

(1)

(7) That Tract 13 of the proposed unit comprises the following described lands:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM

Section 14: SW/4

(8) That Tract 15 of the proposed unit comprises the following described lands:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM

Section 13: N/2 NW/4 and NW/4 NE/4

(9) That the owners of interest in Tract 13 who filed requests for rehearing are J. R. Cone and Texaco Inc.

(10) That the owner of interest in Tract 15 who filed a request for rehearing is Summit Energy Inc.

(11) That by Order No. R-5593-A entered January 20, 1978, the Commission granted ~~the~~ Cone's and Summit's requests for rehearing of Case No. 6069, but provided "That the evidence at said rehearing shall be limited to evidence relating to the unitization of and water flood operations on, Tract No. 13 and Tract No 15 of the East Blueberry Unit Area...."

(12) That by Order No. R-5593-B entered January 24, 1978, the Commission granted Texaco's request for rehearing of Case No. 6069, but provided "That the evidence at said rehearing shall be limited to evidence relating to the unitization of Tract No. 13 of the East Blueberry Unit Area...."

(2)

(13) That, ^{when} this cause came on for rehearing ~~at~~ on February 21, 1978, the record in the original hearing of the case on October 20, 1977, was incorporated in the record of this the rehearing, and the evidence in the rehearing was limited to evidence pertaining to Tract No. 13 and Tract No. 15 of the Blinkey Unit Area.

(14) That the Commission, in considering the record of the rehearing, should consider only what effect ~~that~~ the inclusion or exclusion of said tracts would have on unit operations as a whole and on the tracts individually, having previously determined that "... the unitized management, operation, and ^{jurisdiction} development of the subject portion of the Blinkey Oil and Gas Pool, as proposed, is reasonably necessary in order to effectively carry on secondary recovery operations and to substantially increase the ultimate recovery of oil from the pool" and that "... the unitized method of operation as applied to the East Blinkey Unit Area, is feasible, will prevent waste, and will result with reasonable probability in the increased recovery of substantially more oil from the pool than would otherwise be recovered. (Findings Nos. (6) and (7), Order No. R-5593.)

(15) That ~~the~~ in considering the record of the rehearing, the Commission should determine whether the inclusion of Tract 13 and/or Tract 15 is ~~in the best interest of course~~ in the ~~the~~ East Blinbery Unit Area is in the best interests of conservation to the end that greater ultimate recovery may be had therefrom, waste prevented, and correlative rights protected of all ~~other~~ owners of ^{mineral} interests in the unitized area.

(16) That should the Commission find that the inclusion of either or both of said tracts ^{in the unit} is in the ~~best~~ interests of conservation to the above-described ends, it should ~~affirm~~ Order No. R-5593, and should the Commission find that the inclusion of either or both of said tracts ^{in the unit} is not necessary to the best interests of conservation to the end that greater ultimate recovery may be had therefrom waste prevented, and correlative rights protected of all owners of mineral interests in the unitized area, it should ~~revoke~~ ^{amend} Order No. R-5593 ~~or amend it~~ to exclude either ~~of~~ or both of said tracts.

(17) That the evidence establishes that upon unitization of the East Blinbery Unit Area, applicant will institute a secondary recovery project in the area by the injection of water into the Blinbery formation through 38

injection wells, all in Township 21 South,
Range 37 East, N14W, and described and
located as follows:

Unit Well Number	Unit Letter	Section	Located on Tract. No.
2	C	12	1
4	A	11	1
6	C	11	1
8	E	11	1
10	G	11	1
12	F	12	1
14	G	12	1
16	K	12	6
18	I	11	1
20	K	11	3
22	M	11	3
24	O	11	1
26	M	12	7
28	Q	12	9
30	C	13	15
32	A	14	1
34	C	14	11
36	E	14	10
38	G	14	12
40	E	13	1
42	G	13	1
44	K	13	1
46	I	14	1
48	K	14	13
50	M	14	13
52	O	14	14
54	M	13	1
56	C	24	21
58	A	23	18

60	C	23	16
62	E	23	16
64	G	23	17
66	E	24	21
69	I	23	20
71	K	23	19
73	M	23	19
75	O	23	20
77	M	24	22

(18) That the evidence establishes that the deletion of Tract No. 13 from the unit area would eliminate

(18) That the selection of the above-described 38 wells to be water injection wells in the East Blueberry Unit Area waterflood project was made in order to provide a uniform water injection patterns and to achieve an efficient sweep of oil ^{from} throughout the unitized formation throughout the unit area.

(19) That the evidence establishes that the deletion of Tract No. 13 from the unit area would ^{very likely} mean the loss to the ^{overall} injection pattern of two ~~wells~~ ^{on Tract No. 13,} proposed injection wells, ~~namely~~ ^{namely} the ~~unit~~ wells Nos. 48 and 50, located in units ~~letters~~ K and M, respectively, of Section 14.

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(20) That if said Tract No. 13 is not included in the Unit, and Wells Nos. 48 and 50 were not placed on water injection, the injection of water into three additional proposed injection wells ~~as well as~~ ~~which~~ ~~would~~ ~~have to~~ directly affecting Tract No. 13 would have to be suspended to ~~prevent~~ ~~avoid~~ ~~preventing~~ prevent water injected into them from pushing oil off the unitized lands and onto Tract No. 13.

(21) That the three additional wells into which no injection could occur are ~~two~~ Wells Nos. 36 and 52, located in Units ~~letters~~ E and O, respectively, of Section 14, and Well No. 60, located in Unit C of Section 23.

(22) That the deletion of Tract No. 13 from the East Blinberry Unit Area and the subsequent loss of five wells to the water flood injection pattern, being the five wells described in Findings Nos. (19) and (21) above, ~~would~~ would result in a loss to the efficiency of the proposed 38-well injection pattern, and would have an effect on the secondary recovery of oil from Tracts Nos. 1(B-14), 10, 11, 12, 13, 14, 16, 17, and 18 of the unit area.

(23) That if the East Blinbery Unit Area and the East Drinkard Unit Area are utilized as proposed, and both unit areas are subject to ^{the planned} secondary recovery operations, ^{combined} secondary recovery ^{from the Blinbery Pool and the Drinkard} from the above-named tracts is expected to be as follows:

(1) Tract No.	(2) Total Acres in Tract	(3) Tract Acres Seized by Flood	(3) Thousand Barrels Calculated Secondary Recovery
1 (B-14)	160	160	312.600
10	80	80	537.300
11	80	80	316.000
12	80	80	506.300
13	160	160	820.500
14	80	80	484.100
16	160	160	394.700
17	120	120	316.600
18	40	40	56.900

~~(24) That recoveries in the vicinity of Tract 13 have been and~~

(24) That the secondary recovery production from all wells in ^{both} the East Blinbery Unit Area and the East Blinbery Drinkard Unit Area, based on primary oil and gas equivalent production plus the expected secondary oil production from the Blinbery and Drinkard formations, is calculated to be 64.544 percent from the Blinbery formation and 35.456 percent from the Drinkard formation.

(25) That applying the above ~~mentioned~~ Blinbery allocation factor of 64.544 percent to the total ^{calculated} secondary recovery figures shown in Column the ~~fourth~~ Column 3

in Finding No. (23) above indicates that the tracts named tracts would have secondary recovery reserves ^{in the East Blinberry Unit area} allocated to them as follows:

Tract No.	Thousand Barrels Calculated Secondary Recovery	Blinberry Allocation Factor	Thousand Barrels Blinberry Secondary Recovery
1 (B-14)	312.6	64.544	201.8
10	537.3	"	347.0
11	316.0	"	204.0
12	506.3	"	326.8
13	820.5	"	529.6
14	484.1	"	312.5
16	394.7	"	254.8
17	316.6	"	204.3
18	56.9	"	36.7

(26) That if Tract No. 13 is not included in the East Blinberry Unit, and the five wells described in Findings Nos. (19) and (21) above are not placed on water injection, portions of Tracts Nos. 1, 10, 11, 12, 13, 14, 16, and 17 will not be flooded swept by the Blinberry flooding operation.

(27) That the Commission calculates that under the conditions described in Finding No. (26) above, the aforesaid tracts will be affected as described follows:

(1) Tract No	(2) Total Acres in Tract	(3) Acres Swept by Flood	(4) Acres Not Swept by Flood	(5) Percent Loss (Col 4 ÷ Col 2 x 100)
1 (B-14)	160	138.17	21.83	13.64
10	80	24.62	55.38	69.23
11	80	50.39	29.61	37.01
12	80	74.19	5.81	7.26
13	160	0.00	160.00	100.00
14	80	16.02	63.98	80.00
16	160	78.72	81.28	50.80
17	120	89.58	30.42	25.35
18	110	21.07	88.93	80.85

(28) That, ^{by} applying the above-derived percent ~~of tract~~ ^{loss} ~~it is the~~ ^{expected} ~~percentage of~~ ^{obtained} secondary recovery to be derived from full unit operations under each tract as arrived at in Finding No. (25) above, ~~it~~ it must be concluded that the deletion of Tract No. 13 from the ^{East Blinberry} Unit Area will result in the loss of secondary recovery under from each of the affected tracts as follows:

Tract No	Thousand Bbl's Secondary Recovery Under Full Utili- zation	Percent Loss	Thousand Bbl's Secondary Recovery Lost
1 (B-14)	201.8	13.64	27.5
10	347.0	69.23	240.2
11	204.0	37.01	75.5
12	326.8	7.26	23.7
13	529.6	100.00	529.6
14	312.5	80.00	250.0
16	254.8	50.80	129.4
17	204.3	25.35	51.8
18	36.7	12.78	4.7

(29) That the total loss of ^{Blinberry} secondary recovery oil from all of the above tracts, resulting from the deletion of Tract No. 13 from the ^{East Blinberry} Unit Area and the resultant loss of ³⁸ ~~five~~ wells from the Blinberry proposed ^{Blinberry} waterflood injection program is 1,332,400 barrels.

(30) That the evidence establishes that if ~~the~~ ~~deletion of~~ Tract No. 15 ~~from the unit~~ ~~area~~ were deleted from the unit area, a lease-lise agreement might be worked out whereby the operator of Tract No. 15 would put one well on water injection into the Blinberry formation, namely

the Summit Basin well No. 2, located in Unit C of Section 13, Township 21 South, Range 37 (Unit Well No. 30 in Finding No. (17) above).

(31) That although the placing of the said Basin Well No. 2 on water injection into the Blinney formation would be in conformance to the proposed ^{Blinney} water injection pattern for the East Blinney Unit Area, if the unit operator completed the proposed injection well pattern, there would be five injection wells on unitized lands affecting the Basin Lease, as opposed to one injection well on the Basin Lease affecting the unitized lands.

(32) That the aforesaid disparity in the number of injection wells on one property as opposed to the number of injection wells on the other property would cause drainage of oil from one property to the (the unitized lands) to the other property (the Basin Lease) which would not be offset by counter-drainage, and would impair the correlative rights of owners in the unitized lands.

(33) That to prevent the aforesaid drainage and to protect the correlative rights of owners in the unitized lands, the unit operator would have to delete certain wells from

The proposed Blinbery injection well pattern, namely Unit Wells Nos. 26 and 28, in Units M and O, respectively, of Section 12, and Unit Well No. 42 in Unit G of Section 13, all in Township 21 South, Range 37 East, NMPM.

(34) That the deletion of Tract No. 15 from the East Blinbery Unit Area and the subsequent loss of three wells to the water flood injection pattern, being the three wells covered in Finding No. 33 above, will result in serious loss to the efficiency of the 38-well injection pattern and will cause the loss of secondary recovery oil from Tracts Nos. 1, 4, 5, 6, 7, 8, 9, and 15 of the Unit area.

(35) That if the East Blinbery Unit Area and the East Drinkard Unit Area are unitized as proposed, and the entire unit area is subject to the planned secondary recovery operations, secondary recovery from the above-named tracts is calculated to be as follows:

(1) Tract No	(2) Total Acres in Tract	(3) Tract Acres Swept by Flood	(4) Thousand Barrels Calculated Secondary Recovery
1 (B-11)	440	440.00	1872.1
1 (B-13)	320	264.96	291.6
1 (B-14)	160	160.00	312.6
4 and 5	80	72.74	166.2
6 and 7	80	80.00	142.1
8	40	40.00	60.1
9	40	20.90	33.3
15	120	98.00	296.0

(36) That if Tract No. 15 is deleted from the East Blueberry Unit Area, and the three wells described in Finding No. (34) above are not placed on injection, the Commission calculates that the aforesaid tracts will be affected as follows:

(1) Tract No	(2) Acres Flooded with Full Unifization (Col. 3, Finding 35)	(3) Acres Flooded if Tract 15 De- leted From Unit	(4) Acres Not Flood- ed Because of Deletion of Tract 15	(5) Percent Loss (Col. 3 ÷ Col 2 × 100)
1(B-11)	440.00	436.98	3.02	0.69
1(B-13)	264.96	213.87	51.09	19.28
1(B-14)	160.00	159.30	.70	0.44
Land 5	72.74	35.58	44.42	61.07
Land 7	80.00	30.89	49.11	61.39
8	40.00	13.93	26.07	65.18
9	20.90	0.00	20.90	100.00
15	98.00	46.91	51.09	52.13

30.14
30.70
30.89
30.00

(37) That although the allocation of secondary production from wells in the East Blueberry Unit Area and the East Drinkard Unit Area based on primary oil and gas equivalent production plus the expected secondary oil production from the Blueberry and Drinkard Formations, is calculated to be 64.544 percent from the Blueberry formation and 35.456 percent from the Drinkard formation, it does not appear to the Commission that the deletion of Tract No. 15 from the East Drinkard Unit Area would have any effect on the flooding operations in the Drinkard formation and the Commission must therefore conclude that all of the anticipated secondary recovery oil attributed to the various tracts listed in Finding No. (35) above would be recovered from the Blueberry formation.

(38) That ^{by} applying the percent loss of flooded acres in each tract (as derived in Finding No. (36) above) to the barrels of secondary recovery ~~to~~ expected to be obtained from full unit operations (Column 4, Finding No. (35) above) it must be concluded that the deletion of Tract No. 15 from the East Blinbery Unit Area will result in the loss of secondary recovery from the Blinbery formation from each of the affected tracts as follows:

Tract No	Thousand Bbls Secondary Recovery Under Full Unit Operations	% of Percent Loss	Thousands Bbls Secondary Reco. Lost
1(B-11)	1872.1	0.69	12.9
1(B-13)	291.6	19.28	56.2
1(B-14)	312.6	0.44	1.4
4 and 5	166.2	61.07	101.5
6 and 7	142.1	61.39	87.2
8	60.1	65.18	39.2
9	33.3	100.00	33.3
15	296.0	52.13	154.3

(39) That the total loss of Blinbery secondary recovery oil from all of the above tracts, resulting from the deletion of Tract No. 15 from the East Blinbery Unit Area and the resultant loss of three wells from the proposed 38-well Blinbery water flood injection pattern, is 486,000 barrels

(1) That the East Blinebry Unit Agreement covering 3080 acres, more or less, of Federal and fee lands in the Blinebry Oil and Gas Pool, Lea County, New Mexico, is hereby approved for statutory unitization pursuant to the Statutory Unitization Act.

(2) That the lands covered by said East Blinebry Unit Agreement shall be designated the East Blinebry Unit Area and shall comprise:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM

Section 11: All
Section 12: W/2 and W/2 E/2
Section 13: W/2, W/2 NE/4, and NW/4 SE/4
Section 14: All
Section 23: All
Section 24: NW/4 and W/2 SW/4

(3) That the vertical limits of the East Blinebry Unit Area shall be the Blinebry Formation as found between the sub-surface depths of 5,550 feet and 6,007 feet as shown on the Welex Gammaray-Neutron log dated August 17, 1963, for the Sinclair Oil Company Roy Barton Well No. 3 located 1980 feet from the north line and 660 feet from the east line of Section 23, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.

(4) That the applicant, Atlantic Richfield Company, is hereby authorized to institute a waterflood project in the East Blinebry Unit Area, Blinebry Oil and Gas Pool, Lea County, New Mexico, pursuant to the provisions set forth in Commission Order No. R-5594. R-5594-B

(5) That the East Blinebry Unit Agreement and the East Blinebry Unit Operating Agreement, as filed with the Commission by the applicant in this case, are hereby incorporated by reference into this order.

(6) That the applicant herein, Atlantic Richfield Company, shall, within 45 days after entry of this order, file with the Commission ~~an~~ amended pages 7 and 8 of Exhibit 'E' to the Unit Operating Agreement. Said pages 7^{and 8} of Exhibit 'E' as amended shall reflect the ~~total~~ ^{combined} Phase I and Phase II ~~participat working interest~~ participation and voting interests resulting from the elimination of Tract No. 15 from the East Drinkard Unit as provided by Order No. R-5594-C entered 1978.

as amended above

(7) ~~167~~ That the East Blinebry Unit Agreement and East Blinebry Unit Operating Agreement provide for unitization and unit operation of the subject portion of the Blinebry Oil and Gas Pool upon terms and conditions that are fair, reasonable and equitable and include:

a provision for the allocation to the separately owned tracts in the unit area of all the oil and gas that is produced from the unit area and is saved, being the production that is not used in the conduct of operations on the unit area or not unavoidably lost;

a provision for the credits and charges to be made in the adjustment among the owners in the unit area for their respective investments in wells, tanks, pumps, machinery, materials and equipment contributed to the unit operations;

a provision governing how the costs of unit operations including capital investments shall be determined and charged to the separately owned tracts and how said costs shall be paid including a provision providing when, how, and by whom the unit production allocated to an owner who does not pay the share of the costs of unit operations charged to such owner, or the interest of such owner, may be sold and the proceeds applied to the payment of such costs;

a provision for carrying any working interest owner on a limited, carried or net-profits basis, payable out of production, upon such terms and conditions hereby determined by the commission to be just and reasonable, and allowing an appropriate charge for interest for such service payable out of such owner's share of production, provided that any nonconsenting working interest owner being so carried shall be deemed to have relinquished to the unit operator all of its operating rights and working interest in and to the unit until his share of the costs, service charge and interest are repaid to the unit operator;

a provision designating the unit operator and providing for the supervision and conduct of the unit operations, including the selection, removal or substitution of an operator from among the working interest owners to conduct the unit operations;

a provision for a voting procedure for the decision of matters to be decided by the working interest owners in respect to which each working interest owner shall have a voting interest equal to its unit participation; and

the time when the unit operation shall commence and the manner in which, and the circumstances under which, the operations shall terminate and for the settlement of accounts upon such termination;

and are therefore hereby adopted.

(8) ~~177~~ That this order shall not become effective unless and until the appropriate ratification provisions of Section 65-14-8 NMSA, 1953 Compilation, are complied with.

(9) ~~187~~ That if the persons owning the required percentage of interest in the unit area as set out in Section 65-14-8 NMSA, 1953 Compilation, do not approve the plan for unit operations within a period of six months from the date of entry of this order, this order shall cease to be of further force and effect and shall be revoked by the Commission unless the Commission shall extend the time for ratification for good cause shown.

(10) ~~197~~ That when the persons owning the required percentage of interest in the unit area have approved the plan for unit operations, the interests of all persons in the unit are unitized whether or not such persons have approved the plan of unitization in writing.

(12) That the unitized management, operation and further development of the subject portion of the Blinebry Oil and Gas Pool, as proposed, will permit the applicant to carry on secondary recovery operations and to substantially increase the ultimate recovery of oil from the pool.

(13) That evidence presented established that the elimination of Tracts Nos. 13 and 15 from the proposed Unit area would

reduce the size of the Unit area and would substantially alter the Unit boundary, and would thereby require requiring to its proposed result in the Unit operator altering the injection well pattern to prevent the migration of oil from the unit Unit production across the resultant Unit boundary.

(14) That the evidence presented established that this alteration of the injection pattern would reduce the ultimate recovery from the resultant Unit by approximately 739,900

of oil
barrels ~~and 285,300 barrels~~ in the vicinity of Tract No. 13 and *approximately 285,300 barrels of oil in the vicinity of Tract No. 15.*
~~Tract No. 15, respectively.~~

(15) That the unitized management, operation and further development of the subject portion of the Blinebry Oil and Gas Pool, as proposed, is reasonably necessary in order to effectively carry on secondary recovery operations and to substantially increase the ultimate recovery of oil from the pool.

(16) That the unitized method of operation proposed by the applicant is expected to result in the production of secondary oil in the amounts of approximately 6,287,324 barrels of oil from ~~said~~ *the* Unit as a whole, *including* and 386,301 barrels of oil from Tract 13 and 292,561 barrels *of oil* from Tract 15 ~~respectively.~~

*Change
waste*

(17) That the unitized method of operation proposed by the applicant, as applied to the East Blinebry Unit Area and to Tracts Nos. 13 and 15, is feasible, ~~will prevent waste, and~~ *and* will result with reasonable probability in the increased recovery of substantially more oil from the pool and tracts than would otherwise be recovered, *thereby preventing waste.*

(40) That using a constant oil price of \$1384 per barrel, the ^{Blinbery} secondary recovery oil which would ~~not be obtained~~ ^{lost} as the result of the deletion of Tract No. 13 from the ^{East Blinbery} Unit Area (1,332,400 barrels, Finding No. (29) above) ~~would represent~~ ^{has a present value} a gross ~~loss~~ of \$18,440,416.00.

(41) That using a constant oil price of \$1384 per barrel, the ^{Blinbery} secondary recovery oil which would ~~not be obtained~~ ^{lost} as the result of the deletion of Tract No. 15 from the ^{East Blinbery} Unit Area (486,000 barrels, Finding No. (39) above) ~~would represent~~ ^{has a present value} a gross ~~loss~~ of \$6,726,240.00.

(42) That to omit either Tract 13 ~~from~~ or Tract 15 from the East Blinbery Unit Area and to thus ^{cause the proposed unit to sustain} ~~impose~~ a secondary recovery loss of the magnitude described in Findings Nos. (40) and (41) would be to ^{cause waste and would} ~~contravene~~ the intent and purpose of the Statutory Unitization Act, and should not be permitted, inasmuch as the ~~plan of unitization~~ unitized management, operation and further development of the subject portion of the Blinbery pool is reasonably necessary to effectively carry out secondary recovery operations to substantially increase ~~the~~ ultimate recovery, ~~that~~ the proposed method of operation is feasible, will prevent waste and will result with reasonable probability in the increased recovery of substantially more oil and gas from the unitized portion of the pool.

(1) <u>TRACT NO.</u>	(2) <u>TOTAL ACRES IN TRACT</u>	(3) <u>THOUSAND BARRELS CALCULATED SECOND RECOVERY</u>
1(B-14)	160	312.6
10	80	537.3
11	80	316.0
12	80	506.3
13	160	820.5
14	80	484.1
16	160	394.7
17	120	316.6
18	40	56.9

(24) That the secondary recovery production from all wells in both the East Blinebry Unit Area and the East Drinkard Unit Area, based on primary oil and gas equivalent production plus the expected secondary oil production from the Blinebry and Drinkard formations, is calculated to be 64.544 percent from the Blinebry formation and 35.456 percent from the Drinkard formation.

(25) That applying the above Blinebry allocation factor of 64.544 percent to the total calculated secondary recovery figures shown in the Column 3 in Finding No. (23) above indicates that the named tracts would have secondary recovery reserves in the East Blinebry Unit Area attributable to them as follows:

<u>TRACT NO.</u>	<u>THOUSAND BARRELS CALCULATED SECONDARY RECOVERY</u>	<u>BLINEBRY ALLOCATION FACTOR</u>	<u>THOUSAND BARRELS BLINEBRY SECONDARY RECOVERY</u>
1(B-14)	312.6	64.544	201.8
10	537.3	"	347.0
11	316.0	"	204.0
12	506.3	"	326.8
13	820.5	"	529.6
14	484.1	"	312.5
16	394.7	"	254.8
17	316.6	"	204.3
18	56.9	"	36.7

(26) That if Tract No. 13 is not included in the East Blinebry Unit, and the five wells described in Findings Nos. (19) and (21) above are not placed on water injection, portions of Tracts Nos. 1, 10, 11, 12, 13, 14, 16, and 17 will not be swept by the Blinebry flooding operation.

(27) That the Commission calculates that under the conditions described in Finding No. (26) above, the aforesaid tracts will be affected as follows:

(1) TRACT NO.	(2) TOTAL ACRES IN TRACT	(3) ACRES SWEEP BY FLOOD	(4) ACRES NOT SWEEP BY FLOOD	(5) PERCENT LOSS (Col.4 ÷ Col 2 x 100)
1(B-14)	160	138.17	21.83	13.64
10	80	24.62	55.38	69.23
11	80	50.39	29.61	37.01
12	80	74.19	5.81	7.26
13	160	0.00	160.00	100.00
14	80	16.02	63.98	80.00
16	160	78.72	81.28	50.80
17	120	89.58	30.42	25.35
18	40	34.89	5.11	12.78

(28) That by applying the above-derived percent loss to the barrels of Blinebry secondary recovery expected to be obtained from full unit operations under each tract as arrived at in Finding No. (25) above, it must be concluded that the deletion of Tract No. 13 from the East Blinebry Unit Area will result in the loss of secondary recovery from each of the affected tracts as follows:

TRACT NO.	THOUSAND BBLs. SECONDARY RECOVERY UNDER FULL UNITI- ZATION	PERCENT LOSS	THOUSANDS BBS. SECONDARY RECOVERY LOSS
1(B-14)	201.8	13.64	27.5
10	347.0	69.23	240.2
11	204.0	37.01	75.5
12	326.8	7.26	23.7
13	529.6	100.00	529.6
14	312.5	80.00	250.0
16	254.8	50.80	129.4
17	204.3	25.35	51.8
18	36.7	12.78	4.7

79857
8028

*and royalty owners of tracts
offsetting Tract No. 13.*

(29) That the total loss of Blinebry secondary recovery oil from all of the above tracts, resulting from the deletion of Tract No. 13 from the East Blinebry Unit Area and the resultant loss of five wells from the proposed 38-well Blinebry waterflood injection program, is 1,332,400 barrels, *of which 802,800 barrels of lost production would be sustained by working interest owners*

(30) That the evidence establishes that if Tract No. 15 were deleted from the unit area, a lease line agreement might be worked out whereby the operator of Tract No. 15 would put one well on water injection into the Blinebry formation, namely the Summit Bunin Well No. 2 located in Unit C of Section 13, Township 21 South, Range 37 (Unit Well No. 30 in Finding No. (17) above).

(31) That although the placing of said Bunin Well No. 2 on water injection into the Blinebry formation would be in conformance to the proposed Blinebry water injection pattern for the East Blinebry Unit Area, if the unit operator completed the proposed injection well pattern, there would be five injection wells on unitized lands offsetting the Bunin lease, as opposed to one injection well on the Bunin lease offsetting the unitized lands.

(32) That the aforesaid disparity in the number of injection wells on one property as opposed to the number of injection wells on the other property would cause drainage of oil from one property (the unitized lands) to the other property (the Bunin Lease) which would not be offset by counter-drainage, and would impair the correlative rights of owners in the unitized lands.

(33) That to prevent the aforesaid drainage and to protect the correlative rights of owners in the unitized lands, the unit operator would have to delete certain wells from the proposed

Blinebry injection well pattern, namely Unit Wells Nos. 26 and 28, in Units M and O, respectively, of Section 12, and Unit Well No. 42 in Unit G of Section 13, all in Township 21 South, Range 37 East, NMPM.

(34) That the deletion of Tract No. 15 from the East Blinebry Unit Area and the subsequent loss of three wells to the waterflood injection pattern, being the three wells described in Finding No. (33) above, will result in serious loss to the efficiency of the 38-well injection pattern and will cause the loss of secondary recovery oil from Tracts Nos. 1, 4, 5, 6, 7, 8, 9, and 15 of the unit area.

