

EXHIBIT 1



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

INFORMATIONAL MEMORANDUM

TO: All Oil and Gas Operators

FROM: Michael E. Stogner, Chief Hearing Examiner/Engineer (OCD) *MS*

SUBJECT: Revised Division Rules 107.J and K.

DATE: December 29, 1998

Below are the initial proposed revisions to Division General Rules 107.J and K. pertaining to tubing and casing sizes and to give the Districts authority to grant administrative exceptions. These rules are to be considered by the New Mexico Oil Conservation Commission at its formal hearing scheduled for January 14, 1999.

107.J. Requirements for tubing of wells are as follows:

- (1) All flowing oil wells equipped with casing larger in size than 2 7/8-inch OD shall be tubed.
- (2) All gas wells equipped with casing larger in size than 2-7/8 3 1/2 inch OD shall be tubed.
- (3) Tubing shall be set as near the bottom as practical and tubing perforations shall not be more than 250 feet above the top of the pay.
- (4) ~~The Division Director may~~ supervisor of the appropriate Division District Office, upon proper application, may grant administrative exceptions to the provisions of sub paragraphs (2) and (3) above, without notice and hearing, provided waste will not be caused thereby.
- (5) The supervisor, at his discretion, or an operator may request to have any application reviewed administratively by the Division Director whereby the operator shall submit appropriate information and give notice as requested by the Division Director. Unprotested applications may be approved administratively within 20 days of receipt of the application and supporting information. If the application is protested, or the Division Director decides that a public hearing is appropriate, the application may be set for public hearing.

107.K. REPEALED

PROPOSED RULE CHANGE

Rule 107.J Requirements for tubing of wells are as follows:

- (1) All flowing oil wells equipped with casing larger in size than 2-7/8 inch OD shall be tubed.
- (2) All gas wells equipped with casing larger in size than 2-7/8 ~~3-1/2~~ inch OD shall be tubed.
- (3) Tubing shall be set as near the bottom as practical and tubing perforations shall not be more than 250 feet above the top of the pay.
- (4) The Division Director ~~may~~, upon ~~proper~~ application, ~~may~~ grant administrative exceptions to the provisions of subparagraph (2) and (3) above, without ~~notice and~~ hearing, provided waste will not be caused ~~thereby~~.

Rule 107.K The Division's District Supervisor or their representatives shall have authority to approve tubingless completions without the necessity of administrative approval or ~~notice and~~ hearing, when the following conditions exist:

- (1) ~~A gas well at any depth~~
- (2) ~~The~~ ~~An oil~~ well is to be completed with a total depth of 5,000 feet or less,
- (3) The well is not a wildcat (its is more than one mile from an existing well producing from the same common source of supply to which it is projected);
- (4) No known corrosive or pressure problems exist when might make the tubingless method of completion undesirable,
- (5) The well will not be a dual completion,
- (6) The tubing used as a substitute for casing ~~in an oil well~~ will be either 2-3/8-inch OD or 2-7/8-inch OOD ~~and in a gas well will be 3-1/2 inch OD~~

up to

EXHIBIT 2

EXHIBIT 3

Wells Receiving Tubingless Completion Orders
From NMOCD Since 1996
(Pictured Cliffs Reservoir Only)

