

1/2/89 OK PACHTS
DICKI
DAVID
RAY
 RETURN TO PACHTS

MONITOR WELL PRE-SPUD PROPOSAL

- 1) WELL NAME/NUMBER: BW-5

- 2) PROPOSED LOCATION: (a) General (on or off-site) On-Site
 (attach map) Site Area WSTF Boundary (northwest of 400)
 (b) Sect 35 Twnshp 20S Rng 3E NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$

- 3) WELL PARAMETERS:
 - (a) Est. total depth 230 (ft) (b) Est. ground elevation 4810 ft
 - (c) Anticipated stratigraphy:
 - Alluvium (Santa Fe Group) from 0 ' to 180 ' (depth)
 - Andesite (Orejon) from 180 ' to TD ' (depth)
 - _____ from _____ ' to _____ ' (depth)
 - (d) Anticipated water bearing horizon(s):
 - Andesite (Orejon) at 205 ' (depth)
 - _____ at _____ ' (depth)
 - (e) Anticipated static water level 205 ' (depth)

- 4) WELL PURPOSE/JUSTIFICATION (attach maps and table if needed):
Monitor well to determine the northern limit of groundwater contaminated
along the facility boundary.

- 5) PROPOSED DRILLING PARAMETERS:
 - (a) Drilling method(s): (air/foam/mud rotary/auger/etc.)
 - Mud Rotary from 0 ' to 80 ' (depth)
 - Air-Foam Rotary from 80 ' to TD ' (depth)
 - _____ from _____ ' to _____ ' (depth)

Air-foam method: "Quik-Foam" surfactant/water mixture used in conjunction with filtered compress air.
 Mud-rotary method: Bentonite mud/water mixture.

Pre-Spud Meeting
 - water table completion unless low yield and/or fracture flow
 - max depth = 300'
 - don't core unless saturated bedrock is a unique lithology
 - collect data to prove alluvium is unsaturated or saturated

- (b) Lithology sampling - collect sample every:
5' intervals Method Grab from 0' to TD (depth)
 Core type 2" Christiansen from _____' to _____' (depth)
2" Christiansen from _____' to _____' (depth)
2" Christiansen from _____' to _____' (depth)
- (c) Drilling rig type: Franks rotary rig for surface casing,
BE rotary rig for air-foam.
- (d) Anticipated drilling additive(s): none
 Water source NASA Quality checked by GC (method)
- (e) Decontamination/Quality Assurance:
 Clean equipment by steam (method) prior to every well
 Clean tools by steam (method) prior to every well
 Other QA procedures Air filtering/monitoring, periodic steam
cleaning of tools/sampling equipment when necessary
- (f) Drilling company: Larjon Drilling
 address: P.O. Box 925, Las Cruces, New Mexico 88047
 Company representative: Larry Johnson Phone 505-526-8672

6) PROPOSED BOREHOLE GEOPHYSICS

- (a) Survey type: GR - Neutron from 0' to TD (depth)
 Survey type: GR-Den-Res-Cal from 0' to TD (depth)
 Survey type: 16"-40" E-Log from W.L.' to TD (depth)
- (b) Geophysical company: Southwest Survey
 address: 4200 Skyline Drive, Farmington, NM 87401
 Company representative: Don Pearson Phone 505-325-8531

7) PROPOSED WELL COMPLETION DESIGN/MATERIALS

(a) Casing:	Material	Diameter	From	To	Comments
Temporary					
Surface	<u>steel</u>	<u>8"</u>	<u>0</u>	<u>80'</u>	
Blank (riser)	<u>stainless +</u>	<u>4"</u>	<u>0</u>	<u>+3'</u>	
Screen (20')	<u>stainless ++</u>	<u>4"</u>	<u>200'</u>	<u>220'</u>	<u>0.02"</u>
Completion Pipe	<u>stainless +</u>	<u>4"</u>	<u>185'</u>	<u>200'</u>	
	<u>PVC-Sch 40</u>	<u>4"</u>	<u>0</u>	<u>185'</u>	
Silt trap	<u>stainless +</u>	<u>4"</u>	<u>to 5' below screen</u>		
Protective Cap	<u>stainless +</u>	<u>4"</u>	<u>on top with lock</u>		

NA Data not available at this time
 + Type 304, Schedule 5 stainless steel
 ++ Regular strength screen

- | | | |
|---------------------|-----------------------|------------------------------------|
| (b) Filter pack: | <u>Primary</u> | <u>Secondary</u> |
| Material type | <u>Prewashed sand</u> | <u>Prewashed sand</u> |
| Grain Size | <u>8/20 grade</u> | <u>16/40 grade</u> |
| Est. length (thick) | <u>30 feet</u> | <u>2-3' above & below 8/20</u> |
- (c) Seal - Upper: Bentonite Thickness 5 feet above upper 16/40 sand
Lower: Bentonite Thickness 5 feet below lower 16/40 sand
- (d) Grout - Material 5% Bentonite cement from above completion zone to the surface

