## **COPYRIGHT NOTICE**

This geotechnical log and its associated data (the Document) is licensed by the Queensland Department of Housing and Public Works under the <u>Creative Commons Attribution 4.0 Licence</u> (CC BY 4.0). When reusing the Document, in whole or in part, please attribute the Department and author as follows: "(c) State of Queensland (Department of Housing and Public Works) 2020, licensed under the CC BY 4.0 Licence, prepared by Arup". This licence does not apply to logos or trademarks.

## **LIMITATION OF LIABILITY**

The CC BY 4.0 Licence contains a comprehensive Disclaimer of Warranties and Limitation of Liability. In addition, please note that this Document was prepared for Departmental use only. Reuse of the Document by anyone for any other purpose could result in error and/or loss. You should obtain professional advice before making decisions based on the contents of the Document.

When reproducing any part of this Document, you must also reproduce this limitation of liability notice in addition to the italicised attribution statement above.

Retrieved from the Queensland Geotechnical Database <a href="http://qgd.org.au/">http://qgd.org.au/</a>

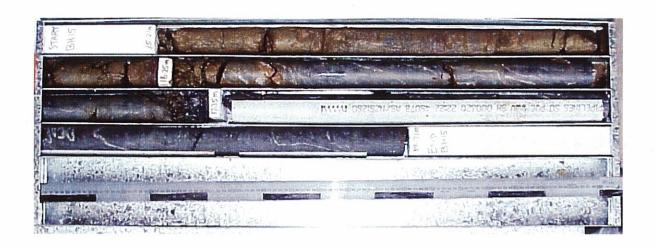
This log has been contributed to the Queensland Geotechnical Database with the permission of Arup.

|                              | ARI                            |                        |               |  | HOL                 |  |       | . –                | SHEET 1                    |
|------------------------------|--------------------------------|------------------------|---------------|--|---------------------|--|-------|--------------------|----------------------------|
|                              | Geotechi                       | nics                   | В             | DREHOLE RECORD   |                     | BH   | 1 -   | 15                 | OF 4                       |
|                              | PROJECT                        | LANG PARK STAI         | DIUM REDI     | EVELOPMENT   |                     | GGED B                                       | Y     | VL                 | 1,                         |
|                              | CONTRACTOR                     | SP & KF CHRI           | STENSEN       | ANGLE Vertical   |                     | TE/S<br>OUND L                               | EVE   | 23.10.00<br>L ~RL1 |                            |
|                              | DRILL MODEL                    | JACRO 350<br>4x4 TRUCK |               | BEARING -<br>DIAMETER 50/75/100mm  | LO                  | CATION                                       |       | See F              | igure 2                    |
|                              | MOUNTING<br>DRILLING           | STRATA                 |               | MATERIAL DESCRIPTION   |                     | CONE   | OITIC |                    | OBSERVATION                |
|                              |                                |                        | l g           |  | שו                  | CON  | VSIST | TENCY              |                            |
| _                            | SAMPLE, TEST,<br>BIT, SUPPORT, | R.L. DEPTH             | GROUP SYMBOL  | SOIL TYPE<br>Colour, Plasticity, Grain Size, Minor Components  | WATER /<br>MOISTURE | COHES  | IVE   | NON<br>COHESIVE    | SOIL ORIGIN,<br>STRUCTURE, |
|                              | ETC.                           | AHD m                  | GROU          |  | MΑ                  | S S T E                                      | TS H  | 우그용교의              | ETC.                       |
|                              | _                              | <u> </u>               |               | Asphalt Pavement 100mm Clayey GRAVEL: Brown/light brown, fine to medium gravel and quartz grains   |                     |  |       |                    | FILL .                     |
| ,                            | SPT @ 0.5m                     |                        |               | -  | 1                   |  |       |                    |                            |
| ı.                           | 4/3/3<br>- N=6                 |                        |               |  | ]                   |  |       |                    |                            |
|                              |                                | <u> </u>               |               | . Colour grading to dark grey with some small brick fragments  | -                   |  |       |                    | -                          |
|                              | SPT @ 1.5m                     |                        |               |  |                     |  |       |                    |                            |
|                              | 1/1/2<br>- N=3                 |                        |               | Sandy CLAY: Brown to dark brown grey, fine to medium gravel, high content of wood fragments, trace of rubber, thin metal plate fragments |                     |  |       |                    |                            |
|                              | <del>-</del>                   | +2                     |               |  | ]                   |  |       |                    |                            |
| -                            |                                |                        |               |  | 1                   |  |       |                    |                            |
|                              |                                |                        |               |  |                     |  |       |                    |                            |
| •                            | SPT@ 3.0m<br>- 1/1/5<br>N=6    | +3                     |               | Clayey/Gravelly SAND: Dark brown to black, occaisional pottery tragments, fine to medium gravel, some wood and glass fragments           | М                   | $\prod$                                      |       |                    |                            |
| _,                           | N=6                            |                        |               |  |                     |  |       |                    |                            |
|                              | <u>[</u>                       |                        |               |  |                     |  |       |                    |                            |
| ,                            | -                              | +4                     |               | as at 3m   |                     |  |       |                    | -                          |
|                              | SPT @ 4.5m                     |                        |               |  | M/W                 |  |       |                    |                            |
| ٠.,                          | 4/2/2<br>- N=4                 |                        |               | -  | -                   |  |       |                    |                            |
| •                            | -                              | +5                     |               | _<br>  | 1                   |  |       |                    |                            |
|                              |                                |                        |               |  |                     |  | :     |                    |                            |
| ,                            | [                              |                        |               | •  |                     |  |       |                    |                            |
|                              | SPT @ 6.0m<br>- 4/3/7          | +6                     |               |  | d w                 |  |       |                    | -                          |
|                              | N = 10                         |                        |               | Clayey/Silty SAND becoming wet - Sandy/Silty/Gravelly CLAY: Black with rootlets and organic matter                                       | 1                   |  |       |                    |                            |
| 11/0/1/                      |                                |                        |               | , , ,  | ]                   |  |       |                    |                            |
| ARUP Abs.cot 11/01/01        | -                              | 3.00 7 7.00            | 0.10          |  | -                   |  |       |                    | ALLUVIAL                   |
| RUP A                        |                                |                        | 0.0<br>0.0    | -  |                     |  |       |                    |                            |
| -Gru                         | SPT @ 7.5m<br>2/4/6<br>N = 10  |                        |               | •  |                     |  |       |                    |                            |
| BEHOLEVIES F PIT BUREHOLE GE | NOTES                          |                        | 9.O.G         |  |                     | <u>                                     </u> |       | JOB                |                            |
| PIT BUT                      | 1) Grou                        | undwater encountere    | ed at approx  | imately 6.5m below ground level  |                     |  |       | !                  |                            |
| -/IES[]                      | 2) Star                        | аріре попьоніц ж       | on motalieu l | V 19.7711  |                     |  |       | -                  | 12215                      |
| RHOLF.                       | Σ<br>Σ                         |                        |               |  |                     |  |       |                    |                            |

