

Rosa Unit # 640H
Basin Mancos
 (page 1)

Spud: 7/24/15
 Completed: 12/13/15

SHL: 963' FNL & 512' FWL
 NE/4 NW/4 Section 19(C), T31N, R5W

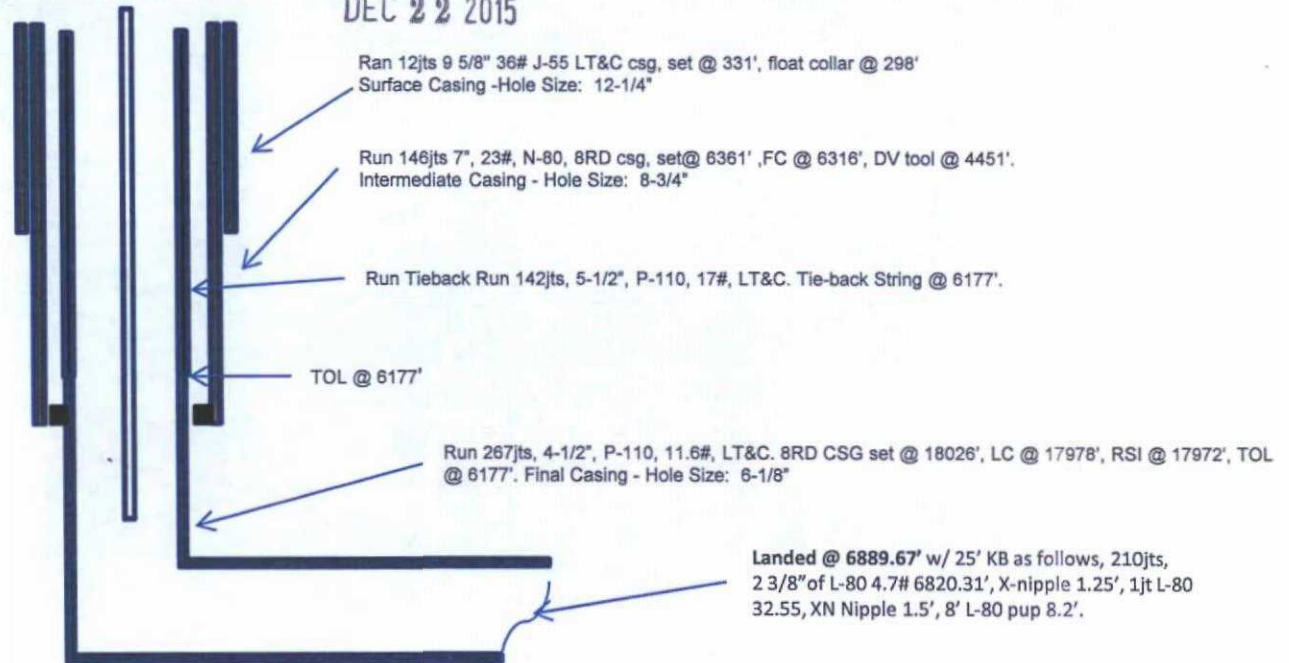
BHL: 72' FSL & 557' FEL
 SE/4 SE/4 Section 15 (P), T31N, R6W

Rio Arriba, NM
 Elevation: 6305'
 API: 30-039-31313

OIL CONS. DIV DIST. 3

DEC 22 2015

Tops	MD	TVD
Ojo Alamo	2449	2421
Kirtland	2564	2533
Fruitland	3092	3052
Picture Cliffs	3213	3171
Lewis	3599	3549
Chacra	4647	4577
Cliff House	5455	5369
Menefee	5514	5427
Point Lookout	5733	5642
Mancos	6230	6132



TD: 18040' MD
 TVD: 6885'
 PBTD: 17978' MD

CONFIDENTIAL

HOLE SIZE	CASING	CEMENT	VOLUME	CMT TOP
12-1/4"	9-5/8"	185sx	216cu.ft.	Surface
8-3/4"	7"	1200sx	2174cu.ft.	surface
6-1/8"	4-1/2"	1515sx	2060cu.ft.	TOL @ 6177'

