STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: ___X___ Secondary Recovery _____ Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? ___X___ Yes _____ No

II. OPERATOR: Apache Corporation (873)

ADDRESS: 6120 S Yale Ave, Suite 1500 Tulsa, OK 74136-4224

CONTACT PARTY: Sophie Mackay PHONE: (918) 491-4864

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____ Yes ___X___ No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Sophie Mackay TITLE: Engineering Technician

SIGNATURE: Sophie Mackay DATE: 07/01/2009

E-MAIL ADDRESS: sophie.mackay@apachecorp.com

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Of

Oil Conservation Division
Case No. 8
Exhibit No. 8

Side 2

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 1

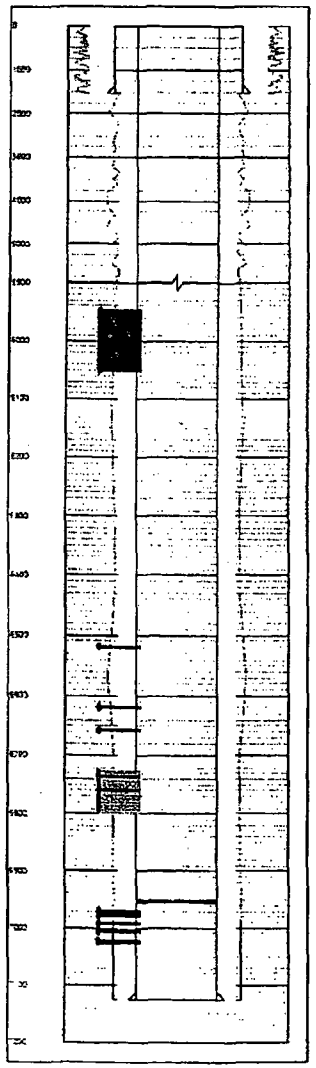
INJECTION WELL DATA SHEET

OPERATOR: Apache Corporation (873)

WELL NAME & NUMBER: Blankenship #2

WELL LOCATION:	2075' FSL & 555' FWL	L	12	20S	38E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12-1/4" Casing Size: 8-5/8" @ 1527'

Cemented with: 698 sx. *or* _____ ft³

Top of Cement: surface Method Determined: circulate

Intermediate Casing

Hole Size: _____ Casing Size: _____

Cemented with: _____ sx. *or* _____ ft³

Top of Cement: _____ Method Determined: _____

Production Casing

Hole Size: 7-7/8" Casing Size: 5-1/2" @ 7125'

Cemented with: 625 sx. *or* _____ ft³

Top of Cement: 3160' Method Determined: Temp Survey

Total Depth: 7125'

Injection Interval

5900' feet to 7100' (perforated)

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" Lining Material: none

Type of Packer: 5-1/2" Baker Lok-Set

Packer Setting Depth: 5900'

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

1. Is this a new well drilled for injection? ____ Yes __X__ No

   If no, for what purpose was the well originally drilled? Producer

2. Name of the Injection Formation: Blinebry / Tubb / Drinkard

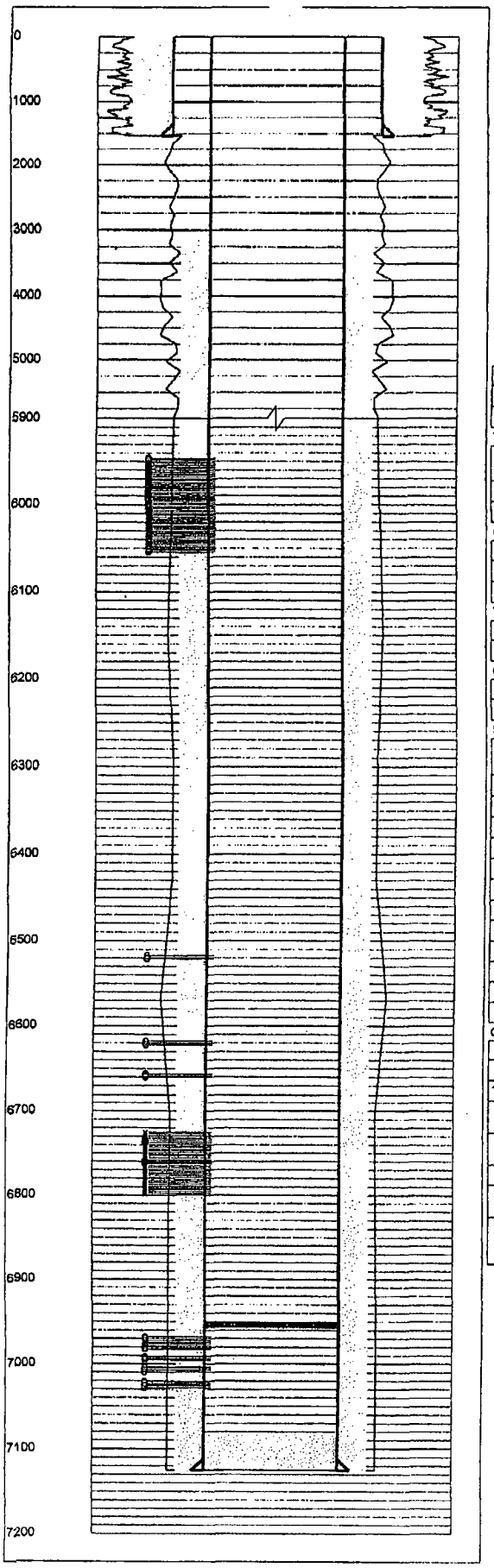
3. Name of Field or Pool (if applicable): House; Blinebry, South / House; Tubb / House; Drinkard

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

   The next higher zone is the San Andres @ +/- 4264'

   The next lower zone is the Abo @ +/- 7120'



CURRENT COMPLETION

Last Updated: 5/6/2009 5:06:28 PM

Field Name	Lease Name	Well No.
House	Blankenship	2

County	State	API	GL (ft)	KB (ft)
Lea	New Mexico	30-025-07787	3557	3569

Sec.	Twp/Blk	Rng/Svy	Footage
L-12	20S	38E	2075' FSL & 555' FWL from Section

Spud Date	Comp. Date	Prepared By	Last Updated
9/1/1957	10/18/1957	JLF	5/6/2009

Current Status

Currently producing from Blinebry and Tubb perforations.

Hole Summary

Date	OD (in)	Top (KB ft)	Bottom (KB ft)	Comments
9/1/1957	12.0000	0	1,527	
9/1/1957	7.8750	1,527	7,125	

Tubular Summary

Date	Description	OD (in)	Wt (lb/ft)	Grade	Top (KB ft)	Bottom (KB ft)
9/1/1957	Surface Casing	8.6250	32.00		0	1,527
9/1/1957	Production Casing	5.5000			0	7,125

Casing Cement Summary

Date	No. Sx	OD (in)	ID (in)	Top (KB ft)	Bottom (KB ft)
9/1/1957	698	12.0000	8.6250	0	1,527
9/1/1957	625	7.8750	5.5000	3,160	7,125

Tools/Problems Summary

Date	Tool Type	OD (in)	ID (in)	Top (KB ft)	Bottom (KB ft)
4/18/2007	CIBP	5.5000	0.0000	6,950	

Cement Plug Summary

Date	No. Sx	OD (in)	Top (KB ft)	Bottom (KB ft)
9/1/1957	0	5.5000	7,084	7,125

Perf Summary

Date	Perf Status	Formation	Top (KB ft)	Bottom (KB ft)	SPF	Shots	Phasing
10/18/1957	Open	Drinkard	6,968	6,982			0
10/18/1957	Open	Drinkard	6,991	6,995			0
10/18/1957	Open	Drinkard	7,003	7,009			0
6/23/1962	Open	Drinkard	7,021	7,025			0
6/23/1962	Open	Drinkard	7,026	7,028			0
9/5/1979	Squeezed	Tubb	6,725	6,800			0
3/10/2005	Open	Blinebry	5,946	6,055	4	440	0
4/18/2007	Open	Tubb	6,517	6,521	2	10	120
4/18/2007	Open	Tubb	6,618	6,622	2	10	120
4/18/2007	Open	Tubb	6,656	6,660	2	10	120
4/18/2007	Open	Tubb	6,733	6,737	2	10	120
4/18/2007	Open	Tubb	6,758	6,762	2	10	120

Completion History Summary

Date	Comments
9/1/1957	Spud well
10/18/1957	Complete well in Drinkard (D1) perforations.
6/23/1962	Complete well in Drinkard (D2) perforations. Produced these perforations undear a packer, isolating the D1 perforations.
9/5/1979	Set CIBP at 6870' and perforate Tubb (T1) from 6725-6800' with 10 holes.
1/6/1981	Drill out CIBP at 6870' and clean out to 7040'
3/15/2005	Set RBP at 6635' and cap w/ 2 sx sand. Perforate Blinebry (B1) perforations and produce from B1 perforations.
4/16/2007	Pull RBP at 6635' and run CNL and CIL from 5500-6950'. Set CIBP at 6950' and cap w/ 2 sx cement. Perforate Tubb (T2) perfs from 6517-6762' with 45 holes.