<u>TX Order</u>	<u>Well Name</u>	<u>Well #</u>	<u>Sect</u>	<u>Unit</u>	<u>Twnshp</u>	<u>Range</u>	<u>Proj</u>	<u>Proj Yr</u>	<u>Field</u>
265	Angel Peak B	14R	13	G	28N	11W	ReDrll	1997	FK
265	Brookhaven Com C	4R	36	L	27N	08W	ReDrll	1997	SB
265	Feasel	1R	2	M	27N	10W	ReDrll	1997	FK
265	Huerfanito Unit	45R	24	M	27N	09W	ReDrll	1997	SB
265	Huerfanito Unit	70R	10	G	26N	09W	ReDrll	1997	B
265	Huerfano Unit	6R	31	M	27N	10W	ReDrll	1997	WK
265	McManus	4R	19	O	26N	08W	ReDrll	1997	B
281	Brink	2R	19	F	28N	10W	ReDrll	1998	FK
281	Cleveland	1R	17	A	27N	09W	ReDrll	1998	FK
281	Cornell	3R	1	I	29N	12W	ReDrll	1998	FK
281	Cornell	5R	1	A	29N	12W	ReDrll	1998	FK
281	Fuller	2R	22	A	30N	11W	ReDrll	1998	A
281	Galt	1R	1	P	27N	10W	ReDrll	1998	FK
281	Hanks	5R	7	M	27N	09W	ReDrll	1998	FK
281	Hubbell	20	29	P	28N	10W	ReDrll	1998	FK
281	Huerfanito Unit	93R	25	C	27N	09W	ReDrll	1998	SB
281	Huerfano Unit	24R	29	M	27N	10W	ReDrll	1998	WK
281	Lodewick	1R	18	E	27N	09W	ReDrll	1998	FK
281	Lodewick	3R	19	F	27N	09W	ReDrll	1998	FK
281	Murphy B	1R	25	K	30N	11W	ReDrll	1998	A
281	Newman A	7R	19	G	28N	10W	ReDrll	1998	FK
281	Quitau	8R	11	G	25N	08W	ReDrll	1998	B
281	Schwerdtfeger	1R	8	M	27N	11W	ReDrll	1998	WK
281	Zachry	1R	12	N	28N	10W	ReDrll	1998	A
265	Frost	1R	26	H	27N	10W	Rstm	1997	FK
266	Ballard	2	10	P	26N	09W	Rstm	1996	B
266	Ballard	5	14	P	26N	09W	Rstm	1997	B
266	Crandell	1	11	M	26N	09W	Rstm	1997	B
266	Douthit	3	26	P	27N	11W	Rstm	1996	WK
266	Harrington	3	31	P	27N	07W	Rstm	1996	SB

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From NMOCD Since 1996
(Pictured Cliffs Reservoir Only)

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266	Hubbell SRC	2	30	I	28N	10W	Rstm	1996	FK
266	Huerfanito Unit	64	12	D	26N	09W	Rstm	1997	B
266	Huerfanito Unit	69	10	D	26N	09W	Rstm	1996	B
266	Luthy A	1	1	H	26N	08W	Rstm	1996	SB
266	McManus	1	30	P	26N	8W	Rstm	1997	B
266	McManus	9	33	M	26N	08W	Rstm	1996	B
266	Newman A	6	19	J	28N	10W	Rstm	1997	FK
266	Quitzeau	1	3	D	25N	08W	Rstm	1997	B
266	Quitzeau	2	11	F	25N	08W	Rstm	1997	B
266	Quitzeau	3	11	P	25N	08W	Rstm	1997	B
266	Quitzeau	4	3	O	25N	08W	Rstm	1997	B
266	Quitzeau	5	3	M	25N	08W	Rstm	1997	B
266	Turner Hughes	10	11	B	27N	09W	Rstm	1996	SB
266	White Kutz	3	20	B	28N	10W	Rstm	1996	FK
266	Wilson A	1	32	D	26N	08W	Rstm	1997	B
266	Wilson A	2	32	K	26N	08W	Rstm	1997	B
272	Ballard	8	15	H	26N	09W	Rstm	1997	B
272	Brookhaven Com D	5	36	E	27N	08W	Rstm	1997	SB
272	Canyon Largo Unit	28	5	D	25N	06W	Rstm	1997	SB
272	Cleveland	4	21	N	27N	09W	Rstm	1997	FK
272	Fannin	1	7	B	29N	10W	Rstm	1997	A
272	Fifield	1	21	D	30N	11W	Rstm	1997	A
272	Fuller	1	22	C	30N	11W	Rstm	1997	A
272	Hancock	1	30	L	28N	09W	Rstm	1997	A
272	Huerfanito Unit	15	2	A	26N	9W	Rstm	1997	B
272	Huerfanito Unit	62	11	D	26N	09W	Rstm	1997	B
272	Kessler	1	24	A	30N	11W	Rstm	1996	A
272	Kessler	2	25	P	30N	11W	Rstm	1997	A
272	Lackey Hubbell	1	29	D	28N	10W	Rstm	1997	FK
272	Lodewick	4	19	A	27N	09W	Rstm	1997	FK

