PHOENIX SURVEYS, INC.

| | |
|---|---|
| Company | |
| Well | |
| Field | |
| County | |
| State/Prv | |

# HIGH RESOLUTION INDUCTION
# COMPENSATED DENSITY
# COMPENSATED NEUTRON

| | |
|---|---|
| Company | Bonanza Creek Energy Inc. |
| Well | Antelope S-31 |
| Field | Wattenberg |
| County | Weld |
| State/Province | Colorado |
| Location | 1416' FSL & 1390' FEL<br>NWSE<br>Sec - 31, Twp - 5N, Rge - 62W |
| Other Services | None |

| | | | |
|---|---|---|---|
| Permanent Datum | GL | Elevation | 4558 |
| Log Measured From | KB | | |
| Drilling Measured From | KB | | |

Elevation
K.B. 4570
D.F. 4569
G.L. 4558

| | | | |
|---|---|---|---|
| Date | June 4, 2011 | | |
| Run Number | 1 | | |
| Depth Driller | 6624 | | |
| Depth Logger | 6623 | | |
| Bottom Logged Interval | 6623 | | |
| Top Log Interval | Casing | | |
| Casing Driller | 427 | | |
| Casing Logger | 427 | | |
| Bit Size | 7-7/8" | | |
| Type Fluid in Hole | Polymer Gel | | |
| Density / Viscosity | 9.0 / 55 | | |
| pH / Fluid Loss | 8.0 / 8.8 | | |
| Source of Sample | Flowline | | |
| Rm @ Meas. Temp | 3.83 @ 65 F | | |
| Rmf @ Meas. Temp | 3.06 @ 65 F | | |
| Rmc @ Meas. Temp | 4.60 @ 65 F | | |
| Source of Rmf / Rmc | Measure / Calc | | |
| Rm @ BHT | 1.18 @ 196 F | | |
| Time Circulation Stopped | 2345 6/3 | | |
| Time Logger on Bottom | 0700 | | |
| Maximum Recorded Temperature | 196 F | | |
| Equipment Number | 52 | | |
| Location | Brighton, CO | | |
| Recorded By | Matt Gill | | |
| Witnessed By | Brian Cunningham | John Adams | Curt Dodge |

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

## Comments

Annular volume calculated for 4.5" casing
Drilling Rig Fort 5
Thank you for using Phoenix Surveys!!
API #: 05-123-32841-00

| | |
|---|---|
| Database File: | 11801.db |
| Dataset Pathname: | final |
| Presentation Format: | pdc1 |
| Dataset Creation: | Sat Jun 04 07:50:49 2011 |
| Charted by: | Depth in Feet scaled 1:240 |

6 Density Caliper (in) 16

30 Gamma Ray (GAPI) 130

90 SP (mV) 190

ABHV (ft3)

