



GTD's new EW4 PDC cutters deliver excellent results in East Siberian oilfield drilling.

Company Background:

Glynn Technical Diamonds (GTD) established in 2012 with a manufacturing facility in Kilrush, Co Clare, Ireland.

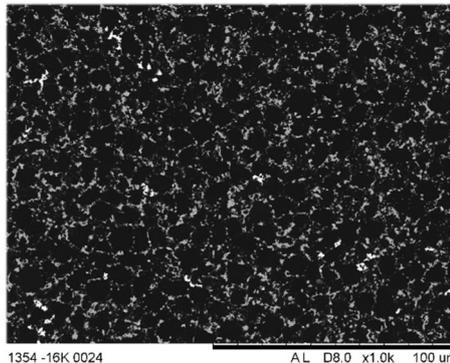
GTD process and manufacture synthetic diamond solutions with a focus on research, development and innovation.

PDC Cutter Grade – EW4

Following significant investment in research and development, GTD have manufactured a new grade of PDC cutter, EW4, with exceptional abrasion resistant and toughness. GTD EW4 has a significant comparative advantage against competitor PDC cutter suppliers by providing a better combination of performance and cost.

In a recent field test, *GTD's innovative high-pressure capsule technology* has paved the way for excellent results in East Siberian oilfields.

GTD EW4 1313mm cutters were run in a 8.5" drill bit used to complete a 1,430 meter interval. Located in East Siberia, the well sections in question are typified by narrow intervals with highly fractured rock formations and changing rock categorizations. The objective is to maintain average ROP >20 m/hr to completion, and ensure a "good" cutter dull grading is achieved. The drilling contractor sets a minimum dull grading for the bit to maintain a key point of reference for future changes in cutter type and density, hydraulics, bit profile and parameters. If the dull grading criteria is not matched (or bettered) the bit design is deemed a fail.



Drill Bit:
8.5" diameter,
vertical bit.

PDC Cutters:
GTD EW4 R1313 mm

Location:
East Siberia

Results:
1,438 meters depth
ROP range 23-25
m/hr



The run of 1,430 meters was completed in an average ROP of 24.5 m/hour. The dull grading assessment came in comfortably underneath the minimum standard. In fact, in a total of more than 35 qualified runs, the dull grading achieved on this bit run equalled the best ever dull grades. From a technical perspective the run was a significant success in terms of ROP target achievement and completion. The drill bit manufacturer, when securing an order for thirty 8.5" identical drill bits using GTD EW4 R1313mm cutters, achieved a saving of more than \$42,000 in direct cutter cost when compared to the preferred PDC cutter prior to the introduction of the GTD EW4.

The commercial challenges of cost efficient drilling have been felt acutely in East Siberia since 2015 and GTD is well positioned to help customers reduce costs and increase drilling productivity.