| ARU<br>Geotechi                                  |                |                              |              | В  | DREHOLE RECORD  | НС                 |            | -<br>3 | <br>┤ ⁻ | 15   | ,           | SHEET 2                            |
|--|----------------|------------------------------|--------------|--|---|--------------------|------------|--------|---------|------|-------------|------------------------------------|
| PROJECT  |                |                              | ADIU         | M RED                                    | EVELOPMENT  | 1                  | OGGE       |        | Υ       | V    | L<br>3.10.0 | 1                                  |
| CONTRACTOR DRILL MODEL MOUNTING                  | JAC            | & KF CHE<br>CRO 350<br>TRUCK | RISTE        | ENSEN                                    | ANGLE Vertical  BEARING -  DIAMETER 50/75/100mm   | G                  | ROUI       | ND L   |         | L -  | -RL 1       | I 0.0m<br>Figure 2                 |
| DRILLING   |                | STRAT                        | ГА           |  | MATERIAL DESCRIPTION  | 1                  |            | ON     | DITIO   | ON   |             | OBSERVATION                        |
| SAMPLE, TEST,<br>BIT, SUPPORT,<br>ETC.           | R.L.           | DEPTH<br>m                   | GROUP SYMBOL | LEGEND                                   | SOIL TYPE<br>Colour, Plasticity, Grain Size, Minor Components   | WATER/<br>MOISTURE | cc<br>s, s | HES    | IVE     | COHE | ON<br>ESIVE | SOIL ORIGIN,<br>STRUCTURE,<br>ETC. |
| SPT @ 9.0m<br>- 3/5/7<br>N = 12                  |                | 9                            |              |  | Sandy GRAVEL with some clay and quartz fragments  Clayey GRAVEL/Gravelly CLAY: Brown to orange and dark grey, angular gravel, medium grained                        |                    |            |        |         |      |             | ALLUVIAL                           |
| SPT @ 10.5m<br>2/2/4<br>N=6                      | -1.00          | 10                           |              |  | GRAVEL: Fine to medium gravel and quartz fragments  No sample recovered from SPT  Clayey GRAVEL/Gravelly CLAY: Mottled orange brown and grey, fine to medium gravel |                    |            |        |         |      |             | RESIDUAL                           |
| SPT @ 12.0m<br>- 5/8/10<br>N = 18                | -              | 12                           |              | 1968 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | · · · · · · · · · · · · · · · · · · ·   |                    |            |        |         |      |             |                                    |
| -<br>-<br>- SPT @ 13.5m<br>- 14/8/15<br>- N = 23 |                | 13                           |              | 000000000000000000000000000000000000000  | Gravelly CLAY: Mottled dark grey to grey, some iron staining, bordering xw rock   |                    |            |        |         |      |             |                                    |
| SPT @ 15.0m<br>- 16 / 30 / 60mm<br>N = Refusat   | -5.00<br>-5.21 | 15 <sup>15.00</sup>          |              |  | XW PHYLLITE: Mottled orange brown and dark blue grey  | -                  |            |        |         |      |             | XW ROCK                            |
| NOTES  1) Grou 2) Star                           | undwater       | r encounte                   | red a        | t approxi                                | mately 6.5m below ground level<br>o 18.7m   |                    |            |        |         | JOI  |             | 12215                              |