(35) That if the East Blinebry Unit Area and the East Drinkard Unit Area are unitized as proposed, and the entire unit area is subject to the planned secondary recovery operations, secondary recovery from the above-named tracts is ~~calculated~~ calculated to be as follows:

(1) TRACT NO.	(2) TOTAL ACRES IN TRACT	(3) TRACT ACRES SWEEP BY FLOOD	(4) THOUSAND BARRELS CALCULATED SECONDARY RECOVERY
1(B-11)	440	440.00	1872.1
1(B-13)	320	264.96	291.6
1(B-14)	160	160.00	312.6
4 and 5	80	72.74	166.2
6 and 7	80	80.00	142.1
8	40	40.00	60.1
9	40	20.90	33.3
15	120	98.00	296.0

(36) That if Tract No. 15 is deleted from the East Blinebry Unit Area, and the three wells described in Finding No. (34) above are not placed on injection, the Commission calculates that the aforesaid tracts will be affected as follows:

(18) That the estimated additional costs of such operations are reasonably expected to be approximately \$8,068,000.00 for said Unit as a whole and from \$675,195.00 to \$839,137.00 for Tract 13 and \$366,800.00 for Tract 15.

(19) That an economic analysis for the Unit projects expected undiscounted present worth to working interest owners within the unit of approximately \$9.00 per barrel of oil recovered.

(20) That projecting income to the Unit and to Tracts Nos. 13 and 15 based upon Findings (16) and (19) above and comparing the resultant figures with the expected additional costs set out in Finding No. (18) above shows that the estimated additional costs of the proposed operations will not exceed the estimated value of the additional oil so recovered plus a reasonable profit.

(21) That the royalty interest owners will share in the income from the additional oil to be recovered from the Unit and Tracts Nos. 13 and 15.

(22) That such unitization and adoption of applicant's proposed unitized method of operation will benefit the working interest owners and royalty owners of the oil and gas rights within the East Blinebry Unit Area.

(23) That the applicant has made a good faith effort to secure voluntary unitization within the East Blinebry Unit Area.

(24) That the participation formula contained in the unitization agreement will allocate the produced and saved unitized hydrocarbons to the separately owned tracts in the unit area on a fair, reasonable and equitable basis, and will protect the correlative rights of all owners of interest within the unit area provided that Pages ^{and 8} 71 of Exhibit E of the Unit Operating Agreement ^{are} ~~is~~ amended to reflect the elimination of Tract 15 from the companion East Drinkard Unit as provided in Commission Order No. R-5594-C entered _____, 1978.

(25) That with the exception of the change provided for in Finding (24) above the working interest owners and royalty interests representing more than 75 percent of the East Blinebry Unit Area have voluntarily agreed to the provisions of the Unit Agreement.

(26) That the East Blinebry Unit Agreement and the East Blinebry Unit Operating Agreement, as filed with the Commission by the applicant in this case along with Page 7 of Exhibit E to be amended in accordance with Finding (24) above should be incorporated by reference into this order.

(27) That said owners of interest under Tract 13 objected to the requirement of said Unit ~~Agreement~~ and ~~Unit Operating Agreement~~ that such owners provide said Unit with a wellbore for production from or injection into the unitized formation on each 40-acre tract ^{within Tract 13} or be subject to bearing the costs and expenses of completing such a wellbore up to the amount of \$200,000.

(28) That said owners objected to said requirement as being unfair, unreasonable, and inequitable.

(29) That the true cost of a new wellbore drilled to the unitized formation was estimated to be approximately \$306,000.00.

(30) That the owner of every 40-acre tract in said unit which tract is participating in production based on the primary production portion of the participation formula is being required to furnish a wellbore as set out in Finding No. (27) above.

(31) That the owners of interest under Tract 13 are not being treated differently than other owners in the Unit in the matter of providing wellbores to the unit and there is no evidence that such treatment is other than fair, reasonable, and equitable.

(32) That said owners of interest under Tract 13 further alleged that the requirement set out in Finding No. (27) above would cause waste.

(33) That said waste would occur as the result ^{of} squeezing off Tubb Gas Pool production in the J. R. Cone Eubanks Well No. 2 located in Unit I of Section 14, Township 21 South, Range 37 East, NMPM, to provide a wellbore to said Unit on this 40-acre tract in Tract 13.

(34) That there is no requirement in said Unit Agreement or Unit Operating Agreement that the wellbore of said Eubanks Well No. 2 be given to the Unit.

(35) That if the owners of interest in said Tract 13 choose to give the wellbore in said Eubanks Well No. 2 to said Unit that the Tubb Gas Pool reserves could be economically produced by a new well completed by said owners therein.

(36) That there is no substantial evidence that waste will occur as the result of the granting of the proposed East Blinebry Unit.

(37) That there is substantial evidence that waste would occur if the proposed East Blinebry Unit were approved without Tract 13 and ~~or~~ without Tract 15.

(38) That the Statutory Unitization of the East Blinebry Unit Area, in conformance to the above findings, should be approved.

THE COMMISSION FURTHER FINDS:

39 (1) That to prevent the drilling of unnecessary wells and to efficiently lift the large volumes of fluids anticipated under waterflood operations, downhole commingling and surface commingling of the Blinebry Oil and Gas Pool and the Drinkard Pool within the East Blinebry Unit Area as defined in this order and the East Drinkard Unit Area as defined in Commission Order No. R-5594^c should be authorized.

40 (2) That the commingled production be allocated 64.544 percent to the Blinebry Oil and Gas Pool and 35.456 percent to the Drinkard Pool.

(7) That Tract 13 of the proposed unit comprises the following described lands:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM
Section 14: SW/4

(8) That Tract 15 of the proposed unit comprises the following described lands:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM
Section 13: N/2 NW/4 and NW/4 NE/4

(9) That the owners of interest in Tract 13 who filed requests for rehearing are J. R. Cone and Texaco Inc.

(10) That the owner of interest in Tract 15 who filed a request for rehearing is Summit Energy Inc.

(11) That by Order No. R-5593-A entered January 20, 1978, the Commission granted Cone's and Summit's requests for rehearing of Case No. 6069, but provided "That the evidence at said ~~hearing~~ rehearing shall be limited to evidence relating to the unitization of and waterflood operations on, Tract No. 13 and Tract No. 15 of the East Blinebry Unit Area...."

(12) That by Order No. R-5593-B entered January 24, 1978, the Commission granted Texaco's request for rehearing of Case No. 6069, but provided "That the evidence at said rehearing shall be limited to evidence relating to the unitization of Tract No. 13 of the East Blinebry Unit Area...."

(13) That when this cause came on for rehearing on February 21, 1978, the record in the original hearing of the case on October 20, 1977, was incorporated in the record of the rehearing, and the evidence in the rehearing was limited to evidence pertaining to Tract No. 13 and Tract No. 15 of the Blinebry Unit Area.

(14) That the Commission, in considering the record of the rehearing, should consider only what effect the inclusion or exclusion of said tracts would have on unit operations as a whole and on the tracts individually, having previously determined that "...the unitized management, operation, and further development of the subject portion of the Blinebry Oil and Gas Pool, as proposed, is reasonably necessary in order to effectively carry on secondary recovery operations and to substantially increase the ultimate recovery of oil from the pool...." and that "...the unitized method of operation...as applied to the East Blinebry Unit Area, is feasible, will prevent waste, and will result with reasonable probability in the increased recovery of substantially more oil from the pool than would otherwise be recovered." (Findings Nos. (6) and (7), Order No. R-5593.)

(15) That in considering the record of the rehearing, the Commission should determine whether the inclusion of Tract 13 and/or Tract 15 in the East Blinebry Unit Area is in the best interests of conservation to the end that greater ultimate recovery may be had therefrom, waste prevented, and correlative rights protected of all owners of mineral interests in the ~~unitized~~ area.

(16) That should the Commission find that the inclusion of either or both of said tracts in the unit is in the best interests of conservation to the above-described ends, it should affirm Order No. R-5593; ~~and~~ ^{and} should the Commission find that the inclusion of either or both of said tracts in the unit ~~is~~ not necessary to the best interests of conservation to the end that greater ultimate recovery may be had therefrom, waste prevented, and correlative rights protected of all owners of

mineral interests in the unit~~ized~~ area, it should amend Order No. R-5593 to exclude either or both of said tracts.

(17) That the evidence establishes that upon unitization of the East Blinebry Unit Area, applicant will institute a secondary recovery project in the area by the injection of water into the Blinebry formation through 38 injection wells, all in Township 21 South, Range 37 East, NMPM, and described and located as follows:

<u>UNIT WELL NUMBER</u>	<u>UNIT LETTER</u>	<u>SECTION</u>	<u>LOCATED ON TRACT. NO.</u>
2	C	12	1
4	A	11	1
6	C	11	1
8	E	11	1
10	G	11	1
12	E	12	1
14	G	12	1
16	K	12	6
18	I	11	1
20	K	11	3
22	M	11	3
24	O	11	1
26	M	12	7
28	O	12	9
30	C	13	15
32	A	14	1
34	C	14	11
36	E	14	10
38	G	14	12
40	E	13	1
42	G	13	1
44	K	13	1
46	I	14	1
48	K	14	13
50	M	14	13
52	O	14	14
54	M	13	1
56	C	24	21
58	A	23	18
60	C	23	16
62	E	23	16
64	G	23	17
66	E	24	21
69	I	23	20
71	K	23	19
73	M	23	19
75	O	23	20
77	M	24	22

(18) That the selection of the above-described 38 wells to be water injection wells in the East Blinebry Unit Area waterflood project was made in order to provide a uniform water injection pattern and to achieve an efficient sweep of oil from the unitized formation.

(19) That the evidence establishes that the deletion of Tract No. 13 from the unit area would very likely mean the loss to the average injection pattern of two proposed injection wells on Tract No. 13, namely Wells Nos. 48 and 50, located in Units K and M, respectively, of Section 14.

(20) That if said Wells Nos. 48 and 50 were not placed on water injection, the injection of water into three additional proposed injection wells directly offsetting Tract No. 13 would have to be suspended to prevent water injected into them from pushing oil off the unitized lands onto Tract No. 13.

(21) That the three additional wells into which no injection could occur are Wells Nos. 36 and 52, located in Units E and O, respectively, of Section 14, and Well No. 60, located in Unit C of Section 23.

(22) That the deletion of Tract No. 13 from the East Blinebry Unit Area and the subsequent loss of five wells to the waterflood injection pattern, being the five wells described in Findings Nos. (19) and (21) above, would result in a loss to the efficiency of the proposed 38-well injection pattern, and would have an effect on the secondary recovery of oil from Tracts Nos. 1(B-14), 10, 11, 12, 13, 14, 16, 17, and 18 of the unit area.

(23) That if the East Blinley Unit area is unitized and waterflood operations conducted as proposed, secondary recovery from the Blinley Pool on the above-named tracts is expected to be as follows

TRACT NO.	TOTAL ACRES	THOUSAND BARRELS CALCULATED
	IN TRACT	SECONDARY RECOVERY
1(B-14)	160	235.1
10	80	234.3
11	80	191.9
12	80	293.2
13	160	386.5
14	80	270.8
16	160	302.6
17	120	163.2
18	40	24.4

(24) That if Tract No. 13 is not included in the East Blinley Unit, and the five wells described in Findings Nos. (19) and (21) above are not placed on water injection, portions of Tracts Nos. 1(B-14), 10, 11, 12, 13, 14, 16, 17, and 18 will not be swept by the Blinley flooding operation.

(25) That the Commission calculates that under the conditions described in Finding No. (24) above, the aforesaid tracts will be affected as follows:

(1) TRACT NO.	(2) TOTAL ACRES IN TRACT	(3) ACRES SWEEP BY FLOOD	(4) ACRES NOT SWEEP	(5) PERCENT LOSS (Col 4/Col 2 x 100)
1(B-14)	160	138.17	21.83	13.64
10	80	24.62	55.36	69.23
11	80	50.39	29.61	37.01
12	80	74.19	5.81	7.26
13	160	0.00	160.00	100.00
14	80	16.02	63.98	80.00
16	160	78.72	81.28	50.80
17	120	89.58	30.42	25.35
18	40	34.89	5.11	12.78

(26) That by applying the above-derived percent loss to the barrels of Blinby secondary recovery expected to be ~~derived~~ obtained from full unit operations under each tract as arrived at in Finding No. (23) above, it must be concluded that the deletion of Tract No. 13 from the East Blinby Unit Area will result in the loss of secondary recovery from each of the affected tracts as follows:

TRACT No.	THOUSAND BBLs SECONDARY RECOVERY UNDER FULL UNITIZATION	PERCENT LOSS	THOUSAND BBLs SECONDARY RE- COVERY LOSS
1 (B-14)	235.1	13.64	32.1
10	234.3	69.23	162.2
11	191.9	37.01	71.0
12	293.2	7.26	21.3
13	386.5	100.00	386.5
14	270.8	80.00	216.6
16	302.6	50.80	153.7
17	163.2	25.35	41.4
18	24.4	12.78	3.1

(27) That the total loss of Blinbery secondary recovery oil from all of the above tracts, resulting from the deletion of Tract No. 13 from the East Blinbery Unit Area and the resultant loss of five wells from the proposed 38-well waterflood injection pattern, is 1,087,900 barrels, of which 701,400 barrels of lost production would be sustained by the working interest ^{owners} and royalty owners ^{of tracts} offsetting Tract No. 13, and 386,500 barrels by the working interest and royalty owners in Tract No. 13.

(28) That the evidence establishes that if Tract No. 15 were deleted from the unit area, a lease line agreement might be worked out whereby the operator of Tract No. 15 would put one well on water injection into the Blinbery formation, namely the Summit Bunin Well No. 2 located in Unit C of Section 13, Township 21 South, Range 37 (Unit Well No. 30 in Finding No. (17) above).

and royalty
offsetting

(29) That although the placing of said Bunin Well No. 2 on water injection into the Blinebry formation would be in conformance to the proposed Blinebry water injection pattern for the East Blinebry Unit Area, if the unit operator completed the proposed injection well pattern, there would be five injection wells on unitized lands offsetting the Bunin lease, as opposed to one injection well on the Bunin lease offsetting the unitized lands.

(30) That the aforesaid disparity in the number of injection wells on one property as opposed to the number of injection wells on the other property would cause drainage of oil from one property (the unitized lands) to the other property (the Bunin Lease) which would not be offset by counter-drainage, and would impair the correlative rights of owners in the unitized lands.

(31) That to prevent the aforesaid drainage and to protect the correlative rights of owners in the unitized lands, the unit operator would have to delete certain wells from the proposed Blinebry injection well pattern, namely Unit Wells Nos. 26 and 28, in Units M and O, respectively, of Section 12, and Unit Well No. 42 in Unit G of Section 13, all in Township 21 South, Range 37 East, NMPM.

(32) That the deletion of Tract No. 15 from the East Blinebry Unit Area and the subsequent loss of three wells to the waterflood injection pattern, being the three wells described in Finding No. (33) above, will result in serious loss to the efficiency of the 38-well injection pattern and will cause the loss of secondary recovery oil from Tracts Nos. 1, 4, 5, 6, 7, 8, 9, and 15 of the unit area.

(33) That if the East Blinebry Unit Area ~~and the East is~~ ^{and waterflood operations conducted} ~~Brinkard Unit Area~~ are unitized as proposed, and the entire unit area is subject to the planned secondary recovery ^{the Blinebry Pool one} operations, secondary recovery from the above-named tracts is ~~expected~~ ^{expected} calculated to be as follows:

(1) TRACT No.	(2) TOTAL ACRES IN TRACT	(3) TRACT ACRES SWEEP BY FLOOD	(4) THOUSAND BARRELS CALCULATED SECONDARY RECOVERY
1 (B-11)	440	440.0	1,312.2
1 (B-12)	240	181.1	425.9
1 (B-13)	320	265.0	438.3
1 (B-14)	160	160.0	235.1
4	40	32.7	61.4
5	40	40.0	104.8
6	40	40.0	54.8
7	40	40.0	81.7
8	40	40.0	46.7
9	40	20.9	33.2
15	120	98.0	296.0

(34) That if Tract No. 15 is deleted from the East Blinetry Unit Area, and the three wells described in Finding No. (34) above are not placed on ^{water} injection, the Commission calculates that the aforesaid tracts will be affected as follows:

(1) TRACT No.	(2) ACRES FLOODED WITH FULL UNITIZATION	(3) ACRES FLOODED IF TRACT 15 DELETED	(4) ACRES LOST TO FLOOD (Col 2-Col 3)	(5) PERCENT LOSS (Col 4/Col 2 x 100)
1 (B-11)	440.0	437.0	3.0	0.68
1 (B-12)	181.1	179.5	1.6	0.88
1 (B-13)	265.0	214.0	51.0	19.25
1 (B-14)	160.0	159.3	.7	0.44
4	32.7	10.9	21.8	66.67
5	40.0	24.7	15.3	38.25
6	40.0	30.2	9.8	24.50
7	40.0	0.7	39.3	98.25
8	40.0	13.9	26.1	65.25
9	20.9	0.0	20.9	100.00
15	98.0	46.9	41.1	41.94

(35) That by applying the percent loss of flooded acres in each tract (as derived in Column 5 of Finding No. (34) above) to the barrels of secondary recovery expected to be obtained from full unit operations (Column 4, Finding No. (33) above) it must be concluded that the deletion of Tract No. 15 from the East Blinebry Unit Area will result in the loss of secondary recovery from the Blinebry formation from each of the affected tracts as follows:

TRACT NO.	THOUSAND BBLs SECONDARY WITH FULL UNITIZATION	PERCENT LOSS IF TRACT IS DELETED	THOUSAND BBLs SECONDARY RECOVERY LOST
1(B-11)	1312.2	0.68	89.23
1(B-12)	425.9	0.88	3.75
1(B-13)	438.3	19.25	84.37
1(B-14)	235.1	0.44	1.03
4	61.4	66.67	40.94
5	104.8	38.25	40.09
6	54.8	24.50	13.43
7	81.7	98.25	80.27
8	46.7	65.25	30.47
9	33.2	100.00	33.20
15	296.0	41.94	124.14

(36) That the total loss of Blinebry secondary recovery oil from all of the above tracts, resulting from the deletion of Tract No. 15 from the East Blinebry Unit Area and the resultant loss of three wells from the proposed 38-well Blinebry waterflood injection pattern, is 540,920 barrels, of which 416,780 barrels of ~~of~~ lost production would be sustained by working interest owners and royalty owners of tracts offsetting Tract No. 15, and 124,140 barrels by the working interest owners and royalty owners of Tract No. 15.

(4) That Case 6069 originally was heard by the Commission on October 20, 197~~8~~⁷.

(5) That on December 27, 197~~8~~⁷, the Commission entered Order No. R-5593 approving the proposed statutory unitization, the secondary recovery operations to be conducted therein, incorporating the Unit Agreement and Unit Operating Agreement, and providing for the Unit to be effective upon ratification as required by statute.

(6) That the Commission received timely requests for rehearing ^{of Case No. 6069} from owners of interests under Tract 13 and Tract 15 of the proposed unit.

(7) That such owners of interest and such tracts are described as follows:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM
Tract 13 being Section 14: SW/4
J. R. Cone and Texaco Inc.

Tract 15 being Section 13: N/2 NW/4 and NW/4 NE/4
Summit Energy Inc.

(8) That by its Orders No. R-5593-A and R-5593-B entered on January 20 and January 24, 1978, respectively, the Commission granted the applications for rehearing limiting the evidence to be presented to the unitization of Tract 13 and Tract 15 of the East Blinebry Unit Area.

(9) That on February 21, 1978, a rehearing was held by the Commission in Case No. 6069.

(10) That the portion of the Blinebry Oil and Gas Pool proposed to be included in the aforesaid East Blinebry Unit Area has been reasonably defined by development.

(11) That the applicant proposes to institute a waterflood project for the secondary recovery of oil and gas in the proposed unit area, and in fact has sought and been granted approval to institute such a project in the East Blinebry Unit Area by Commission Order No. R-5591-B, dated _____.

IT IS FURTHER ORDERED:

See this order no.
(11) ~~(10)~~ That the applicant is authorized to downhole commingle and surface commingle production from the Blinebry Oil and Gas Pool and the Drinkard Pool within the East Blinebry Unit Area as defined in this order and the East Drinkard Unit Area as defined in Commission Order No. R-5594-C,

(12) ~~(11)~~ That the commingled production be allocated 64.544 percent to the Blinebry Oil and Gas Pool and 35.456 percent to the Drinkard Pool.

(13) ~~(12)~~ That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

Emery C. Arnold
EMERY C. ARNOLD, Member

Joe D. Ramey
JOE D. RAMEY, Member & Secretary

S E A L

fd/

AtlanticRichfieldCompany * North American Producing Division
Permian District
Post Office Box 1610
Midland, Texas 79701
Telephone 915 682 8631



June 9, 1977

Royalty Interest Owners
East Drinkard and
East Blinebry Units
Lea County, New Mexico

Please attach the enclosed replacement pages to the East
Drinkard and East Blinebry Unit Agreements furnished to
you by cover letter dated June 1, 1977.

Thank you for your continued assistance.

Very truly yours,

Karyn Zimmerman
Land Department

KZ:lh

Enclosures

Exhibit #6

ECONOMIC ANALYSIS
TRACT 15 - SUMMIT OPERATED

1) Tract 15

<u>Join - Turn over 3 wells</u>	<u>Before Tax</u>	<u>After Tax</u>
Oil Price	Constant \$13.84	--
Gas Price	Constant 53¢/MCF	--
Total net oil, MBO/Net gas, BCF	276.3/0.69	
Total net investment, M\$	377.8	--
Expected payout, years	3.7	4.1
Expected economic life, years	21	--
Expected undiscounted present worth, MM\$	2.5	1.46

BEFORE THE
OIL COMMISSION OF MISSISSIPPI
Savoy, Louisiana

Case No. _____ Exhibit No. _____
Submitted by _____
Hearing Date _____

ARCO Ex 6
rehearing 2/21



ECONOMIC ANALYSIS
TRACT 13 - J. R. CONE OPERATED

1) Tract 13

<u>Join - Turn over 4 wells</u>	<u>Before Tax</u>	<u>After Tax</u>
Oil Price	Constant \$13.84	--
Gas Price	Constant 53¢/MCF	--
Total net oil, MBO	751.8	--
Total net gas, MMCF	1737.4	--
Total net investment, M\$	1046.1	--
Tract participation, Phase I	7.14%	--
Tract participation, Phase II	8.37%	--
Expected payout, years	3.76	4.10
Expected undiscounted present worth, M\$	7406.7	3912

2) Tract 13

<u>Join - Unit carry one well</u>	<u>Before Tax</u>	<u>After Tax</u>
Oil Price	Constant \$13.84	--
Gas Price	Constant 53¢/MCF	--
Total net oil, MBO	751.8	--
Total net gas, MMCF	1737.4	--
Non-taxable revenue	- 254.0 *	--
Tract participation, Phase I	7.14%	--
Tract participation, Phase II	8.37%	--
Expected payout, years	4.18	4.7
Expected undiscounted present worth, M\$	7152.7	3658

3) Tract 13

<u>Join - Unit carry four wells</u>	<u>Before Tax</u>	<u>After Tax</u>
Oil Price	Constant \$13.84	--
Gas Price	Constant 53¢/MCF	--
Total net oil, MBO	751.8	--
Total net gas, MMCF	1737.4	--
Total net investment, M\$	1046.1	--
Non-taxable revenue	-1006.00 **	--
Tract participation, Phase I	7.14%	--
Tract participation, Phase II	8.37%	--
Expected payout, years	5.24	6.5
Expected undiscounted present worth, M\$	6390.7	2896

*Represents the \$200 M plus interest and recompletion cost in old well.

**Represents the cost of four wellbore penalties plus interest and recompletion costs in old wells.

ARCO Ex 5
rehearing 2/31

ECONOMIC ANALYSIS
EAST BLINEBRY AND EAST DRINKARD UNITS

1) Total Unit

	<u>Before Tax</u>	<u>After Tax</u>
Oil Price	Constant \$13.84	--
Gas Price	Constant 53¢/MCF	--
Total net oil, MBO/Net gas BCF	9142.9/22.9	--
Total net investment, M\$	12500.0	--
Expected payout, years	3.37	3.7
Expected economic life, years	21	--
Expected undiscounted present worth, MM\$	82.8	48.6

4
Ex. ~~4~~ - Arco
Ret. 2-22-78

252c

PHASE I: COMBINED ROYALTY INTEREST RATIFICATIONS

	<u>Blinebry</u> <u>(64.544%)</u>	<u>Drinkard</u> <u>(35.456%)</u>	<u>Total Combined</u> <u>Royalty Ratified</u>
Royalty Ratified	52.56231%	28.162665%	80.724975%

PHASE II: COMBINED ROYALTY INTEREST RATIFICATIONS

	<u>Blinebry</u> <u>(64.544%)</u>	<u>Drinkard</u> <u>(35.456%)</u>	<u>Total Combined</u> <u>Royalty Ratified</u>
Royalty Ratified	54.970059%	29.027012%	83.997071%

25711

BLINBERRY PHASE I
STATUS OF ROYALTY INTERESTS RATIFICATIONS

Tract #	Royalty Interest Ratified by Tract	Unsigned Interest by Tract	Unit Participation by Tract Ratified	Unsigned	Total Participation by Tract
Tract #1	1.000000	000000	.209529	000000	.209529
Tract #1A					
Tract #2	.403212	.596788	.014114	.020890	.035004
Tract #3	.963021	.036978	.056406	.002166	.058572
Tract #4	.954688	.045304	.006502	.000309	.006811
Tract #5	.954664	.045296	.009567	.000454	.010021
Tract #6	.949704	.050152	.000617	.000031	.000648
Tract #7	.974904	.024992	.009105	.000233	.009338
Tract #8	.919216	.080712	.000597	.000052	.000649
Tract #9	.974912	.024992	.000633	.000016	.000649
Tract #10	.921034	.078943	.046946	.004024	.050971
Tract #11	.909079	.090909	.025375	.002537	.027912
Tract #12	.694100	.305876	.029874	.013165	.043039
Tract #13	.626626	.032094	.047791	.028469	.076260
Tract #14	.541672	.458328	.018011	.015239	.033250
Tract #15	.304350	.695650	.013833	.031618	.045451
Tract #16	.565344	.434656	.042397	.032597	.074994
Tract #17	.565360	.434640	.029742	.022866	.052608
Tract #18	.529704	.470296	.005923	.005259	.011182
Tract #19	1.000000	-0-	.140569	-0-	.140569
Tract #20	1.000000	-0-	.082620	-0-	.082620
Tract #21	.809520	.190480	.017683	.004161	.021844
Tract #22	.809528	.190472	.006530	.001537	.008067
			<u>.814364</u>	<u>.185636</u>	<u>1.000000</u>

BLINEBRY PHASE II
STATUS OF ROYALTY INTERESTS RATIFICATIONS

	Royalty Interest Ratified by Tract	Unsigned Interest by Tract	Unit Participation by Tract Ratified	Unsigned by Tract	Total Partic- ipation by Tract
Tract #1	1.000000	000000	.386311	000000	.386311
Tract #1A	.403212	.596788	.006655	.009849	.016504
Tract #2	.963021	.036978	.045224	.001736	.046960
Tract #3	.954688	.045304	.009339	.000443	.009782
Tract #4	.954664	.045296	.015937	.000756	.016693
Tract #5	.949704	.050152	.008455	.000447	.008902
Tract #6	.974904	.024992	.012716	.000326	.013043
Tract #7	.919216	.080712	.006995	.000614	.007609
Tract #8	.974912	.024992	.005312	.000136	.005449
Tract #9	.921034	.078943	.034153	.002927	.037081
Tract #10	.909079	.090909	.027893	.002789	.030682
Tract #11	.694100	.305876	.032162	.014173	.046335
Tract #12	.626626	.032094	.038504	.022937	.061441
Tract #13	.541672	.458328	.023226	.019652	.042878
Tract #14	.304350	.695650	.014162	.032370	.046532
Tract #15	.565344	.434656	.027016	.020770	.047786
Tract #16	.565360	.434640	.014333	.011019	.025352
Tract #17	.529704	.470296	.002129	.001890	.004019
Tract #18	1.000000	-0-	.065347	-0-	.065347
Tract #19	1.000000	-0-	.049215	-0-	.049215
Tract #20	.809520	.190480	.018604	.004378	.022982
Tract #21	.809528	.190472	.007980	.001877	.009857
Tract #22	1.000000	.851668	.851668	.148332	1.000000
	<u>1.000000</u>	<u>000000</u>	<u>.386311</u>	<u>000000</u>	<u>.386311</u>