Wells Receiving Tubingless Completion Orders
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272	Luthy	2	1	K	26N	08W	Rstm	1996	SB
272	Mangum	2	28	K	29N	11W	Rstm	1997	FK
272	Morris	2	10	J	27N	10W	Rstm	1997	FK
272	Payne A	1	13	M	26N	09W	Rstm	1997	B
272	Ross	1	23	G	30N	11W	Rstm	1997	A
272	Sanchez A Com	1	16	H	28N	09W	Rstm	1997	A
272	Thompson A	1	24	P	26N	09W	Rstm	1997	B
272	White Kutz	2	21	E	28N	10W	Rstm	1997	FK
273	Albright	1	15	M	29N	10W	Rstm	1997	A
273	Ballard	9	15	O	26N	09W	Rstm	1997	B
273	Congress	3	35	M	29N	11W	Rstm	1997	FK
273	Cornell	6	11	C	29N	12W	Rstm	1997	FK
273	McManus	5	4	O	25N	08W	Rstm	1997	B
273	Newsom A	2	4	N	26N	08W	Rstm	1997	SB
273	Walker SRC	1	3	G	29N	12W	Rstm	1997	FK
273	Zachry	3	35	P	29N	10W	Rstm	1997	A
273	Zachry	7	34	M	29N	10W	Rstm	1997	A
276	Abrams	1	5	J	30N	11W	Rstm	1998	A
276	Abrams	2	5	H	30N	11W	Rstm	1998	A
276	Ballard	1	10	M	26N	09W	Rstm	1998	B
276	Ballard	3	14	H	26N	09W	Rstm	1998	B
276	Ballard	4	14	M	26N	09W	Rstm	1998	B
276	Cain	5	14	D	28N	10W	Rstm	1998	A
276	Canyon Largo Unit	54	24	P	25N	07W	Rstm	1998	B
276	Cleveland	3	21	C	27N	09W	Rstm	1998	FK
276	Dallabetta	1	20	N	29N	11W	Rstm	1998	FK
276	Day M	4	30	M	27N	10W	Rstm	1998	WK
276	Douthit Federal	5	26	K	27N	11W	Rstm	1998	WK
276	Fifield	2	5	I	29N	11W	Rstm	1998	A
276	Hanks	3	12	M	27N	10W	Rstm	1998	FK

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276	Hanks	4	7	P	27N	09W	Rstm	1998	FK
276	Huerfanito Unit	13	1	N	26N	09W	Rstm	1998	B
276	Huerfanito Unit	14	1	O	26N	09W	Rstm	1998	B
276	Huerfanito Unit	16	2	D	26N	09W	Rstm	1998	B
276	Huerfanito Unit	21	3	O	26N	09W	Rstm	1998	B
276	Huerfanito Unit	27	34	M	27N	09W	Rstm	1998	B
276	Huerfanito Unit	30	35	P	27N	09W	Rstm	1998	B
276	Huerfanito Unit	36	35	E	27N	09W	Rstm	1998	B
276	Huerfanito Unit	67	12	O	26N	09W	Rstm	1998	B
276	Huerfano Unit	15	32	A	27N	10W	Rstm	1998	WK
276	Huerfano Unit	21	9	B	26N	10W	Rstm	1998	WK
276	Huerfano Unit	27	23	A	26N	09W	Rstm	1998	B
276	Huerfano Unit	28	9	P	26N	09W	Rstm	1998	B
276	Hughes	1	23	B	28N	11W	Rstm	1998	FK
276	Kattler	1	2	C	29N	12W	Rstm	1998	FK
276	Mangum SRC	1	29	I	29N	11W	Rstm	1998	FK
276	McGrath SRC	1	2	J	29N	12W	Rstm	1998	FK
276	Murphy C	1	27	A	30N	11W	Rstm	1998	A
276	Nye SRC	4	13	J	30N	11W	Rstm	1998	A
276	Olmer	8	25	M	28N	10W	Rstm	1998	FK
276	Schultz	3	16	N	27N	08W	Rstm	1998	SB
276	Schultz Com	4	16	J	27N	08W	Rstm	1998	SB
276	Sullivan A	1	23	O	28N	10W	Rstm	1998	FK
276	Sutton	1	18	D	30N	11W	Rstm	1998	A
276	Turner Hughes	5	3	E	27N	09W	Rstm	1998	SB
276	White Kutz	1	22	E	28N	10W	Rstm	1998	FK
276	Zachry	4	34	P	29N	10W	Rstm	1998	A
276	Zachry	6	10	P	28N	10W	Rstm	1998	A
283	Atlantic C	8	31	A	31N	10W	Rstm	1998	BL
283	Aztec	6	14	P	28N	11W	Rstm	1998	FK