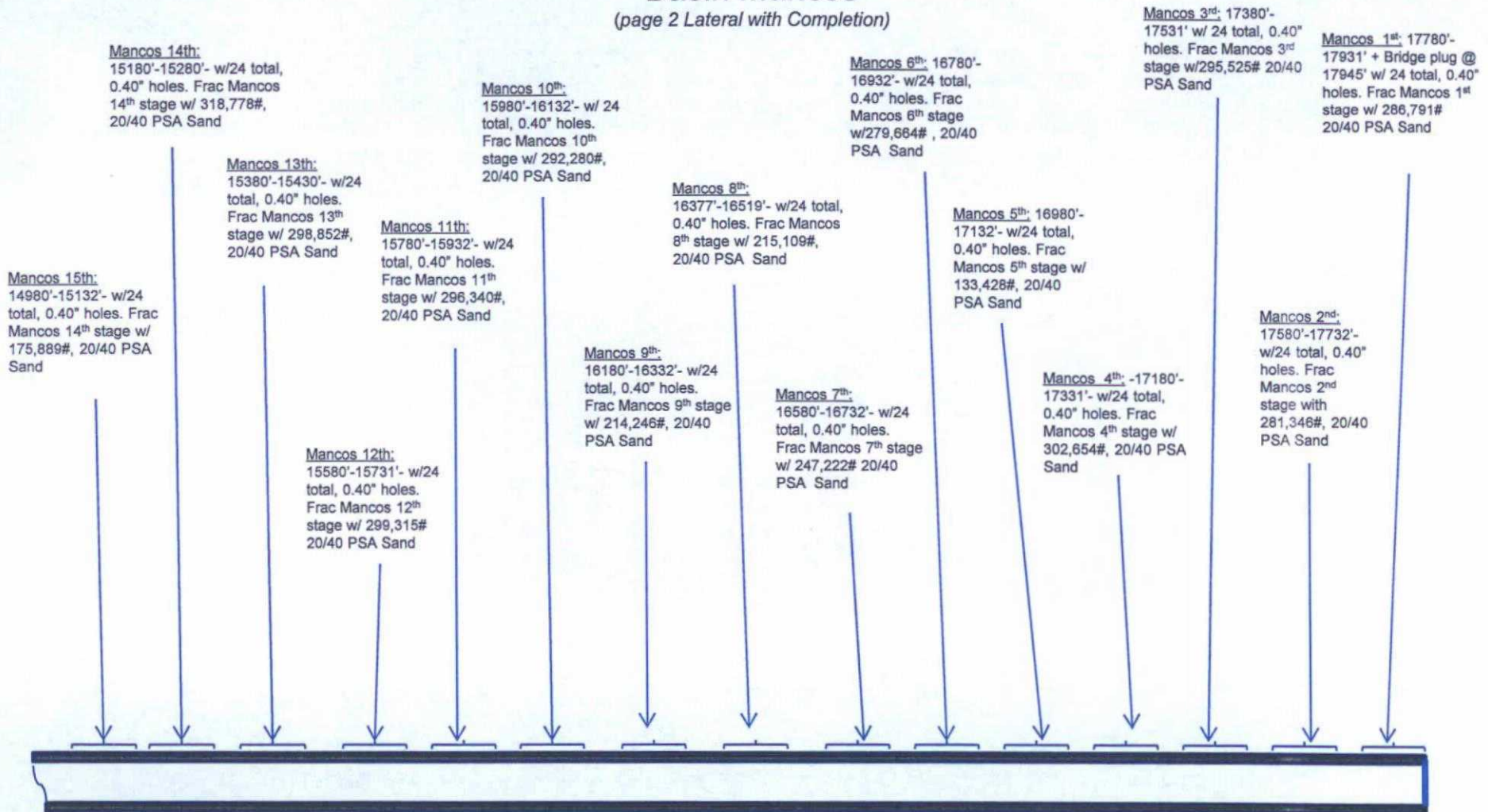
mj 12/17/15

AV

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(page 2 Lateral with Completion)