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DRINKARD PHASE I
STATUS OF ROYALTY INTERESTS RATIFICATIONS

	<u>Royalty Interest Ratified by Tract</u>	<u>Unsigned Interest by Tract</u>	<u>Unit Participation by Tract Ratified</u>	<u>Unsigned</u>	<u>Total Participi by Tract</u>
Tract #1	1.000000	000000	.207599	000000	.207599
Tract #1A			.026429	000000	.026429
Tract #2	.403212	.596788	.026934	.039865	.066799
Tract #3	.963021	.036978	.038212	.001467	.039679
Tract #4	.954688	.045304	.000620	.000029	.000649
Tract #5	.954664	.045296	.009854	.000467	.010318
Tract #6	.949704	.050152	.000617	.000033	.000650
Tract #7	.974904	.024992	.001052	.000027	.001079
Tract #8	.919216	.080712	.010812	.000949	.011761
Tract #9	.974912	.024992	.000633	.000016	.000649
Tract #10	.921034	.078943	.024350	.002087	.026438
Tract #11	.909079	.090909	.017185	.001718	.018903
Tract #12	.694100	.305876	.032726	.014421	.047147
Tract #13	.626626	.032094	.039219	.023363	.062582
Tract #14	.541672	.458328	.063602	.053815	.117417
Tract #15	.304350	.695650	.000804	.001837	.002641
Tract #16	.565344	.434656	.065826	.050609	.116435
Tract #17	.565360	.434640	.018645	.014334	.032979
Tract #18	.529704	.470296	.005036	.004472	.009508
Tract #19	1.000000	-0-	.141886	-0-	.141886
Tract #20	1.000000	-0-	.039022	-0-	.039022
Tract #21	.809520	.190480	.019283	.004537	.023819
Tract #22	.809528	.190472	.003956	.000931	.004887
			<u>.794299</u>	<u>.205701</u>	<u>1.000000</u>

DRINKARD PHASE II
STATUS OF ROYALTY INTERESTS RATIFICATIONS

	Royalty Interest Ratified by Tract	Unassigned Interest by Tract	Unit Participation by Tract Ratified	Unassigned	Total Participat by Tract
Tract #1	1.000000	000000	.168338	000000	.168338
Tract #1A			.047257	000000	.047257
Tract #2	.403212	.596788	.017463	.025847	.043310
Tract #3	.963021	.036978	.043926	.001687	.045613
Tract #4	.954688	.045304	.000123	.000006	.000129
Tract #5	.954664	.045296	.000123	.000006	.000129
Tract #6	.949704	.050152	.000123	.000006	.000129
Tract #7	.974904	.024992	.000126	.000003	.000129
Tract #8	.919216	.080712	.003290	.000289	.003579
Tract #9	.974912	.024992	.000126	.000003	.000129
Tract #10	.921034	.078943	.080124	.006867	.086991
Tract #11	.909079	.090909	.032171	.003217	.035388
Tract #12	.694100	.305876	.041822	.018430	.060253
Tract #13	.626626	.032094	.077847	.046373	.124220
Tract #14	.541672	.458328	.027894	.023603	.051497
Tract #15	.304350	.695650	.000119	.000271	.000390
Tract #16	.565344	.434656	.030504	.023452	.053956
Tract #17	.565360	.434640	.024737	.019018	.043755
Tract #18	.529704	.470296	.004917	.004365	.009282
Tract #19	1.000000	-0-	.125818	-0-	.125818
Tract #20	1.000000	-0-	.058399	-0-	.058399
Tract #21	.809520	.190480	.023589	.005550	.029139
Tract #22	.809528	.190472	.009841	.002316	.012157
			.818677	.181323	1.000000

LIST OF UNSIGNED ROYALTY INTEREST
BY TRACT

Tract No. 2

Estate of Max Gutman,	.0813802		
D. L. Gutman, Trustee			
Daniel L. Gutman	.0271267		
Dorothy Gutman, Trustee	.0406901		
Irrev. Trust, Charles Gutman			
	<u>.1491977</u>	.25 =	.596788

Tract No. 3

Frederick L. Ercoline, Dec'd	.0019531		
Paul W. Godfrey, Dec'd	.0009765		
(Wife, Helen)			
Ann W. Marshall	.0007162		
Ellie Spear	.0009765		
	<u>.0046223</u>	/.125 =	.036978

Tract No. 4

Medora M. Lemaster	.001172		
Muriel T. McNeil Life Estate	.001953		
Moore Trust	.001757		
J. Hiram Moore, Trustee			
Betty Jane, Michael H. Moore			
J. L. and Jessie Reynolds	.000781		
	<u>.005663</u>	/.125 =	.045304

Tract No. 5

Medora M. Lemaster	.001171		
Muriel T. McNeil Life Estate	.001953		
Moore Trust	.001757		
J. Hiram Moore, Trustee			
Betty Jane and Michael H. Moore			
J. L. and Jessie Reynolds	.000781		
	<u>.005662</u>	/.125 =	.045296

Tract No. 6

Medora M. Lemaster	.001171		
Oscar D. Long, Dec'd	.001388		
(Wife, Lillian I.)			
Muriel T. McNeil Life Estate	.001953		
Moore Trust	.001757		
J. Hiram Moore, Trustee			
Betty Jane and Michael H. Moore			
	<u>.006269</u>	/.125 =	.050152

Tract No. 7

Muriel T. McNeil Life Estate	.001953		
Medora M. Lemaster	.001171		
	<u>.003124</u>	/.125 =	.024992

Tract No. 8

Medora M. Lemaster	.001171		
Moore Trust	.001757		
J. Hiram Moore, Trustee			
Betty Jane and Michael H. Moore			
Francis R. Reeves	.005208		
Muriel T. McNeil Life Estate	.001953		
	<u>.010089</u>	/.125 =	.080712

Tract No. 9

Medora M. Lemaster	.001171		
Muriel T. McNeil Life Estate	.001953		
	<u>.003124</u>	/.125 =	.024992

Tract No. 10

Joe and Jessie M. Crump Fund, Jessie B. Crump, David C. Blevins, and Ft. Worth Nat'l Bank, Trustees	.011718	/.148437 =	.078943
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Tract No. 11

Joe and Jessie M. Crump Fund, Jessie B. Crump, David C. Blevins, and Ft. Worth Nat'l Bank, Trustees	.015625	/.171875 =	.090909
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Tract No. 12

J. R. Cone, et ux	.003906		
Getty Oil Company	.041015		
Jack Markham	.001953		
John J. Atty-in-Fact	.003906		
	<u>.050780</u>	/.166015 =	.305876

Tract No. 13

Elizabeth Bowers	.019531		
Marion C. Bowers	.004882		
O. R. Eubanks	.001953		
Ronald J. Byers	.005728		
	<u>.032094</u>	/.08597 =	.373316

Tract No. 14

Jack Markham	.005208		
John J. Atty-in-Fact	.007813		
J. R. Cone, et ux	.010417		
J. Herd	.007812		
Robert J. Byers	.007812		
Constance Byers	.007812		
First Nat'l Bank, Lubbock, Trust, James T. S. Welborn	.010417		
	<u>.057291</u>	/.125 =	.458328

Tract No. 15

N. B. Bunin Trust, NMP	.125		
	<u>.125</u>	/.179688 =	.69565

Tract No. 16

Constance Byers	.001785		
John J. Christmann, Jr.	.002287		
Ft. Worth Nat'l Bank, U/W of Roy S. Magruder, Dec'd	.004464		
Elizabeth Hannifin	.004464		
Jack Markham	.002092		
Jack and Mary B. Markham	.004464		
Nora L. Markham	.002232		
Fannie G. Ratcliff, Indp. Exec. U/W, C. B. Markman, Dec'd	.002232		
J. M. Welborn	.001116		
Hubert C. Cone	.001953		
J. R. Cone, et ux	.001116		

Tract No. 16 (Continued)

Texaco, Inc.	.016071		
Mrs. Eula I. Williamson	<u>.010044</u>		
	.565344/.125	=	.434656

Tract No. 17

Robert J. Byers	.001785		
John J. Christmann	.002287		
J. R. Cone, et ux	.001116		
Hubert C. Cone	.001953		
Ft. Worth Nat'l Bank, U/W of Roy S. Magruder, Dec'd	.004464		
Elizabeth Hannifin	.004464		
Jack Markham	.006556		
Nora Markam	.002232		
Fannie G. Ratcliff	.002232		
Texaco, Inc.	.016071		
J. M. Welborn	.001116		
Mrs. Eula I. Williamson	<u>.010044</u>		
	.565360/.125	=	.434640

Tract No. 18

John J. Christmann	.001171		
Hubert C. Cone	.001953		
Jack Markham	.000976		
Mrs. Eula I. Williamson	<u>.054687</u>		
	.058787/.125	=	.470296

Tract No. 21

Stella Donahue	.002976		
Francis M. Stephens	.017858		
Francis M. & Ethel Stephens	<u>.002976</u>		
	.023810/.125	=	.190480

Tract No. 22

Stella Donahue	.002976		
Francis M. Stephens	.017857		
Francis M. & Ethel Stephens	<u>.002976</u>		
	.023809/.125	=	.190475

COMBINED PARTICIPATION
UNSIGNED WORKING INTEREST
(EAST BLINEBRY UNIT - EAST DRINKARD UNIT)

	<u>PHASE I</u>	<u>PHASE II</u>
J. R. Cone	1.89406	2.22002
J. H. Herd	.25440	.29818
Hondo Drilling Company	.34116	.61001
Jack Markham	1.66532	1.95192
Ann W. Marshall	.02702	.02421
Redfern Oil Company	.38161	.44728
Summit Energy, Inc.	3.02726	3.01716
Texaco, Inc.	2.94570	3.45264
	<u>10.53657</u>	<u>12.02139</u>

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COMBINED PARTICIPATION
UNSIGNED WORKING INTEREST
(EAST BLINEBRY UNIT - EAST DRINKARD UNIT)

	<u>PHASE I</u>	<u>PHASE II</u>
J. R. Cone	1.89406	2.22002
J. H. Herd	.25440	.29818
Hondo Drilling Company	.34116	.61001
Jack Markham	1.66532	1.95192
Ann W. Marshall	.02702	.02421
Redfern Oil Company	.38161	.44728
Summit Energy, Inc.	3.02726	3.01716
Texaco, Inc.	<u>2.94570</u>	<u>3.45264</u>
	<u>10.53657</u>	<u>12.02139</u>

Total Capital Investment for both units: 12,500,000

Under unit agreement, these costs would be allocated to each unit on the same basis as production is shared:

Blumley 64.544%

Drinkard 35.456%

Therefore capital investment for each unit would be:

Blumley: $.64544(12,500,000) = 8,068,000$

Drinkard: $.35456(12,500,000) = 4,432,000$

Yale, oil
TR for

Tract Participation

Phase I $25\% A + 25\% B + 20\% C + 25\% D + 5\% E$

Phase II $14\% F + 85\% G + 1\% E$

A = $\frac{\text{Bbls of primary reserves under Tract @ 4-1-76}}{\text{Bbls of primary reserves under unit @ 4-1-76}}$

B = $\frac{\text{MMCF of primary gas reserves under tract @ 4-1-76}}{\text{MMCF of primary gas reserves under unit @ 4-1-76}}$

C = $\frac{\text{Bbls of Oil produced from tract 10-1-75 to 4-1-76}}{\text{Bbls of Oil produced from unit 10-1-75 to 4-1-76}}$

D = $\frac{\text{Gas Production from tract 10-1-75 to 4-1-76}}{\text{Gas Production from unit 10-1-75 to 4-1-76}}$

E = $\frac{\text{Surface Acres in tract}}{\text{Surface Acres in unit}}$

F = $\frac{\text{Cum Oil Produced from Tract to 4-1-76}}{\text{Cum Oil Produced from unit to 4-1-76}}$

G = $\frac{\text{Ultimate Primary from Tract}}{\text{Ultimate Primary from unit}}$

JASON W. KELLAHIN
ROBERT E. FOX
W. THOMAS KELLAHIN
KAREN AUBREY

KELLAHIN and FOX
ATTORNEYS AT LAW
P. O. BOX 1769
SANTA FE, NEW MEXICO 87501

TELEPHONE 982-4315
AREA CODE 505

December 6, 1978

Mr. Richard Stamets
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

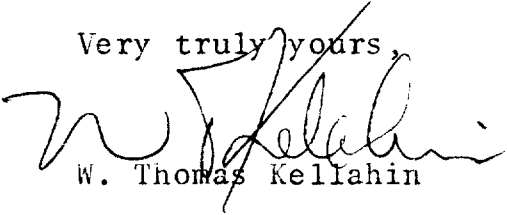
Re: Atlantic Richfield-Rehearing
Cases 6069, 6000, 6070 & 5998

Dear Mr. Stamets:

In accordance with our telephone conversation of
December 1st, I am enclosing a letter and attachment
recently received from Mr. John Byers.

Please call me if I can be of assistance.

Very truly yours,



W. Thomas Kellahin

CC: John C. Byers

WTK:kfm

Enclosure

PETROLEUM GEOLOGIST
RESERVOIR ENGINEERING

JOHN C. BYERS
BYERS ENGINEERING CO.
LUBBOCK NATIONAL BANK BLDG.
SUITE 6E P. O. BOX 6308
LUBBOCK, TEXAS 79413

TELEPHONE
(806) 762-0489

November 27, 1978

Mr. W. Thomas Kellahin, Esquire
Kellahin & Fox Attorneys
P.O. Box 1769
Santa Fe, New Mexico 87501

Re: Atlantic Richfield - Rehearing
Proposed East Blinebry-Drinkard Units
Lea County, New Mexico

Dear Tom:

Thank you for your letter of November 13, regarding your conversation with Dick Stamets of the New Mexico Oil Conservation Commission.

I enclose, herewith, for your use and that of the commission, a copy of the Atlantic prepared Unitization Parameter tables. These were the parameters employed in development of Unit Participation Percentages for the Blinebry and Drinkard Units respectively.

You will note that the tract numbers as printed on the parameter tables have changed. The altered numbers conform to the tracts as set out in the respective Unit Agreements.

Parameter Number 5, which is not used in the participation equation, expresses secondary reserve barrels of oil. This parameter is simply 70% estimated ultimate primary barrels of oil, as determined by the engineering subcommittee.

You will recall that Atlantic proposes to arbitrarily allocate 64.544% of Unit production to the Blinebry Unit and 35.456% to the Drinkard.

There is no real basis for this allocation, other than Atlantic's hope that the Blinebry and Drinkard formations will respond equally to secondary recovery.

It should further be evident that the Cone et al Eubanks Lease (Tract 13) represents 6.14546% of the Blinebry secondary recovery reserve and 12.43351% of that expected from the Drinkard, or a combined 824,353 barrels of secondary oil out of an estimated 9,810,843 barrels for the entire unit. There

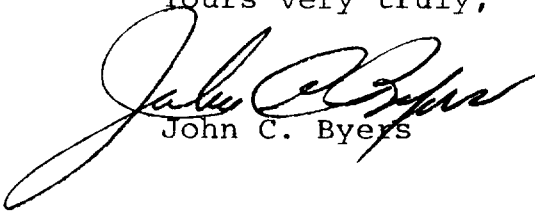
Mr. W. Thomas Kellahin, Esquire
Page Two

should not be any reason, therefore, that the omission of Tract 13 from the unit with an agreement that the operators of that tract will conduct secondary recovery operations fully compatible with the remainder of the Unit, should deminish the efficiency of the reduced unit operations.

Such an omission, as suggested above and to the commission, will enable the operators of Tract 13 to exploit the remaining reserves under that lease and simultaneously exploit the non unitized Tubb and Abo formations. In this regard, incidentally, we have not observed any decline in deliverability of gas from the Tubb formation during the period since the first hearing of this cause.

We hope this will be of material benefit to you and the commission. If you need added information, please call upon me.

Yours very truly,



John C. Byers

JCB:bp
Enclosures

cc: Mr. J. R. Cone
Texaco, Inc.
Attention: Mr. Morris Todd

EAST PLINERY UNIT

LATEST PARAMETER TABLE
 HANDED OUT AT MEETING OF JUNE 19, 1976

PARAMETER NUMBER	PARAMETER NAME	
1	F CUM OIL TO 4-1-76, BO	II (1472)
2	A REMAINING PRIMARY OIL FROM 4-1-76, BO	I (2572)
3	B REMAINING PRIMARY GAS FROM 4-1-76, MMCF	I (2572)
4	G ULT PRIMARY OIL, BO	II (8572)
5	S SECONDARY OIL HO, .7 (UP)	
6	C CURRENT OIL PRODUCTION, BO	I (2072)
7	D CURRENT GAS PRODUCTION, MCF	I (2572)
8	R GAS EQUIVALENT & CURRENT OIL, BO	
9	S CURRENT, \$	
10	T DEVELOPED ACRES	
11	E SURFACE ACRES	I (572), II (192)
12	F REMAINING PRIMARY GAS EQUIVALENT AND OIL, BO	

4-1-76

BLM BNT

TRACT NO	PARAM 1 F	PARAM 2 A	PARAM 3 B	PARAM 4 G	PARAM 5	PARAM 6 C	PARAM 7 D	PARAM 8	PARAM 9	PARAM 10	PARAM 11 E	PARAM 12
1-1	1735991.0	138589.0	2439.0	1814540.0	1312178.0	12091.0	123736.0	17040.0	160506.0	480.0	480.0	236145.0
3-2	120433.0	30403.0	957.0	150836.0	105585.0	2672.0	67958.0	5390.0	48467.0	40.0	40.0	58687.0
4-3	362116.0	63254.0	1343.0	425370.0	297759.0	5759.0	81567.0	9022.0	83691.0	120.0	120.0	116954.0
5-1	582123.0	26296.0	168.0	608419.0	425893.0	3233.0	18989.0	3993.0	38407.0	240.0	240.0	33016.0
6-1	215194.0	22164.0	272.0	237358.0	166151.0	1667.0	18805.0	2419.0	22688.0	80.0	80.0	33032.0
7-1	185013.0	10045.0	176.0	195058.0	136541.0	904.0	13415.0	1441.0	13333.0	80.0	80.0	17101.0
8-1	66745.0	0.0	0.0	66745.0	46722.0	0.0	0.0	0.0	0.0	40.0	40.0	0.0
9-1	47463.0	0.0	0.0	47463.0	33224.0	0.0	0.0	0.0	0.0	40.0	40.0	0.0
10-1	29442.0	39459.0	1405.0	334741.0	234319.0	3200.0	102875.0	7315.0	64920.0	80.0	80.0	104043.0
11-1	256343.0	17424.0	780.0	274207.0	191945.0	2077.0	59686.0	4464.0	39878.0	80.0	80.0	49004.0
12-1	369342.0	49416.0	1206.0	418798.0	293159.0	2997.0	63523.0	5538.0	50297.0	80.0	80.0	97664.0
13-1	325730.0	10175.0	1294.0	335906.0	235134.0	1358.0	125936.0	6395.0	39812.0	160.0	160.0	61948.0
14-1	496922.0	55236.0	2556.0	552158.0	386511.0	4820.0	147008.0	10700.0	85076.0	160.0	160.0	157472.0
15-1	344337.0	42472.0	879.0	386869.0	270808.0	2630.0	37557.0	4148.0	38446.0	80.0	80.0	77624.0
16-1	351031.0	71855.0	731.0	422886.0	296020.0	4464.0	41771.0	6135.0	58007.0	120.0	120.0	101087.0
18-1	588777.0	37405.0	491.0	628182.0	439327.0	2328.0	17111.0	3012.0	28136.0	320.0	320.0	57061.0
19-1	0.0	0.0	921.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36850.0
19A-1	364248.0	68085.0	1370.0	432333.0	302633.0	5808.0	116895.0	10484.0	95486.0	160.0	160.0	122895.0
20-1	164595.0	66501.0	1502.0	233086.0	163160.0	4041.0	57190.0	6329.0	53067.0	120.0	120.0	126561.0
21-1	33440.0	1027.0	260.0	34467.0	24407.0	318.0	45102.0	2122.0	12200.0	40.0	40.0	11411.0
22-1	454442.0	142067.0	4609.0	600549.0	420384.0	8420.0	232609.0	17724.0	154261.0	160.0	160.0	326423.0
24-2	384169.0	54586.0	2390.0	443755.0	310629.0	5674.0	176421.0	12731.0	113195.0	160.0	160.0	155194.0
25-2	141440.0	21959.0	437.0	203839.0	142687.0	1361.0	38255.0	2891.0	22243.0	120.0	120.0	39435.0
26-2	78153.0	701.0	187.0	78854.0	55198.0	317.0	25776.0	1348.0	8325.0	80.0	80.0	8185.0
TOTAL	8009899.0	974920.0	26572.0	8984819.0	6289374.0	76139.0	1612585.0	140642.0	1230432.0	3040.0	3080.0	2037792.0

14-13
 2-A 2570 X 5.66570 = 1.41443
 3-B 2570 X 9.61884 = 2.40471
 6-C 2070 X 6.35053 = 1.26611
 7-D 2570 X 9.11630 = 2.37908
 11-E 570 X 5.19481 = 0.28974
7.626028

97.52

14-13
 1-F 1470 X 6.20385 = 0.86854
 4-C 8570 X 6.14546 = 5.22364
 11-E 1720 X 5.19481 = 0.05195
6.144138

Param 1 Cum oil to 4-1-76
 Param 2 Remaining Primary 4-1-76
 Param 3 Remaining Primary gas 4-1-76
 Param 4 Ultimate Primary oil (Param 1 + Param 2)
 Param 5 Secondary oil (Param 4 x 0.7)

25 MCF = 1 Bbl oil

EAST DRINKARD UNIT

PARAMETER NUMBER	PARAMETER NAME	
1	F CUM OIL TO 4-1-76, BO	II (1490)
2	A REMAINING PRIMARY OIL FROM 4-1-76, BO	I (2570)
3	B REMAINING PRIMARY GAS FROM 4-1-76, MMCF	I (2570)
4	G ULT PRIMARY OIL, BO	II (8570)
5	SECUNDARY OIL HO. (7UP)	
6	C CURRENT OIL PRODUCTION, BO	I (2070)
7	D CURRENT GAS PRODUCTION, MCF	I (2570)
8	R GAS EQUIVALENT & CURRENT OIL, BO	
9	CURRENT, %	
10	DEVELOPED ACRES	
11	E SURFACE ACRES	I (570), II (190)
12	REMAINING PRIMARY GAS EQUIVALENT AND OIL, BO	

INPUT DATA-- PARAMETER BY TRACT
 cum 4-1-72

WT
 PRM
 DINTAND
 Sec. Pay

TRACT NO	PARAM 1	PARAM 2	PARAM 3	PARAM 4	PARAM 5	PARAM 6	PARAM 7	PARAM 8	PARAM 9	PARAM 10	PARAM 11	PARAM 12
1-1	523664.	100544.	1590.	624208.	436946.	9247.	102895.	13349.	125390.	400.	440.	164136.
2-1	215816.	21241.	296.	239057.	166640.	1379.	15193.	1996.	18652.	40.	40.	33081.
3-2	203640.	7400.	940.	216240.	151368.	991.	116358.	5645.	47145.	40.	40.	46012.
4-3	212249.	15403.	609.	227652.	159356.	1352.	37316.	2845.	25461.	120.	120.	39767.
5-1	72645.	28803.	213.	101448.	71014.	1616.	7854.	1930.	18073.	120.	240.	37319.
6-2	0.	0.	14.	0.	0.	0.	0.	0.	0.	0.	80.	640.
7-3	0.	0.	18.	0.	0.	0.	0.	0.	0.	0.	80.	720.
8-8	4893.	12223.	29.	19116.	13341.	1161.	2794.	1279.	12504.	40.	40.	13399.
9-7	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	40.	0.
10-10	424158.	6845.	344.	433003.	303102.	1011.	32503.	2311.	20511.	80.	80.	20609.
11-11	162481.	14800.	225.	177281.	124097.	953.	7985.	1289.	12186.	80.	80.	23788.
12-12	287751.	36853.	541.	304604.	213223.	2258.	28071.	3341.	31563.	80.	80.	59297.
13-1	95855.	14345.	155.	110240.	77166.	1400.	1973.	1479.	14631.	40.	160.	20597.
14-13	565726.	59743.	450.	625489.	437842.	3946.	23252.	4974.	46501.	160.	160.	81767.
15-14	132774.	145450.	549.	278224.	194757.	8921.	30377.	10136.	98931.	80.	80.	167302.
16-15	0.	0.	29.	0.	0.	0.	0.	0.	0.	0.	120.	1160.
17-1	6442.	0.	16.	6442.	4509.	0.	0.	0.	0.	0.	320.	640.
18-1	124709.	76653.	1690.	201341.	140953.	3855.	80348.	7069.	64261.	40.	40.	144245.
19-1	78901.	0.	108.	78901.	53831.	0.	0.	0.	0.	40.	80.	4312.
20-17	197646.	21758.	303.	219404.	153543.	2349.	17675.	3096.	29546.	120.	120.	33874.
21-18	38898.	7939.	45.	46837.	32786.	926.	2829.	1039.	10165.	40.	40.	9751.
22-19	589785.	40525.	1572.	630410.	441267.	4194.	220818.	13027.	99938.	160.	160.	103505.
24-20	293648.	5449.	419.	289097.	212368.	1234.	61939.	3712.	32161.	160.	160.	22189.
25-21	127218.	18189.	121.	145407.	101785.	1906.	10933.	2343.	22559.	120.	160.	23041.
26-22	59250.	0.	42.	59250.	41475.	388.	3234.	517.	4915.	80.	80.	1680.
TOTAL	4396148.	634523.	10458.	5030671.	3521471.	49137.	804348.	81310.	736099.	2120.	3080.	1052831.