| ſ  |                         |                                    | <u> </u>           | וו זר               |          |                    |   |                         |          |                |                            | 1                      | HOLE        | :        |         |                   |                  |             |                                       |
|--|-------------------------|------------------------------------|--------------------|---------------------|----------|--------------------|---|-------------------------|----------|----------------|----------------------------|------------------------|-------------|----------|---------|-------------------|------------------|-------------|---------------------------------------|
|  |                         | <u>"M</u>                          |                    |                     | C        | OI                 | RED BOREH                                       | OLE F                   | REC      | OF             | RD                         |                        | ļ           | ٦,       | _       | 1                 | =                | SHEET       | · 3                                   |
|  | G                       | ec                                 | techi              | nics                |          |                    |   |                         |          |                |                            |                        | L           | וכ       | ı       | 1                 | ر<br>            | OF 4        |                                       |
| _  | P                       | ROJ                                | ECT                | LANG I              | PARK ST  | ADIU               | M REDEVELOPMENT                                 |                         |          |                |                            |                        | LOG         |          | BY      |                   | VL               | ·           |                                       |
|  |                         | ONT                                | FRACTOR            | SP                  | & KF CH  | RISTE              | NSFN  | ANGLE                   | Vertical |                |                            |                        | DATE<br>GRO |          | IFV     |                   | 23.10.0<br>~RL 1 |             | · · · · · · · · · · · · · · · · · · · |
| _  |                         |                                    | MODEL              |                     | CRO 350  |                    |   | BEARING                 | -        |                |                            |                        | LOC         |          |         |                   |                  | igure 2     |                                       |
|  | N                       | MOUNTING 4x4 TRUCK DRILLING STRATA |                    |                     |          |                    |   | DIAMETER                | 50/75/1  | 00mn           | n                          |                        |             |          |         |                   |                  |             |                                       |
| _  |                         | DRII                               | LLING              |                     | STRATA   |                    | MATERI  | AL DESCRIPTI            | ON       |                |                            |                        |             |          |         | ISCO              | DNTINU           | TIES        |                                       |
|  | .(%)                    | ~                                  |                    |                     |          | ۵                  | , nook 7/                                       | n=                      |          | S NG           |                            | <u> </u>               | ,<br>1 E    |          | ECIF    |                   | GEN              | ERAL DES    | CRIPTION                              |
| ,  | CASING<br>HUN, REC. (%) | WATER                              | SAMPLE<br>TEST     | R.L.                | DEPTH    | LEGEND             | ROCK TYI<br>Colour, Grain Size,<br>Minor Compo  | Structure,              |          | WEATHERING     | STIMATE<br>ROCK<br>STRENGT | H GEO IENC             | (per m)     | TYPE     | IGLE    | THICKNESS<br>(mm) | Pla              | narity, Rou |                                       |
|  | , N                     |                                    |                    | AHD                 | m        |                    |   |                         |          | WE             |                            |                        | 유우윤         |          | A       |                   |                  | Coating, I  | ıntılı                                |
| _  |                         |                                    |                    |                     |          |                    |   |                         | ļ        |                |                            |                        |             |          |         |                   |                  |             |                                       |
|  |                         |                                    |                    |                     |          |                    | <u>.</u>  |                         | -        |                |                            |                        |             |          |         |                   |                  |             |                                       |
|  |                         |                                    |                    |                     |          |                    | -   |                         | 1        |                |                            |                        |             |          |         |                   |                  |             |                                       |
|  | -                       |                                    |                    | -                   | -9       |                    | _   |                         | -        |                |                            |                        |             |          |         |                   |                  |             |                                       |
| _  |                         |                                    |                    |                     |          |                    | _   |                         |          |                |                            |                        |             |          |         |                   |                  |             |                                       |
|  |                         |                                    |                    |                     |          |                    |   |                         | }        |                |                            |                        |             |          |         |                   |                  |             |                                       |
| _  |                         |                                    |                    |                     |          | ļ                  |   |                         |          |                |                            |                        |             |          |         |                   |                  |             |                                       |
|  | -                       | :                                  |                    |                     | 10       |                    | <b>-</b>  |                         | 1        |                |                            |                        |             |          |         |                   |                  |             | ,                                     |
| ,  |                         |                                    |                    |                     |          |                    |   |                         | -        |                |                            |                        |             |          |         |                   |                  |             |                                       |
|  |                         |                                    |                    | -                   | -        |                    |   |                         |          |                |                            |                        |             |          |         |                   |                  |             |                                       |
| _  | -                       |                                    |                    | _                   | 11       |                    | -   |                         | ]        |                |                            |                        |             |          |         |                   |                  |             | ,                                     |