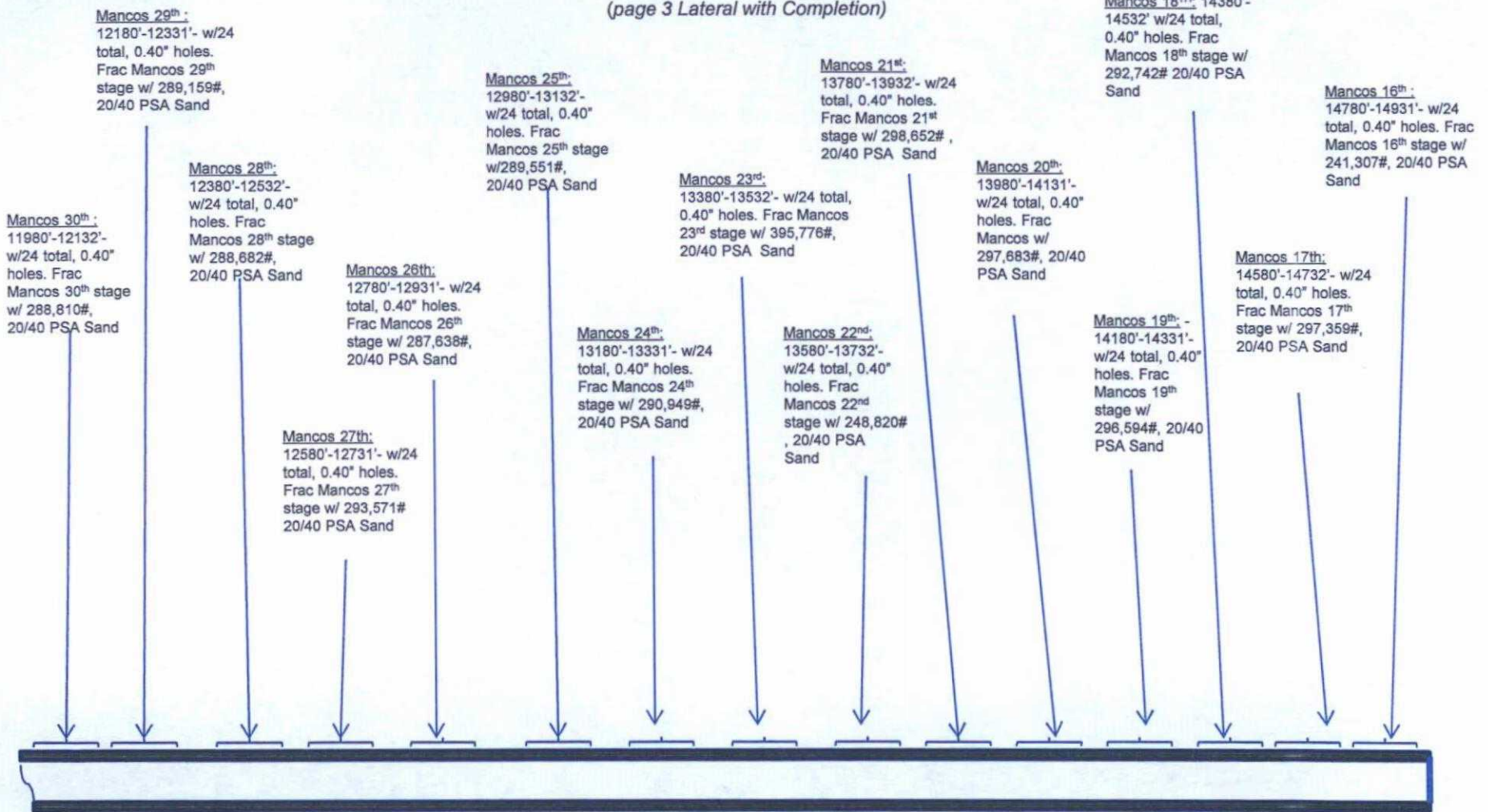


See page 1 for upper portion of hole

Rosa Unit # 640H

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(page 3 Lateral with Completion)