Current | Proposed - Remove | Proposed - Add

Last Updated: 5/6/2009 5:06:28 PM **C U R R E N T C O M P L E T I O N**

Field Name	Lease Name	Well No.	County	State	API	GL (ft)	KB (ft)
House	Blankenship	2	Lea	New Mexico	30-025-07767	3557	3569

Sec.	Twp/Blk	Rng/Svy	Footage	Spud Date	Comp. Date	Prepared By	Last Updated
L-12	20S	38E	2075' FSL & 555' FWL from Section	9/1/1957	10/18/1957	JLF	5/6/2009

Current Status

Currently producing from Blinebry and Tubb perforations.

Detailed Summaries

Hole Summary

Date	OD (in)	Top (KB ft)	Bottom (KB ft)	Comments
9/1/1957	12.0000	0	1,527	
9/1/1957	7.8750	1,527	7,126	

Tubular Summary

Date	Description	OD (in)	Wt (lb/ft)	Grade	Coupling	Top (KB ft)	Bottom (KB ft)	Comments
9/1/1957	Surface Casing	8.6250	32.00			0	1,527	
9/1/1957	Production Casing	5.5000				0	7,125	15.5/17#

Casing Cement Summary

Date	No. Sx	OD (in)	ID (in)	Top (KB ft)	Bottom (KB ft)	Cement Description	Comments
9/1/1957	698	12.0000	8.6250	0	1,527	Circ to surface	
9/1/1957	625	7.8750	5.5000	3,160	7,125	TOC by TS	

Tools/Problems Summary

Date	Tool Type	OD (in)	ID (in)	Top (KB ft)	Bottom (KB ft)	Description	Comments
4/18/2007	CIBP	5.5000	0.0000	6,950			

Cement Plug Summary

Date	No. Sx	OD (in)	Top (KB ft)	Bottom (KB ft)	Comments
9/1/1957	0	5.5000	7,084	7,125	Cmt in shoe jt

Perf Summary

Date	Perf Status	Formation	Top (KB ft)	Bottom (KB ft)	SPF	Shots	Phasing	Perf Comments	Interval Comments
10/18/1957	Open	Drinkard	6,968	6,982			0	D1	
10/18/1957	Open	Drinkard	6,991	6,995			0	D1	
10/18/1957	Open	Drinkard	7,003	7,009			0	D1	
6/23/1962	Open	Drinkard	7,021	7,025			0	D2	
6/23/1962	Open	Drinkard	7,026	7,028			0	D2	
9/5/1979	Squeezed	Tubb	6,725	6,800			0	T1	10 holes
3/10/2005	Open	Blinebry	5,946	6,055	4	440	0	B1	198 holes
4/18/2007	Open	Tubb	6,517	6,521	2	10	120	T2	
4/18/2007	Open	Tubb	6,618	6,622	2	10	120	T2	
4/18/2007	Open	Tubb	6,656	6,660	2	10	120	T2	
4/18/2007	Open	Tubb	6,733	6,737	2	10	120	T2	
4/18/2007	Open	Tubb	6,758	6,762	2	10	120	T2	

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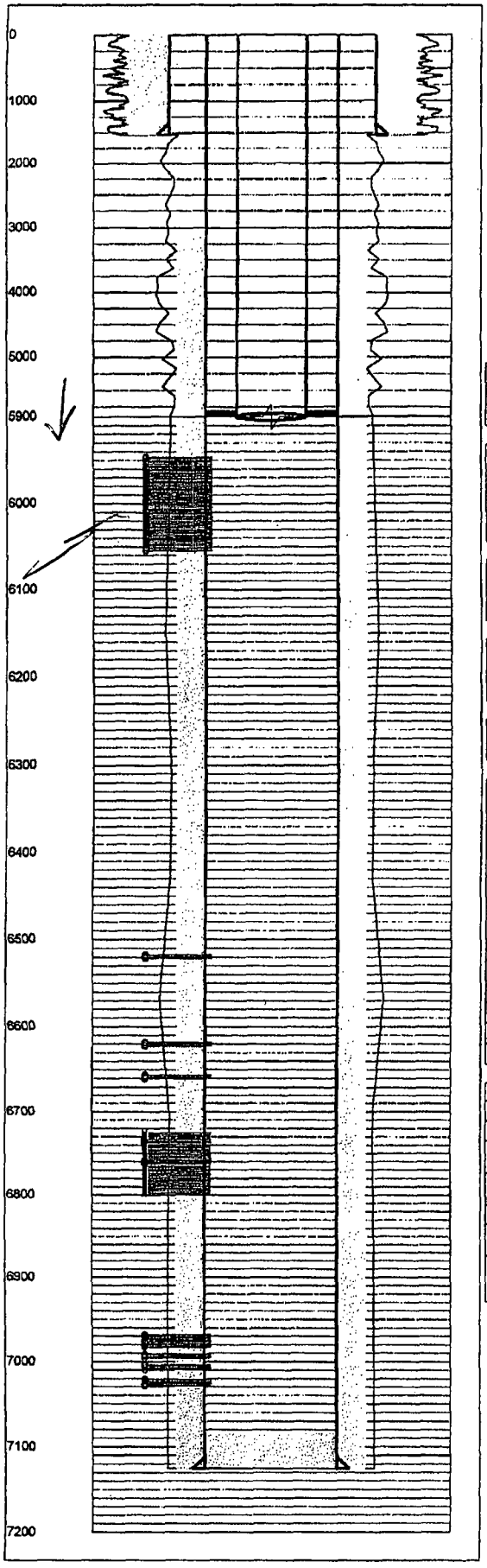
4/16/2007	Pull RBP at 6635' and run CNL and CIL from 5500-6950'. Set CIBP at 6950' and cap w/ 2 sx cement. Perforate Tubb (T2) perfs from 6517-6762' with 45 holes.



Move Packer to 6148

Sq.

PROPOSED COMPLETION

Last Updated: 5/6/2009 5:06:28 PM

Field Name	Lease Name	Well No.
House	Blankenship	2

County	State	API	GL (ft)	KB (ft)
Lea	New Mexico	30-025-07787	3557	3569

Sec.	Twp/Blk	Rng/Svy	Footage
L-12	20S	38E	2075' FSL & 555' FWL from Section

Spud Date	Comp. Date	Prepared By	Last Updated
9/1/1957	10/18/1957	JLF	5/6/2009

Current Status

Currently producing from Blinebry and Tubb perforations.