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283	Florance	8	20	C	30N	09W	Rstm	1998	BL
283	Huerfanito Unit	24	04	K	26N	09W	Rstm	1998	B
283	Huerfanito Unit	25	04	P	26N	09W	Rstm	1998	B
283	Huerfanito Unit	49	35	G	27N	09W	Rstm	1998	B
283	Huerfano Unit	47	09	A	26N	09W	Rstm	1998	B
283	Mangum	3	28	J	29N	11W	Rstm	1998	FK
283	McConnell	2	13	O	26N	09W	Rstm	1998	B
283	McConnell	3	13	G	26N	09W	Rstm	1998	B
283	Pierce	9	07	F	30N	09W	Rstm	1998	BL
283	Pipkin	4	18	A	27N	10W	Rstm	1998	FK
283	Summit	7	34	K	29N	11W	Rstm	1998	FK
283	Summit B	5	33	F	29N	11W	Rstm	1998	FK
283	Sunray A	5	10	O	30N	10W	Rstm	1998	BL
283	Sunray B	7	15	K	30N	10W	Rstm	1998	BL
283	Whitley	1	17	E	27N	09W	Rstm	1998	SB

Field Legend

A	Aztec Field
B	Ballard Field
BL	Blanco Field
FK	Fulcher Kutz Field
SB	South Blanco Field
WK	West Kutz Field

EXHIBIT 4

Advantages of 3-1/2" vs. 2-7/8" Tubingless Completions

- Larger wellbore offers more flexibility both now and long-term
- Improved success during fishing operations
- Easier to clean-up wellbore after stimulation
- More completion and workover tools available
- Able to run larger tubing if fluid production occurs
- Reduced stimulation costs due to less friction pressure
- More options if artificial lift becomes necessary to prevent waste

Why Tubingless?

- More economical - \$29,000 savings over tubed completions
- Lessens risk during future workovers
- Increased flowrates during production due to larger diameter tubulars

Why Should Rule be Revised?

- Eliminates tubingless completion application for wells with 3-1/2" casing or smaller
- Reduces amount of paperwork to be completed and reviewed by both operators and regulatory agencies on qualified wells
- Streamlines and improves process by eliminating 30 day approval period on qualified wells
- Moves responsibility from Directors and Examiners to District Supervisors on tubingless completion applications in wells with casing in excess of 3-1/2"

Economic Summary

Economic Indicator	Without Tubing	With Tubing	Difference
Project Cost	\$153,515	\$182,325	\$28,810
Rate of Return	22.15%	16.93%	5.22%
Payout	5 years	7 years	2 years
P/I	0.40 \$/\$	0.23 \$/\$	0.17 \$/\$
NPV	\$62,310	\$42,490	\$19,820

EXHIBIT 5





NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

March 3, 1998

Burlington Resources
P. O. Box 4289
Farmington, NM 87499-4289
Attention: Peggy Bradfield

Administrative Order TX-281

Dear Ms. Bradfield:

Reference is made to your request for an exception to the tubing setting requirements as contained in Division Rule 107 (j) for the below-named wells.