Dunham

TRACT NO	PARAM 1	PARAM 2	PARAM 3	PARAM 4	PARAM 5	PARAM 6	PARAM 7	PARAM 8	PARAM 9	PARAM 10	PARAM 11	PARAM 12
1-1	.1191184	.1544560	.1520219	.1240405	.1240805	.1481841	.1279235	.1643463	.1703560	.1486792	.1428572	.1558997
2	.0493195	.0334755	.0243045	.0473211	.0473211	.0280644	.0188886	.0244250	.0253390	.0184679	.0129870	.0314210
3	.0474597	.0119775	.0914971	.0429843	.0429843	.0201581	.0201581	.0640471	.0640471	.0184679	.0439470	.0377031
4	.0482807	.0242749	.0542442	.0452528	.0452527	.0275149	.0463913	.0349496	.0345891	.0566038	.0349611	.0377715
5-4	.0165247	.0253932	.0203548	.0201659	.0201660	.0328476	.0097644	.0237343	.0253475	.0566038	.0779221	.0354463
6	.0	.0	.0015300	.0	.0	.0	.0	.0	.0	.0	.0259740	.0006079
7	.0	.0	.0017212	.0	.0	.0	.0	.0	.0	.0	.0259740	.0006839
8	.0015660	.0192633	.0024113	.0037999	.0037998	.0236278	.0034736	.0156561	.0169868	.0184679	.0129870	.0127266
9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0129870	.0
10	.0949390	.0107876	.0329040	.0860726	.0360726	.0205751	.0404091	.0244221	.0278645	.0377359	.0259740	.0195748
11	.0369599	.0233246	.0214446	.0352400	.0352401	.0195983	.0099285	.0157668	.0165548	.0377359	.0259740	.0225943
12	.0609054	.0580799	.0505494	.0505494	.0505494	.0459531	.0348991	.0415416	.0428787	.0377359	.0259740	.0563215
13-1	.0218043	.0226706	.0148403	.0219134	.0219136	.0244918	.0024929	.0181897	.0198764	.0184679	.0519491	.0195635
14-13	.1286844	.0421457	.0526024	.1243351	.1243350	.0403061	.0289079	.0599680	.0637156	.0754717	.0519481	.0776539
15	.0302023	.2292273	.0522390	.0533055	.0533056	.1815536	.0377660	.1246587	.1343990	.0377359	.0259740	.1599068
16	.0	.0	.0027731	.0	.0	.0	.0	.0	.0	.0	.0389610	.0011018
17-4	.0014654	.0	.0015300	.0012605	.0012604	.0	.0	.0	.0	.0184679	.1038961	.0006079
19C	.0283576	.1208041	.1515843	.0400267	.0400267	.0784541	.0998921	.0469389	.0472294	.0377358	.0259740	.1370068
190	.0174928	.0	.0103082	.0152864	.0152865	.0	.0	.0	.0	.0184679	.0259740	.0040956
20	.0449589	.0342993	.0289643	.0436133	.0436133	.0486192	.0219743	.0380765	.0401386	.0566038	.0389610	.0321742
21	.0084482	.0125118	.0043317	.0093103	.0093103	.0184453	.0035171	.0127783	.0138093	.0188679	.0129870	.0092617
22	.1341595	.0640245	.1503199	.1253133	.1253133	.0953532	.2745304	.1602140	.1357673	.0754717	.0519481	.0943111
24	.0645219	.0085876	.0400183	.0574669	.0574669	.0251135	.0770052	.0456524	.0436911	.0754717	.0519481	.0210756
25	.0289385	.0246565	.0115991	.0289041	.0289041	.0387995	.0135924	.0248156	.0306467	.0566038	.0519481	.0218448
26	.0134777	.0	.0040162	.0117774	.0117778	.0078963	.0040207	.0063584	.0066771	.0377358	.0259740	.0015957
TOTAL	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000

14-13

I

2-A 25 91 X 9.41857 = 2.35 464
 3-B 25 91 X 5.26024 = 1.31 506
 4-C 20 91 X 8.03061 = 1.60 612
 7-D 25 91 X 2.89079 = 0.72 220
 11-E 5 90 X 5.19481 = 0.26 974
 6-25826

14-13

II

1-E 14 90 X 12.86868 = 1.89 162
 4-C 85 70 X 12.43351 = 10.56 848
 11-E 1 70 X 5.19481 = 0.25 195
 12.42205 90

4	.0007544	.0207193	.0009101	.0007071	.0007071	.0004299	.0007249	.0005467	.0005405	.0008845	.0006098	.0005902
TOTAL	.0007544	.0003743	.0009101	.0007071	.0007071	.0004299	.0007249	.0005467	.0005405	.0008845	.0006098	.0005902

SUMMIT ENERGY, INC.

TRACT NO	PARAM 1	PARAM 2	PARAM 3	PARAM 4	PARAM 5	PARAM 6	PARAM 7	PARAM 8	PARAM 9	PARAM 10	PARAM 11	PARAM 12
16	.0	.0	.0027731	.0	.0	.0	.0	.0	.0	.0	.0389610	.0011018
TOTAL	.0	.0	.0027731	.0	.0	.0	.0	.0	.0	.0	.0389610	.0011018

TEXACO

DRINKING

TRACT NO	PARAM 1	PARAM 2	PARAM 3	PARAM 4	PARAM 5	PARAM 6	PARAM 7	PARAM 8	PARAM 9	PARAM 10	PARAM 11	PARAM 12
14	.0530833	.0388516	.0216985	.0512882	.0512882	.0331263	.0119245	.0247368	.0262827	.0311321	.0214286	.0320364
TOTAL	.0530833	.0388516	.0216985	.0512882	.0512882	.0331263	.0119245	.0247368	.0262827	.0311321	.0214286	.0320364

VANDIVER, MRS. V.J.

TRACT NO	PARAM 1	PARAM 2	PARAM 3	PARAM 4	PARAM 5	PARAM 6	PARAM 7	PARAM 8	PARAM 9	PARAM 10	PARAM 11	PARAM 12
2	.0030825	.0029922	.0017690	.0029576	.0029576	.0017540	.0011805	.0015266	.0015837	.0011792	.0008117	.0019638
TOTAL	.0030825	.0029922	.0017690	.0029576	.0029576	.0017540	.0011805	.0015266	.0015837	.0011792	.0008117	.0019638

YOUNG, S.D.

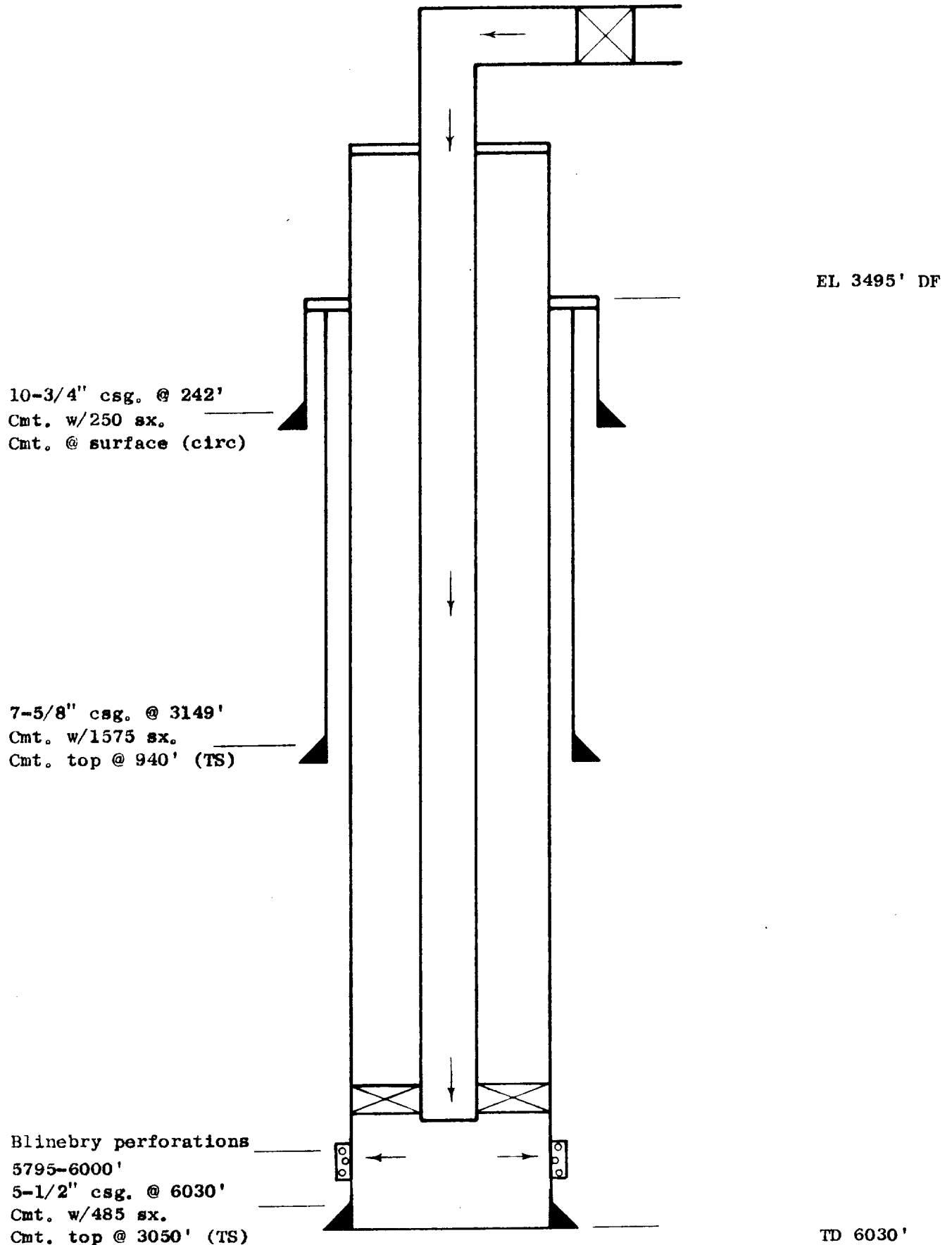
TRACT NO	PARAM 1	PARAM 2	PARAM 3	PARAM 4	PARAM 5	PARAM 6	PARAM 7	PARAM 8	PARAM 9	PARAM 10	PARAM 11	PARAM 12
2	.0041649	.0041844	.0035381	.0059151	.0059151	.0035080	.0023611	.0030531	.0031673	.0023585	.0016234	.0039276
TOTAL	.0041649	.0041844	.0035381	.0059151	.0059151	.0035080	.0023611	.0030531	.0031673	.0023585	.0016234	.0039276

CONOCO-LOCKHART B-12 NO. 6

UNIT C - 330' FNL & 1980 FWL

SECTION 12-T21S-R37E

LEA COUNTY, NEW MEXICO



Proposed Blinebry Unit Well No. 2

EXHIBIT No. 43

CONOCO-LOCKHART B-II NO. 6

UNIT A 330' FNL & 330' FEL

SECTION II, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO

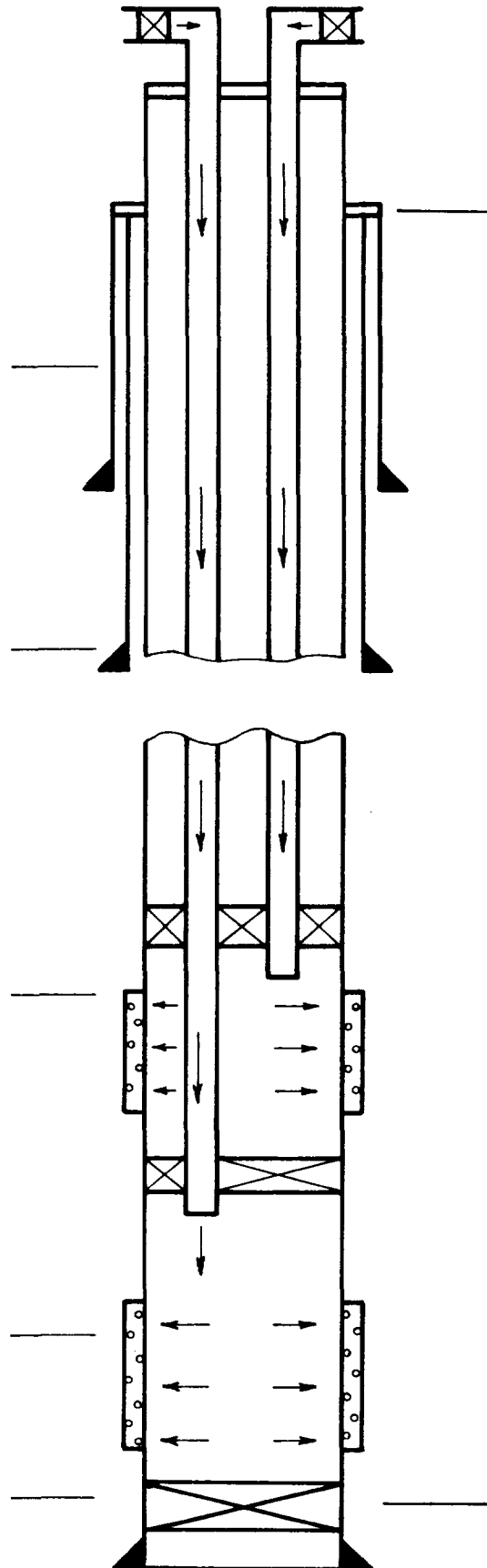
13-3/8" csg. @ 246'
Cmt. w/260 sx.
Cmt. top @ surface (circ)

9-5/8" csg. @ 3136'
Cmt. w/1797 sx.
Cmt. top @ surface (circ)

Blinebry perforations
5750-6050'

Drinkard perforations
6680-6766'

7" csg. @ 8064' w/948 sx.
Cmt. top @ 3220' (TS)



EL 3473' DF

PBD 6850'

TD 5065'

Proposed Blinebry Unit Well No. 4 UT
Proposed Drinkard Unit Well No. 4 LT

CONOCO-LOCKHART B-II NO. 4

UNIT C 330' FNL & 1650' FWL

SECTION 11, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO

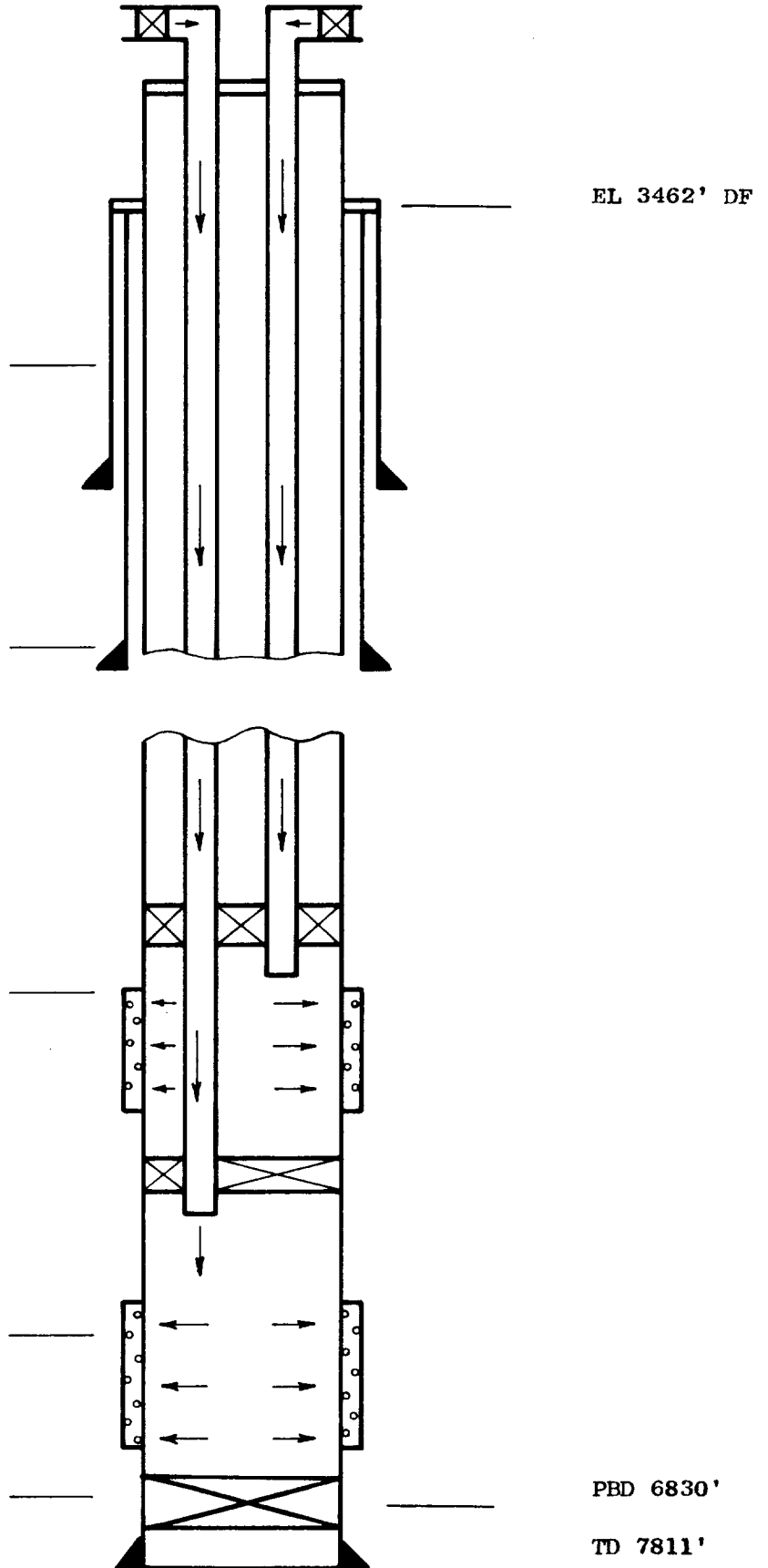
10-3/4" csg. @ 272'
Cmt. w/250 sx.
Cmt. top @ surface (circ)

7-5/8" csg. @ 3149'
Cmt. w/1200 sx.
Cmt. top @ 240 sx (TS)

Blinebry perforations
5775-6000'

Drinkard perforations
6650-6800'

5-1/2" csg. @ 7805'
Cmt. w/835 sx.
Cmt. top @ surface (calc)



Proposed Blinebry Unit Well No. 6 UT
Proposed Drinkard Unit Well No. 6 LT

CONOCO - LOCKHART B-II NO.3

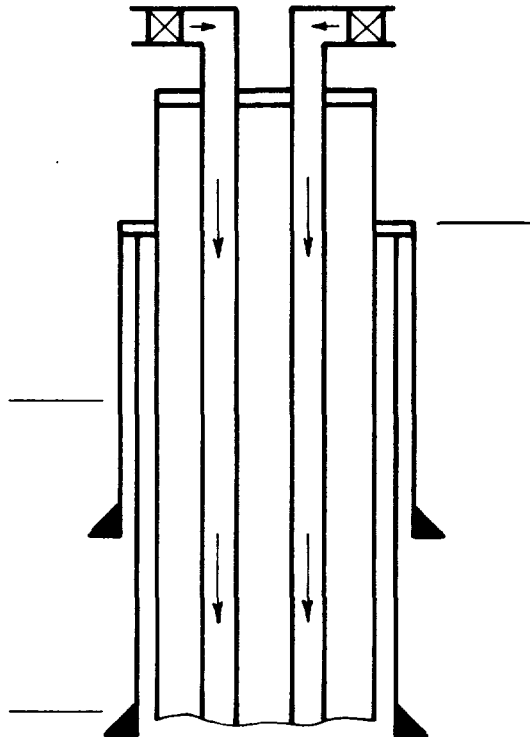
UNIT E - 1980' FNL & 350' FWL

SECTION II - T21S-R37E

LEA COUNTY, NEW MEXICO

10-3/4" csg. @ 262'
Cmt. w/250 sx.
Cmt. top @ surface (circ)

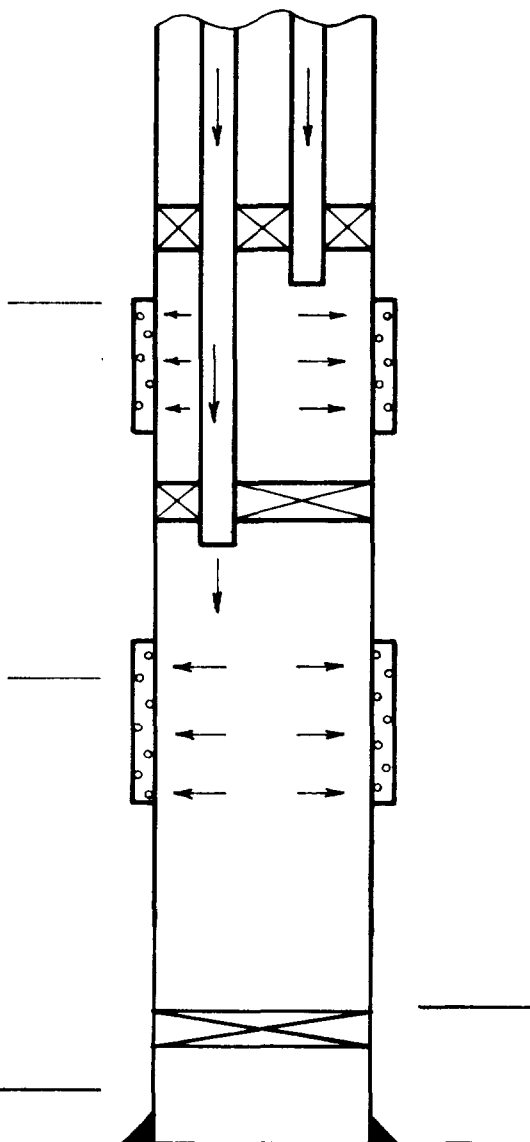
7-5/8" csg. @ 3099'
Cmt. w/1680 sx.
Cmt. top @ surface (circ)



EL 3426' DF

Blinebry perforations
5700-5950'

Drinkard perforations
6550-6675'



PBD 7448'

TD 7659'

5-1/2" csg. @ 7658'
Cmt. w/508 sx.
Cmt. top @ 3380' (TS)

Proposed Blinebry Unit Well No. 8 UT
Proposed Drinkard Unit Well No. 8 LT

CONOCO - LOCKHART B-II NO.17

UNIT G - 1980' FNL & 1980' FEL

SECTION II - T21S-R37E

LEA COUNTY, NEW MEXICO

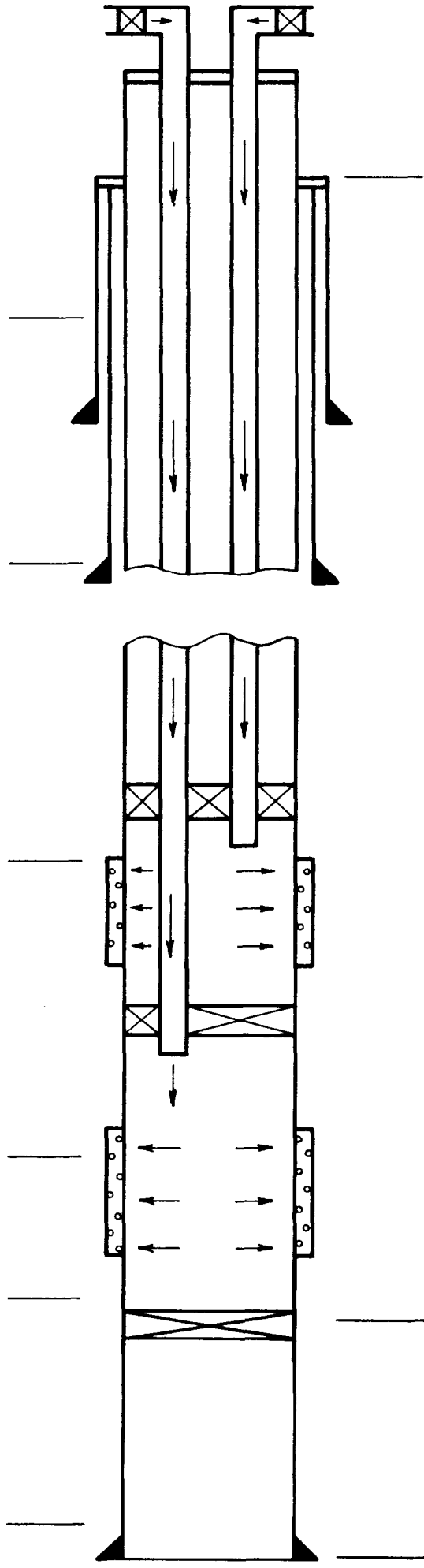
13-3/8" csg. @ 368'
Cmt. w/300 sx.
Cmt. top @ surface (circ)

9-5/8" csg. @ 3094'
Cmt. w/1150 sx.
Cmt. top @ 1600' (TS)

Blinebry perforations
5750-5930'

Drinkard perforations
6582-6708'

7" csg. @ 7499'
Cmt. w/650 sx.
Cmt. top @ 3600' (TS)



EL 3455' DF

PBD 6750'

TD 7500'

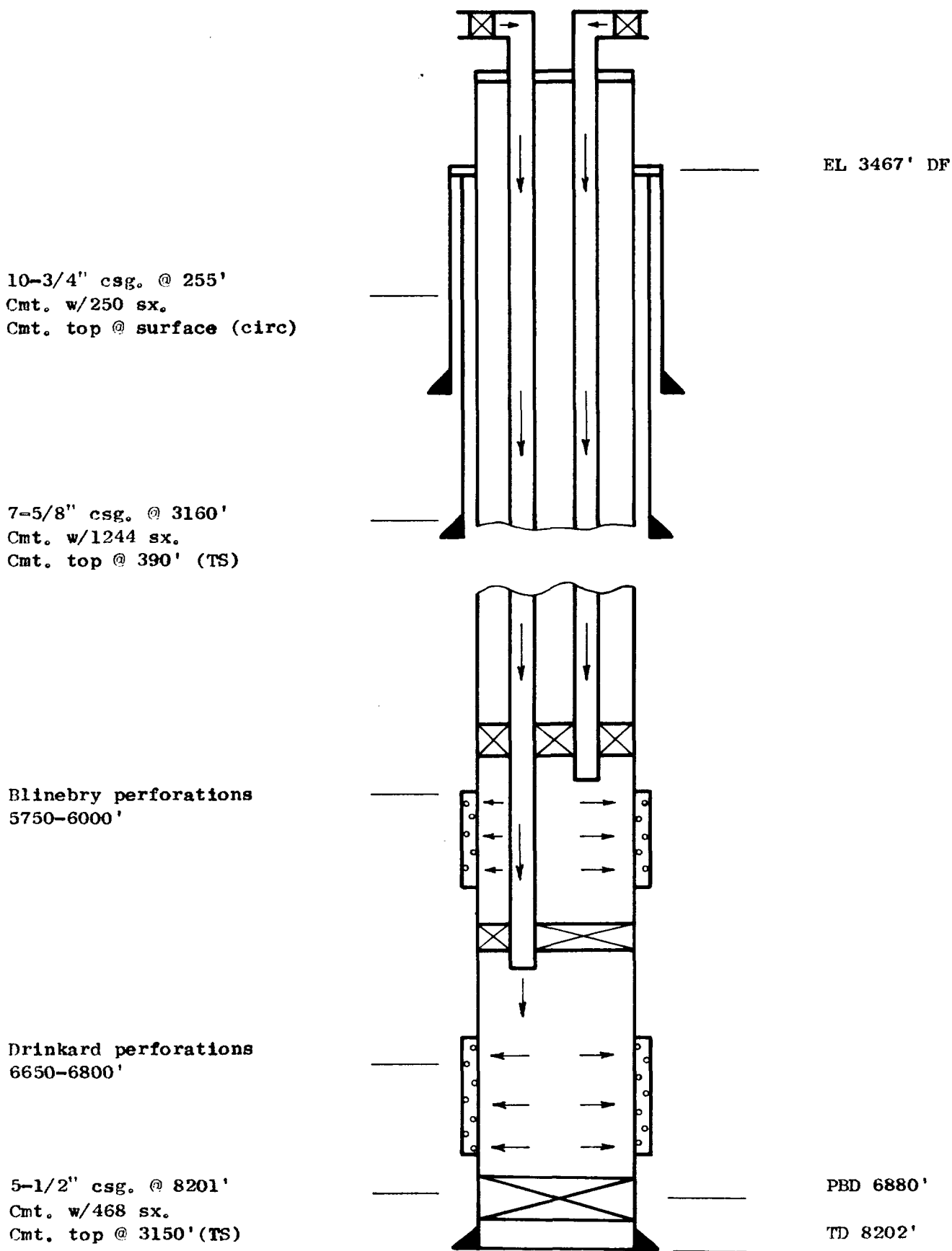
Proposed Blinebry Unit Well No. 10 UT
Proposed Drinkard Unit Well No. 10 LT

CONOCO-LOCKHART B-12 NO. 4

UNIT E 1650' FNL & 660' FWL

SECTION 12, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO



10-3/4" csg. @ 255'
 Cmt. w/250 sx.
 Cmt. top @ surface (circ)

EL 3467' DF

7-5/8" csg. @ 3160'
 Cmt. w/1244 sx.
 Cmt. top @ 390' (TS)

Blinebry perforations
 5750-6000'

Drinkard perforations
 6650-6800'

5-1/2" csg. @ 8201'
 Cmt. w/468 sx.
 Cmt. top @ 3150' (TS)

PBD 6880'

TD 8202'