2 Deep Resistivity (Ohm-m) 200

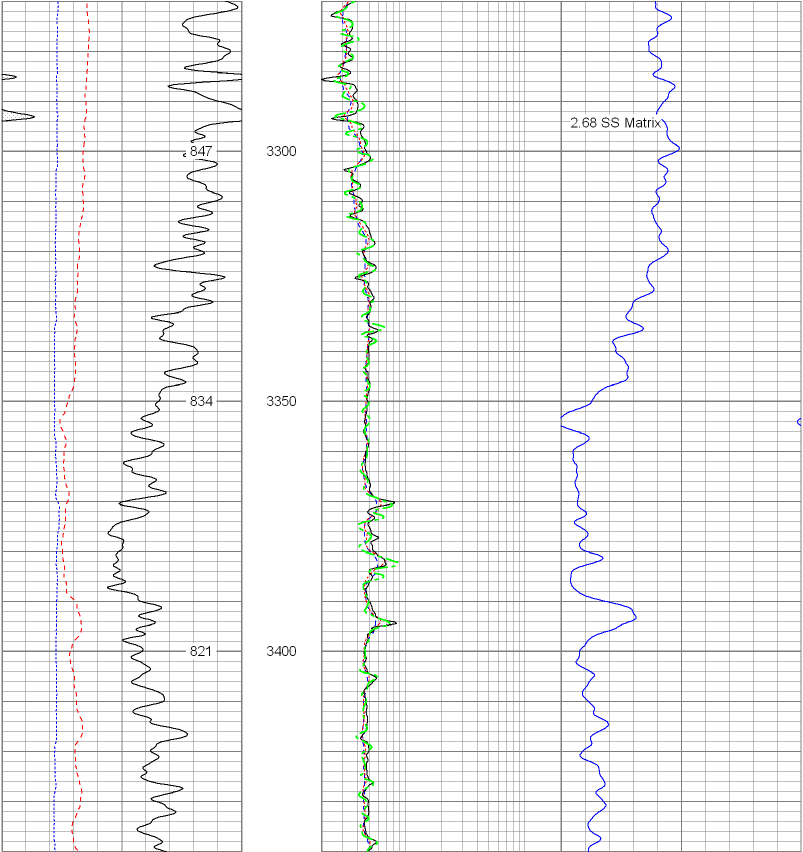
2 Medium Resistivity (Ohm-m) 200

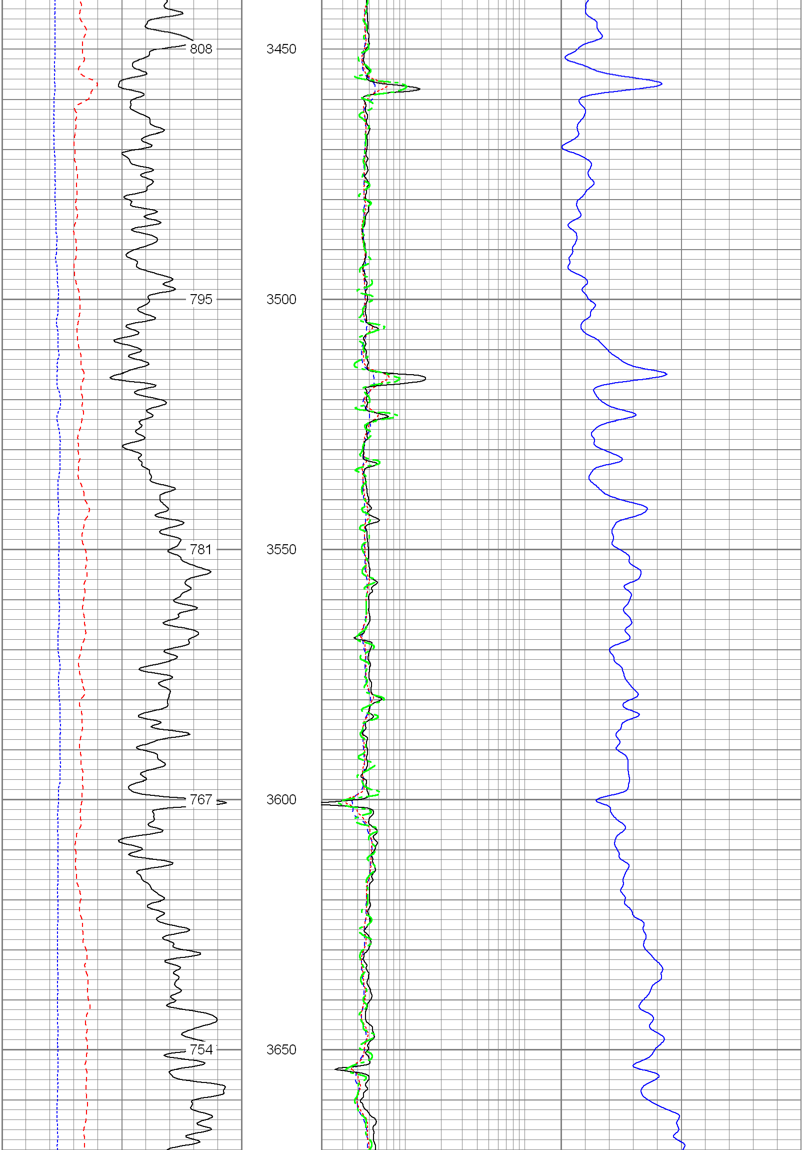