Pursuant to the authority granted me by Rule 107(j) (4), you are hereby authorized to make tubingless completions in the following wells:

Well Name, Number and Location:

Brink Well No. 2R, New Drill, Unit F, Section 19, Township 28 North, Range 10 West, NMPM, San Juan County, New Mexico.

Cleveland Well No. 1R, New Drill, Unit A, Section 17, Township 27 North, Range 9 West, NMPM, San Juan County, New Mexico.

Cornell Well No. 3R, New Drill, Unit I, Section 1, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico.

Cornell Well No. 5R, New Drill, Unit A, Section 1, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico.

Fuller Well No. 2R, New Drill, Unit A, Section 22, Township 30 North, Range 11 West, NMPM, San Juan County, New Mexico.

Galt Well No. 1R, New Drill, Unit P, Section 1, Township 27 North, Range 10 West, NMPM, San Juan County, New Mexico.

Hanks Well No. 5R, New Drill, Unit M, Section 7, Township 27 North, Range 9 West, NMPM, San Juan County, New Mexico.

Hubbell Well No. 20, API No. 30-045-29441, Unit P, Section 29, Township 28 North, Range 10 West, NMPM, San Juan County, New Mexico.

Huerfanito Unit Well No. 93R, New Drill, Unit C, Section 25, Township 27 North, Range 9 West, NMPM, San Juan County, New Mexico.

BURLINGTON RESOURCES

SAN JUAN DIVISION

February 24, 1998

Mr. Roy Johnson
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Dear Mr. Johnson:

This is an application for variance to Rule 107 Section J. We intend to drill and complete the following wells in the Pictured Cliffs formation, run 3 1/2" casing and cement, and run no tubing.

Brink #2R	NW Section 19, T-28-N, R-10-W	30-045-not assigned
Cleveland #1R	SE Section 17, T-27-N, R-9-W	30-045-not assigned
Cornell #3R	SE Section 1, T-29-N, R-12-W	30-045-not assigned
Cornell #5R	NE Section 1, T-29-N, R-12-W	30-045-not assigned
Fuller #2R	NE Section 22, T-30-N, R-11-W	30-045-not assigned
Galt #1R	SE Section 1, T-27-N, R-10-W	30-045-not assigned
Hanks #5R	SW Section 7, T-27-N, R-9-W	30-045-not assigned
Hubbell #20	SE Section 29, T-28-N, R-10-W	30-045-29441
Huerfanito Unit #93R	NW Section 25, T-27-N, R-9-W	30-045-not assigned
Huerfano Unit #24R	SW Section 29, T-27-N, R-10-W	30-045-not assigned
Lodewick #1R	NW Section 18, T-27-N, R-9-W	30-045-not assigned
Lodewick #3R	NW Section 19, T-27-N, R-9-W	30-045-not assigned
Murphy B #1R	SW Section 25, T-30-N, R-11-W	30-045-not assigned
Newman A #7R	NE Section 19, T-28-N, R-10-W	30-045-not assigned
Quitau #8R	NE Section 11, T-25-N, R-8-W	30-045-not assigned
Schwerdtfeger #1R	SW Section 8, T-27-N, R-11-W	30-045-not assigned
Zachry #1R	SW Section 12, T-28-N, R-10-W	30-045-not assigned

These tubingless completions are desirable as they allow us to economically produce reserves from the tight, low pressure Pictured Cliffs formation. Significant cost savings are realized using this method. The 3 1/2" casing will allow the wells to produce at a higher rate than can be realized through smaller tubulars, and also carry less risk during any subsequent workover operations.

All the listed wells meet the following criteria:

- are in proven fields
- are less than 5000' total depth
- do not have corrosive or pressure problems
- are not dual completions
- will not produce any liquids or condensate (dry gas only)

Attached is a C-102 location plat for each well with the exception of the Huerfanito Unit #93R and the Schwerdtfeger #1R which are in the process of being staked, and a wellbore schematic for each well. Please let me know if you require any additional information for these wells.

