



1 proposed site. I assisted in the preparation of the Application for Site Certification for this  
2 Project.

3  
4 Q Would you please identify what has been marked for identification as Exhibit 32-1 (JB-1).

5  
6 A Exhibit 32-1 (JB-1) is a résumé of my educational background and employment experience.

7  
8 Q What exhibits that are part of the Application are you sponsoring?

9  
10 A I am sponsoring Exhibit 6, "Geotechnical Data Report" to the Application.

11  
12 Q Are you familiar with this Exhibit?

13  
14 A Yes

15  
16 Q Did you prepare this exhibit, or, if not, did you direct and/or supervise its preparation?

17  
18 A I prepared this exhibit.

19  
20 Q Is the information in this exhibit within your area of authority and /or expertise?

21  
22 A Yes

1 Q Are the contents of this exhibit of the Application either based upon your own  
2 knowledge, or upon evidence, such as studies and reports as a reasonably prudent persons  
3 in your field and expertise are accustomed to rely on in the conduct of their affairs?  
4

5 A Yes.  
6

7 Q To the best of your knowledge, are the contents of these sections and exhibits of the  
8 Application true?  
9

10 A Yes.  
11

12 Q Do you incorporate the facts and content of these sections and exhibits as part of your  
13 testimony?  
14

15 A Yes.  
16

17 Q Are you able to answer questions under cross-examination regarding these sections and  
18 exhibits?  
19

20 A Yes  
21

22 Q Do you sponsor the admission into evidence of these sections and exhibits of the  
23 Application?  
24

1 A Yes

2  
3 Q Are there any modifications or corrections to be made to those portions of the Application that  
4 you are sponsoring?

5  
6 A No

7  
8 Q. Would you please summarize and briefly describe geotechnical features of the site.

9  
10 A The predominant subsurface conditions for the project consist of dry to moist, weak to  
11 moderately cemented gravels and cobbles overlying basalt bedrock. At other locations,  
12 cemented silt and sandstone was encountered. At one test pit location excavated in a  
13 drainage swale, the subsurface consisted of fine-grained alluvium that exhibited only  
14 slight cementation. At all locations, the upper 0.1 to 0.3 meter (4 to 12 inches) was dry to  
15 moist silt, vegetated by grasses and brush.

16  
17 Cemented Gravels and Cobbles are the predominant subsurface material across the site,  
18 consisting of rounded to well-rounded epiclastic gravels and cobbles, with varying  
19 percentages of sand and silt. The material was typically moderately cemented within the  
20 upper 2 to 5 feet, with local variations. Cementation is silicic, not carbonateous. The  
21 majority of the material ranged in size from 0.08 to 0.25 meter in diameter (3 to 10  
22 inches), although some boulders were encountered, up to 1.2 meters (4 feet) in diameter.  
23 Stability of excavation walls in this material ranged from poor to good, depending on the  
24 size of cobbles and degree of cementation.

1 Cemented Silt and Sandstone. A highly cemented silt was encountered from 0.3 to 0.9 meter  
2 (1 to 3 feet) below ground surface, in one test pit. This test pit was located in a small,  
3 relatively flat area that showed signs of seasonal ponding in the vicinity. It is believed  
4 that this material is a fine-grained alluvium and loess (wind-blown silt and sand) that has  
5 become cemented. The gravels and cobbles described previously were encountered below  
6 this material, at an approximate depth of 2.7 meters (9 feet). This material was extremely  
7 difficult to excavate in the cemented zone, although excavation stability was excellent.

8  
9 A weak sandstone was encountered in another test pit, for the entire depth of the  
10 excavation. This material was cemented from 0.6 to 2.1 meters (2 to 7 feet). Excavation  
11 was the easiest in this material, and excavation stability was moderate to good.

12  
13 Fine-Grained Alluvium. One test pit that was excavated in a small drainage tributary to Dry  
14 Creek encountered this material. At this location, approximately 2.4 meters (8 feet) of  
15 lean clay and silt was encountered above the cemented gravels and cobbles described  
16 previously. Excavation in this material was fairly easy, and excavation walls showed  
17 good stability.

18  
19 Groundwater was not observed in any of the test pits excavated at the project area.  
20 However, in some of the swales and small drainages, groundwater is anticipated to be  
21 present seasonally, following periods of precipitation and snowmelt. Groundwater is not  
22 anticipated on the ridges where most of the strings are located. However, localized  
23 pockets of saturated subsurface soils are anticipated to be encountered on ridges in places  
24 where surface water infiltrates the subsurface and collects above zones of cementation.

1 Cemented soils have lower porosity and permeability, and were found in the upper 1 to 7  
2 feet at the project area.

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