Hole Summary

Date	OD (in)	Top (KB ft)	Bottom (KB ft)	Comments
9/1/1957	12.0000	0	1,527	
9/1/1957	7.8750	1,527	7,125	

Tubular Summary

Date	Description	OD (in)	Wt (lb/ft)	Grade	Top (KB ft)	Bottom (KB ft)
	Tubing	2.8750	6.50	J55	0	5,900
9/1/1957	Surface Casing	8.6250	32.00		0	1,527
9/1/1957	Production Casing	5.5000			0	7,125

Casing Cement Summary

Date	No. Sx	OD (in)	ID (in)	Top (KB ft)	Bottom (KB ft)
9/1/1957	698	12.0000	8.6250	0	1,527
9/1/1957	625	7.8750	5.5000	3,160	7,125

Tools/Problems Summary

Date	Tool Type	OD (in)	ID (in)	Top (KB ft)	Bottom (KB ft)
	Pkr	5.5000	2.8750	5,900	
4/18/2007	CIBP	5.5000	0.0000	6,950	

Cement Plug Summary

Date	No. Sx	OD (in)	Top (KB ft)	Bottom (KB ft)
9/1/1957	0	5.5000	7,084	7,125

Perf Summary

Date	Perf Status	Formation	Top (KB ft)	Bottom (KB ft)	SPF	Shots	Phasing
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4/18/2007	Open	Tubb	6,656	6,660	2	10	120
4/18/2007	Open	Tubb	6,733	6,737	2	10	120
4/18/2007	Open	Tubb	6,758	6,762	2	10	120

Completion History Summary

Date	Comments
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Current | Proposed - Remove | Proposed - Add

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9/1/1957	Surface Casing	8.6250	32.00			0	1,527	
9/1/1957	Production Casing	5.5000				0	7,125	15.5/17#

Casing Cement Summary

Date	No. Sx	OD (in)	ID (in)	Top (KB ft)	Bottom (KB ft)	Cement Description	Comments
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Date	Tool Type	OD (in)	ID (in)	Top (KB ft)	Bottom (KB ft)	Description	Comments
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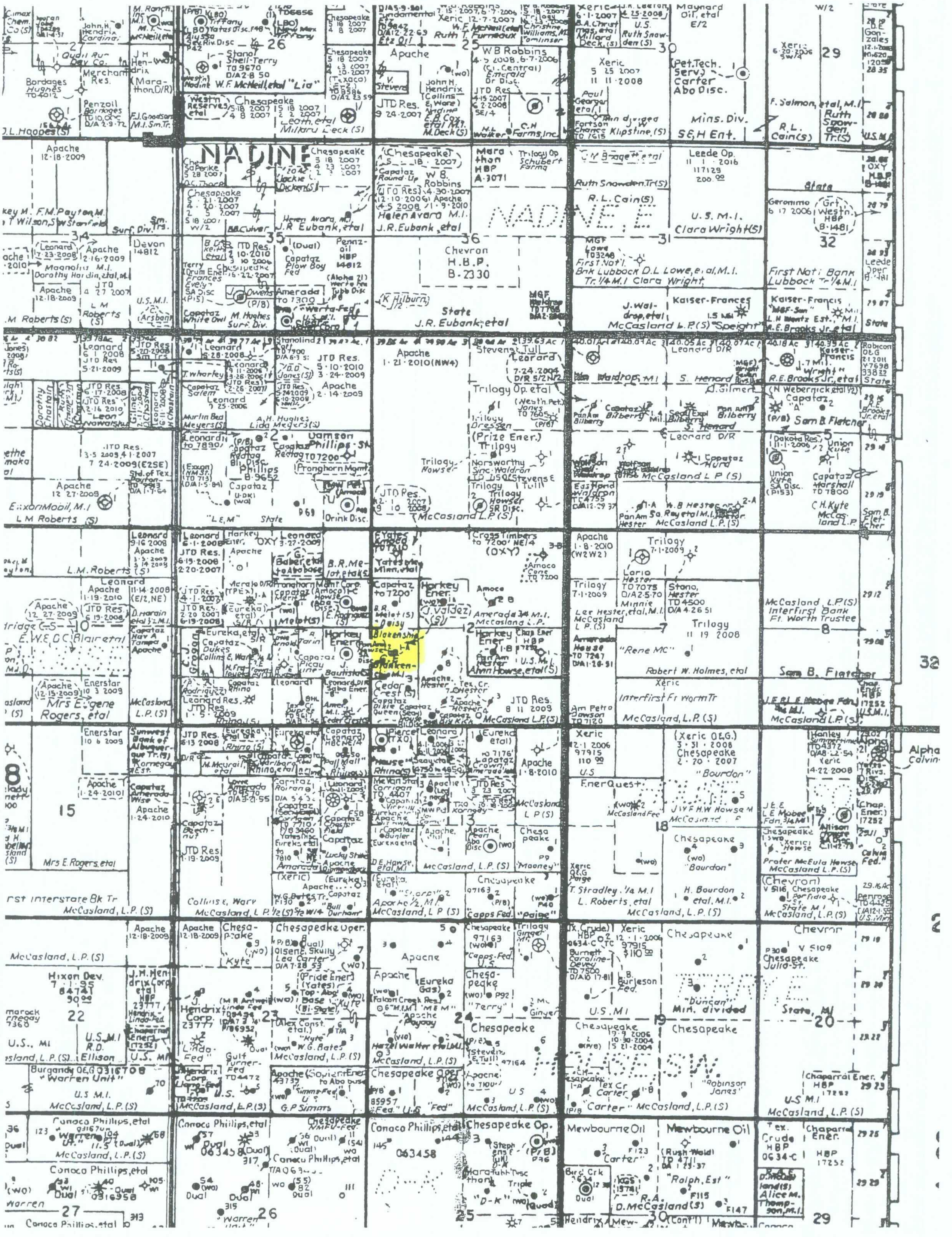
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NADINE E.
Chevron
H.B.P.
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State
J.R. Eubank, etal
Apache
1-21-2010 (NW4)
Trilogy Op. etal
McCasland L.P. (S)
Robert W. Holmes, etal
Interfirst Ft Worth Tr
Sam B. Fletcher
Chesapeake
Mrs E. Rogers, etal
McCasland, L.P. (S)
U.S. M.I.
Clara Wright (S)
Ruth Snowden Tr (S)
R.L. Cain (S)
Leede Op.
Mins. Div.
Conoco Phillips, etal
Mewbourne Oil
Chesapeake Op.
EnerQuest
Xeric
Trilogy
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State, M.I
Hixon Dev.
Chaparral Ener.
Kaiser-Francis
Amerada
Leonard
JTD Res.
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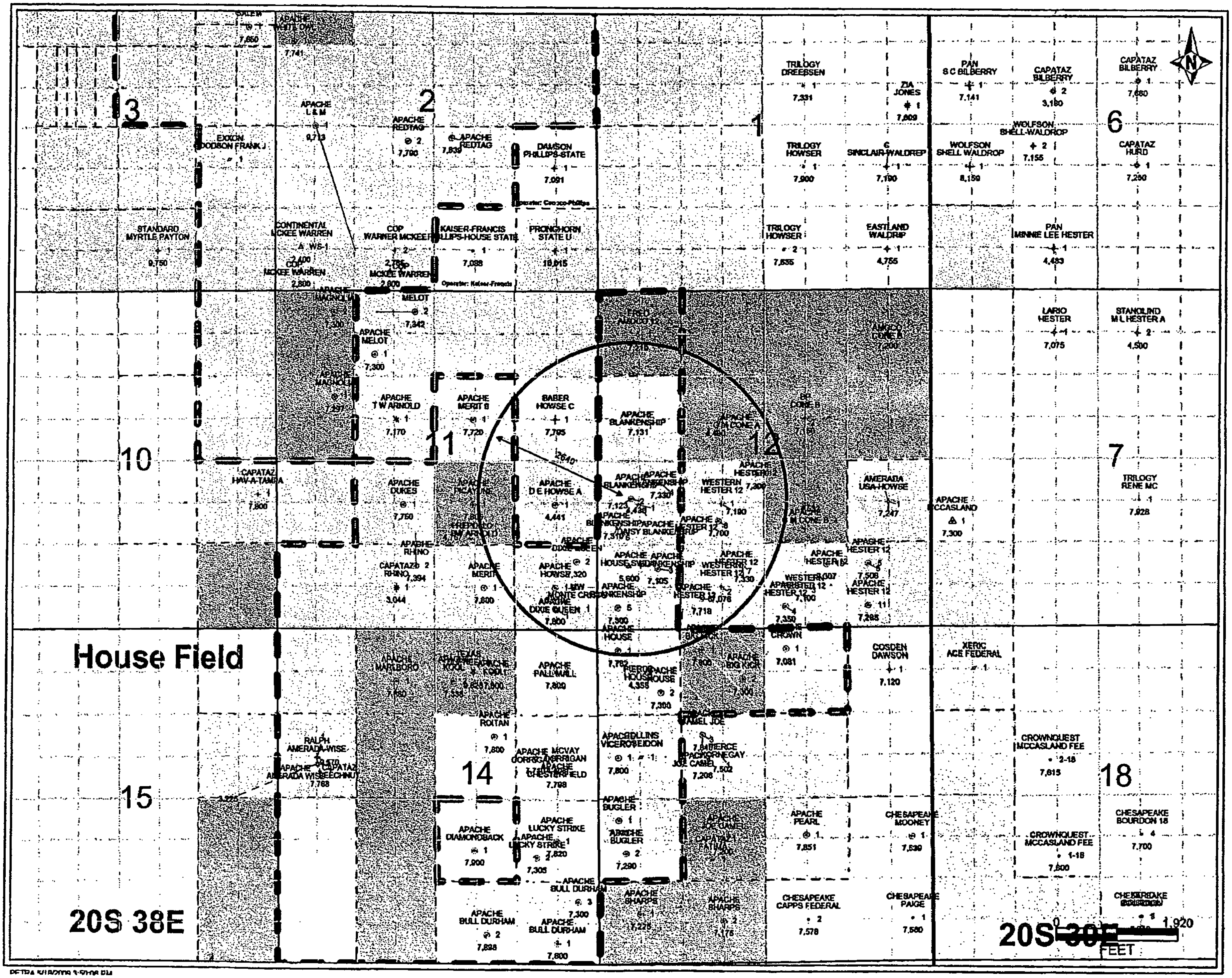
House Field
20S 38E
20S 39E
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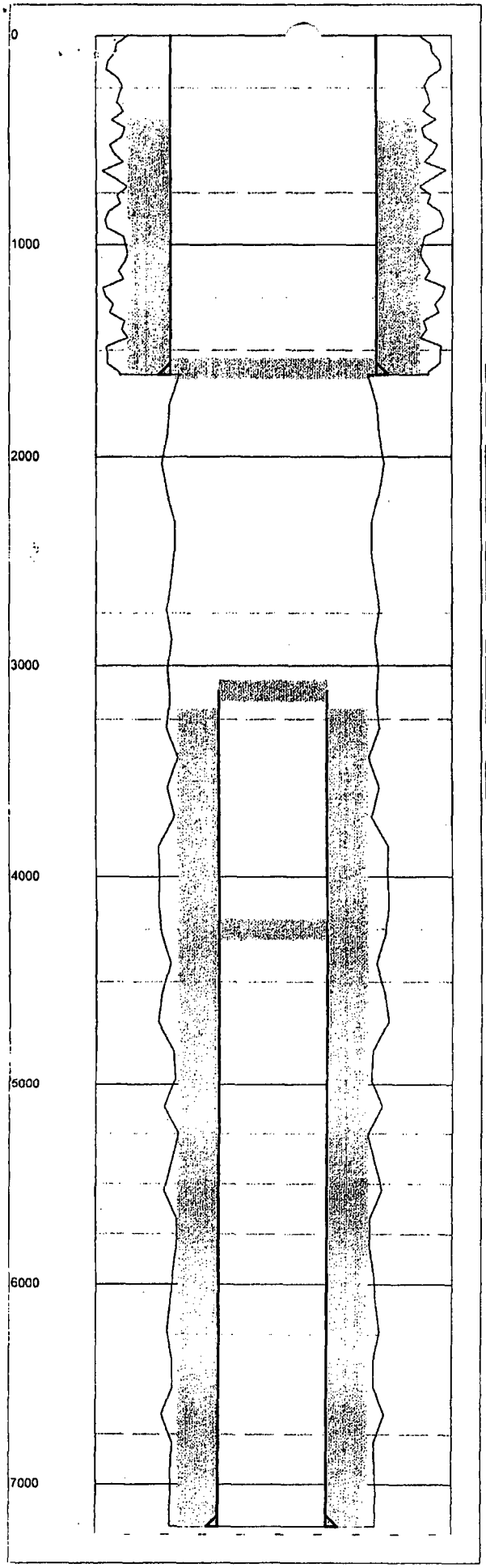
TRILOGY DREESSEN
ZIA JONES
PAN S C BILBERRY
CAPATAZ BILBERRY
TRILOGY HOWSER
SINCLAIR-WALDREP
WOLFSON SHELL WALDROP
WOLFSON SHELL-WALDROP
CAPATAZ HURD
STANDARD MYRTLE PAYTON
EXXON DODSON FRANK J
APACHE L & M
APACHE REDTAG
DAWSON PHILLIPS-STATE
PRONGHORN STATE U
KAISER-FRANCIS PHILLIPS-HOUSE STATE
EASTLAND WALDRIP
PAN MINNIE LEE HESTER
LARIO HESTER
STANOLIND M L HESTER A
APACHE T W ARNOLD
APACHE MERIT B
BABER HOWSE C
APACHE BLANKENSHIP
CAPATAZ HAV-A-TAMPA
APACHE DUKES
APACHE D E HOWSE A
AMERADA USA-HOWSE
APACHE MCCASLAND
TRILOGY RENE MC
COSDEN DAWSON
XERIC ACE FEDERAL
CROWNQUEST MCCASLAND FEE
APACHE ROITAN
APACHE DIAMONDBACK
APACHE LUCKY STRIKE
APACHE BULL DURHAM
APACHE PEARL
CHESAPEAKE MOONEY
CHESAPEAKE BOURDON 18
CHESAPEAKE CAPPS FEDERAL
CHESAPEAKE PAIGE
APACHE SHARPS
2640'
0
1,920
FEET