2 Shallow Resistivity (Ohm-m) 200

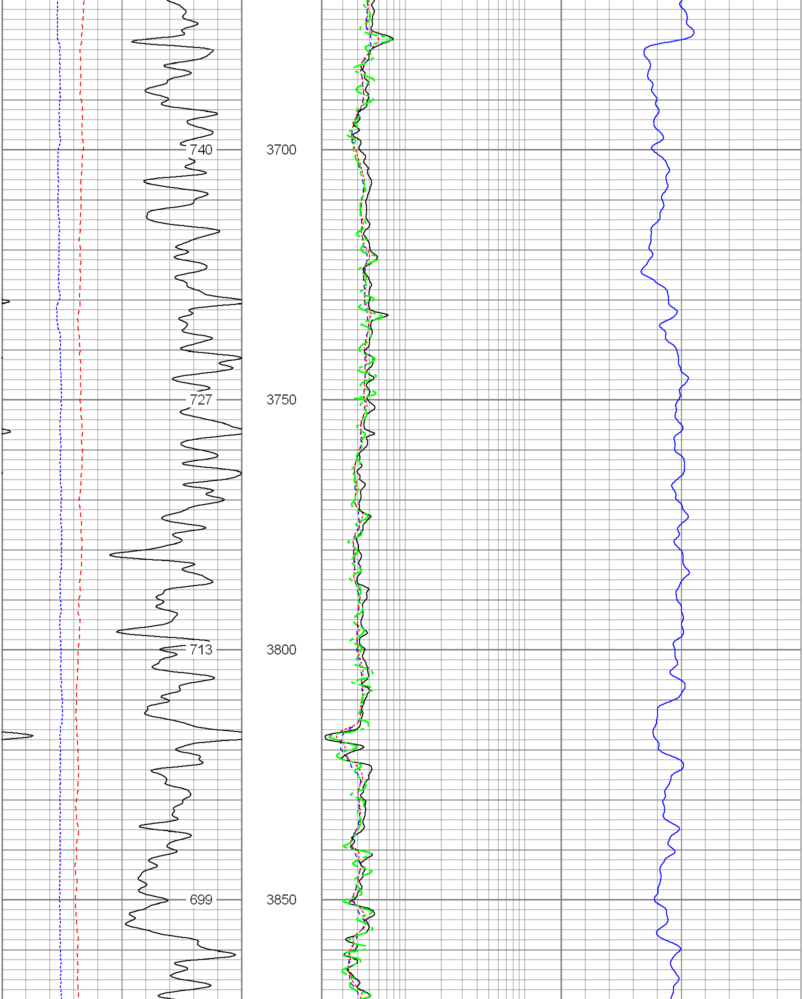
2 Rt (Ohm-m) 200

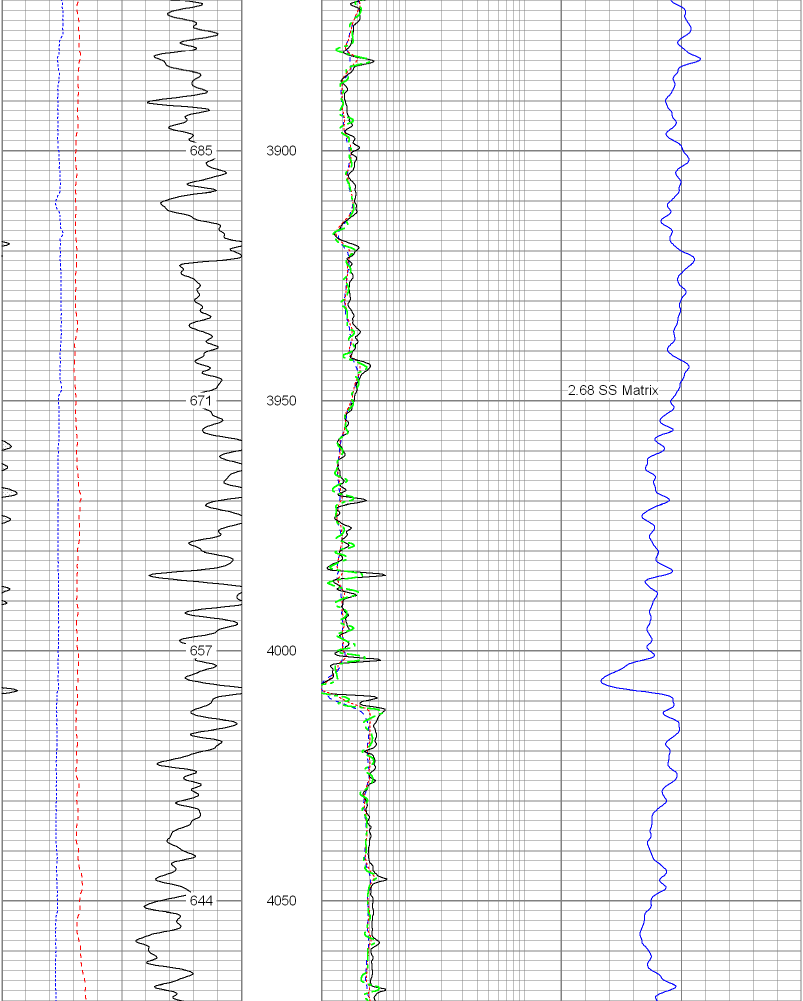
20 Density Porosity (pu) 0