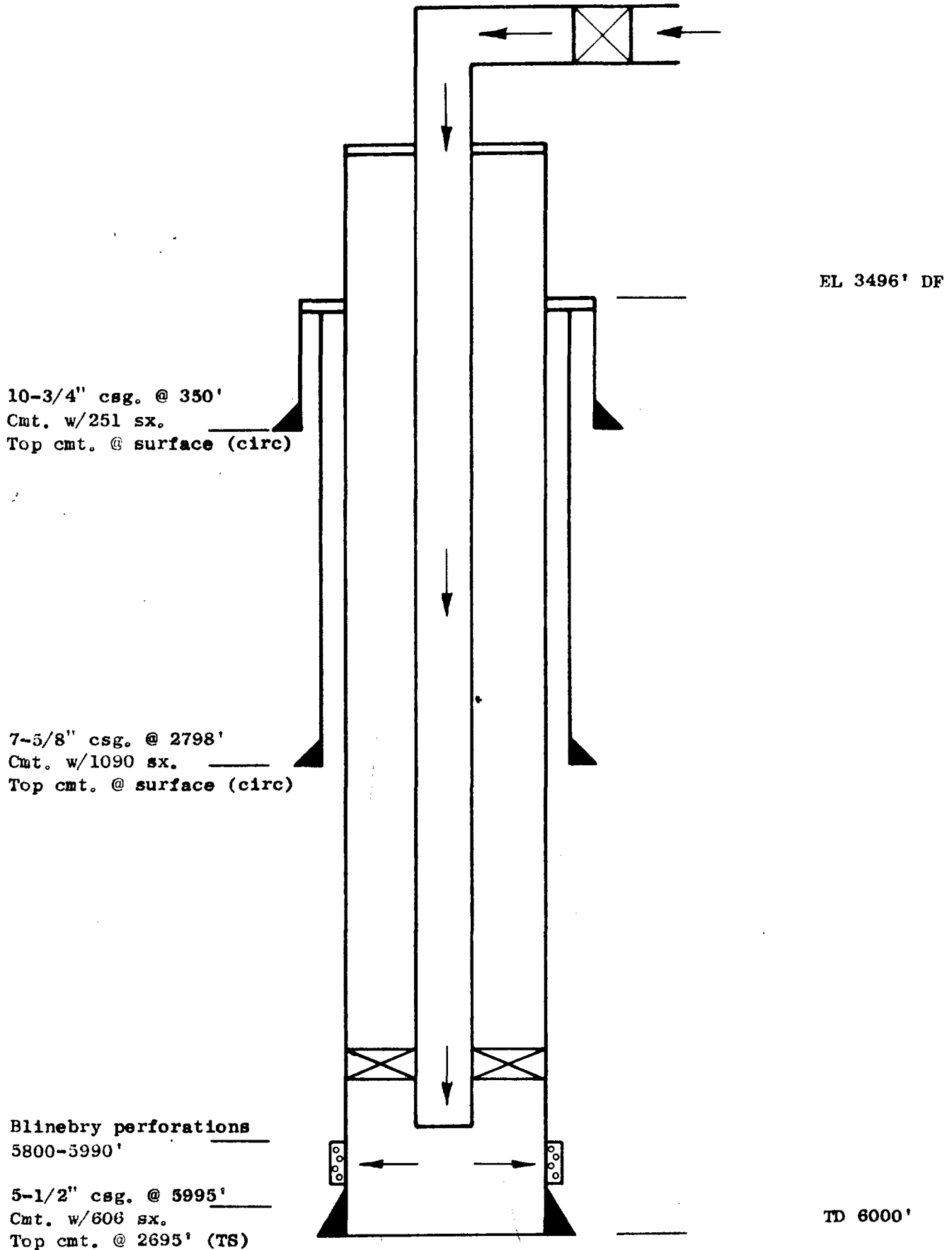
Proposed Blinebry Unit Well No. 12 UT
 Proposed Drinkard Unit Well No. 12 LT

CONOCO - LOCKHART "B-12" NO. 9

UNIT G - 1980' FNL & 2310' FEL

SECTION 12 - T21S-R37E

LEA COUNTY, NEW MEXICO



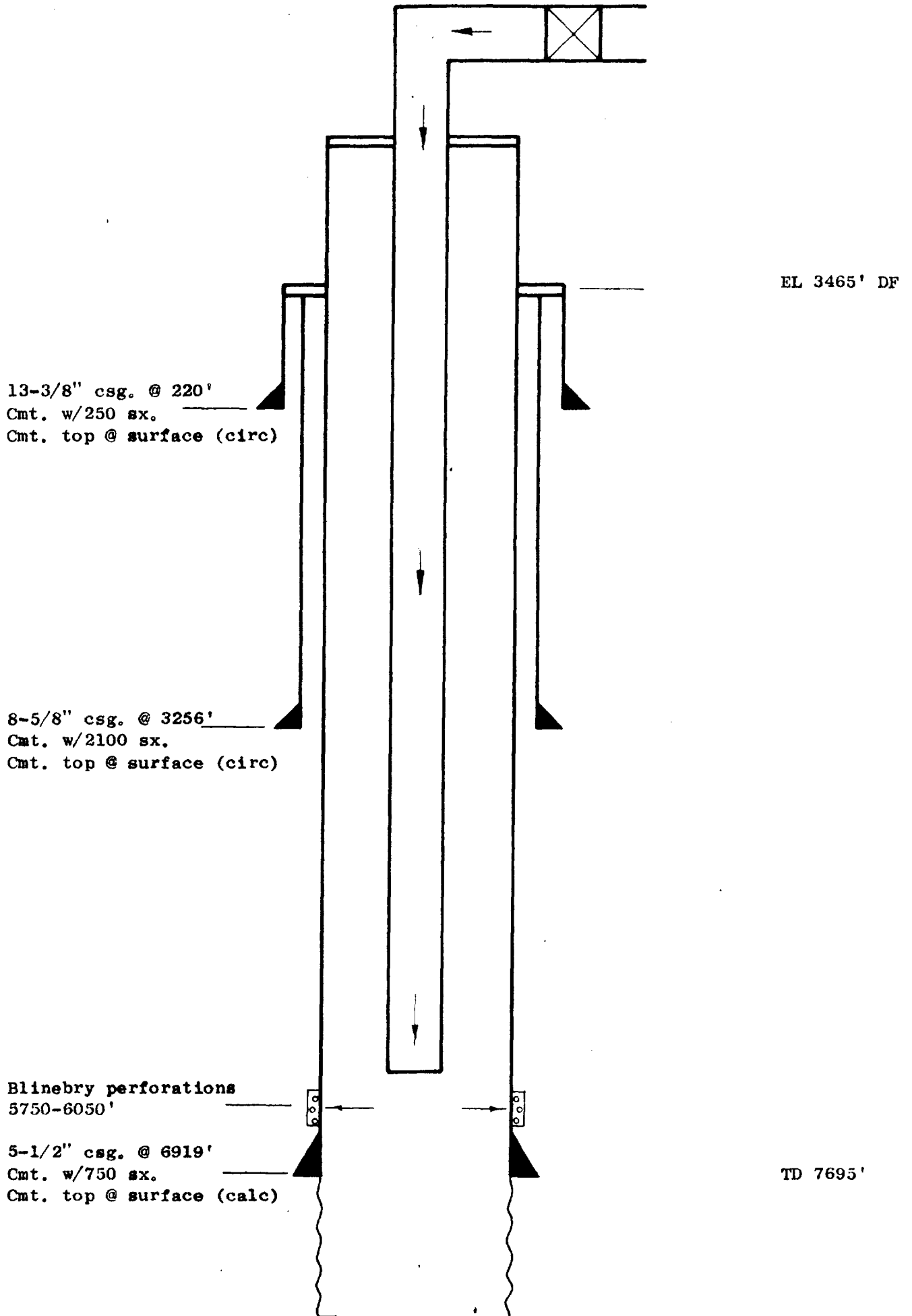
Proposed Blinebry Unit Well No. 14

SHELL - CHESHER NO. 1

UNIT K - 1980' FSL & 1980' FWL

SECTION 12 - T21S-R37E

LEA COUNTY, NEW MEXICO



Proposed Blinebry Unit Well No. 16

CONOCO - LOCKHART B-II NO. 11

UNIT I 1980' FSL & 330' FEL

SECTION 11, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO

10-3/4" csg. @ 265'
Cmt. w/300 sx.
Cmt. top @ surface (circ)

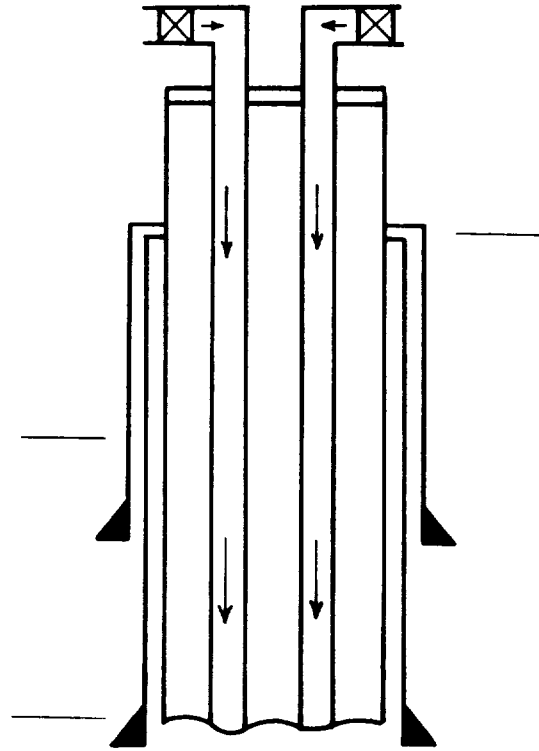
7-5/8" csg. @ 2953'
Cmt. w/700 sx.
Cmt. top @ 1350' (TS)

Blinebry perforations
5715-5860'

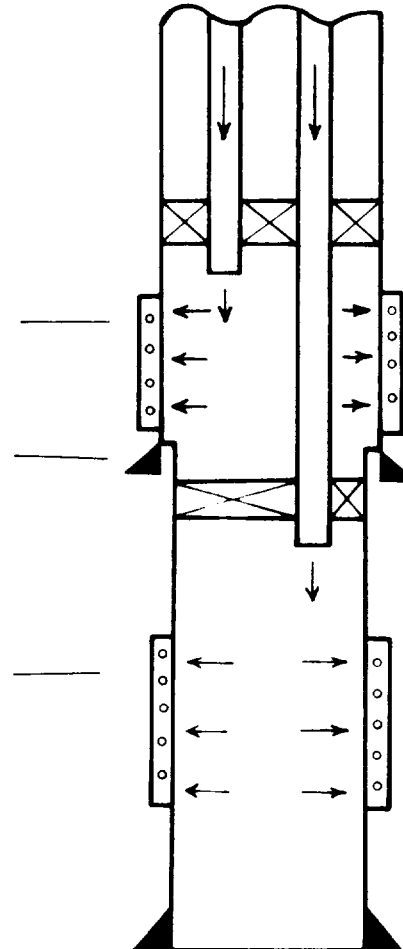
5-1/2" csg. @ 5899'
Cmt. w/300 sx.
Cmt. top @ 2825' (TS)

Drinkard perforations
6570-6700'

4" liner 5875-6780'



EL 3445' DF



TD 6780'

Proposed Blinebry Unit Well No. 18 UT
Proposed Drinkard Unit Well No. 18 LT

CONOCO-NOLAN NO.3

UNIT K - 1980' FSL & 1980' FWL

SECTION II - T2IS-R37E

LEA COUNTY, NEW MEXICO

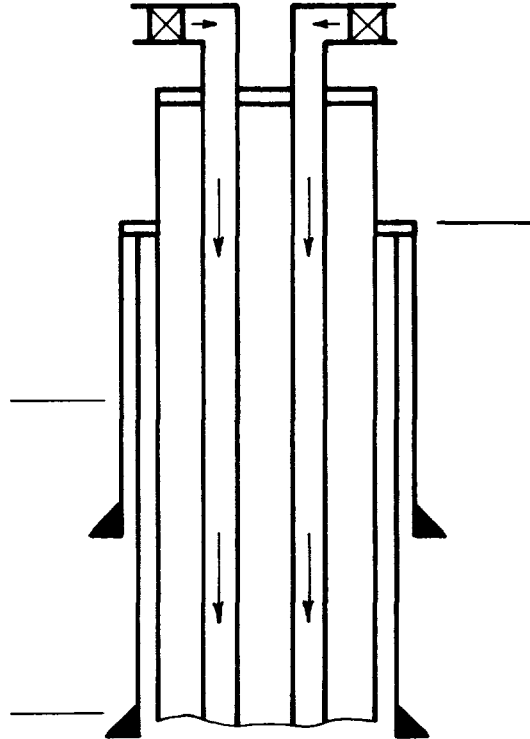
13-3/8" csg. @ 350'
Cmt. w/250' sx.
Cmt. top @ surface (circ)

9-5/8" csg. @ 3093'
Cmt. w/1200' sx.
Cmt. top @ 1500' (TS)

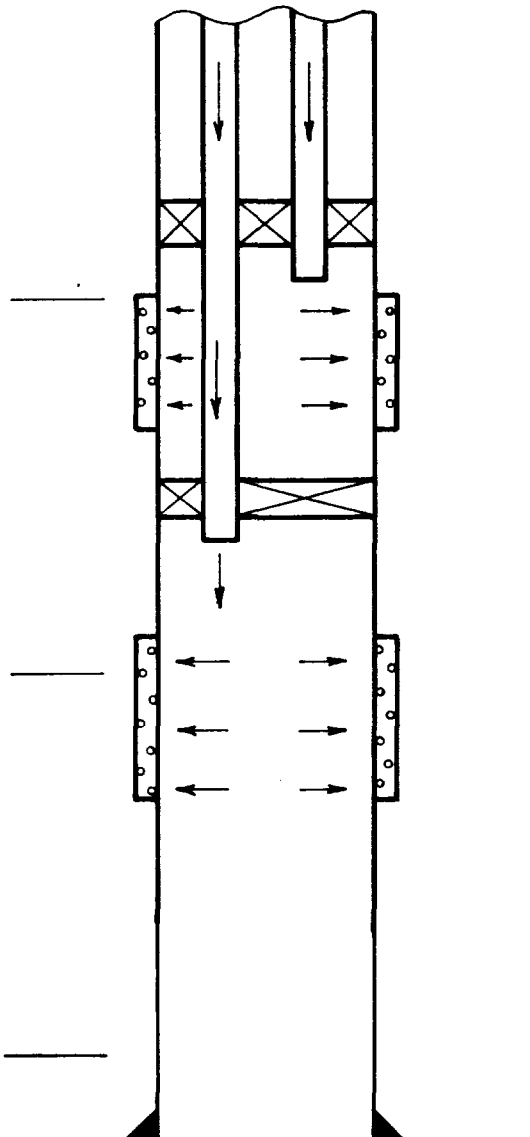
Blinebry perforations
5738-6050'

Drinkard perforations
6580-6730'

7" csg. @ 7492'
Cmt. w/625' sx.
Cmt. top @ 3800' (TS)



EL 3447' DF



TD 7492'

Proposed Blinebry Unit Well No. 20 UT
Proposed Drinkard Unit Well No. 20 LT

CONOCO - NOLAN NO. 1

UNIT M - 660' FSL & 660' FWL

SECTION II - T21S-R37E

LEA COUNTY, NEW MEXICO

10-3/4" csg. @ 269'
Cmt. w/225 sx.
Cmt. top @ surface (circ)

7-5/8" csg. @ 3069'
Cmt. w/2040 sx.
Cmt. @ surface (circ)

Blinebry perforations
5702-5900'

Drinkard perforations
6530-6642'

5-1/2" csg. @ 6699'
Cmt. w/358 sx.
Cmt. top @ 3225' (TS)

EL 3423' DF

PBD 6690'

TD 7523'

Proposed Blinebry Unit Well No. 22 UT
Proposed Drinkard Unit Well No. 22 LT

CONOCO-LOCKHART B-11-NO. 8

UNIT 0, 660' FSL & 1980' FEL

SECTION II, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO

13-3/8" csg. @ 268'
Cmt. w/250 sx.
Cmt. top @ surface (circ)

9-5/8" csg. @ 2996' w/2100 sx.
Cmt. top @ surface (circ)

Blinebry perforations
5694-5920'

Drinkard perforations
6560-6650'

7-1/2" csg. @ 7576'
Cmt. w/861 sx.
Cmt. top @ 3380' (TS)

EL. 3421' DF

PBD 6860'

TD 7577'

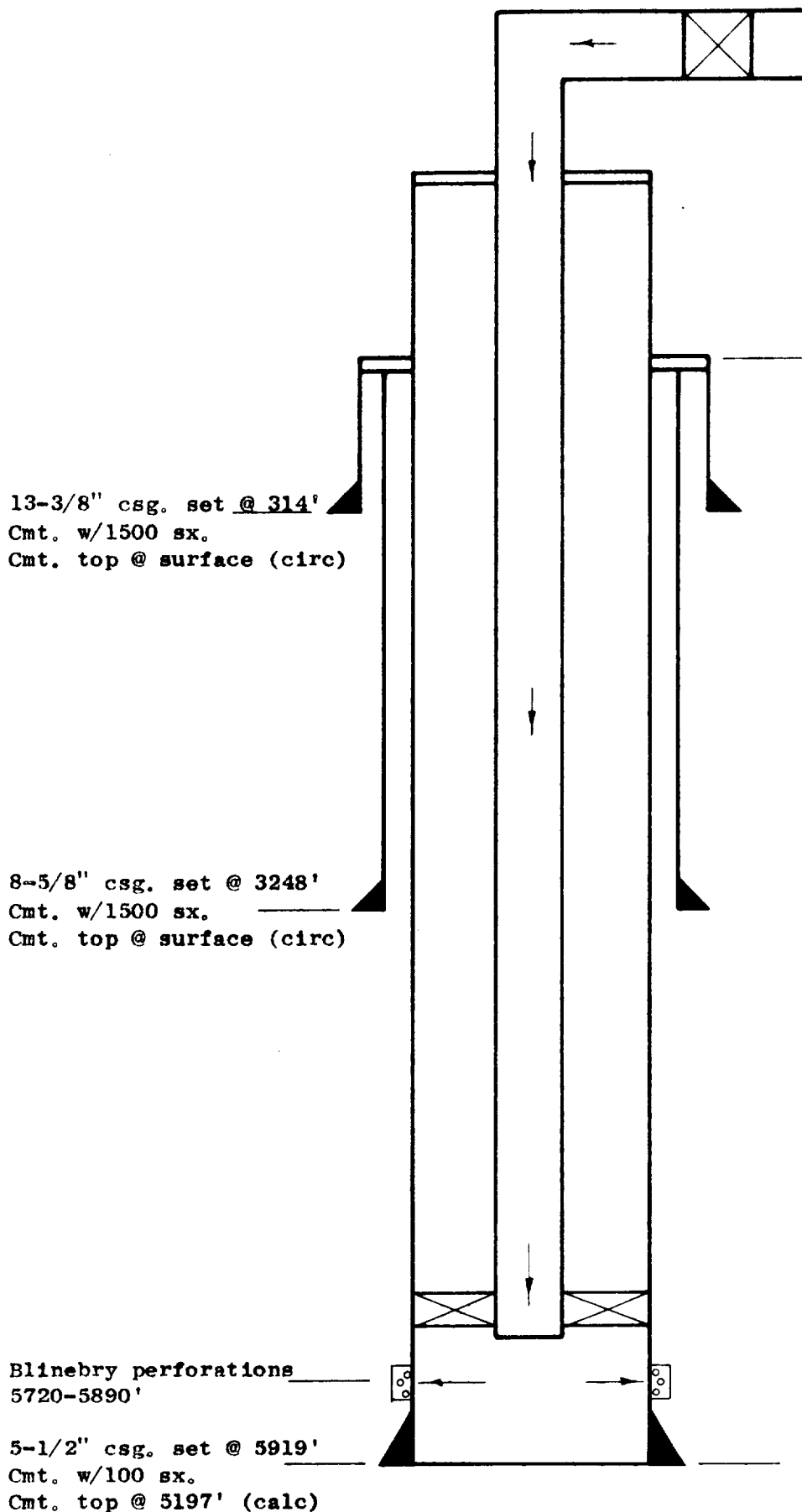
Proposed Blinebry Unit Well No. 24 UT
Proposed Drinkard Unit Well No. 24 LT

SHELL - CHESHER NO. 2

UNIT M - 660' FSL & 660' FWL

SECTION 12 - T21S-R37E

LEA COUNTY, NEW MEXICO



EL 3442' DF

TD 5920'

Proposed Blinebry Unit Well No. 26

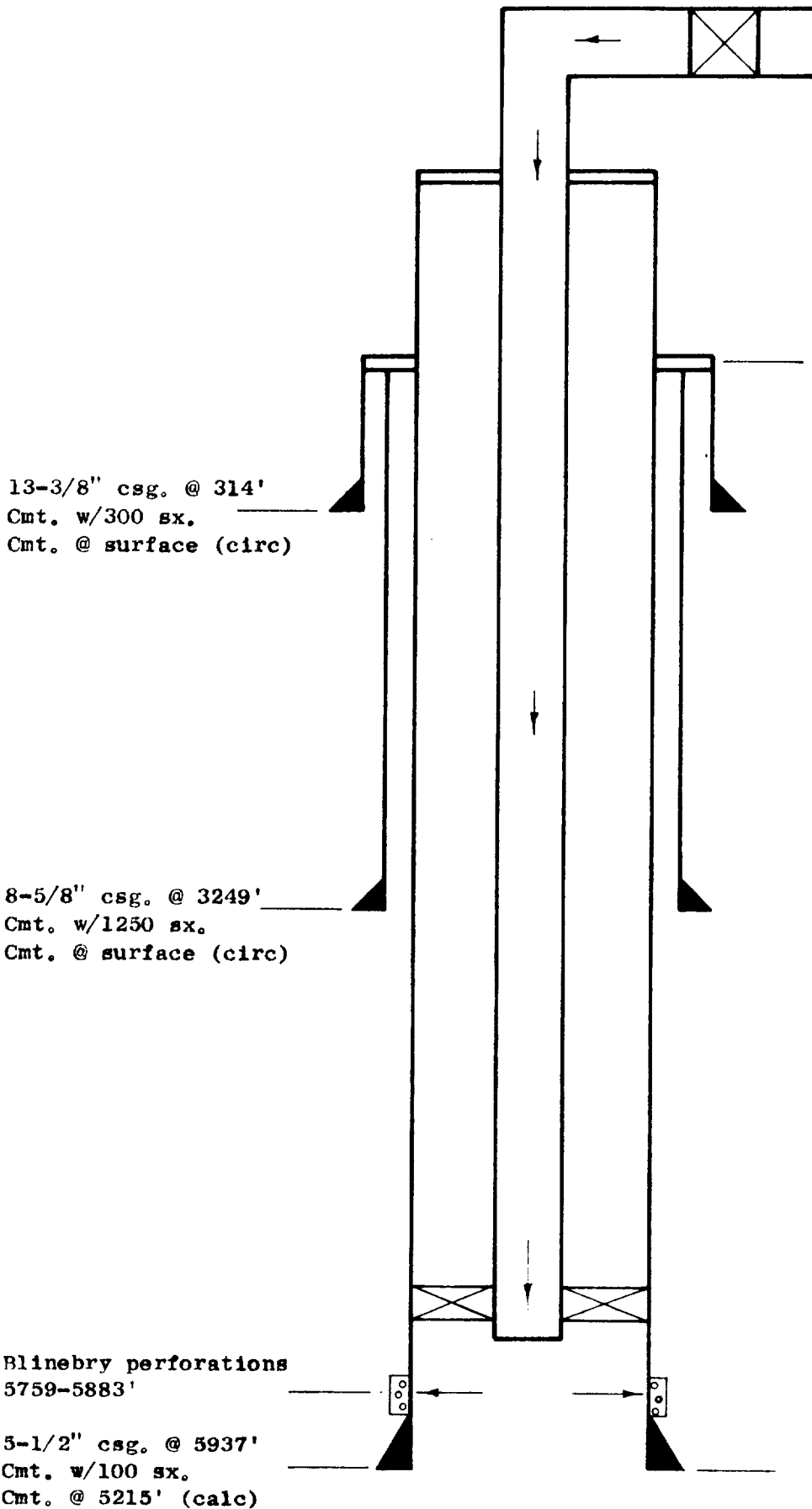
EXHIBIT NO. 55

SHELL - FIELDS NO. 1

UNIT 0 - 660' FSL & 2310' FEL

SECTION 12 - T21S-R37E

LEA COUNTY, NEW MEXICO

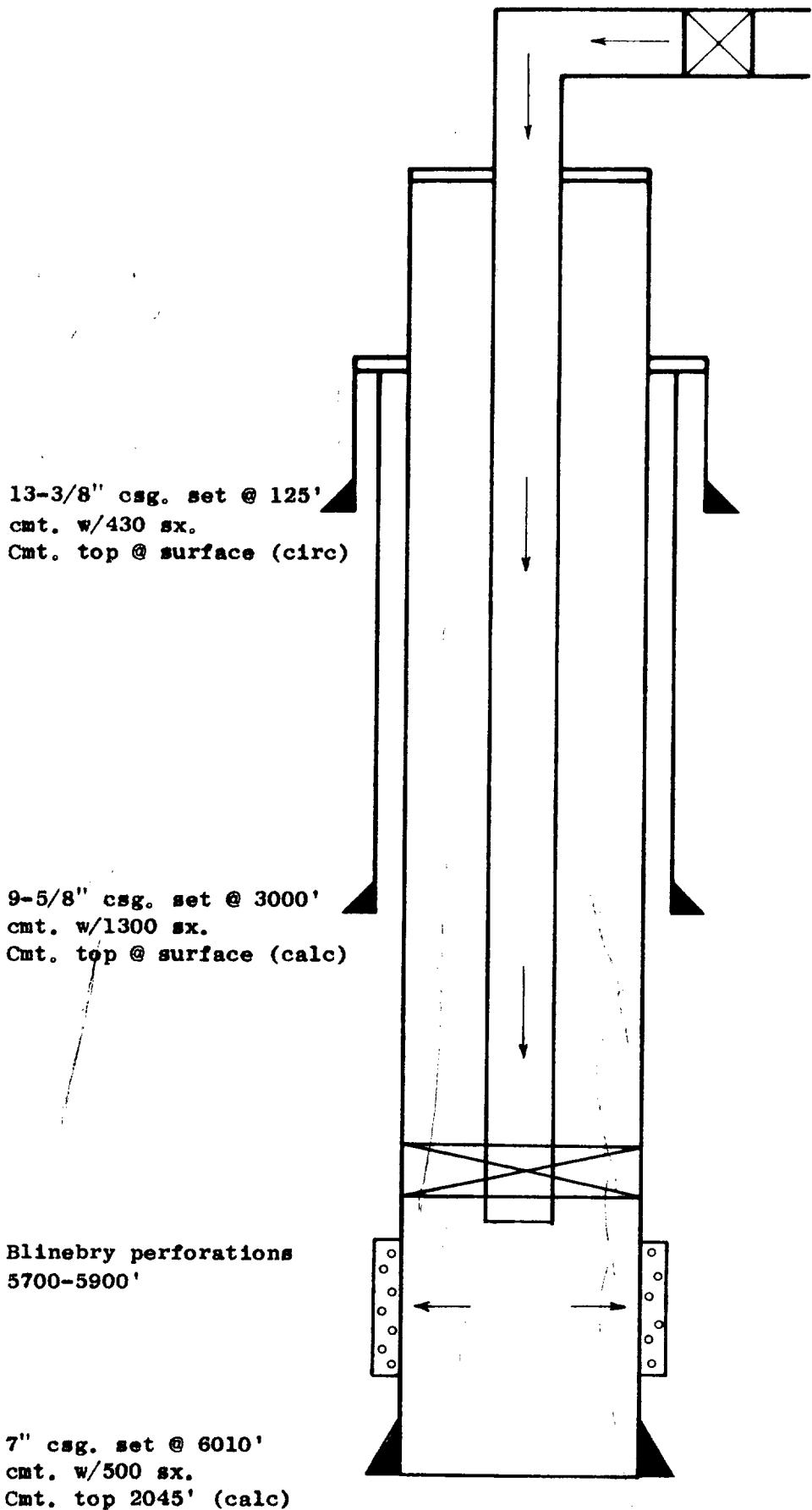


EL 3463' DF

TD 5938'