					Surface Casing				Intermediate Casing				Production Casing				
API	Operator Name	Lease Name	Well Num	TD	Csg Size	Csg Depth	Cmt Sx	TOC Est	Csg Size	Csg Depth	Cmt Sx	TOC Est	Csg Size	Csg Depth	Cmt Sx	TOC Est	Completion Intervals
30-025-29101	YATES G FRED	AMOCO '12'	1	7210	8.625	1612	500	398					4.5	7210	1500	3200	7010-7026; 7037-7039; 6546-6557; 4310-4320; 4310-4320
30-025-36745	APACHE CORP	BIG KICK	1	7800	8.625	1640	775	Surface			0		5.5	7800	1550	Surface	6969-7036; 6036-6802
30-025-07766	APACHE CORP	BLANKENSHIP	1	7125	12.75	319	320	Surface	8.625	4275	0		5.5	7125	693	3107	6990-7034; 7016-7034; 7012-7016; 4281-4325
30-025-07767	APACHE CORP	BLANKENSHIP	2	7125	8.75	1539	1100	Surface			0		5.5	7125	625	3160	6968-7009; 5946-6055
30-025-07768	APACHE CORP	BLANKENSHIP	3	7105	13.375	320	325	Surface	8.625	3204	1200	291	5.5	7090	1100	712	7023-7029; 6874-6747; 5942-608
30-025-38397	APACHE CORP	BLANKENSHIP	4	7330	8.625	1575	800	Surface			0		5.5	7330	1350	Surface	6034-6797; 6960-7048
30-025-38399	APACHE CORP	BLANKENSHIP	5	7300	8.625	1570	800	Surface			0		5.5	7300	1600	Surface	6034-6734; 6024-6734; 6956-7025
30-025-38400	APACHE CORP	BLANKENSHIP	6	7310	8.625	1600	950	Surface			0		5.5	7310	1500	Surface	6046-6404
30-025-07770	APACHE CORP	CONE A	1	7078	13.375	318	400	Surface	7.625	4490	200	2802	5.5	7032	200	5872	4405-4440; 4354-4382; 4300-4340; 7032-7078; 6638-6817
30-025-36421	APACHE CORP	DIXIE QUEEN	1	7800	13.375	80	50	10	8.625	1591	740	Surface	5.5	7800	1730	Surface	6688-6736
30-025-38661	APACHE CORP	DIXIE QUEEN	2	7320	8.625	1596	750	Surface			0		5.5	7320	1200	363	6044-6748
30-025-12549	WESTERN EQUIPMENT CO	HESTER 12	1	7100	8.625	1685	550	350			0		5.5	7099	550	3910	7022-7050; 6910-6954; 4274-4416
30-025-07773	WESTERN EQUIPMENT CO	HESTER 12	2	7100	8.625	1633	550	298			0		5.5	7100	400	4781	6988-7056
30-025-36795	APACHE CORP	HESTER 12	6	7718	8.625	1596	800	Surface			0		5.5	7718	1925	Surface	6018-6377; 6018-6786; 6018-7008
30-025-38369	APACHE CORP	HESTER 12	7	7330	8.625	1585	800	Surface			0		5.5	7330	1350	Surface	6036-6815; 6036-7030
30-025-38076	APACHE CORP	HESTER 12	8	7700	8.625	1578	800	Surface			0		5.5	7700	1900	Surface	6033-6710
30-025-38791	APACHE CORP	HESTER 12	9	7347	8.625	1605	750	Surface			0		5.5	7347	1190	448	6064-6332; 6979-7084
30-025-07774	APACHE CORP	HOUSE	1	7750	8.625	1700	900	Surface			0		4.5	7750	800	4079	6927-7019; 6008-6011
30-025-07763	APACHE CORP	HOUSE A	1	4440	13.375	317	400	Surface	8.625	3841	750	2020	5.5	4438	250	2989	4406-4430; 4362-4386
30-025-07764	APACHE CORP	HOUSE B	1	8112	13.375	305	300	Surface	9.625	4530	950	2600	5.5	7650	460	5500	6930-7000; 7020-7060; 4264-4303
30-025-22165	APACHE CORP	HOUSE C	1	7810	9.625	1547	800	Surface	7	4476	500	1351	4.5	7810	700	4598	7214-7782; 6964-7033; 7300-7649
30-025-34734	APACHE CORP	PICAYUNE	1	7805	8.625	1630	595	186			0		5.5	7805	1425	Surface	6987-7090; 5962-7355