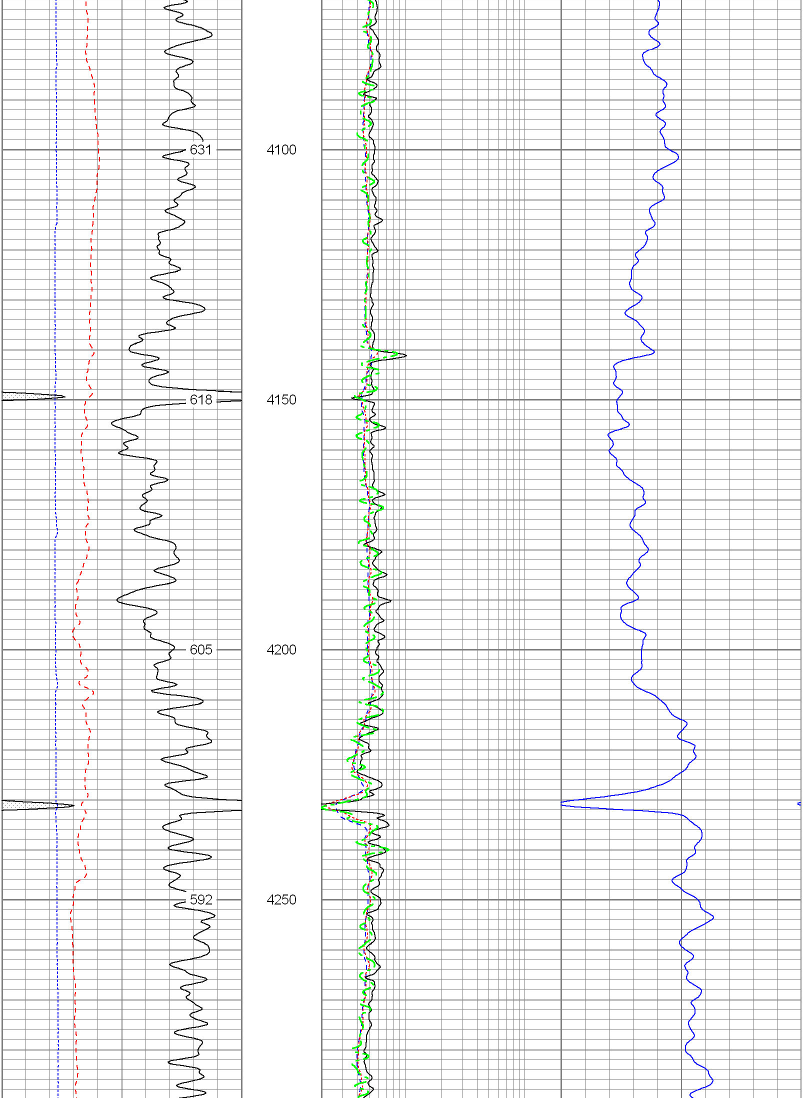
20 Neutron Porosity (pu) 0

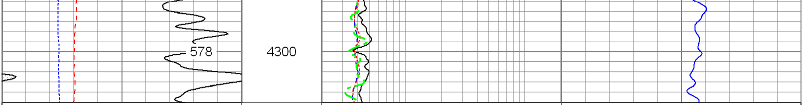