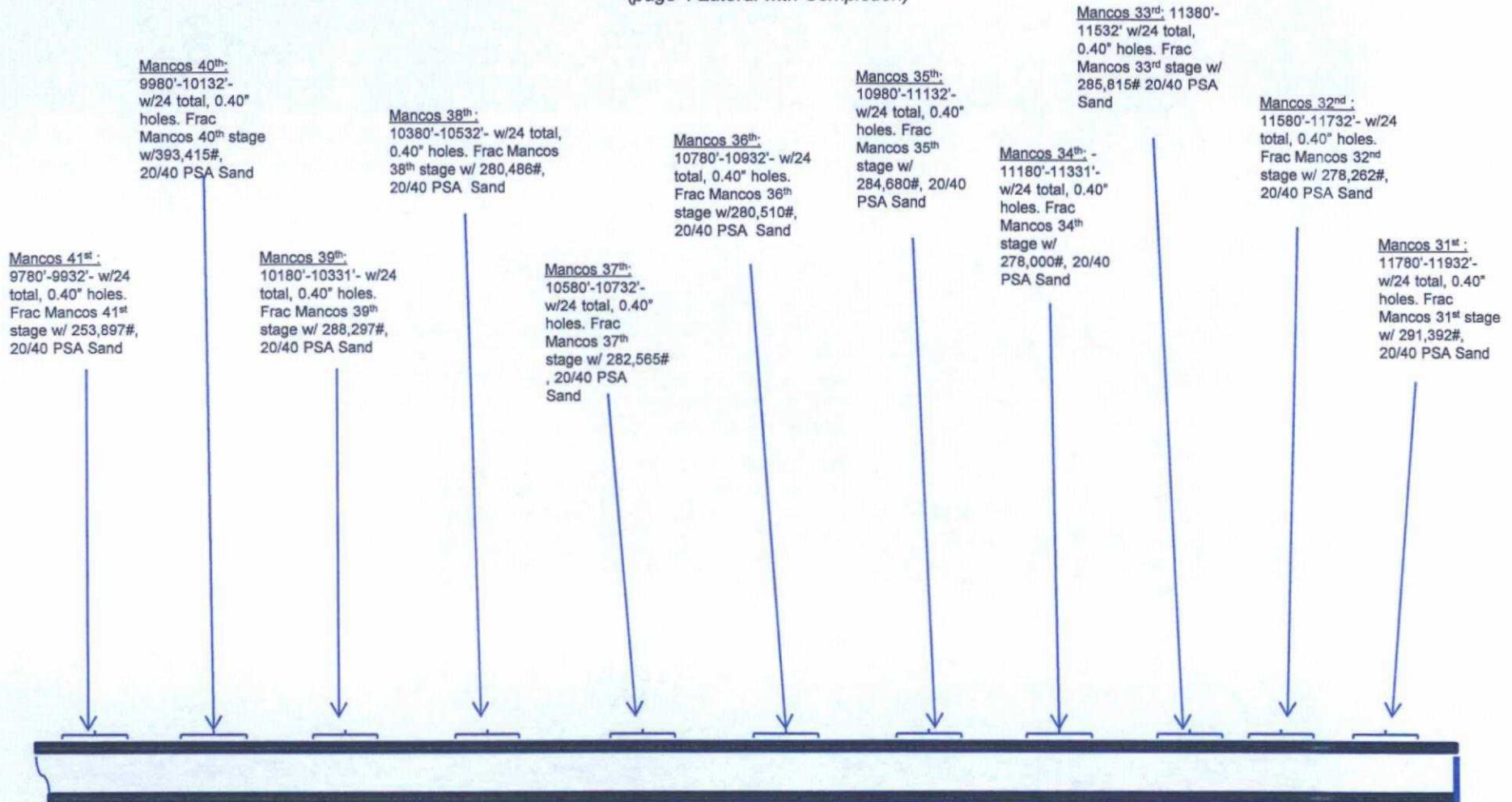


See page 1 for upper portion of hole

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(page 4 Lateral with Completion)



See page 1 for upper portion of hole

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(page 5 Lateral with Completion)

Mancos 53rd:
7380'-7532'- w/24
total, 0.40" holes.
Frac Mancos 53rd
stage w/279,308#,
20/40 PSA Sand

Mancos 51st:
7780'-7932'- w/24
total, 0.40" holes.
Frac Mancos 51st
stage w/296,200#,
20/40 PSA Sand

Mancos 49th:
8180'-8332'- w/24 total,
0.40" holes. Frac Mancos
49th stage w/ 275,995#,
20/40 PSA Sand

Mancos 47th: 8580'-
8732'- w/24 total,
0.40" holes. Frac
Mancos 47th stage
w/277,961#, 20/40
PSA Sand

Mancos 46th:
8780'-8932'-
w/24 total, 0.40"
holes. Frac
Mancos 46th
stage w/
284,356#, 20/40
PSA Sand

Mancos 44th: 9180'-
9332' w/24 total, 0.40"
holes. Frac Mancos
44th stage w/
274,445# 20/40 PSA
Sand

Mancos 43rd:
9380'-9532'- w/24
total, 0.40" holes.
Frac Mancos 43rd
stage w/ 284,733#,
20/40 PSA Sand