CURRENT COMPLETION

Last Updated: 5/27/2009 2:25:17 PM

Field Name	Lease Name	Well No.
House	Amoco 12	1

County	State	API	GL (ft)	KB (ft)
Lea	New Mexico	30-025-29101	0	0

Sec.	Twp/Blk	Rng/Svy	Footage
D-12	20S	38E	660' FNL & 660' FWL from Section

Spud Date	Comp. Date	Prepared By	Last Updated
		JLF	5/27/2009

Current Status

Well is P&A'd

Hole Summary

Date	OD (in)	Top (KB ft)	Bottom (KB ft)	Comments
	12.2500	0	1,612	
	7.8750	1,612	7,210	

Tubular Summary

Date	Description	OD (in)	Wt (lb/ft)	Grade	Top (KB ft)	Bottom (KB ft)
	Surface Casing	8.6250			0	1,612
	Production Casing	4.5000			3,115	7,210

Casing Cement Summary

Date	No. Sx	OD (in)	ID (in)	Top (KB ft)	Bottom (KB ft)
	500	12.2500	8.6250	398	1,612
	1500	7.8750	4.5000	3,200	7,210

Tools/Problems Summary

Cement Plug Summary

Date	No. Sx	OD (in)	Top (KB ft)	Bottom (KB ft)
	35	8.6250	1,534	1,634
	25	4.5000	3,065	3,165
	25	4.5000	4,200	4,300

Perf Summary

Completion History Summary

Date	Comments
8/30/1985	Well P&A'd

Current | Proposed - Remove | Proposed - Add

Last Updated: 5/27/2009 2:25:17 PM **CURRENT COMPLETION**

Field Name	Lease Name	Well No.	County	State	API	GL (ft)	KB (ft)
House	Amoco 12	1	Lea	New Mexico	30-025-29101	0	0

Sec.	Twp/Blk	Rng/Svy	Footage	Spud Date	Comp. Date	Prepared By	Last Updated
D-12	20S	38E	660' FNL & 660' FWL from Section			JLF	5/27/2009

Current Status

Well is P&A'd

Detailed Summaries

Hole Summary

Date	OD (in)	Top (KB ft)	Bottom (KB ft)	Comments
	12.2500	0	1,612	
	7.8750	1,612	7,210	

Tubular Summary

Date	Description	OD (in)	Wt (lb/ft)	Grade	Coupling	Top (KB ft)	Bottom (KB ft)	Comments
	Surface Casing	8.6250				0	1,612	
	Production Casing	4.5000				3,115	7,210	

Casing Cement Summary

Date	No. Sx	OD (in)	ID (in)	Top (KB ft)	Bottom (KB ft)	Cement Description	Comments
	500	12.2500	8.6250	398	1,612		TOC calculated
	1500	7.8750	4.6000	3,200	7,210		TOC calculated

Tools/Problems Summary

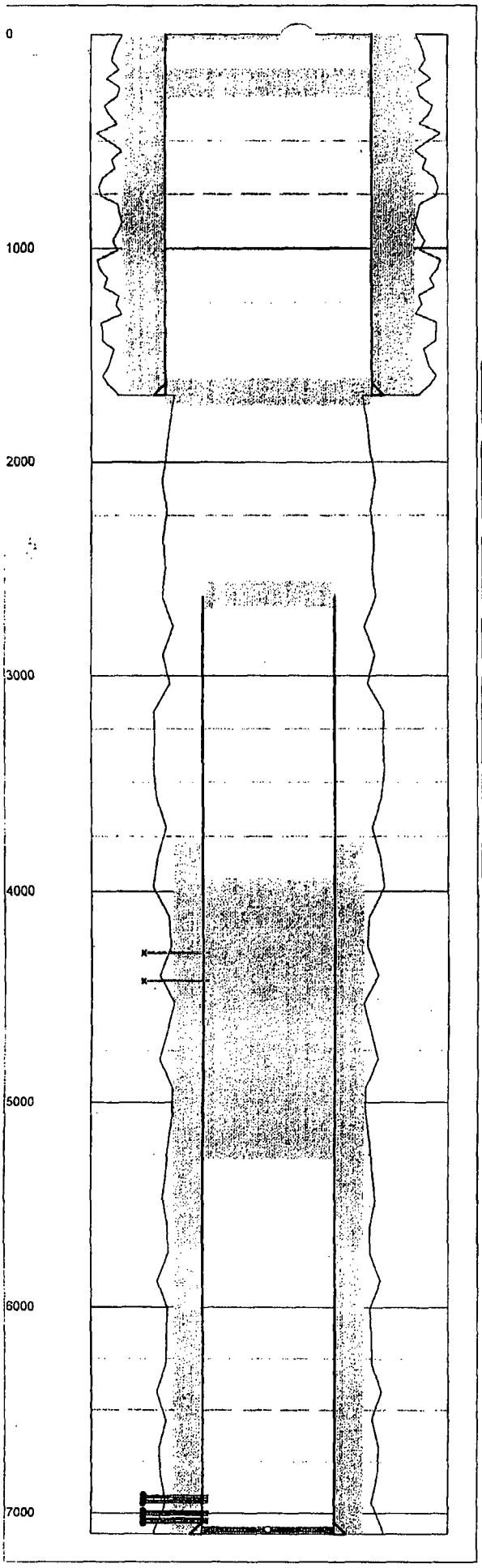
Cement Plug Summary

Date	No. Sx	OD (in)	Top (KB ft)	Bottom (KB ft)	Comments
	35	8.6250	1,534	1,634	
	25	4.5000	3,065	3,165	
	25	4.5000	4,200	4,300	

Perf Summary

Completion History Summary

Date	Comments
8/30/1985	Well P&A'd



CURRENT COMPLETION

Last Updated: 2/26/2009 2:26:46 PM

Field Name	Lease Name	Well No.
House	Hester 12	1

County	State	API	GL (ft)	KB (ft)
Lea	New Mexico	30-025-07773	3559	3566

Sec.	Twp/Blk	Rng/Svy	Footage
12	20S	38E	660' FSL & 1980' FWL from Section

Spud Date	Comp. Date	Prepared By	Last Updated
8/27/1956	10/4/1956	JLF	2/26/2009

Current Status

Plugged and abandoned.