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0 SP (mV) 200

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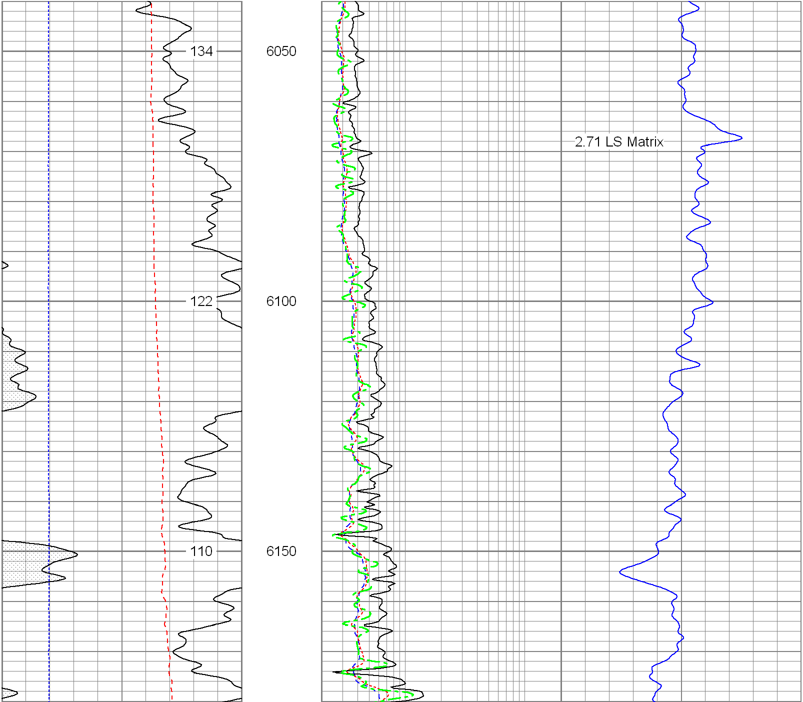