Proposed Blinebry Unit No. 28

SUMMIT - BUNIN NO. 2
UNIT C 660' FNL & 1650' FWL
SECTION 13, T 21 S, R 37 E
LEA COUNTY, NEW MEXICO



EL 3444' DF

TD 6010'

Proposed Blinebry Unit Well No. 30

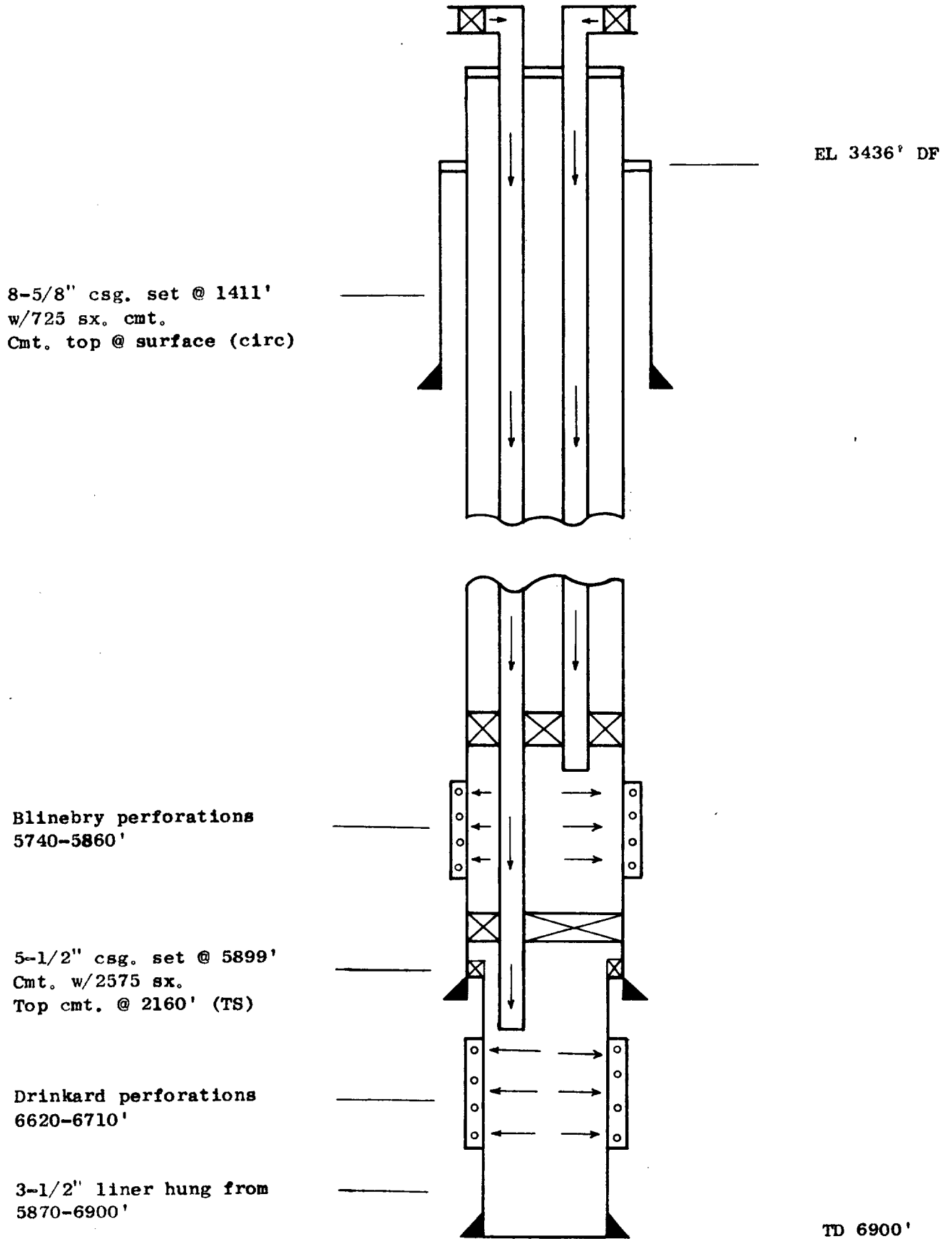
EXHIBIT NO. 57

CONOCO-LOCKHART B-14 NO. 3

UNIT A 660' FNL & 330' FEL

SECTION 14, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO



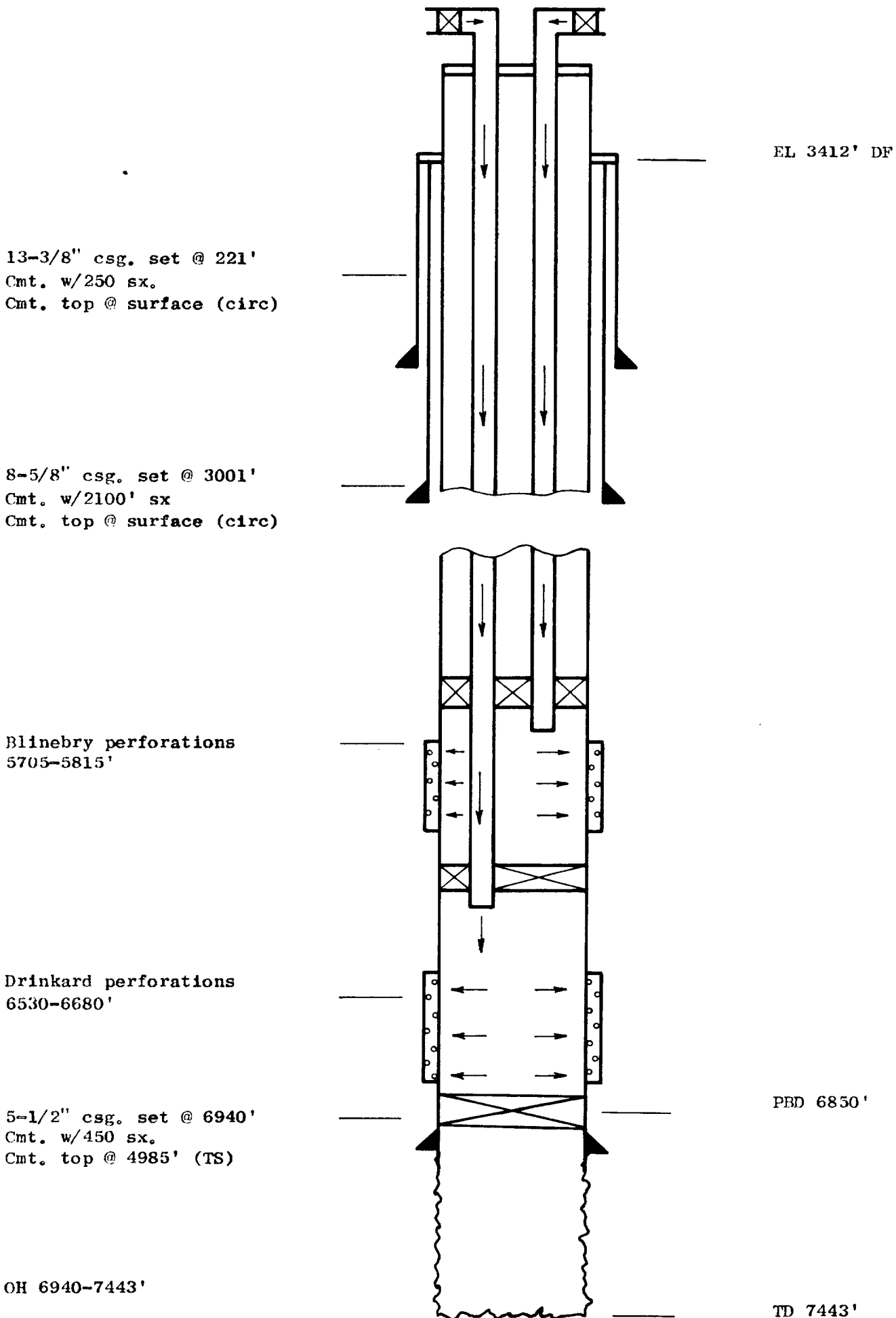
Proposed Blinebry Unit Well No. 32 UT
Proposed Drinkard Unit Well No. 32 LT

SHELL-ANDREWS NO. 2

UNIT C 990' FNL & 1980' FWL

SECTION 14, T 21 S, R 37 E

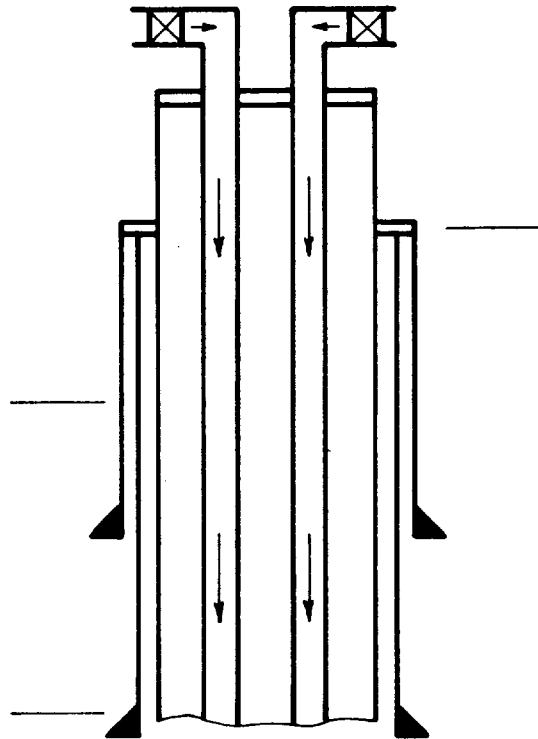
LEA COUNTY, NEW MEXICO



Proposed Blinebry Unit Well No. 34 UT
Proposed Drinkard Unit Well No. 34 LT

MORANCO-OWEN NO. 1
 UNIT E 1980' FNL & 660' FWL
 SECTION 14, T 21 S, R 37 E
 LEA COUNTY, NEW MEXICO

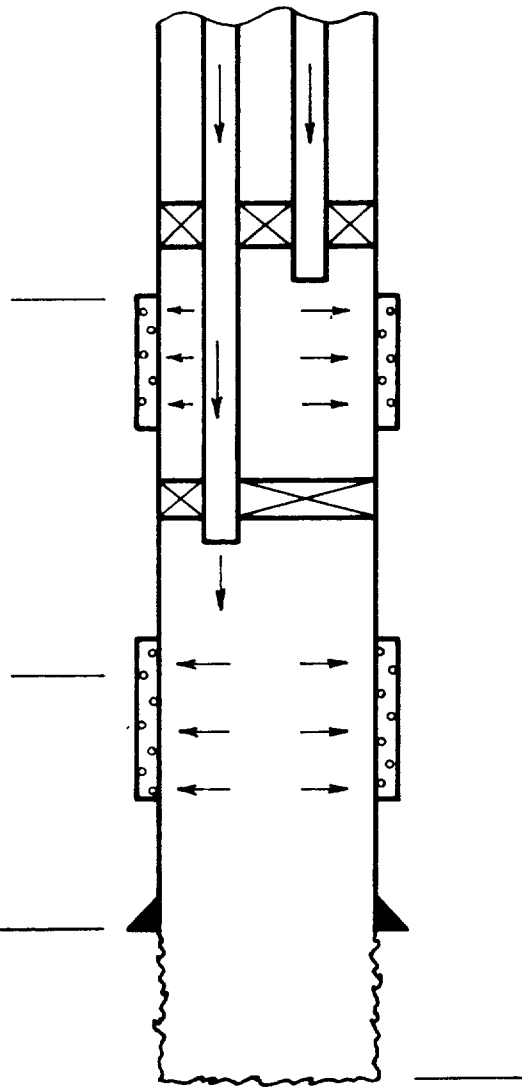
13-3/8" csg. set @ 166'
 w/125 sx.
 Cmt. top @ surface (circ)



EL 3442' DF

9-5/8" csg. set @ 2721'
 w/600 sx.
 Top cmt. @ 1414' (TS)

Blinebry perforations
 5720-5830'



Drinkard perforations
 6515-6558'
 OH 6600-6643'

7" csg. set @ 6600'
 w/600 sx.
 Cmt. top @ 3875' (TS)

TD 6643'

Proposed Blinebry Unit Well No. 36 UT
 Proposed Drinkard Unit Well No. 36 LT

SHELL-SMITH NO. 1
 UNIT G 1980' FNL & 1980' FEL
 SECTION 14, T 21 S, R 37 E
 LEA COUNTY, NEW MEXICO

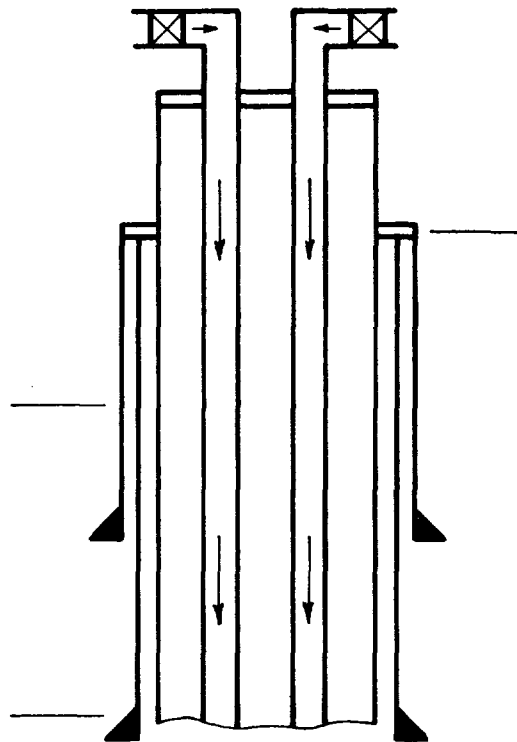
13-3/8" csg. set @ 205'
 w/250 sx.
 Top cmt. @ surface (circ)

8-5/8" csg. set @ 3000'
 w/2200 sx.
 Top cmt. @ 360' (TS)

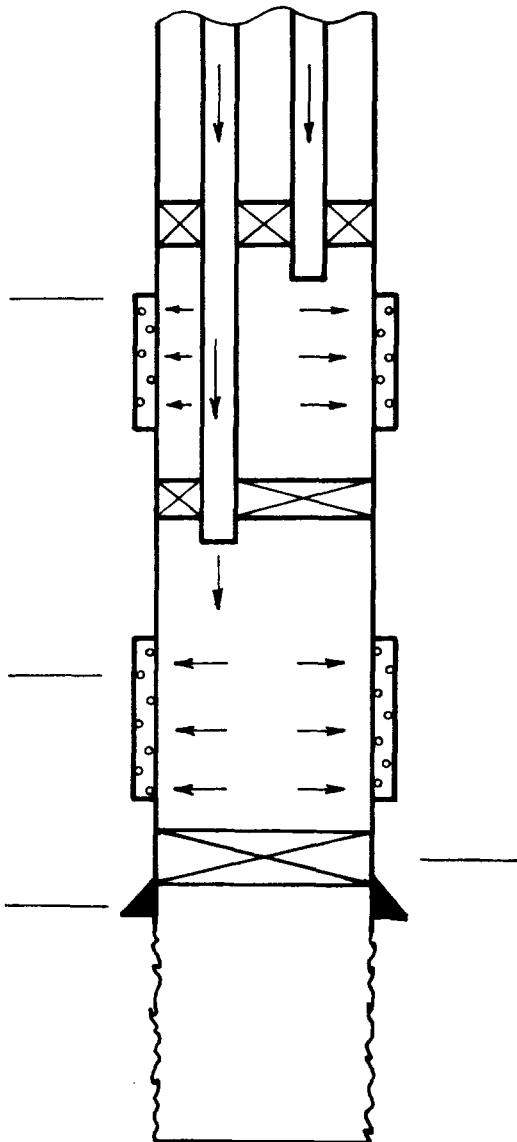
Blinebry perforations
 5726-5840'

Drinkard perforations
 6580-6740'

5-1/2" csg. set @ 6808'
 Cmt. w/300 sx.
 Top cmt. @ 4643' (calc)



EL 3429' DF



PBD 6760'

TD 7573'

Proposed Blinebry Unit Well No. 38 UT
 Proposed Drinkard Unit Well No. 38 LT

CONOCO-LOCKHART B-13 NO. 2

UNIT E 1980' FNL & 660' FWL

SECTION 13, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO

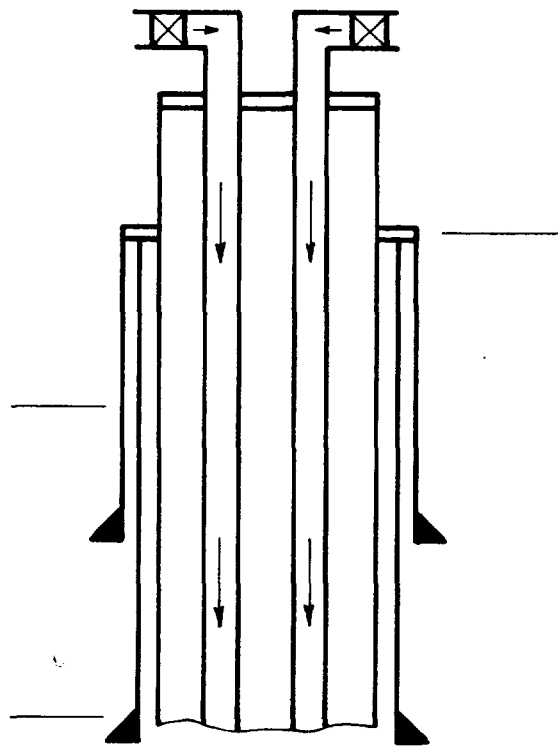
13-3/8" csg. set @ 262'
w/250 sx. cmt.
Cmt. top @ surface (circ)

9-5/8" csg. set @ 3149'
w/1675 sx. cmt.
Cmt. top @ 1350' (TS)

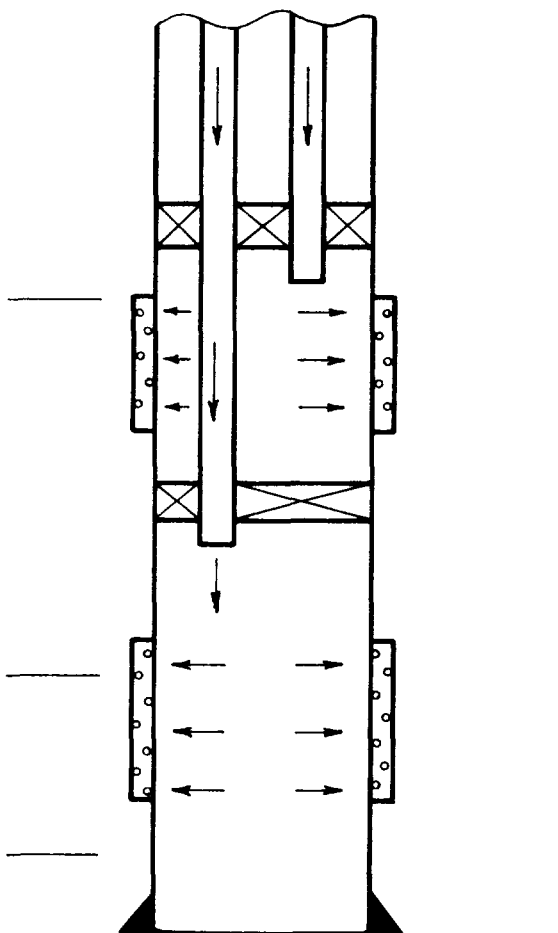
Blinebry perforations
5700-5910'

Drinkard perforations
6600-6730'

7" csg. set @ 6748'
w/651 sx. cmt.
Cmt. top @ 3035' (TS)



EL 3427' DF

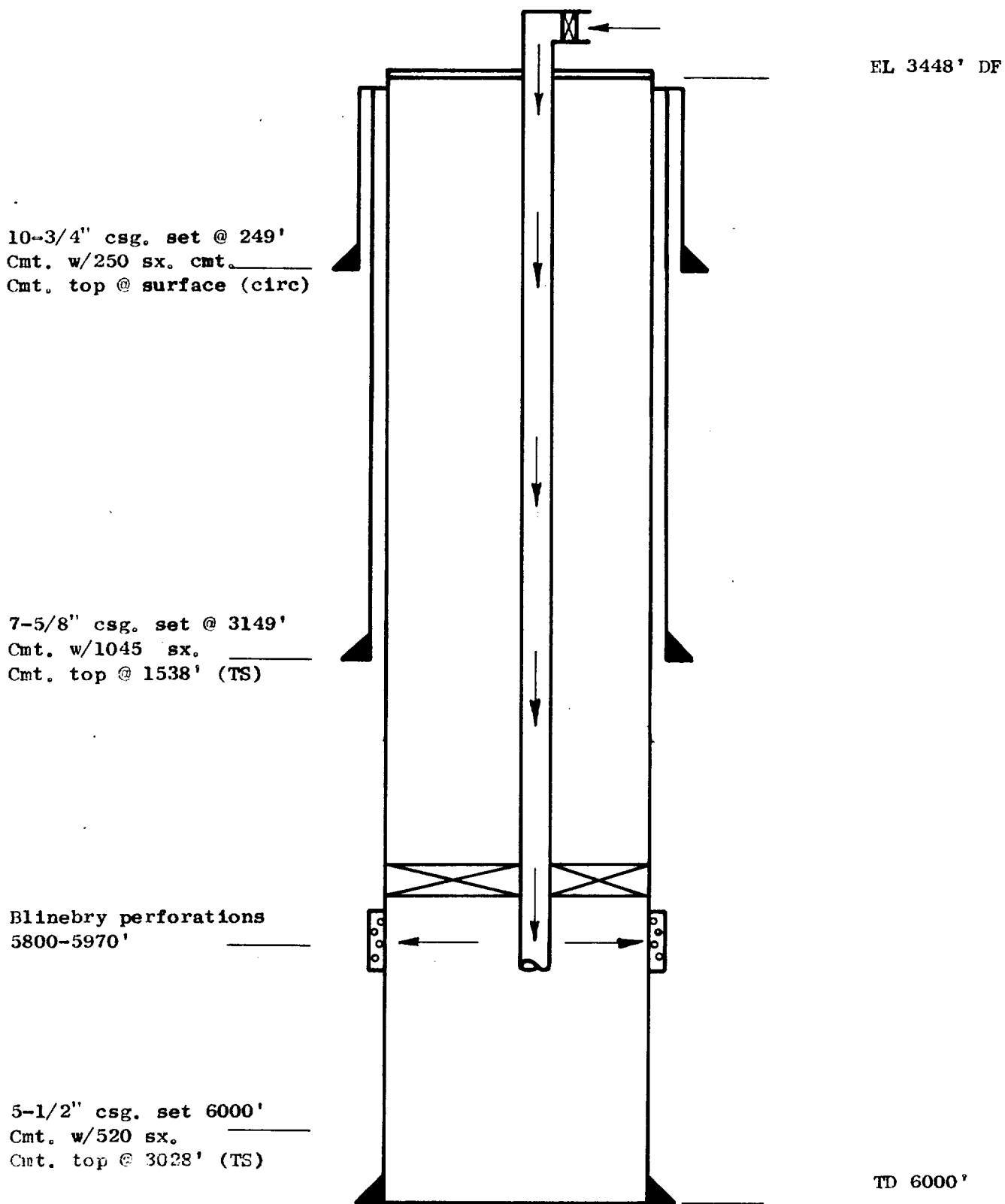


TD 6050'

Proposed Blinebry Unit Well No. 40 UT
Proposed Drinkard Unit Well No. 40 LT

CONOCO-LOCKHART "B-13" NO. 6

UNIT G - 1980' FNL & 1980' FEL
SECTION 13 - T21S-R37E
LEA COUNTY, NEW MEXICO



Proposed Blinebry Unit Well No. 42

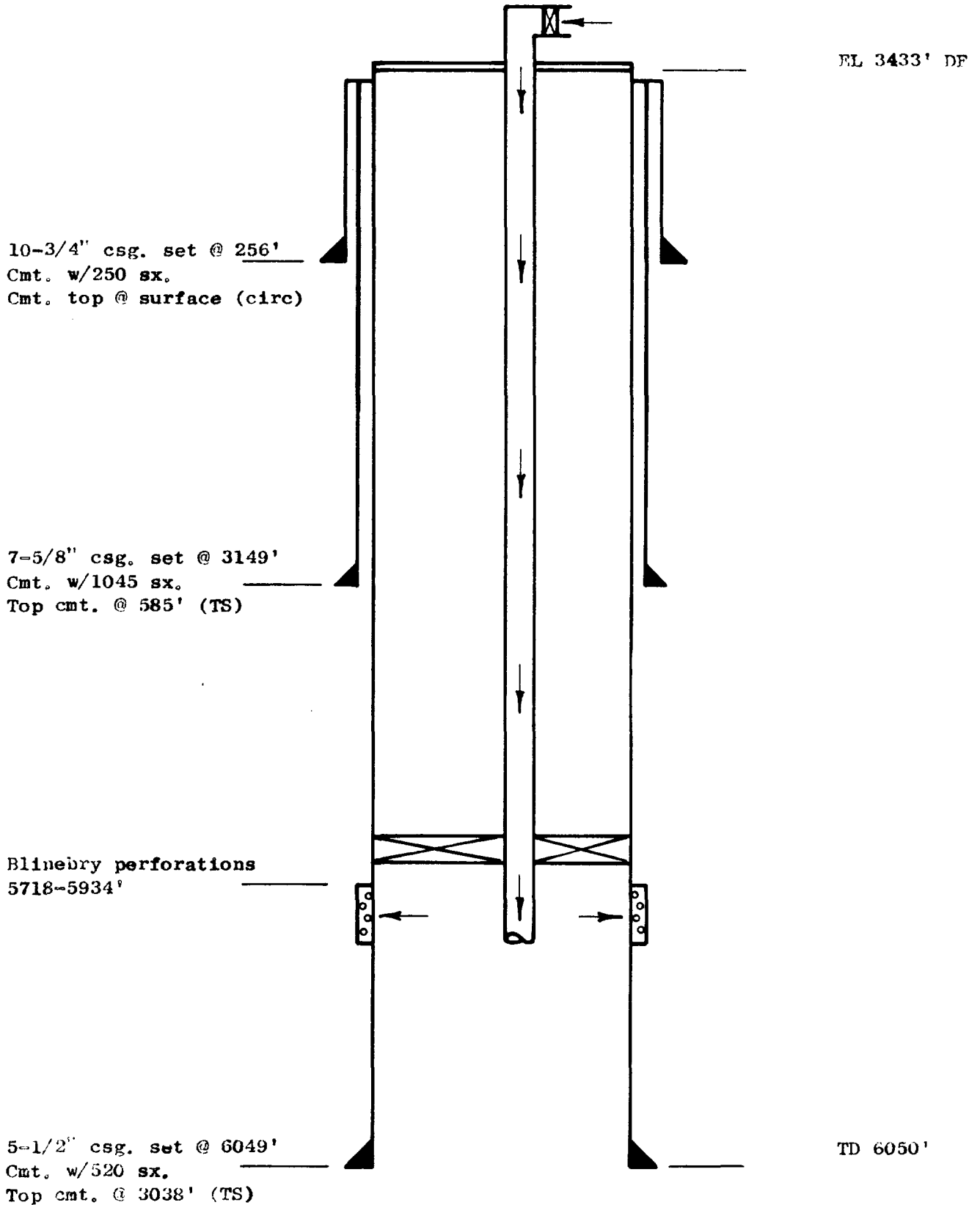
EXHIBIT NO. 63

CONOCO - LOCKHART B-13 NO.4

UNIT K 1980' FSL & 1980' FWL

SECTION 13, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO



CONOCO-LOCKHART B-14 NO. 4

UNIT I 1980' FSL & 330' FEL

SECTION 14, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO

10-3/4" csg. set @ 263'
Cmt. w/250 sx.
Cmt. top @ surface (circ)