Hole Summary

Date	OD (in)	Top (KB ft)	Bottom (KB ft)	Comments
	12.2500	0	1,685	
	7.8750	1,685	7,100	

Tubular Summary

Date	Description	OD (in)	Wt (lb/ft)	Grade	Top (KB ft)	Bottom (KB ft)
	Surface Casing	8.6250	32.00	J55	0	1,685
	Production Casing	5.5000			2,630	7,099

Casing Cement Summary

Date	No. Sx	OD (in)	ID (in)	Top (KB ft)	Bottom (KB ft)
	550	12.2500	8.6250	0	1,685
	550	7.8750	5.5000	3,780	7,099

Tools/Problems Summary

Date	Tool Type	OD (in)	ID (in)	Top (KB ft)	Bottom (KB ft)
	FC	5.5000	0.0000	7,065	

Cement Plug Summary

Date	No. Sx	OD (in)	Top (KB ft)	Bottom (KB ft)
	10	8.6250	0	25
	40	8.6250	160	300
	50	8.6250	1,605	1,735
	50	5.5000	2,555	2,681
	125	5.5000	3,940	5,272
	0	5.5000	7,065	7,099

Perf Summary

Date	Perf Status	Formation	Top (KB ft)	Bottom (KB ft)	SPF	Shots	Phasing
	Squeezed	San Andres	4,274	4,284			0
	Squeezed	San Andres	4,406	4,416			0
	Isolated	Drinkard	6,910	6,954			0
	Isolated	Drinkard	6,987	7,014			0
	Isolated	Drinkard	7,022	7,050			0

Completion History Summary

Current | Proposed - Remove | Proposed - Add

Last Updated: 2/26/2009 2:26:46 PM **C U R R E N T C O M P L E T I O N**

Field Name	Lease Name	Well No.	County	State	API	GL (ft)	KB (ft)
House	Hester 12	1	Lea	New Mexico	30-025-07773	3559	3568

Sec.	Twp/Blk	Rng/Svy	Footage	Spud Date	Comp. Date	Prepared By	Last Updated
12	20S	38E	660' FSL & 1980' FWL from Section	8/27/1956	10/4/1956	JLF	2/26/2009

Current Status

Plugged and abandoned.

Detailed Summaries

Hole Summary

Date	OD (in)	Top (KB ft)	Bottom (KB ft)	Comments
	12.2500	0	1,685	
	7.8750	1,685	7,100	

Tubular Summary

Date	Description	OD (in)	Wt (lb/ft)	Grade	Coupling	Top (KB ft)	Bottom (KB ft)	Comments
	Surface Casing	8.6250	32.00	J55		0	1,685	
	Production Casing	5.5000				2,630	7,099	15.5 and 17#, 2630' pulled when plugged

Casing Cement Summary

Date	No. Sx	OD (in)	ID (in)	Top (KB ft)	Bottom (KB ft)	Cement Description	Comments
	550	12.2500	8.6250	0	1,685		Circulate cement
	550	7.8750	5.5000	3,780	7,099		

Tools/Problems Summary

Date	Tool Type	OD (in)	ID (in)	Top (KB ft)	Bottom (KB ft)	Description	Comments
	FC	5.5000	0.0000	7,065			

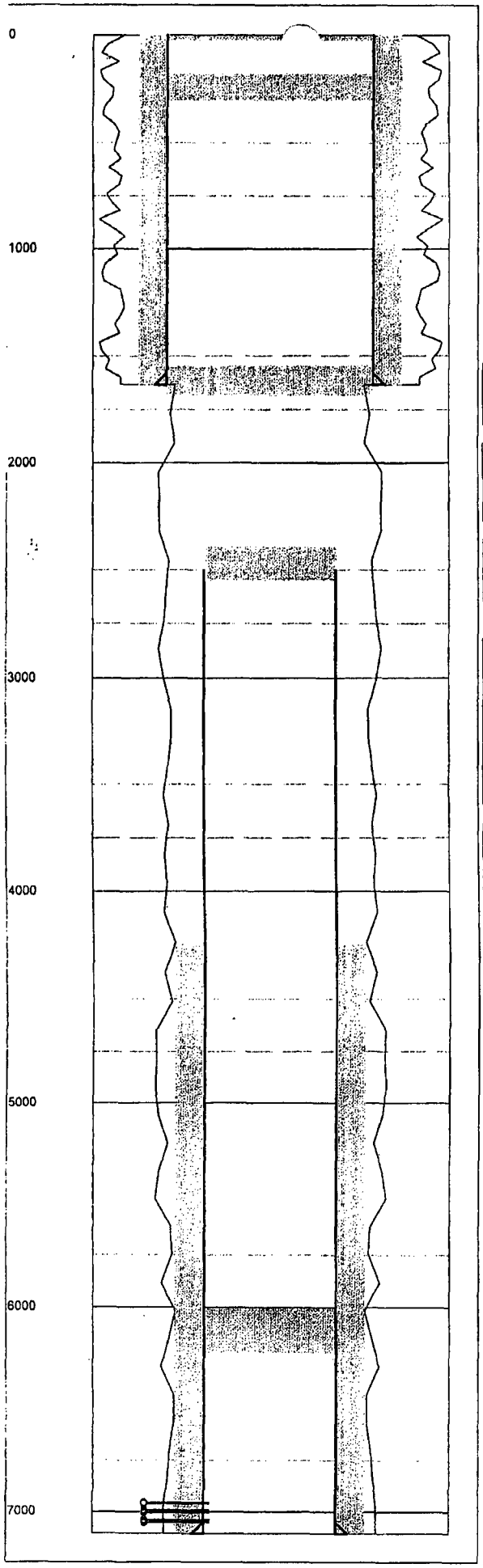
Cement Plug Summary

Date	No. Sx	OD (in)	Top (KB ft)	Bottom (KB ft)	Comments
	10	8.6250	0	25	
	40	8.6250	160	300	
	50	8.6250	1,605	1,735	
	50	5.5000	2,555	2,681	
	125	5.5000	3,940	5,272	
	0	5.5000	7,085	7,099	Cmt in shoe jt

Perf Summary

Date	Perf Status	Formation	Top (KB ft)	Bottom (KB ft)	SPF	Shots	Phasing	Perf Comments	Interval Comments
	Squeezed	San Andres	4,274	4,284			0		10 shots
	Squeezed	San Andres	4,406	4,416			0		4 shots
	Isolated	Drinkard	6,910	6,954			0		
	Isolated	Drinkard	6,987	7,014			0		
	Isolated	Drinkard	7,022	7,050			0		

Completion History Summary



CURRENT COMPLETION

Last Updated: 2/26/2009 2:30:17 PM

Field Name	Lease Name	Well No.
House	Hester 12	2

County	State	API	GL (ft)	KB (ft)
Lea	New Mexico	30-025-07773	0	3566

Sec.	Twp/Blk	Rng/Svy	Footage
12	20S	38E	660' FSL & 1980' FWL from Section

Spud Date	Comp. Date	Prepared By	Last Updated
8/30/1956	10/2/1956	JLF	2/26/2009

Current Status

Plugged and abandoned.