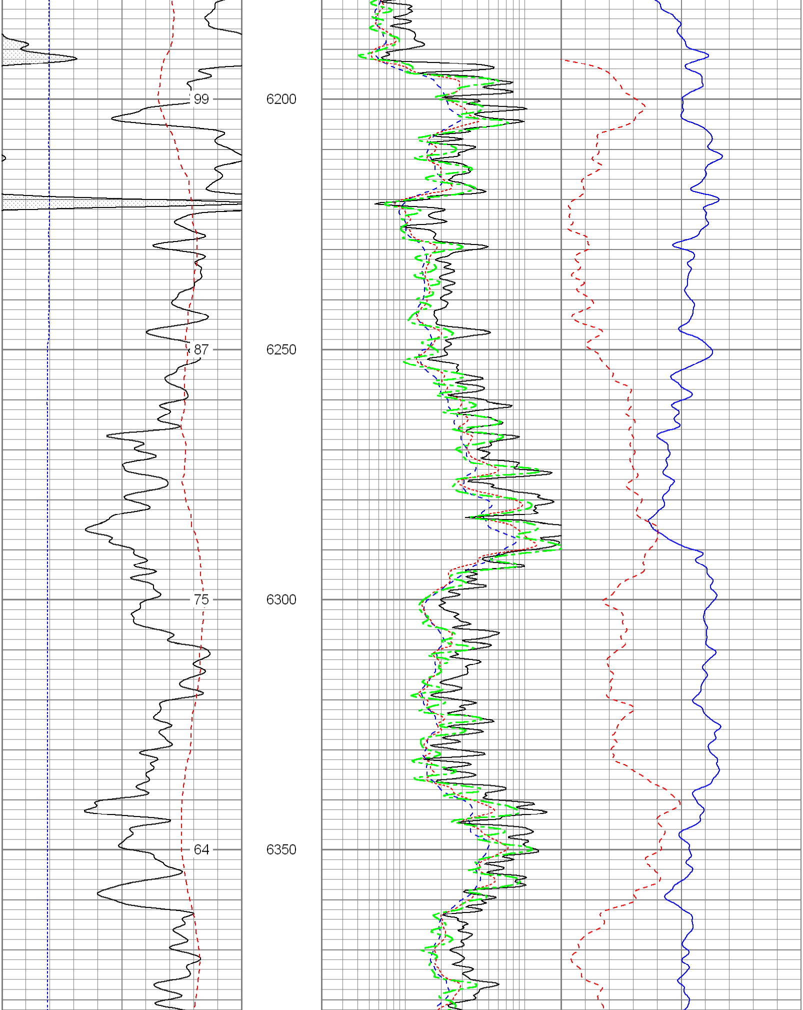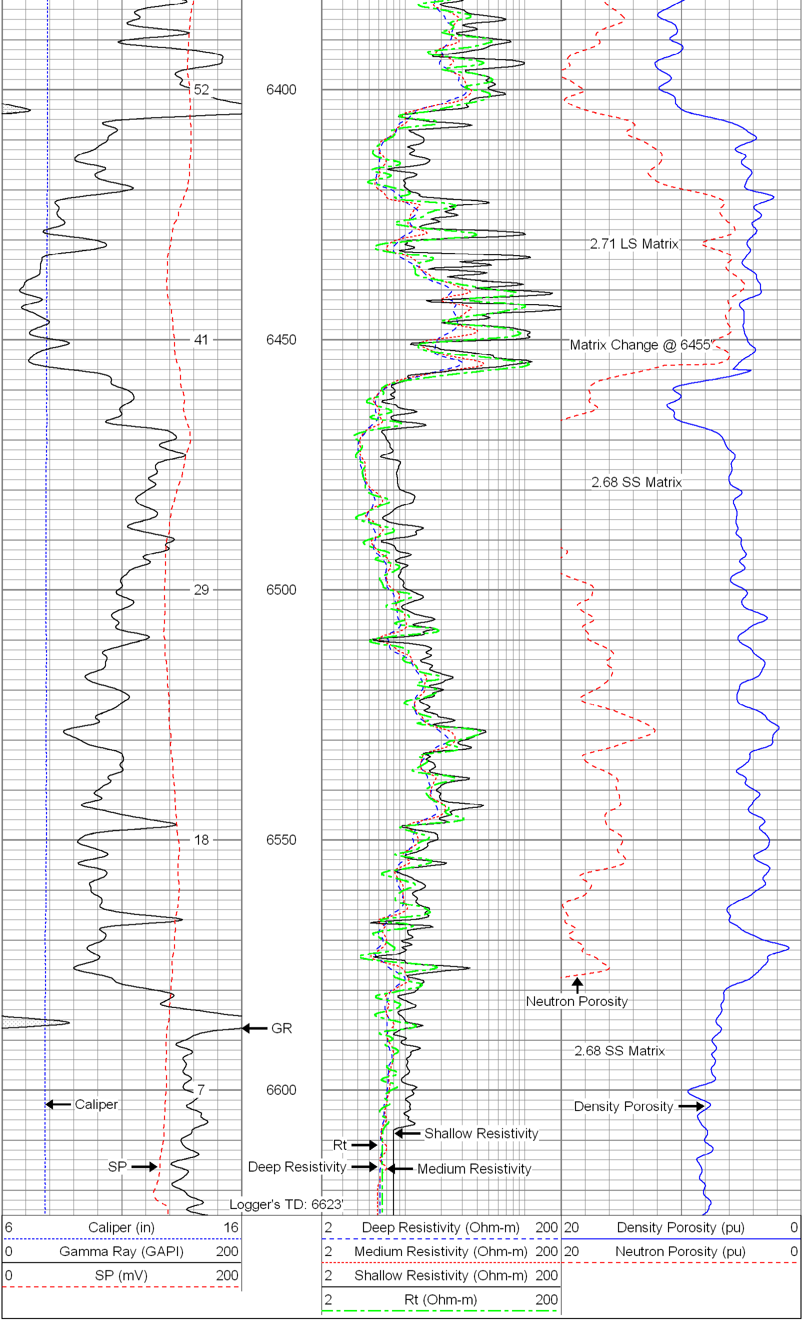20 Density Porosity (pu) 0
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