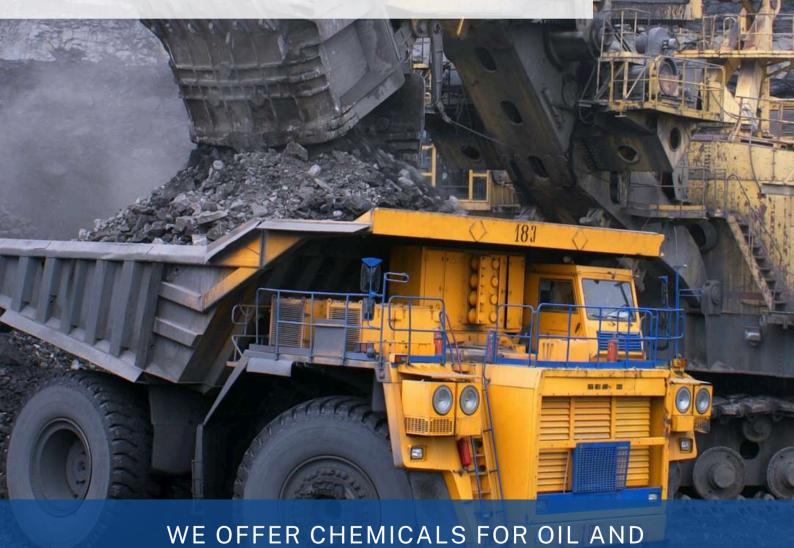


AZM OILFIELD TECHNOLOGIES



www.azmoilfield.com

GAS DRILLING OPERATION

Introduction of AZM Group

AZM oilfield Technologies is promoted by a team of highly skilled Oil and Gas sector experts to offer seamless services for Oilfield drilling needs.

AZM has full fledged oilfield tools manufacturing unit which focusses on manufacture of Centralizer, Stop collars, Float equipment, Completion tools and other Casing accessories and downhole tools confirming to API requirements.

We have stake in Drilling and Cementing additive manufacturing unit and are also the authorized marketing agent for API Certified pipe mills from India, China, Russia, Ukraine, Spain, Singapore and Japan.

Our group has attained an unassailable position of leadership in supply and service Industry. We have established our reputation in the global market as a reliable partner for supply of OCTG items, Centralizers, Float Equipment, completion tools and Drilling Chemicals.

Offering full range of items under one roof makes it easy for procurement and drilling team by improving response time ,ensuring faster delivery and execution of every job.

We are working as a de facto procurement department for a number of service companies in Middle east and Africa by executing orders worth 27 Million USD in last two years.



Corrosion Inhibitors

AZM offers a variety of corrosion inhibitors grouped as organic or inorganic. When added to a liquid or gas, corrosion inhibitors slow the rate at which materials, such as steel, alloy or other metal material degrade. Their application and effectiveness is dependent upon the system of the material that the inhibitor must work in, the chemicals that are present in that system and their relative quantities. Given the fact that corrosion is one if not the most expensive problem in the oil patch we are proud to introduce our line of cost effective corrosion inhibitors.

AZMCOR 35

Gas Line Corrosion Inhibitor (H2S)

AZMCOR 35 is an Oil soluble water dispersible semi polar organic inhibitor, which is very effective for sweet (CO2) or Sour (H2S) gas condensate wells and sweet and sour oil wells

Tubing Displacement of large batch method 10% AZMCOR 35 to be used. Dump Boiler Method: 8 to 20 Liters initial dosing followed by 8 to 20 liters every 2 -3 weeks. Well should be shut for 2- 3 hrs. After treatment. Squeeze Method: Average concentration of 100000ppm per barrel of lease crude or other hydrocarbon solvent

AZMHIBB Packer Fluid

AZMHIB packer-fluid corrosion inhibitor is used in water-based fluids. In closed systems, it helps prevent corrosion caused by oxygen (O2), hydrogen sulfide (H2S), and carbon dioxide (Co2)

AZMHIB controls corrosion of tubing and casing strings when use d in work over or packer brines, including sodium chloride, calcium chloride, sodium bromide, calcium bromide and zinc bromide. AZMHIB is designed for use in clear brines, but is applicable in viscosities completion or drilling fluids. Pilot testing for compatibility is recommended for this application. AZMHIB can be added directly to the brine without special mixing equipment or agitation.

AZMHIB functions as an oxygen scavenger, a surfactant, and a bactericide. It also contains a scale inhibitor that helps reduce the amount of scale and precipitate formed inside tubing and casing.