Hole Summary

Date	OD (in)	Top (KB ft)	Bottom (KB ft)	Comments
	12.2500	0	1,633	
	7.8750	1,633	7,106	

Tubular Summary

Date	Description	OD (in)	Wt (lb/ft)	Grade	Top (KB ft)	Bottom (KB ft)
	Surface Casing	8.6250	32.00	J55	0	1,633
	Production Casing	5.5000			2,500	7,106

Casing Cement Summary

Date	No. Sx	OD (in)	ID (in)	Top (KB ft)	Bottom (KB ft)
	650	11.0000	8.6250	0	1,633
	550	7.8750	5.5000	4,250	7,106

Tools/Problems Summary

Cement Plug Summary

Date	No. Sx	OD (in)	Top (KB ft)	Bottom (KB ft)
	10	8.6250	0	25
	35	8.6250	178	300
	40	8.6250	1,544	1,684
	50	8.6250	1,683	1,684
	50	8.6250	1,683	1,683
	40	5.5000	2,390	2,550
	25	5.5000	6,002	6,223

Perf Summary

Date	Perf Status	Formation	Top (KB ft)	Bottom (KB ft)	SPF	Shots	Phasing
	Open	Drinkard	6,952	6,963			0
	Open	Drinkard	6,988	7,008	4	84	0
	Open	Drinkard	7,036	7,056	4	84	0

Completion History Summary

Current | Proposed - Remove | Proposed - Add

Last Updated: 2/26/2009 2:30:17 PM **CURRENT COMPLETION**

Field Name	Lease Name	Well No.	County	State	API	GL (ft)	KB (ft)
House	Hester 12	2	Lea	New Mexico	30-025-07773	0	3566

Sec.	Twp/Blk	Rng/Svy	Footage	Spud Date	Comp. Date	Prepared By	Last Updated
12	20S	38E	660' FSL & 1980' FWL from Section	8/30/1956	10/2/1956	JLF	2/26/2009

Current Status

Plugged and abandoned.

Detailed Summaries

Hole Summary

Date	OD (in)	Top (KB ft)	Bottom (KB ft)	Comments
	12.2500	0	1,633	
	7.8750	1,633	7,106	

Tubular Summary

Date	Description	OD (in)	Wt (lb/ft)	Grade	Coupling	Top (KB ft)	Bottom (KB ft)	Comments
	Surface Casing	8.6250	32.00	J55		0	1,633	
	Production Casing	5.5000				2,500	7,106	15.5 & 17#. Pulled 2500' of pipe when well was plugged.

Casing Cement Summary

Date	No. Sx	OD (in)	ID (in)	Top (KB ft)	Bottom (KB ft)	Cement Description	Comments
	650	11.0000	8.6250	0	1,633		Circulate cement
	550	7.8750	5.5000	4,250	7,106		

Tools/Problems Summary

Cement Plug Summary

Date	No. Sx	OD (in)	Top (KB ft)	Bottom (KB ft)	Comments
	10	8.6250	0	25	
	35	8.6250	178	300	
	40	8.6250	1,544	1,684	
	50	8.6250	1,683	1,684	
	50	8.6250	1,683	1,683	No fill tagged
	40	5.5000	2,390	2,550	
	25	5.5000	6,002	6,223	

Perf Summary

Date	Perf Status	Formation	Top (KB ft)	Bottom (KB ft)	SPF	Shots	Phasing	Perf Comments	Interval Comments
	Open	Drinkard	6,952	6,963			0		4 holes
	Open	Drinkard	6,988	7,008	4	84	0		
	Open	Drinkard	7,036	7,056	4	84	0		

Completion History Summary

ITEM VII OF NEW MEXICO OCD FORM C-108
DATA ON PROPOSED OPERATIONS
BLANKENSHIP #2

1) Proposed average initial injection rate is 500 bwpd.
   Maximum injection rate should not exceed 5,000 bwpd.

2) The injection system will be operated as a closed system.

3) Proposed maximum pressure is 1189 psi (5946' * 0.2 psi/ft) but will not exceed the pressure limitations ordered by the Division.

4) Source water will come from the Blinebry, Tubb, and Drinkard formations.

5) Not Applicable.

ITEM VIII OF NEW MEXICO OCD FORM C-108
GEOLOGIC DATA ON THE INJECTION ZONE & UNDERGROUND DRINKING WATER
HOUSE FIELD

The formations being targeted for water injection are the Blinebry, Tubb and Drinkard at depths ranging from approximately 5900' to 7100'. These formations are Leonardian in age and are a sequence of marine carbonates which have undergone diagenesis, predominantly in the form of dolomitization. A five percent porosity cutoff is used to determine "pay" since porosities less than this are considered non-productive at the existing and proposed reservoir pressures and fluid regimes. Net pay isopach maps show the areal extent of the targeted reservoirs. The vertical extent of the reservoir is limited both top and bottom by impermeable shales and carbonates. All injected fluids should remain in the reservoir with the exception of cycling to the surface through well bores.

Based on communications with the New Mexico States Engineer's Roswell office and a review of online files there are 8 fresh water wells (see attached) in the area of review. The deepest of these wells is 90' which is the assumed base of fresh water. All wellbores involved with the proposed injection program are constructed to not allow injection water into this fresh water source.

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 20S Range: 38E Sections: 12

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

[illegible]

POD / SURFACE DATA REPORT 10/20/2008

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest X Y are in Feet

(acre ft per annum)

...le Nbr	Use	Diversion	Owner	POD Number	Source	Tws	Rng	Sec	q	q	q	Zone	X	Y
02735	STK	3	EARL KORNEGAY	L 02735	Shallow	20S	38E	12	4	4	4			
				L 02735 APPRO	Shallow	20S	38E	12	4	4	4			
				L 02735 CPPU		20S	38E	12	4	4	4			
06693 [illegible]	PRO	0	KINGS RESOURCES	L 06693 [illegible] EXP		20S	38E	12	2	4	2			
07933 [illegible]	DOM	0	ALVIN HOUSE	L 07933 EXP		20S	38E	12	1	4				
10049	DOM	3	[illegible] NUTTALL	L 10049	Shallow	20S	38E	12	4					
10050	STK	0	[illegible] NUTTALL	L 10050 EXP		20S	38E	12	4	2	2			
11004	DOM	3	ISAIAS PROVIZO	L 11004	Shallow	20S	38E	12	3	3	3			

...ord Count: 8

UTM are in Meters)			Start	Finish	Depth	Depth (in feet)
UTM_Zone	Easting	Northing	Date	Date	Well	Water
13	678836	3606463	12/26/1954	12/27/1954	90	65
13	678836	3606463	12/26/1954	12/27/1954	90	65
13	678836	3606463				
13	678821	3607869				
13	677916	3607897				
13	678535	3606758	12/20/1988	12/30/1988	80	50
13	678828	3607065				
13	677417	3608442	11/10/1989	11/10/1989	80	45

ITEMS IX THROUGH XII OF NEW MEXICO OCD FORM C-108
BLANKENSHIP #2

IX This well will be acid stimulated as needed to eliminate near wellbore skin damage.

X Original logs and test data were filed with the NMOCD upon original completion of the well.

XI See attached water analysis for two fresh water wells.

XII After reviewing the geology in a one and one-half mile radius around the proposed waterflood area there appears no evidence of fractures or any hydrologic connection between the zone of injection and any overlying or underlying strata.

North Permian Basin Region
P.O. Box 740
Sundown, TX 79372-0740
(806) 229-8121
Lab Team Leader - Sheila Hernandez
(432) 495-7240

Water Analysis Report by Baker Petrolite

Company:	APACHE CORPORATION	Sales RDT:	44217
Region:	PERMIAN BASIN	Account Manager:	FRANK GARDNER (575) 390-5194
Area:	MONUMENT, NM	Sample #:	372540
Lease/Platform:	GILBERT UNIT	Analysis ID #:	86969
Entity (or well #):	HORSE PEN	Analysis Cost:	$80.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary	
Sampling Date:	10/21/08
Analysis Date:	10/30/08
Analyst:	KIMBERLY POOLE
TDS (mg/l or g/m3):	1378.5
Density (g/cm3, tonne/m3):	1.001
Anion/Cation Ratio:	0.9999998
Carbon Dioxide:	0 PPM
Oxygen:	
Comments:	
RESISTIVITY 9 OHM-M @ 75°F	