Sincerely,



Peggy Bradfield
Regulatory/Compliance Administrator
xc: NMOCD Aztec District Office

EXHIBIT 6



Morris A #7

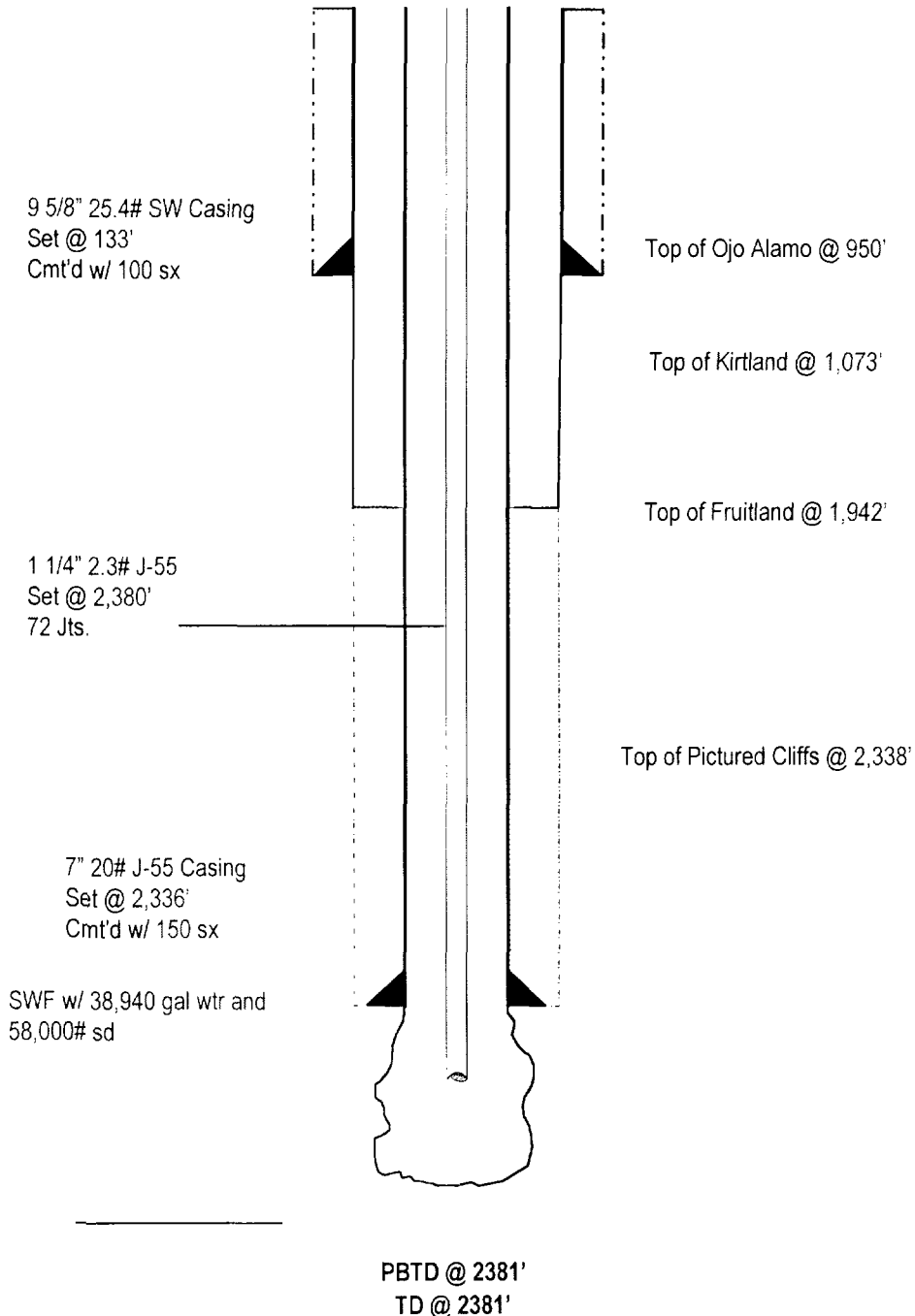
Section 23 D, T-30 -N R-11 -W
San Juan, New Mexico