High Film Persistent Crude Oil Corrosion Inhibitor

High film persistent, batch Type crude oil line corrosion inhibitor designed to control corrosion in oil production systems.



AZMCOR-101 should be batched into the crude oil production well, either neat, or dispersed in water or clean hydrocarbon. The quantity of corrosion inhibitor required to control corrosion is Dependent on the well depth, water cut and production. Circulation of the well may be performed to displace the crude oil line corrosion inhibitor to the bottom of the well. To treat crude oil flow lines and gas gathering lines, This inhibitor should be dispersed in clean hydrocarbon (for example, diesel) at a ratio of 1 part of corrosion inhibitor to 1 to 8 parts of hydrocarbon. Ideally, the mixture should be displaced down the lines between pigs.

AZMCOR - 102

Corrosion Inhibitor to Control Corrosion in Oil Production

High film persistent, batch Type corrosion inhibitor designed to control corrosion in oil production systems.



This inhibitor should be batched into the crude oil production well, dispersed in water or clean hydrocarbon. The quantity of corrosion inhibitor required to control corrosion is dependent on the well depth, water cut and production. Circulation of the well may be Performed to displace the corrosion inhibitor to the bottom of the well. To treat crude oil flow lines and gas gathering lines, Such type of inhibitor should be dispersed in clear hydrocarbon (for example, diesel) at a ratio of 1 part of corrosion inhibitor to 1 to 8 parts of hydrocarbon. Ideally, the mixture should be displaced down the lines between pigs.

Corrosion Inhibitor to Protect Oilfield Tubular Goods

AZMCOR-103 is a AZM corrosion inhibitor, which is a modified, amine type additive designed to protect all oilfield tubular goods. This corrosion inhibitor helps prevent general corrosion attack on casing, tubing and down hole tools in contact with clear completion brines.

AZMCOR-103 controls corrosion of tubing and casing strings when used in work over or Packer brines, including sodium chloride, calcium chloride, sodium bromide, calcium bromide and Zinc bromide. This corrosion inhibitor is designed for use in clear brines but can be used in Viscosified completion or drilling fluids. Pilot testing for compatibility is recommended for this application. For treatment of clear brine fluids, one 55gal (208L) drum of this corrosion inhibitor should be added to 100 barrels (15.9 m3) of brine. This is equal to 0.55 gal/bbl (13.1 L/m3) or 5 lb/bbl (14.3 kg/m3) such corrosion inhibitor can be added directly to the brine without special Mixing equipment or agitation

AZMCOR - 104

Filming Amines Surfactants, Crude Oil Line Corrosion Inhibitor

AZMCOR-104High film persistent, batch type crude oil line corrosion inhibitor designed to control corrosion in oil production systems

AZMCOR- 104 should be batched into the crude oil production well, either neat, or dispersed in clean hydrocarbon. The quantity of crude oil line corrosion inhibitor required to control corrosion is Dependent on the well depth, water cut and production. Circulation of the well may be performed to displace the corrosion inhibitor to the bottom of the well.

To treat crude oil flow lines and gas gathering lines, this crude oil line corrosion inhibitor can either be applied neat or dispersed in clean hydrocarbon (for example, diesel) at a maximum ratio of 1 part of corrosion inhibitor to 8 parts of hydrocarbon. Ideally, the mixture should be displaced down the lines between pigs. The volume of AZMCOR- 104 required to lay a AZMform film on the metal surface may be determined from the following relationship: Liters = Line (Km) X pipe diameter (mm) X 0.0798 X desired film thickness (mil)

Water Soluble Organ phosphorus Corrosion Inhibitor

AZMCOR-105 is a distinctive corrosion inhibitor that is useful in all purpose, water solubleorgan phosphorous compound. It is a passivating type of inhibitor which forms a protective film on metal surfaces to guard against corrosion attack



AZMCOR-105 is effective at relatively low concentrations in all water base mud's. AZMCOR-105 has proven to be particularly useful in reducing oxygen corrosion in aerated mud's, low solids, no dispersed, polymer mud's, and potassium mud's. The product should be evenly dispersed throughout the circulating mud system and can be added either through the chemical barrel or directly to the mud pits wherever good agitation occurs. The recommended initial treatment of AZMCOR-105 is 2 to 4 gal/100 bbl (0.5 to 1.0 L/ m3) depending on anticipated conditions, other chemicals used in the system, and the corrosive environment, salinity, pH, temperature, oxygen content and acid gases. If the corrosion rate is unacceptably high, concentration should be increased to at least 7 gal/100 bbl (1.7 L/m3). For aerated systems, an initial treatment of 12 gal/100 bbl (2.9 L/ m3) is recommended. The corrosion rates should be monitored at all times with corrosion coupons and treatments should be adjusted according to their analysis. A good corrosion control program includes a thorough makeup water analysis, chemical treatments for corrosive contaminants and an adequate bacterial control for systems that contain biodegradable additives.