Analysis of Sample 372540 @ 75 °F

Anions	mg/l	meq/l	Cations	mg/l	meq/l
Chloride:	**336.0**	**9.48**	**Sodium:**	**216.0**	**9.4**
Bicarbonate:	**220.0**	**3.61**	**Magnesium:**	**41.0**	**3.37**
Carbonate:	**0.0**	**0.**	**Calcium:**	**164.0**	**8.18**
Sulfate:	**391.0**	**8.14**	**Strontium:**	**2.0**	**0.05**
Phosphate:			**Barium:**	**0.1**	**0.**
Borate:			**Iron:**	**0.9**	**0.03**
Silicate:			Potassium:	7.5	0.19
			Aluminum:		
Hydrogen Sulfide:		0 PPM	Chromium:		
pH at time of sampling:		7.21	Copper:		
pH at time of analysis:			Lead:		
pH used in Calculation:		**7.21**	Manganese:	0.025	0.
			Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite $CaCO_3$		Gypsum $CaSO_4 * 2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$		CO_2 Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	0.10	2.10	-0.91	0.00	-0.98	0.00	-1.13	0.00	0.69	0.00	0.19
100	0	0.23	5.80	-0.91	0.00	-0.92	0.00	-1.12	0.00	0.54	0.00	0.24
120	0	0.37	9.45	-0.90	0.00	-0.83	0.00	-1.09	0.00	0.43	0.00	0.31
140	0	0.51	14.00	-0.88	0.00	-0.71	0.00	-1.05	0.00	0.34	0.00	0.38

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

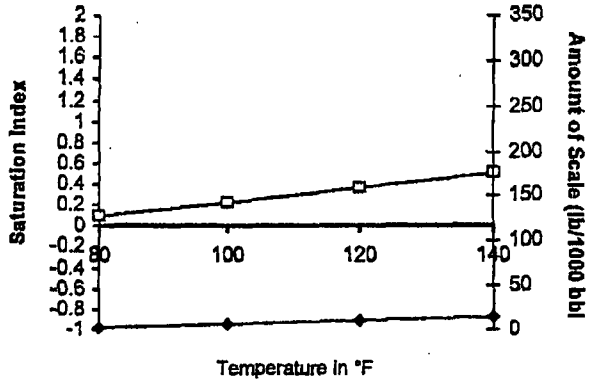
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

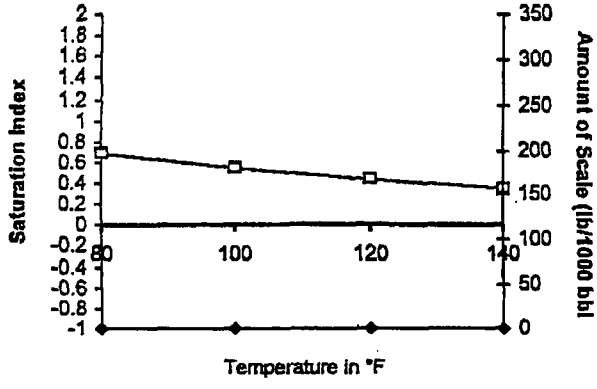
Scale Predictions from Baker Petrolite

Analysis of Sample 372540 @ 75 °F for APACHE CORPORATION, 10/30/08

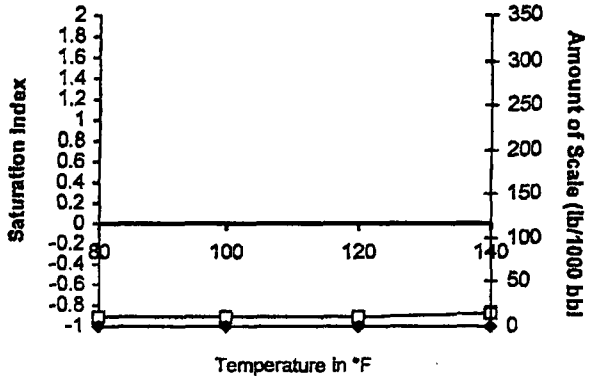
Calcite - CaCO3



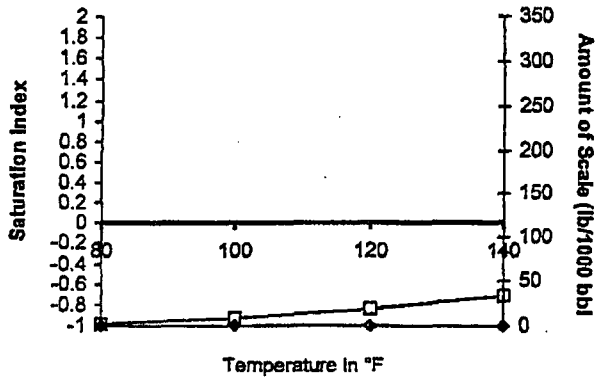
Barite - BaSO4



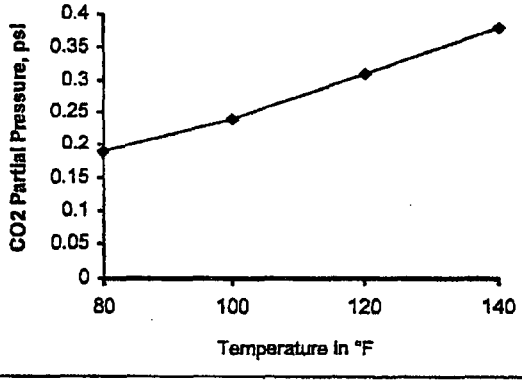
Gypsum - CaSO4*2H20



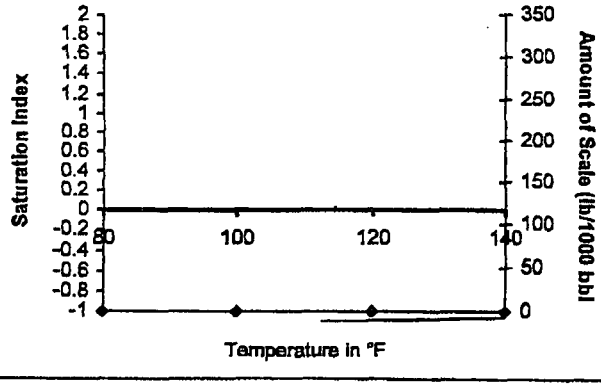
Anhydrite - CaSO4



Carbon Dioxide Partial Pressure



Celestite - SrSO4



North Permian Basin Region
P.O. Box 740
Sundown, TX 79372-0740
(806) 229-8121
Lab Team Leader - Sheila Hernandez
(432) 495-7240

Water Analysis Report by Baker Petrolite

Company:	APACHE CORPORATION	Sales RDT:	44217
Region:	PERMIAN BASIN	Account Manager:	FRANK GARDNER (575) 390-5194
Area:	MONUMENT, NM	Sample #:	372539
Lease/Platform:	OSCAR UNIT	Analysis ID #:	86970
Entity (or well #):	HOUSE	Analysis Cost:	$80.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary	
Sampling Date:	10/21/08
Analysis Date:	10/30/08
Analyst:	KIMBERLY POOLE
TDS (mg/l or g/m3):	1378.5
Density (g/cm3, tonne/m3):	1.002
Anion/Cation Ratio:	0.9999997
Carbon Dioxide:	0 PPM
Oxygen:	
Comments:	
RESISTIVITY 7.5 OHM-M @ 75°F	

Analysis of Sample 372539 @ 75 °F

Anions	mg/l	meq/l	Cations	mg/l	meq/l
Chloride:	**415.0**	**11.71**	**Sodium:**	**331.2**	**14.41**
Bicarbonate:	**305.0**	**5.**	**Magnesium:**	**41.0**	**3.37**
Carbonate:	**0.0**	**0.**	**Calcium:**	**174.0**	**8.68**
Sulfate:	**491.0**	**10.22**	**Strontium:**	**2.0**	**0.05**
Phosphate:			**Barium:**	**0.1**	**0.**
Borate:			**Iron:**	**0.2**	**0.01**
Silicate:			Potassium:	16.0	0.41
			Aluminum:		
Hydrogen Sulfide:		0 PPM	Chromium:		
pH at time of sampling:		7.03	Copper:		
pH at time of analysis:			Lead:		
pH used in Calculation:		**7.03**	Manganese:	0.025	0.
			Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite $CaCO_3$		Gypsum $CaSO_4 \cdot 2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$		CO_2 Press
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Scale Predictions from Baker Petrolite

Analysis of Sample 372539 @ 75 °F for APACHE CORPORATION, 10/30/08