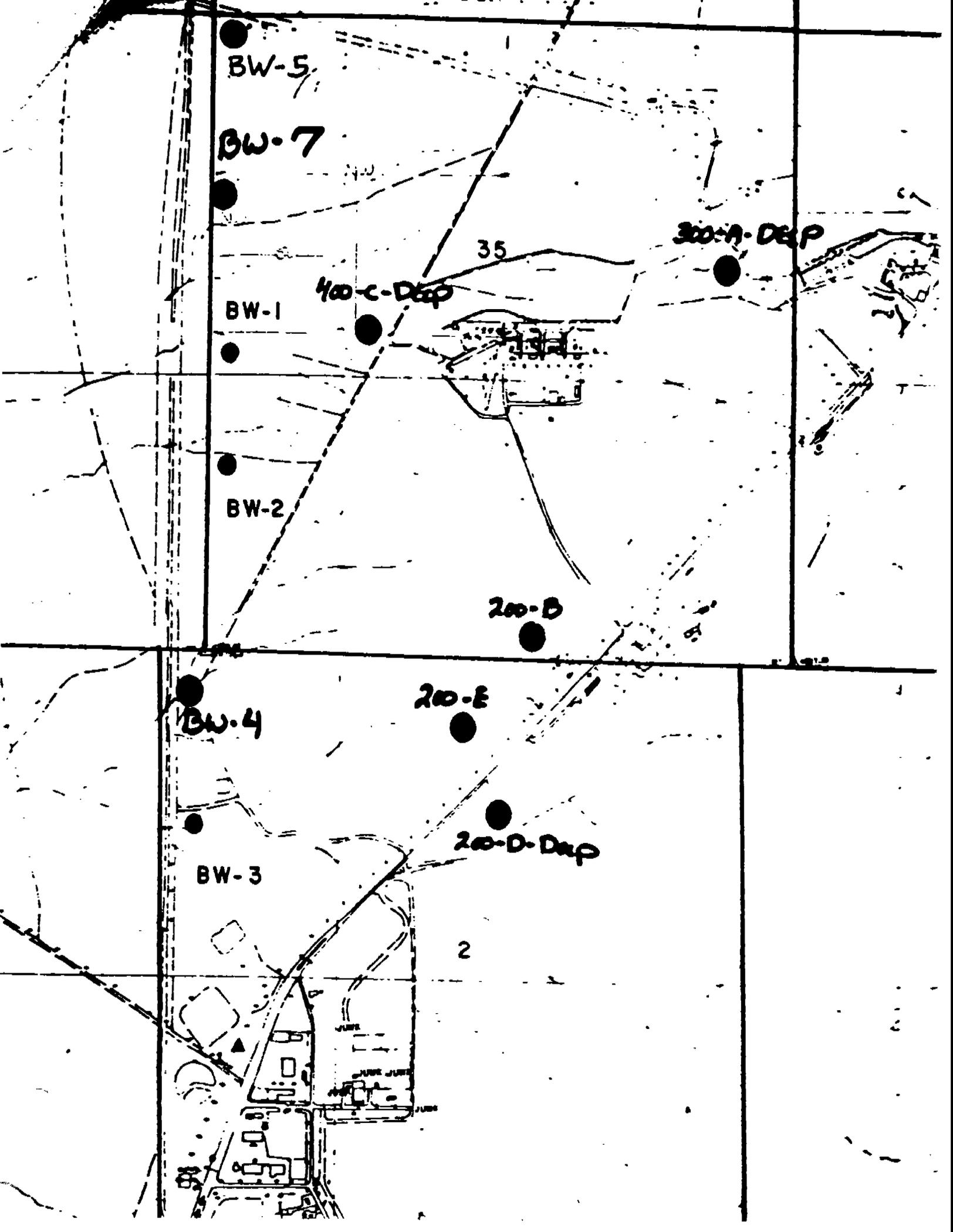
8) PROPOSED WELL DEVELOPMENT

- (a) Development method Surge and pump
Equipment Pulling unit with bailer & submersible pump
- (b) Anticipated flow rate 5-15 gpm Duration until adequately devel.
- (c) Company providing service Larjon

9) WELL AUTHORIZATION

(a) Proposed by Geoscience Consultants, Ltd.

(b) Authorized Robert Mitchell NASA Robert Mitchell 12 Jan 89
(name) (representing) (signature)



BW-5

BW-7

BW-1

BW-2

BW-4

BW-3

400-C-Deep

35

200-B

200-E

200-D-Deep

300-A-Deep

2