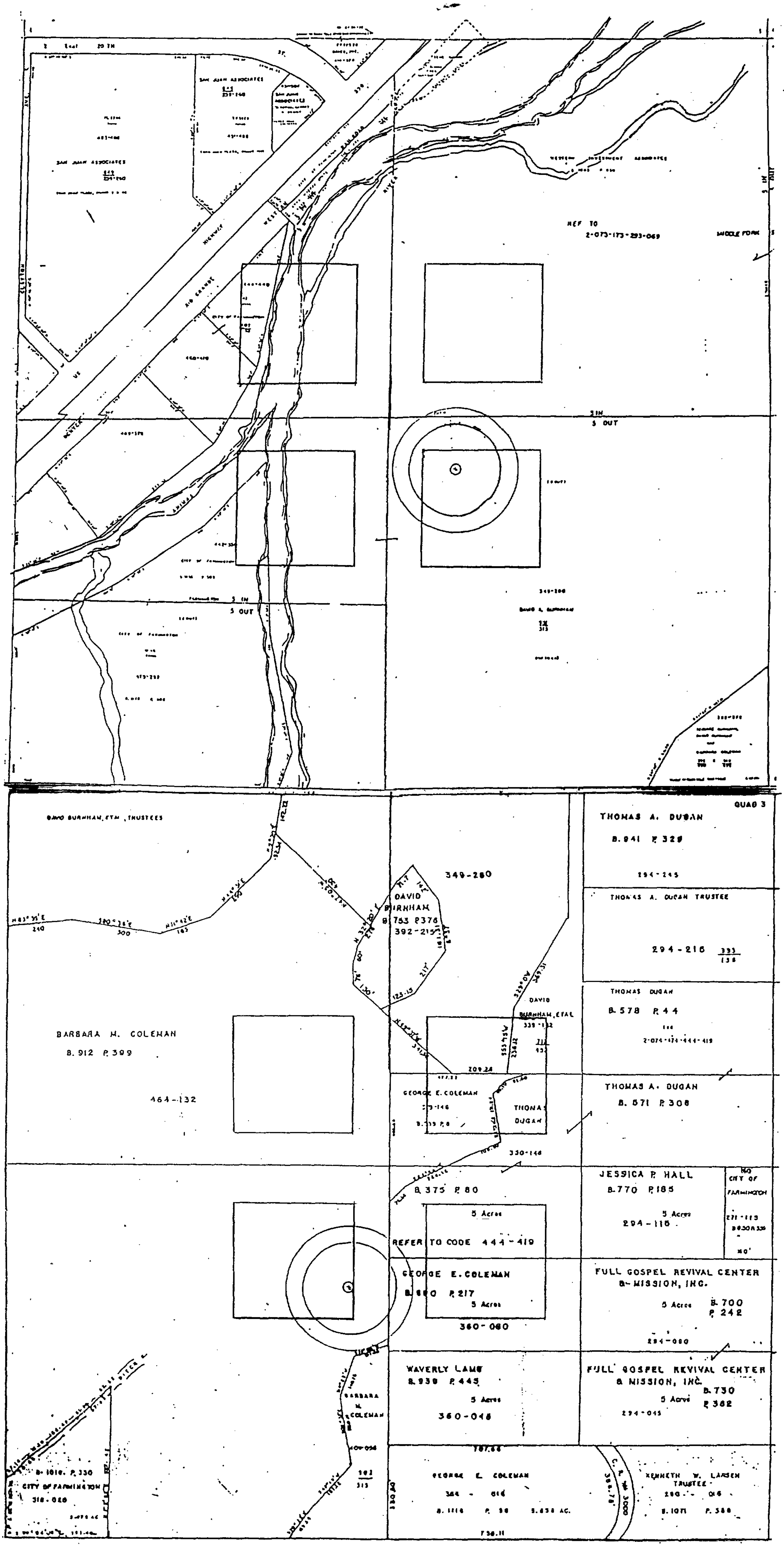

QUAD 3
DAVID BURNHAM, ETAL, TRUSTEES
THOMAS A. DUGAN
B. 941 P. 329
294-245
THOMAS A. DUGAN TRUSTEE
294-216
349-260
DAVID BURNHAM
B. 753 P. 376
392-215
THOMAS DUGAN
B. 578 P. 44
BARBARA H. COLEMAN
B. 912 P. 399
464-132
GEORGE E. COLEMAN
THOMAS DUGAN
THOMAS A. DUGAN
B. 571 P. 308
330-146
JESSICA P. HALL
B. 770 P. 185
5 Acres
294-118
CITY OF FARMINGTON
B. 375 P. 80
5 Acres
REFER TO CODE 444-419
GEORGE E. COLEMAN
P. 217
5 Acres
360-080
FULL GOSPEL REVIVAL CENTER
& MISSION, INC.
5 Acres
B. 700
P. 242
WAVERLY LAMB
B. 939 P. 445
5 Acres
360-046
FULL GOSPEL REVIVAL CENTER
& MISSION, INC.
5 Acres
B. 730
P. 382
BARBARA H. COLEMAN
CITY OF FARMINGTON
GEORGE E. COLEMAN
KENNETH W. LARSEN
TRUSTEE
5 IN
5 OUT
REF TO
2-073-173-293-069
MIDDLE FORK
SAN JUAN ASSOCIATES

LARGE FORMAT EXHIBIT HAS BEEN REMOVED AND IS LOCATED IN THE NEXT FILE