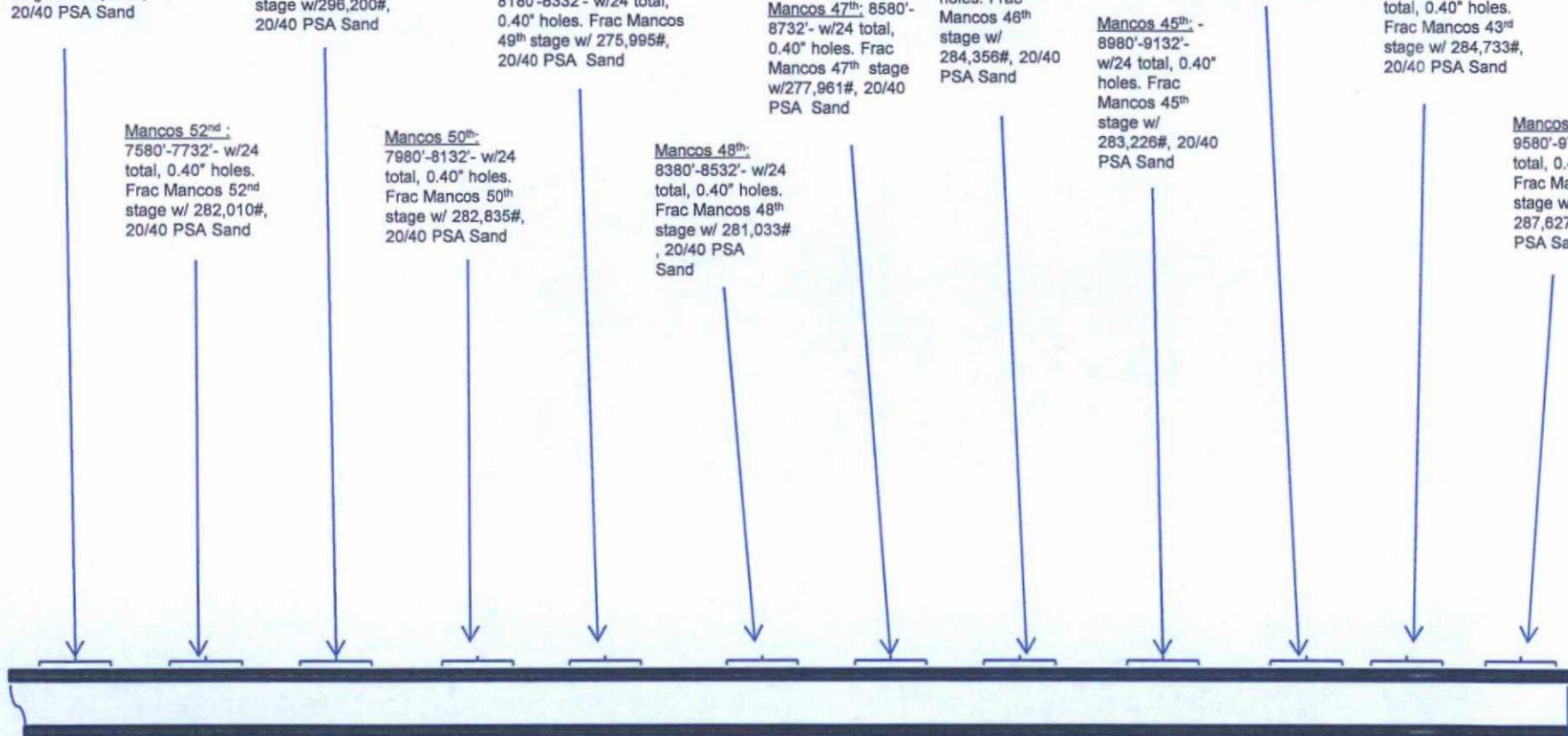
Mancos 45th: -
8980'-9132'-
w/24 total, 0.40"
holes. Frac
Mancos 45th
stage w/
283,226#, 20/40
PSA Sand

Mancos 52nd:
7580'-7732'- w/24
total, 0.40" holes.
Frac Mancos 52nd
stage w/ 282,010#,
20/40 PSA Sand

Mancos 50th:
7980'-8132'- w/24
total, 0.40" holes.
Frac Mancos 50th
stage w/ 282,835#,
20/40 PSA Sand

Mancos 48th:
8380'-8532'- w/24
total, 0.40" holes.
Frac Mancos 48th
stage w/ 281,033#
, 20/40 PSA
Sand

Mancos 42nd:
9580'-9732'- w/24
total, 0.40" holes.
Frac Mancos 42nd
stage w/
287,627#, 20/40
PSA Sand



See page 1 for upper portion of hole