Aztec Pictured Cliffs Field Wellbore Schematic

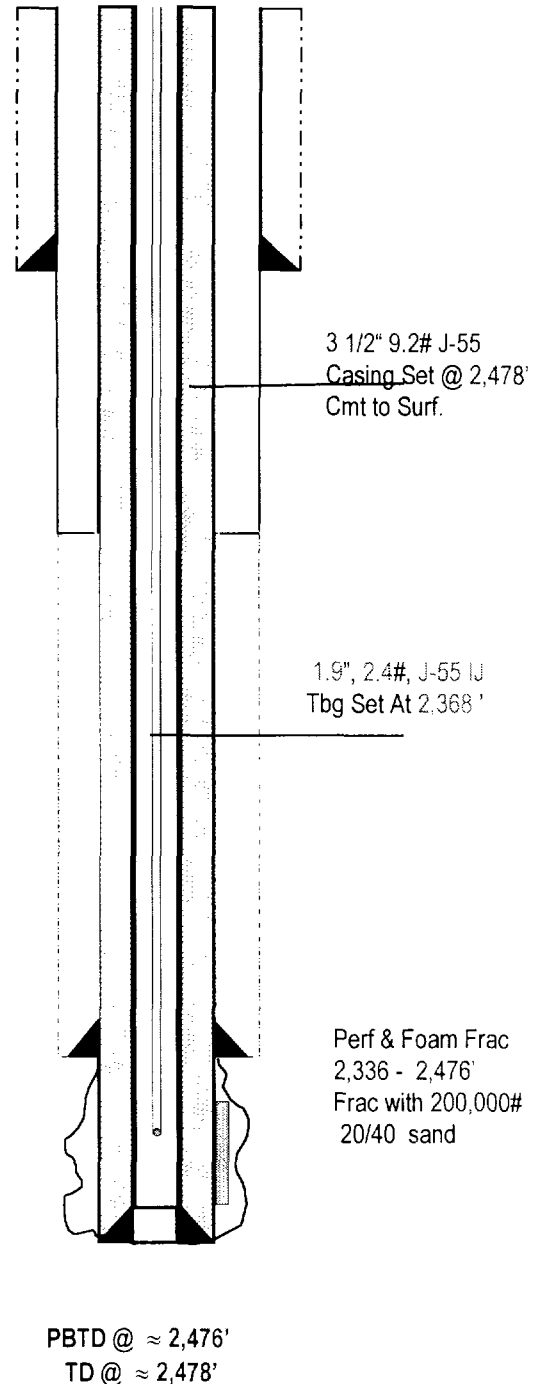
Cmt Top
circ to surface @ Surf (circ)

Elevation 5915' GL 5925' KB

CURRENT



PROPOSED



Huerfanito Unit # 20

Section 3 E, T-26 -N R-09 -W
San Juan, New Mexico

Ballard Pictured Cliffs Field Wellbore Schematic

Cmt Top
circ to surface @ Surf (circ)

CURRENT

Elevation 6412' GL 6419' KB

8 5/8" 24# J-55 Casing
Set @ 100'
Cmt'd w/ 80 sx

1" 1.7# Line Pipe
Set @ 2,217'
105 Jts.

5 1/2" 14# J-55 Casing
Set @ 2,155'
Cmt'd w/ 100 sx

SOF w/7,800 gal oil and
10,000# sd

Top of Ojo Alamo @ 1,203'

Top of Kirtland @ 1,430'

Top of Fruitland @ 1,942'

Top of Pictured Cliffs @ 2,157'

PBTD @ 2225'
TD @ 2225'

PROPOSED

3 1/2" 9.2# J-55
Casing Set @ 2,297'
Cmt to Surf.

Perf & Foam Frac
2,155 - 2,295'
Frac with 90,000#
20/40 sand

PBTD @ ≈ 2,295'
TD @ ≈ 2,297'