| _  |                         |                                    |                    | -                   |          |                    |   |                         |          |                |                            |                        |             |          |         |                   |                  |             |                                       |
|  |                         |                                    |                    | -                   |          |                    |   |                         | 1        |                |                            |                        |             |          |         | }                 |                  |             |                                       |
| _  |                         |                                    |                    | _                   |          |                    |   |                         | -        |                |                            |                        |             |          |         | ŀ                 |                  |             |                                       |
|  | -                       |                                    |                    | -                   | -12      |                    | -   |                         |          |                |                            |                        |             |          |         |                   |                  |             | •                                     |
| _  |                         |                                    |                    |                     |          |                    | -<br>-  |                         | ]        |                |                            |                        |             |          |         |                   |                  |             |                                       |
| _,   |                         |                                    |                    | _                   | <u> </u> |                    | _   |                         | -        |                |                            |                        |             |          |         |                   |                  |             |                                       |
| .,   |                         |                                    |                    | _                   | -13      |                    | _   | ~                       | j        |                |                            |                        |             |          |         |                   |                  |             |                                       |
|  |                         | !                                  |                    | _                   | 'S       |                    | •   |                         |          |                |                            | $\left  \cdot \right $ |             |          |         |                   |                  |             |                                       |
|  |                         | :                                  |                    | -                   | <u> </u> |                    | _   |                         | -        |                |                            |                        |             |          |         |                   |                  |             |                                       |
|  |                         |                                    |                    |                     |          |                    | -   |                         | 1        | ,              |                            |                        |             |          | -       |                   |                  |             |                                       |
|  | -                       |                                    |                    | -                   | - 14     |                    | _   |                         | 4        |                |                            |                        |             |          |         |                   |                  |             |                                       |
|  |                         |                                    |                    | -                   | -        |                    |   |                         | -        |                |                            |                        |             |          |         |                   |                  |             |                                       |
| <u>ē</u>   |                         | •                                  |                    | -                   |          |                    | *   |                         | 1        |                |                            |                        |             |          |         |                   |                  |             |                                       |
| 11/01  |                         |                                    |                    |                     | _        |                    | _   |                         | 1        |                |                            |                        |             |          |         |                   |                  |             |                                       |
| S.GDT  | -                       | .                                  |                    | _                   | 15       |                    | <u></u>   |                         |          |                |                            |                        |             |          |         |                   |                  |             |                                       |
| P AU   | 1                       |                                    |                    |                     |          |                    | PHYLLITE: Mottled orange brown                  | and blue grey           |          | DW             |                            |                        |             | ,_       | 1,      | 10                |                  |             |                                       |
| J ARU  | 100%                    |                                    | ls(50) =<br>0.53   | -                   | -        | ļ                  | -   |                         | 1        |                |                            |                        |             | Jo<br>Cr | 10<br>0 | 10<br>10          |                  |             |                                       |
| LE.GP  |                         |                                    |                    | -6.00               | 16.00    |                    |   |                         |          |                |                            |                        |             | Jo       | 0       | 10                |                  |             |                                       |
| KEHC   | МО                      | TES                                |                    |                     |          | •                  |   |                         |          |                | PE OF D                    | SCON                   | TINUIT      | ſΥ       |         | J                 | DВ               |             |                                       |
| LE BC  |                         |                                    | 1) Grou<br>2) Stan | ndwater<br>dpipe mo | encounte | red at<br>vell ins | approximately 6.5m below grour stalled to 18.7m | ıd level                |          | Jo<br>Be<br>Fo | JOINT<br>BEDDI<br>FOLIAT   | NG PL                  | ANE F       | PARTI    | NG      |                   |                  |             |                                       |
| HEH  |                         |                                    |                    |                     | _        |                    |   |                         |          | CI<br>We       | CLAY S                     | BEAM<br>HEREI          | ) SEA       |          |         |                   | 1                | 221         | 5                                     |
| DRED BOREHOLE BOREHOLE GPJ ARUP AUS GDT 11/01/01 |                         | Cr CRUS<br>Sh SHEA                 |                    |                     |          |                    |   | CRUSH<br>SHEAF<br>QUART | RED ZO   | ONE            |                            |                        |             |          |         |                   |                  |             |                                       |

