

PROJECT: O'BRIEN FISH PASSAGE
PROJECT NO.: 20-110-01
CLIENT: MSB
SAMPLE NO.: 23P905
LOCATION: STOCKPILE

DATE TAKEN: 5/30/2023
DATE TESTED: 6/1/2023
TESTED BY: DEM
REVIEWED BY: JAB
DESCRIPTION: K&H BORROW B

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	96
1"	25.4	81
3/4"	19.0	75
1/2"	12.7	68
3/8"	9.5	63
#4	4.75	53
#10	2.00	45
#20	0.85	33
#40	0.425	15
#60	0.25	5
#100	0.15	2
#200	0.075	1.2

% Gravel: 46.8
% Sand: 52.0
% Fines: 1.2
D60: 7.99
D30: 0.77
D10: 0.34
Cu: 23.3
Cc: 0.2
% .02 mm:
% Moisture: 3.2
Fine Modulus:

(ASTM D4318)

Liquid Limit:
Plastic Limit:
Plastic Index:

(ASTM C127)

Bulk SpG:
SSD SpG:
Apparent SpG:
% Absorption:

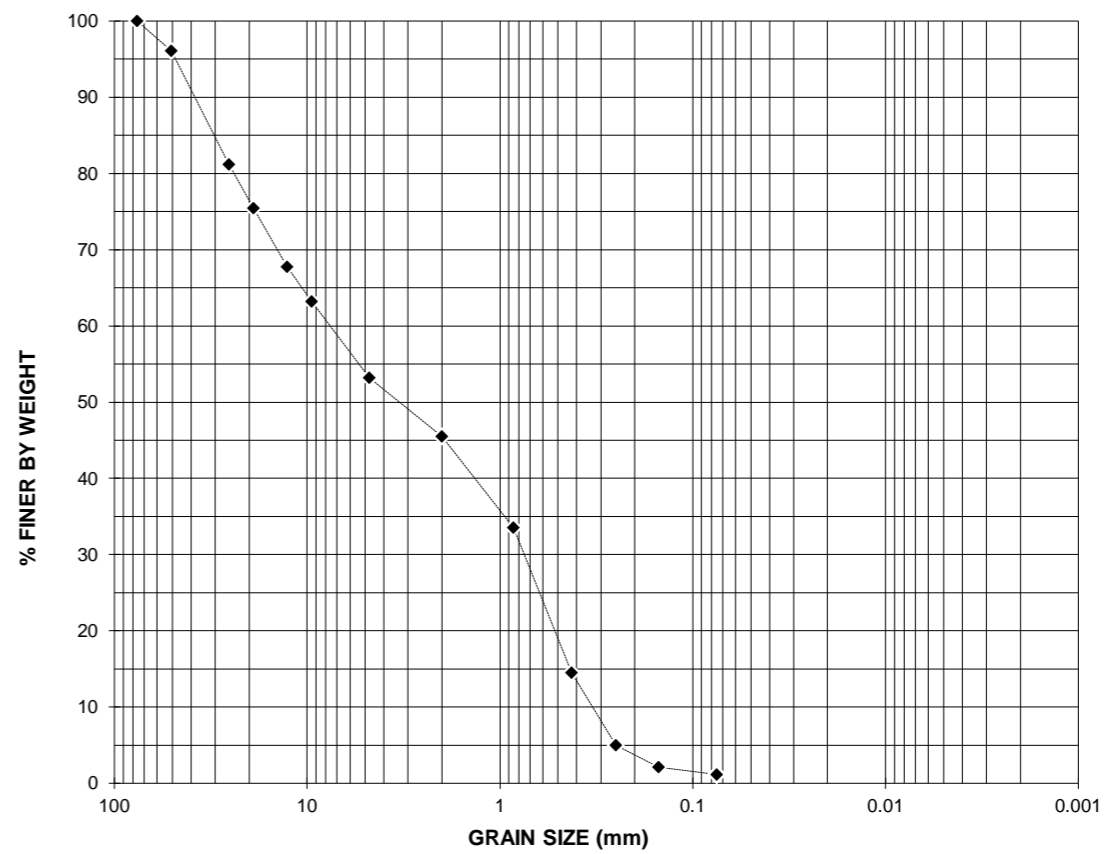
(ASTM C128)