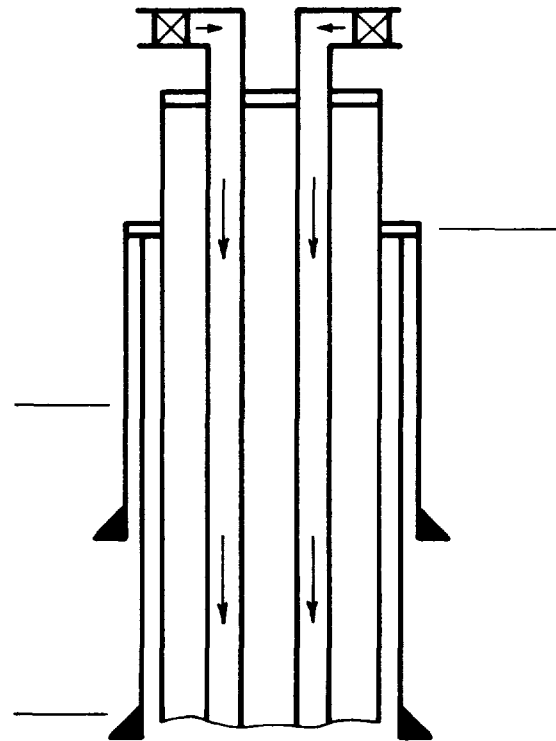
7-5/8" csg. set @ 2948'
Cmt. w/1060 sx.
Cmt. top @ 1670' (TS)

Blinebry perforations
5718-5885'

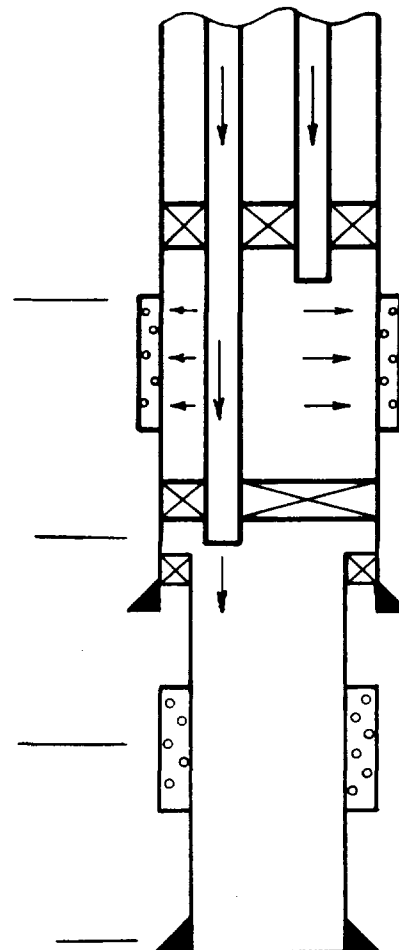
5-1/2" csg. set @ 5874'
Cmt. w/500 sx.
Top cmt. @ 2950' (TS)

Drinkard perforations
6600-6730'

3-1/2" liner hung from
5800-6800'



EL 3425' DF



TD 6800'

Proposed Blinebry Unit Well No. 46 UT
Proposed Drinkard Unit Well No. 46 LT

J. R. CONE - EUBANKS NO. 3

UNIT K 1980' FSL & 1830' FWL

SECTION 14, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO

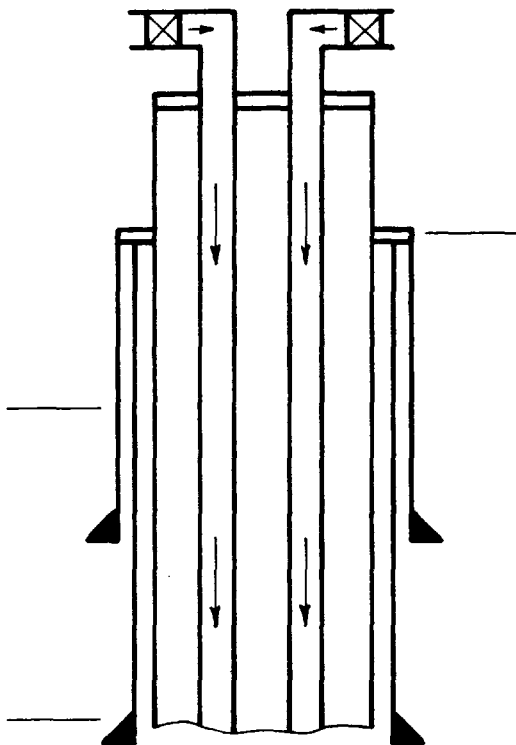
13-3/8" csg. set @ 249'
Cmt. w/200 sx.
Top cmt. @ surface (circ)

8-5/8" csg. set @ 2857'
w/1600 sx. cmt.
Top cmt. @ surface (circ)

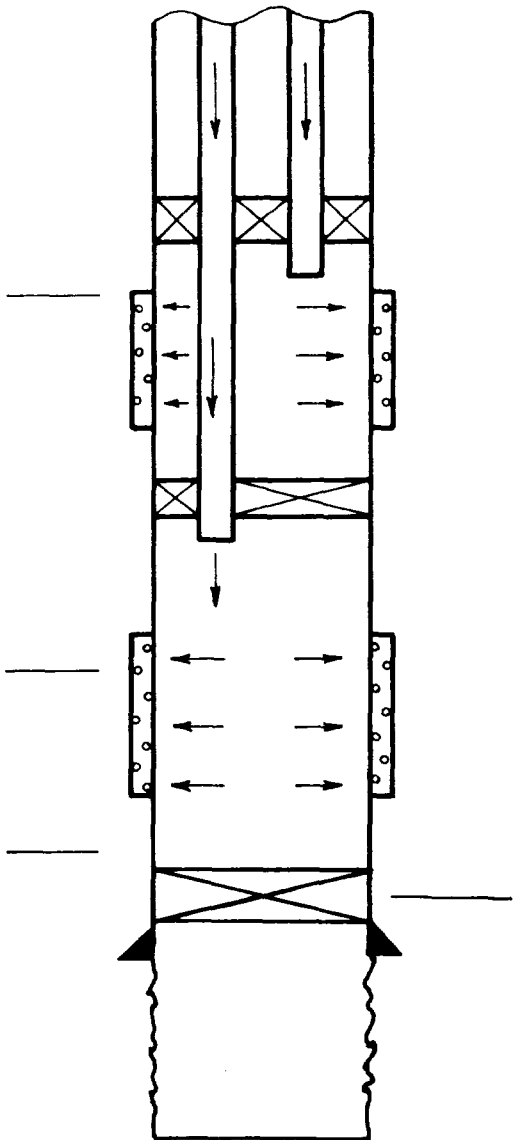
Blinebry perforations
5710-5925'

Drinkard perforations
6542-6635'

5-1/2" csg. set @ 6842'
Cmt. w/600 sx.
Top cmt. @ 2564' (calc)



EL 3424'



PED 6732'

TD 7525'

Proposed Blinebry Unit Well No. 48 UT
Proposed Drinkard Unit Well No. 48 LT

J. R. CONE - EUBANKS NO. 1

UNIT M 660' FSL & 660' FWL

SECTION 14, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO

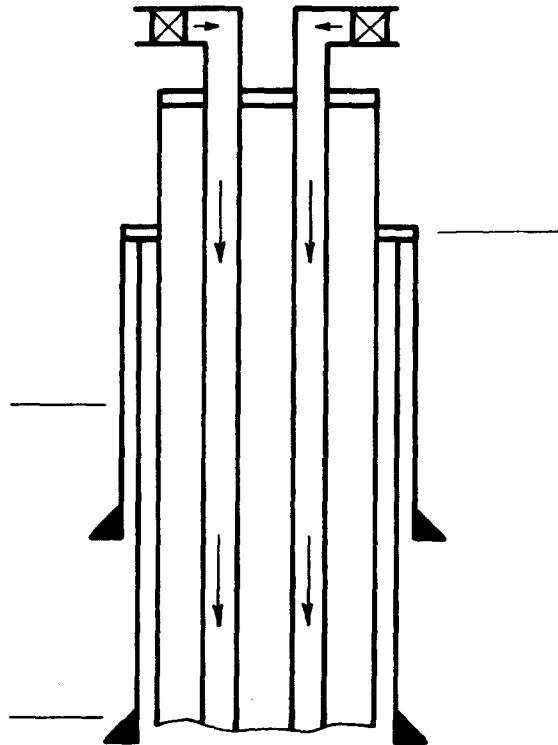
13-3/8" csg. set @ 262'
Cmt. w/200 sx.
Cmt. top @ surface (circ)

8-5/8" csg. set @ 2791'
Cmt. w/1200 sx.
Cmt. top @ surface (circ)

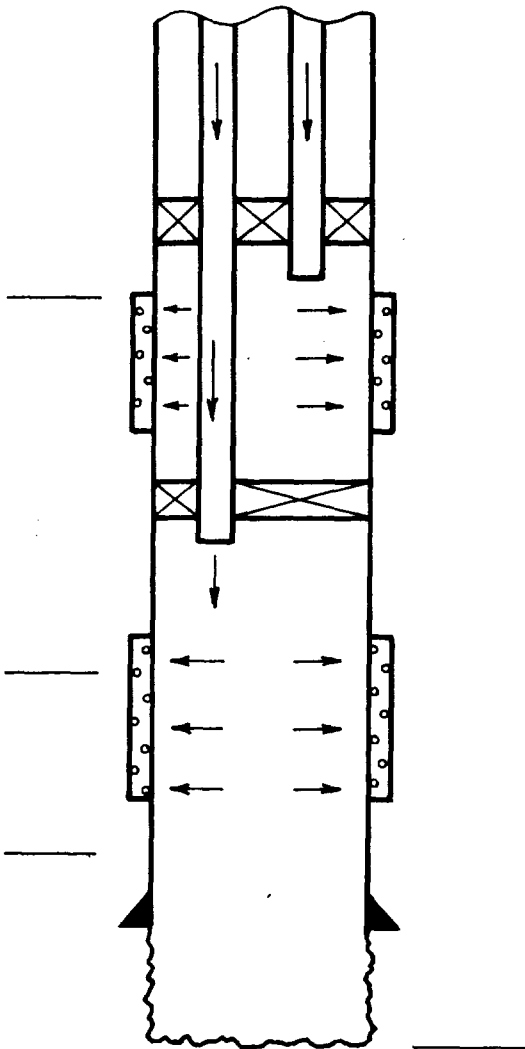
Blinebry perforations
5650-5950'

Drinkard perforations
6460-6500'
OH 6512-6639'

5-1/2" csg. set @ 6512'
Cmt. w/600 sx.
Cmt. top @ 2245' (calc)



EL 3417' DF



TD 6639'

Proposed Blinebry Unit Well No. 50 UT
Proposed Drinkard Unit Well No. 50 LT

GULF - KEENUM NO. 2

UNIT 0 - 1980' FEL & 660' FSL

SECTION 14, T 21 S-R 37 E

LEA COUNTY, NEW MEXICO

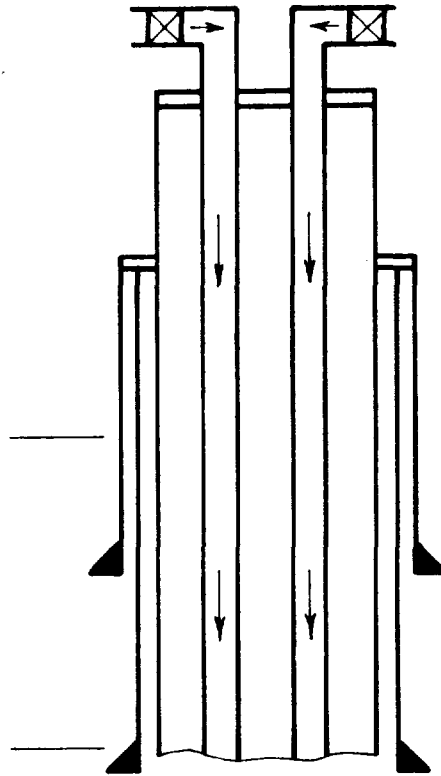
12-3/4" csg. @ 212'
Cmt. w/240 sx.
Top @ surface (circ)

9-5/8" csg. @ 2986'
Cmt. w/1350 sx.
Cmt. top @ 538' (calc)

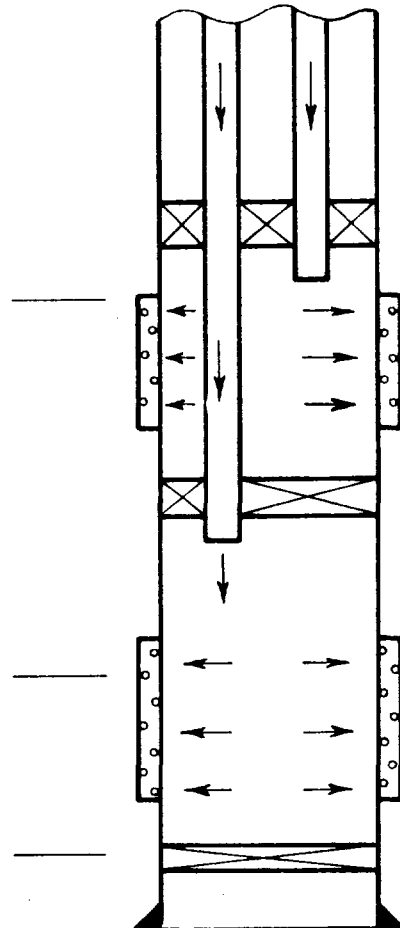
Blinebry perforations
5700-5910'

Drinkard perforations
6500-6600'
SI

5-1/2" csg. @ 7193'
Cmt. w/735 sx.
Cmt. top @ 2970' (TS)



EL 3419' DF



PBD 6692'

TD 7193'

Proposed Blinebry Unit Well No. 52 UT
Proposed Drinkard Unit Well No. 52 LT

CONOCO-LOCKHART B-13 NO. 1

UNIT M 660' FSL & 660' FWL

SECTION 13, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO

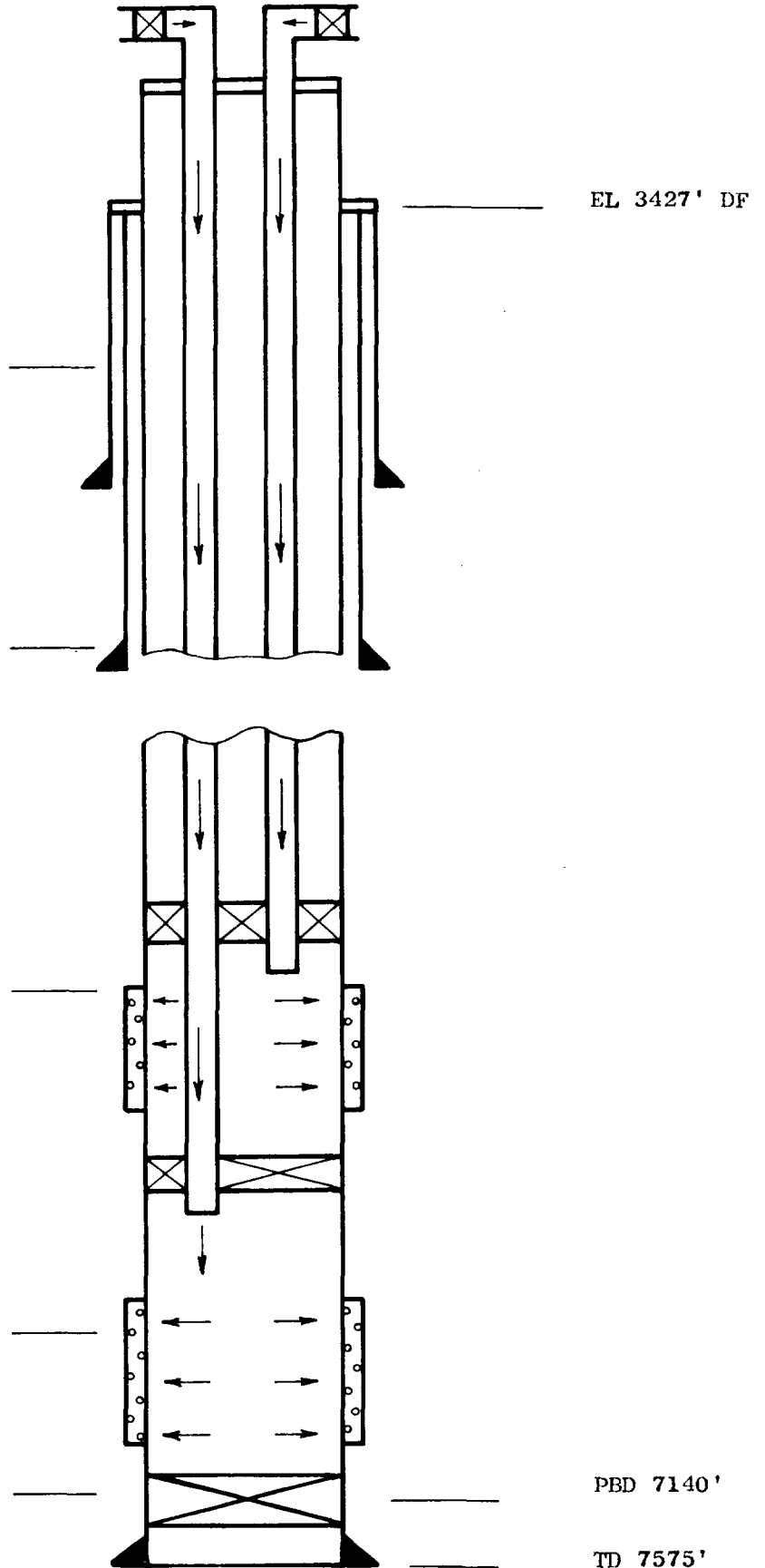
13-3/8" csg. set @ 238'
Cmt. w/250 sx.
Top cmt. @ surface (circ)

9-5/8" csg. set @ 3150'
Cmt. w/1596 sx.
Top cmt. @ surface (circ)

Blinebry perforations
5720-5830'

Drinkard perforations
6560-6700'

7-1/2" csg. set @ 7576'
Cmt. w/730 sx.
Top cmt. 3100' (circ)



Proposed Blinebry Unit Well No. 54 UT
Proposed Drinkard Unit Well No. 54 LT

SUMMIT ENERGY-NANCY STEPHENS NO. 3

UNIT C 660' FNL & 1980' FWL

SECTION 24, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO

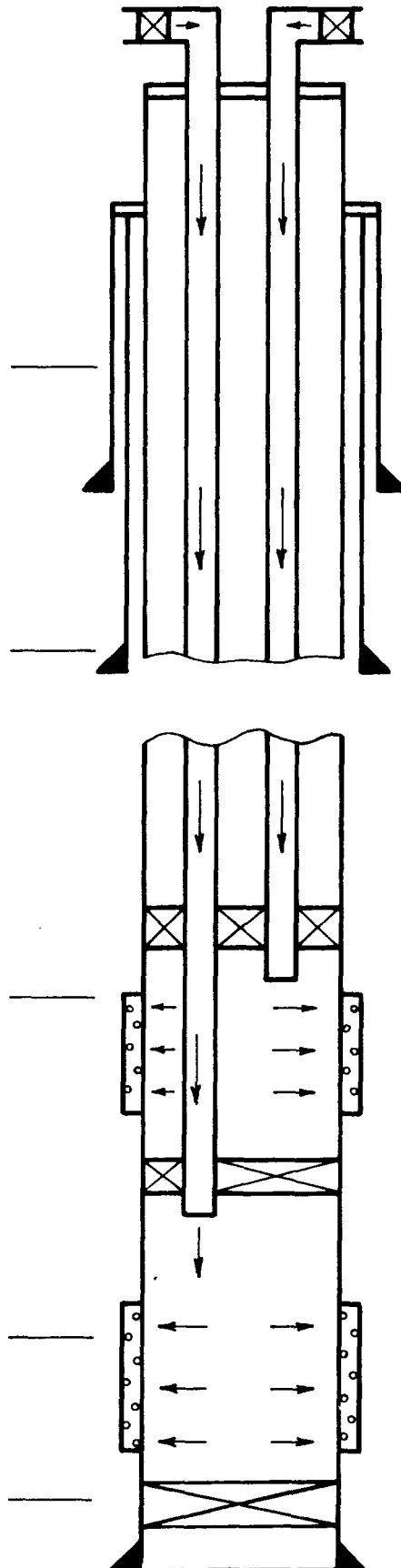
13-3/8" csg. set @ 253'
w/225 sx.
Top cmt. @ surface (circ)

8-5/8" csg. set @ 2999'
w/1280 sx.
Top cmt. @ surface (calc)

Blinebry perforations
5756-6058'

Drinkard perforations
6700-6860'

5-1/2" csg. set @ 7200'
Cmt. w/650 sx.
Top cmt. @ 2560' (calc)



FL 3433' DF

PBD 7190'

TD 7200'

Proposed Blinebry Unit Well No. 56 UT
Proposed Drinkard Unit Well No. 56 LT

MOBIL - D. A. WILLIAMSON NO. 1

UNIT A - 660' FN & 660' FE

SECTION 23, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO

10-3/4" csg. set @ 323'
cmt. w/250 sx.
TOP @ surface (circulated)

7-5/8" csg. set @ 3188'
cmt. w/1255' sx.
TOP @ surface (circulated)

Blinebry perforations
5715-5827'

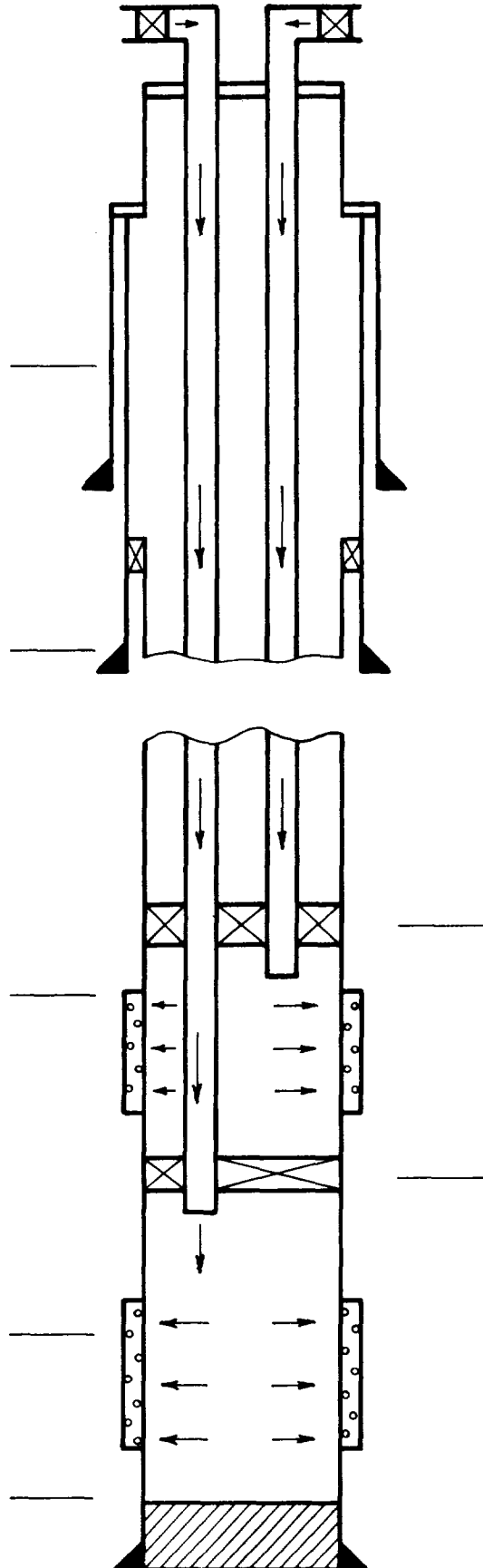
Drinkard perforations
6570 - 6688'

5-1/2" liner F/2915-7055'

EL 3420'

PBD 6902'

TD 7055'



Proposed Blinebry Unit Well No. 58 UT
Proposed Drinkard Unit Well No. 58 LT

GETTY - D. A. WILLIAMSON NO. 4

UNIT C - 660' FN & 1980' FW

SECTION 23, T 21 S, R 37 E

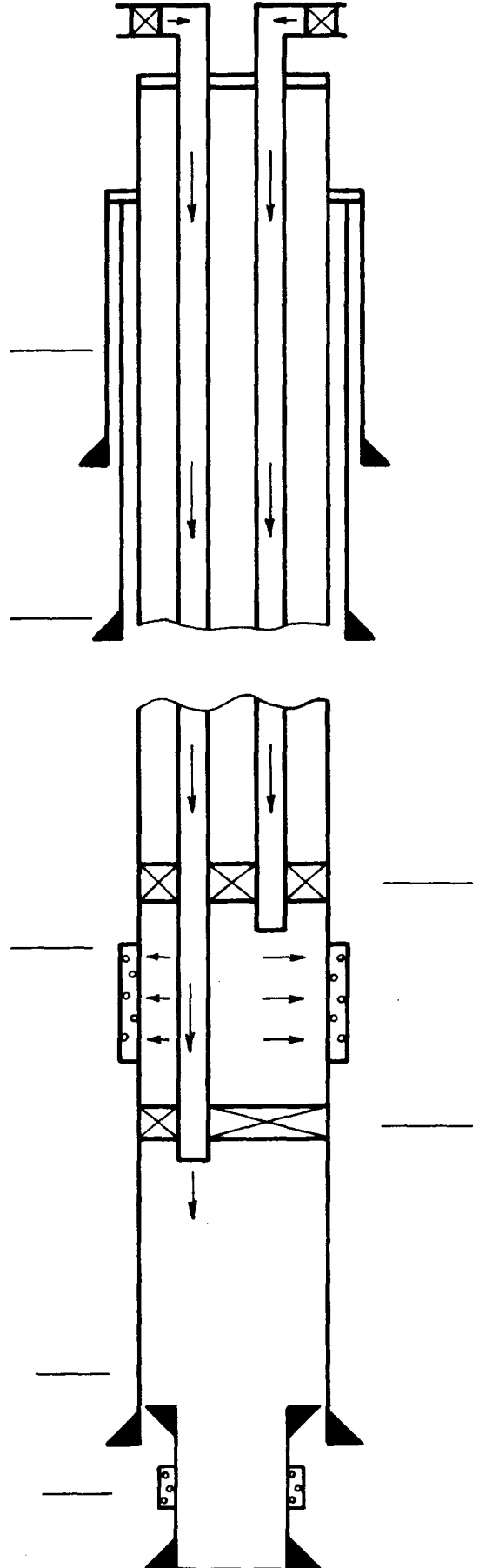
LEA COUNTY, NEW MEXICO

13-8/8" csg. @ 334'
w/200 sx. cmt.
TOP @ surface (calculated)

8-5/8" csg. @ 2848'
w/500 sx. cmt.
TOP @ 1510' (TS)

5-1/2" csg. @ 6456'
cmt. w/500 sx.
TOP @ 2848' (calculated)

3-1/2" liner @ 6600'
Cmt. to top



Blinebry perforations
5665-5867'

Drinkard perforations
@ approx. 6520-60'

TD 6600'