|                    | G  | )<br>()                   | RU<br>techi      | P                           |   | :OI       | RED BOREHOLE REC  | OF    | RD                           | HOLE   |                | <del></del>                          | 1;                | 5  | SHEET 4                               |  |
|--------------------|--|---------------------------|------------------|-----------------------------|---|-----------|---|-------|------------------------------|--|----------------|--------------------------------------|-------------------|--|---------------------------------------|--|
|                    | P  | PROJECT LANG PARK STADIUI |                  |                             |   |           | M REDEVELOPMENT   |       |                              | LOGO   |                | BY ·                                 |                   | VL<br>23.10.0  | )                                     |  |
|                    | DRILL MODEL JAC  |                           |                  | & KF CH<br>CRO 350<br>TRUCK | RISTE                                   | BEARING - | :al<br>(100mm   | 1     | GRO!                         | UND  |                | EL                                   | ~RL 1             | 10.0m<br>Figure 2  |                                       |  |
| <u> </u>           | DRILLING STRATA  |                           |                  |                             | STRATA                                  |           | MATERIAL DESCRIPTION  |       |                              |  |                |                                      | oisc              | וטאודאכ  | TIES                                  |  |
| -                  |  |                           |                  |                             |   |           | OTU ***TED  | NC (F | SI                           | PECIF  |                |                                      | RAL DESCRIPTION   |  |                                       |  |
| CASIN              | RUN, REC. (%)  | WATER                     | SAMPLE<br>TEST   | R.L.                        | DEPTH<br>m                              | LEGEND    | ROCK TYPE Colour, Grain Size, Structure, Minor Components   | 뿔     | STIMATED<br>ROCK<br>STRENGTH | FREQ!  | TYPE           | ANGLE                                | THICKNESS<br>(mm) | Pla  | narity, Roughness,<br>Coating, Infill |  |
| Auskan 11/0f/vn    | 100% ———————————————————————————————————   |                           | Is(50) =<br>0.89 | -8.70 -                     | - 17<br>- 18<br>- 18.70<br>- 19<br>- 20 |           | PHYLLITE: Dark blue grey with white foliation bands  Clay seam 50mm thick, dark blue black clay  BH15 END | sw    |                              |  | Qr Jo Jo Jo Jo | 45<br>20<br>0<br>0<br>75<br>30<br>20 | 15 5 1 50 0 2 0 0 | iron stai<br>Iron stai<br>Iron stai<br>dark blu<br>Weathei | 3                                     |  |
| BOHEHULE.GPJ AHUP  | NO.  | ΓES                       |                  |                             | <u>.</u>                                |           | -   | TY    | PE OF DISC                   | CONTINUIT  | TY             |                                      |                   | ЮВ   |                                       |  |
| CORED BOREHOLE BOR | NOTES  1) Groundwater encountered at approximately 6.5m below ground level 2) Standpipe monitoring well installed to 18.7m |                           |                  |                             |   |           |   |       |                              | S PLANE F<br>ON PARTIN<br>AM<br>RED SEAM<br>D SEAM<br>D ZONE<br>SEAM | ING            |                                      | 12215             |  |                                       |  |



**Borehole 15** 

15.21m - 18.71m

Box 1 of 1



**Project:** Lang Park Redevelopment

Title: Core Box Photographs

**Job No**: 12215

Plate No: 6