Bulk SpG:
SSD SpG:
Apparent SpG:
% Absorption:

(ASTM D1557)

Dry Den (U): 128.0
Dry Den (C): 136.8
M% (U): 9.0%
M% (C): 7.0%
SpG (assumed): 2.77
M-D Test Method:

GRAIN SIZE DISTRIBUTION

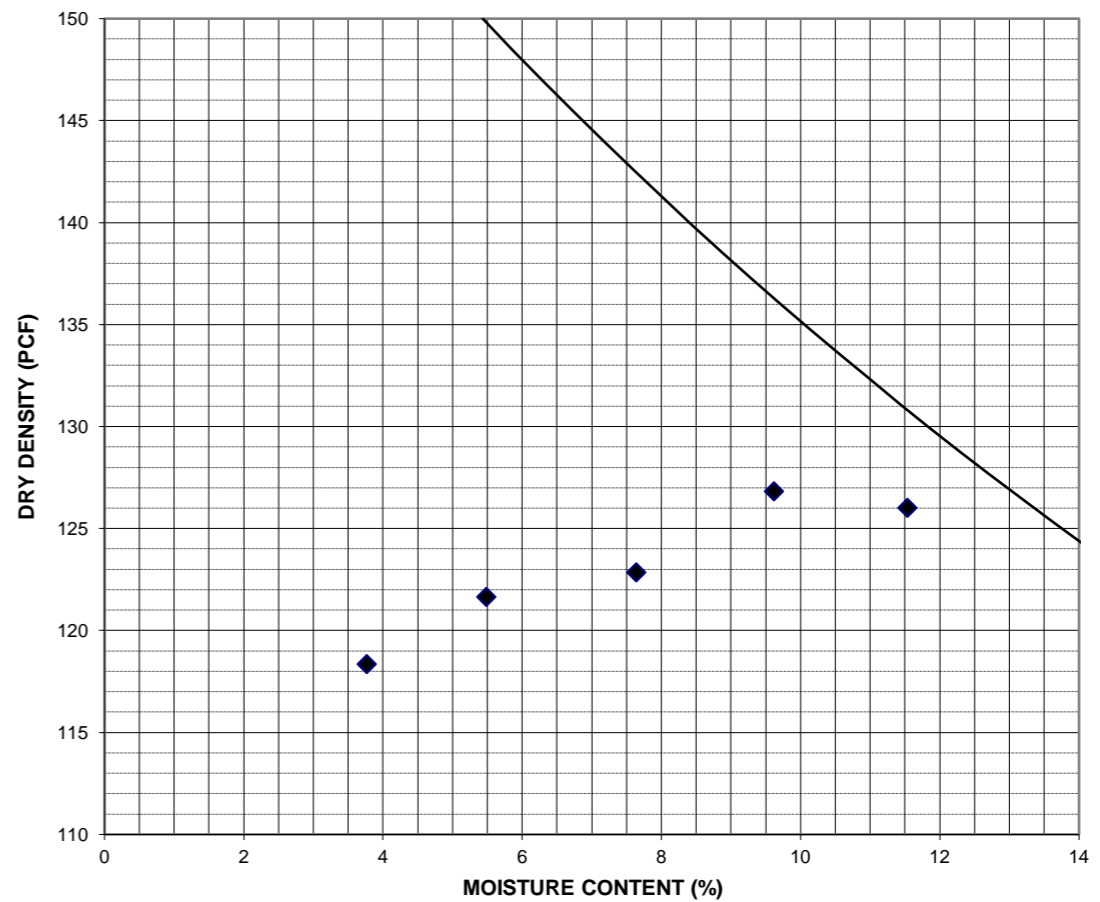


HYDROMETER TEST

(ASTM D422)

Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1459		
2750		

MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION: Poorly Graded Sand w/Gravel
USC: SP
FROST CLASS:

Remarks:

JOHN A. BUZDOR, P.E. 6/8/2023