Proposed Blinebry Unit Well No. 60 UT
Proposed Drinkard Unit Well No. 60 LT

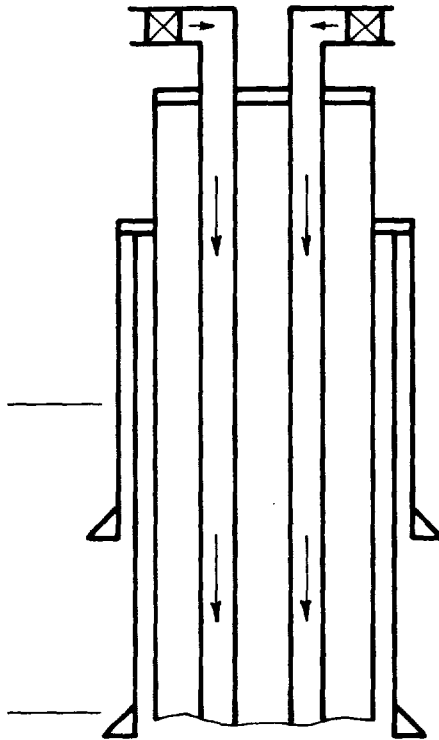
GETTY - D. A. WILLIAMSON NO. 2

UNIT E - 1980' FN & 660' FW

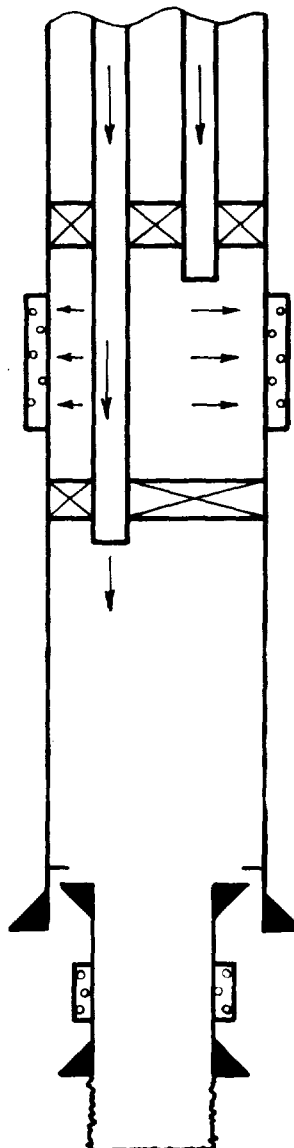
SECTION 23, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO

13-3/8" csg. set @ 293'
cmt. w/300 sx.
TOP @ surface/circulated



8-5/8" csg. set @ 2798'
cmt. w/1200 sx.
TOP @ surface/circulated



Blinebry perforations
5754-5875'

5-1/2" csg. @ 6520'
cmt. w/400 sx.
TOP @ 3635' (calculated)

Drinkard perforations
6532-94'

3" liner @ 6615' (top cemented)

TD 6615'

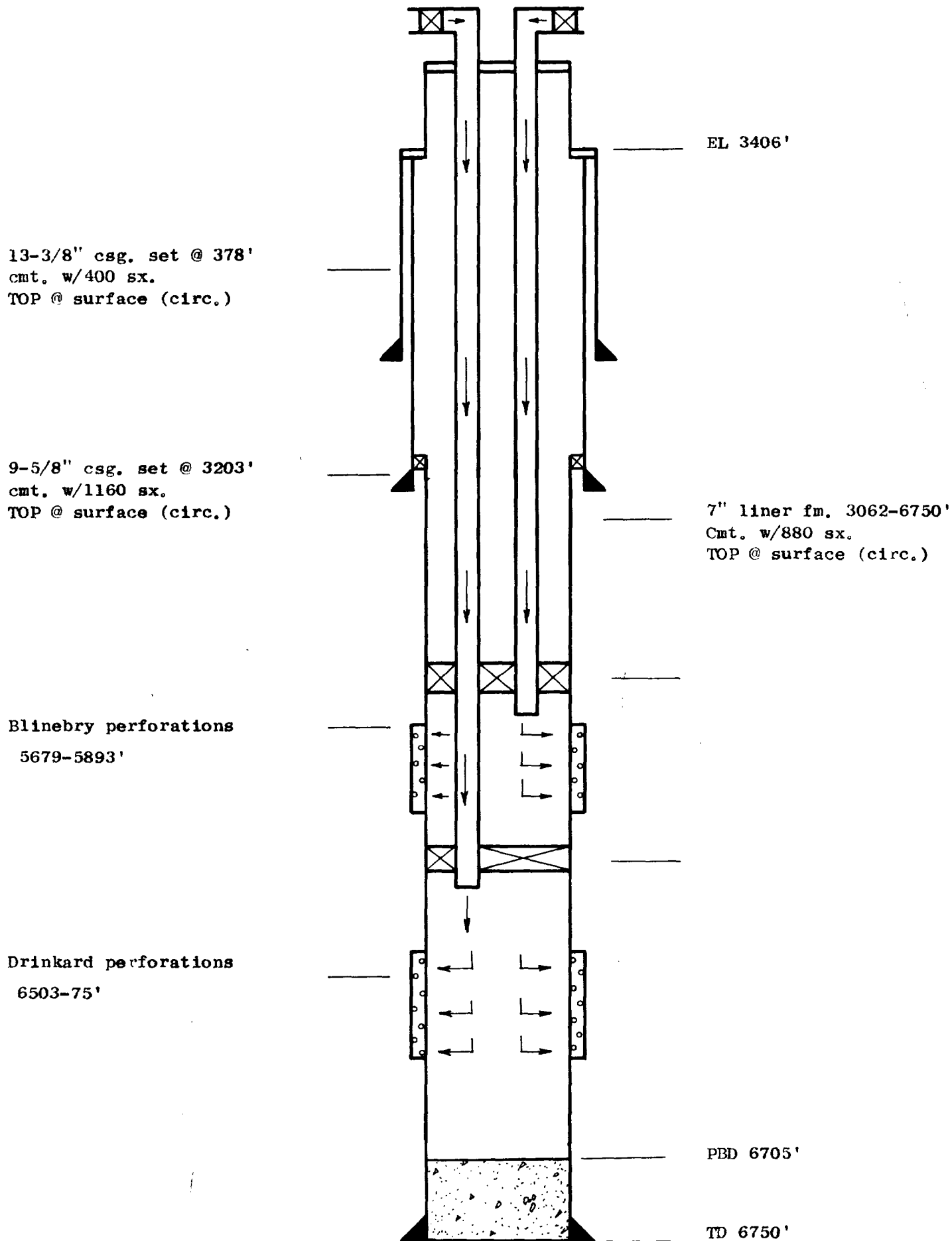
Proposed Blinebry Unit Well No. 62 UT
Proposed Drinkard Unit Well No. 62 LT

A.R.Co. - BARTON NO. 4

UNIT G - 1750' FN & 1980' FE

SECTION 23, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO



Proposed Blinebry Unit Well No. 64 UT
Proposed Drinkard Unit Well No. 64 LT

GULF - NANCY STEPHENS NO. 2

UNIT E - 1980' FNL & 660' FWL

SECTION 24 - T21S-R37E

LEA COUNTY, NEW MEXICO

EL 3424' DF

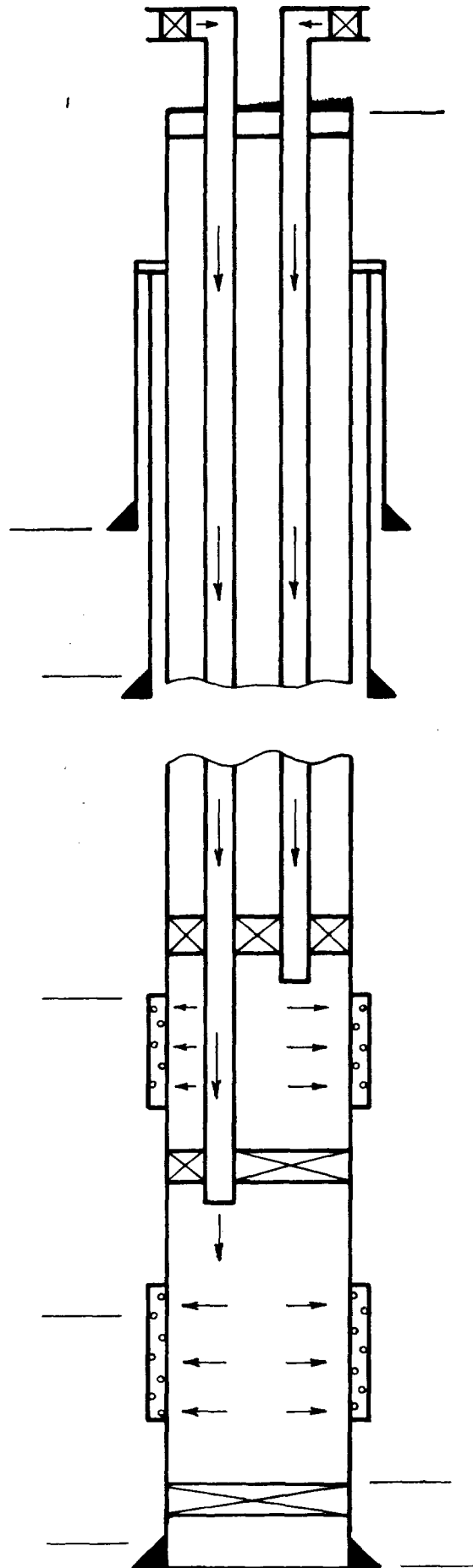
13-3/8" csg. set @ 255'
w/325 sx. cmt.
Top @ surface (circ)

8-5/8" csg. set @ 2999'
w/1638 sx. cmt.
Top @ 246' w/temp. survey

Blinebry perforations
5765-5990'

Drinkard perforations
6550-6600'

5-1/2" csg. set @ 7199'
w/1000 sx. cmt.
Top @



PBD 6792'

TD 7150'

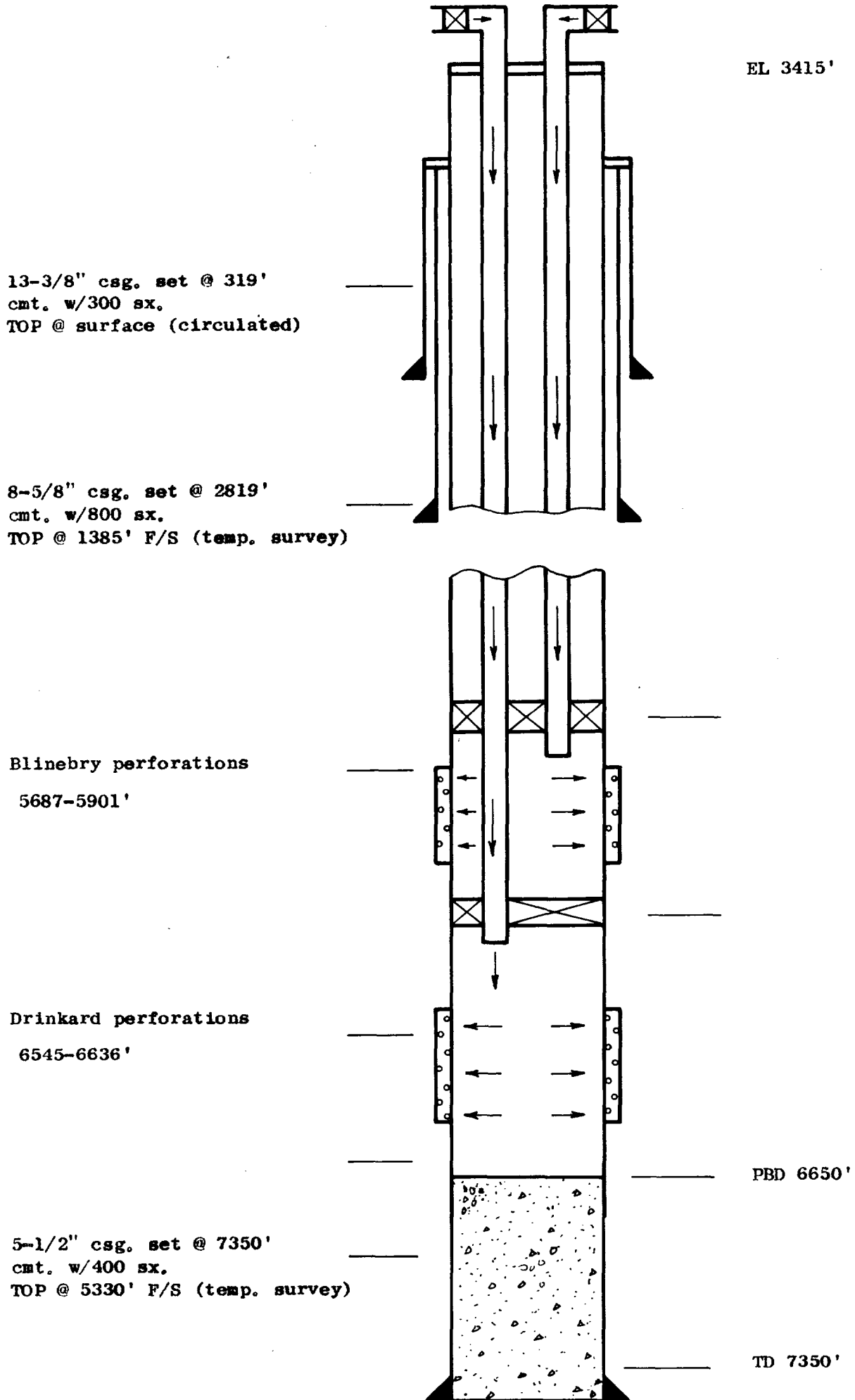
Proposed Blinebry Unit Well No. 66 UT
Proposed Drinkard Unit Well No. 66 LT

A.R.Co. - SARKEYS NO. 3

UNIT 1 - 2310' FS & 330' FE

SECTION 23, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO



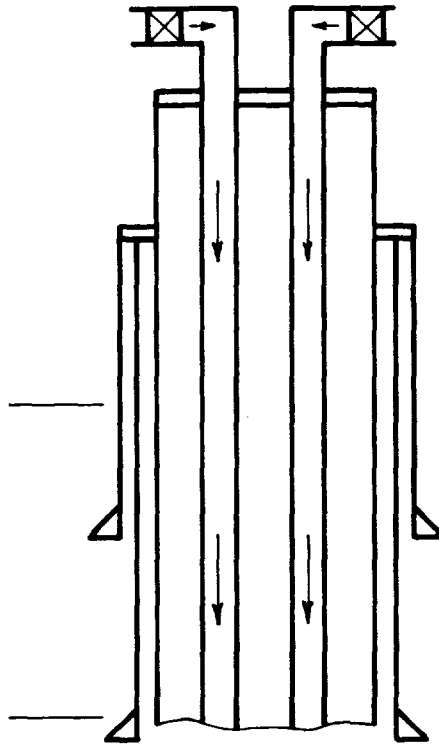
Proposed Blinebry Unit Well No. 69 UT
Proposed Drinkard Unit Well No. 69 LT

SHELL - SARKEYS NO. 2

UNIT K - 1980' FS & 1980' FW
 SECTION 23, T 21 S, R 37 E
 LEA COUNTY, NEW MEXICO

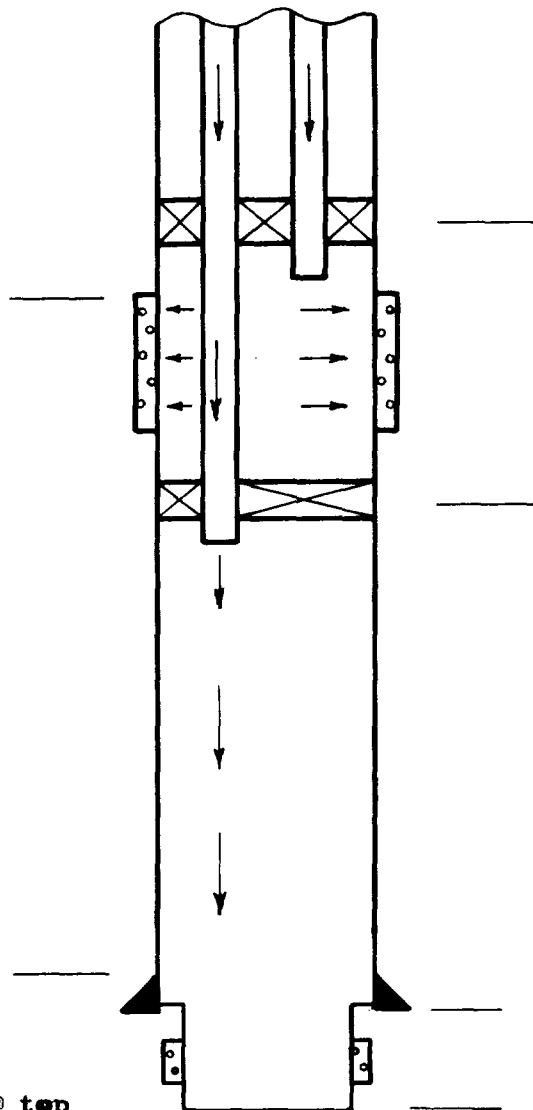
EL 3410'

13-3/8" csg. set @ 229'
 cmt. w/250 sx.
 TOP @ surface (circulated)



8-5/8" csg. set @ 2909'
 cmt. w/1500 sx.
 TOP @ surface (circulated)

Blinebry perforations
 5564-5877



5-1/2" csg. set @ 6460'
 cmt. w/1000 sx.
 TOP @ 2500' (calculated)

3-1/2" liner @ 6610' cmt'd @ top

Drinkard
 Perfs 6475-6550'

TD 6610'

Proposed Blinebry Unit Well No. 71 UT
 Proposed Drinkard Unit Well No. 71 LT

SHELL - SARKEYS NO. 1

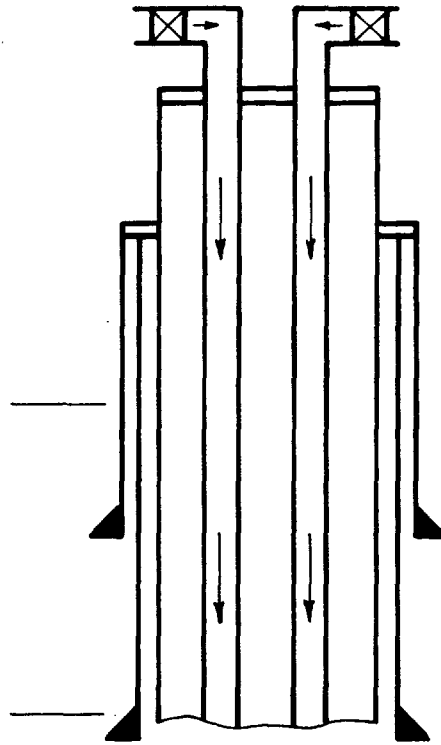
UNIT M - 660' FS & 660' FW

SECTION 23, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO

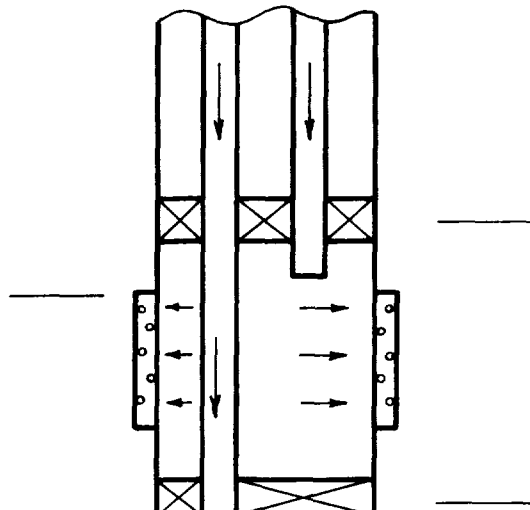
EL 3403'

13-3/8" csg. set @ 223'
cmt. 200 sx.
TOP @ surface (circulated)

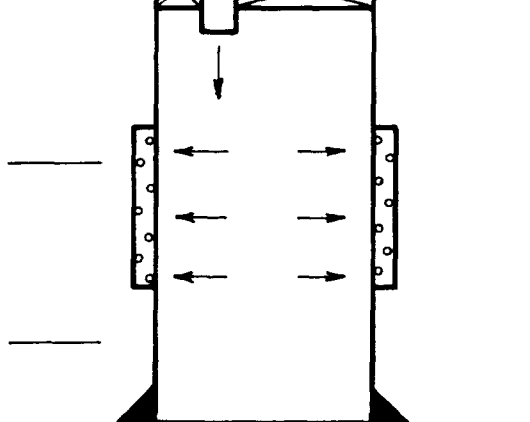


8-5/8" csg. set @ 2881'
cmt. w/750 sx.
TOP @ surface (circulated)

Blinebry perforations
5685-5832'



Drinkard perforations
6503-6583'



5-1/2" csg. set @ 6603'
cmt. w/600 sx.
TOP @ 2335' (calculated)

TD 6603'

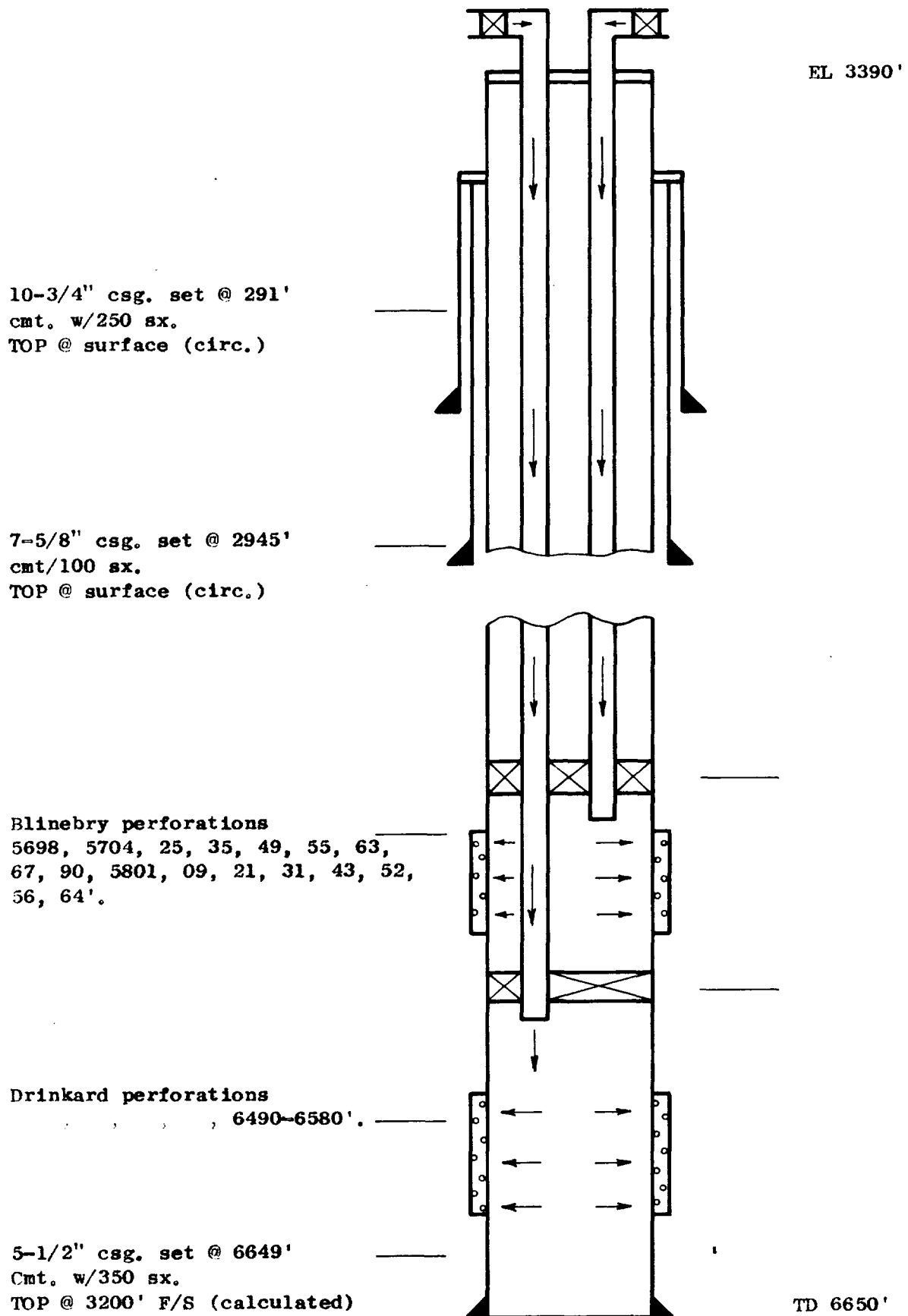
Proposed Blinebry Unit Well No. 73 UT
Proposed Drinkard Unit Well No. 73 JT

A.R.Co. - SARKEYS NO. 2

UNIT 0 - 330' FS & 2310' FE

SECTION 23, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO



Proposed Blinebry Unit Well No. 75 UT
Proposed Drinkard Unit Well No. 75 LT

MOBIL - STEPHENS ESTATE NO. 2

UNIT M 660' FSL & 660' FWL

SECTION 24, T 21 S, R 37 E

LEA COUNTY, NEW MEXICO

Proposed Blinebry Unit Well No. 77 UT
Proposed Drinkard Unit Well No. 77 LT

13-3/8" csg. set @ 352'
w/375 sx. of cmt.
Top cmt. @ surface (circ)

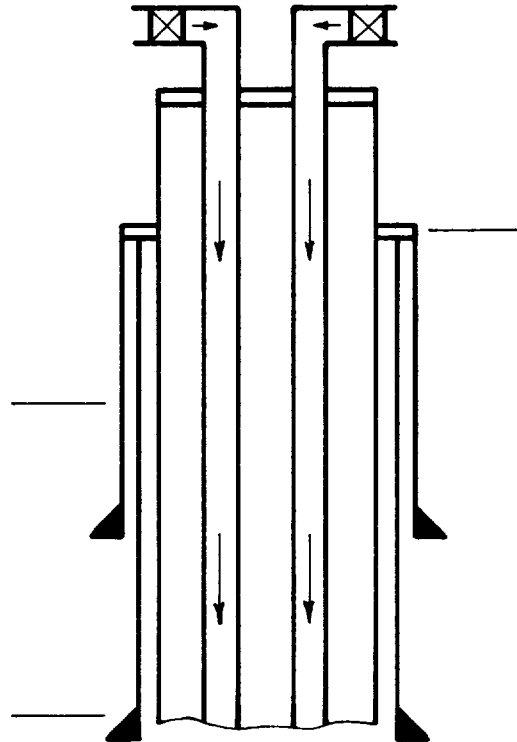
9-5/8" csg. set @ 3160'
w/1760 sx. cmt.
Top cmt. @ surface (circ)

Blinebry perforations
5680-5860'

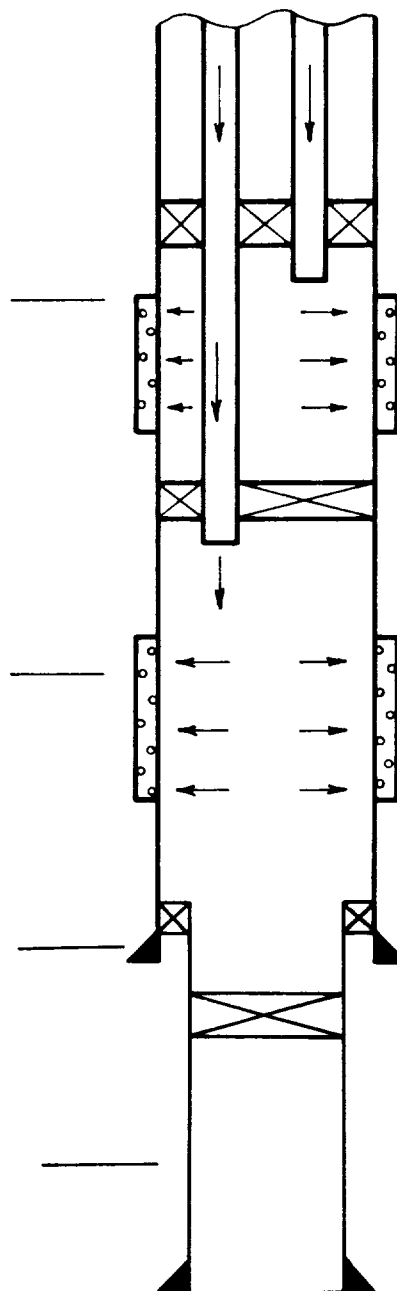
Drinkard perforations
6500-6595'

7" liner set fm. 2893-6700'
Cmt. w/940 sx.
Top cmt. @ 2893' (circ)

5" liner set @ 7245' w/top
@ 6530. Cmented w/90 sx.
Cmt. @ top (calc)



EL 3413' DF



PBD 6900'

TD 7245'