AZMCOR - 106

Water-soluble Oil-dispersible Organic Corrosion Inhibitor

AZMCOR-106 is a water-soluble, oil-dispersible organic corrosion inhibitor intended for use in oil and gas flow lines, pipelines and production equipment.

AZMCOR-106 has exhibited excellent partitioning of 98%, >95% protection in bubble testing, good inhibition against galvanic attack and jet impingement and excellent performance under severe HTHP flow loop 5 bar CO, 10 bar total pressure at 850C. AZMCOR-106 is recommended for continuous injection, with a typical dosage rate of 10 to 50 ppm for crude oil production systems and 0.1 to 0.4 liters per 1000 cubic meters of gas or 50 to 100 ppm on total gas-associated fluids.

Water Soluble Corrosion Inhibitor, Oil Dispersible Organic Corrosion Inhibitor

AZMCOR-107 is a water soluble corrosion inhibitor, oil-dispersible organic corrosion inhibitor intended for use in pipelines and production equipment where production fluid with high-water content is present. Being water soluble inhibitor, AZMCOR-107 effectively protects water treatment facilities downstream of production equipment

AZMCOR-107 can be applied neat or be diluted with freshwater to required drum strength. For continuous injection, the typical dosage rate is 10 to 50 ppm.

AZMCOR - 108

Water Soluble Corrosion Inhibitor - Film Forming Corrosion Inhibitor

AZMCOR-108 is a water soluble corrosion inhibitor, film-forming product designed to give excellent corrosion protection in topside oil and gas production systems and in pipelines. This corrosion inhibitor has been designed to give a low level of environmental impact when compared to more commonly applied corrosion inhibitors.



AZMCOR-108 is effective against C02 corrosion, as well as H2S corrosion. The product is water-soluble and will partition readily to the water phase. The environmental concerns that are associated with the use of some water-soluble corrosion inhibitors are not a concern for this product. Such inhibitor has an extremely low marine toxicity, does not have a tendency to bioaccumulation and is readily biodegradable. Continuous treatment with 1 to 5ppm of AZMCOR-108 is recommended based upon the total liquid volume, if the water cut is below 5%. The recommended dosage is 20 to 50 ppm, based on water volume, if the water cutis above 5%. Optimization of treatment should be performed according to corrosion monitoring results.

Lubricants

AZM provides a range of formulated lubricants to reduce the coefficient of friction (COF) of drilling fluids, helping you minimize torque and drag, reduce stuck pipe risk, and increase ROP.

AZMJETLUBE

Tool joint & drill collar compound

AZM JETLUBE is a premium-quality, unleaded compound containing copper flake, graphite, and other natural extreme pressure and anti-wear additives. AZM JETLUBE's solids package is formulated to prevent excessive circumferential makeup by increasing the coefficient of friction under compressive forces. As stress levels rise above 50% of yield, the friction factor increases, limiting down hole makeup. Full hydraulic joint efficiency is maintained allowing joint shoulder faces to mate completely without standoff or deformation. For invert or high-pH mud's. use AZMLUBE EP For wedge-type thread connections, use drilling string compound for best thread-wear protection.

AZMLUBE - HQ

Premium Ester base lubricant

Provides a tough lubricating film between the wall cake and drill string, imparts lubrication to the bearing surfaces, reduce torque & drag experienced in highly deviated, horizontal & extended-reach wells. Suitable in all water base fluids and has temperature stability up to 350°F.

AZMMIX

Liquid Asphalt for differential sticking prevention

Stabilize water-sensitive, micro-fractured shale's when drilling with water-base drilling fluids by sealing micro-fractures, reduces API, HTHP, dynamic fluid loss and the potential for differential sticking. Improves lubricity and shale inhibition by reducing accretion from sticky clays. Combat seepage losses in conjunction with fibrous materials and calcium carbonate. Temperature stability is up to 425°F (218°C).

AZMLUBE - RG

Fatty esters and specialties based Environmental friendly lubricant

AZMLUBE-RG provide excellent reduction in torque and drag issues in highly tortuous long reach wells, will not damage delicate production zones, increases penetration rates, prevents bit balling and differentially stuck pipe. Improves the overall API and HTHP fluid loss behaviors of the drilling fluid with no negative effects on the fluids

AZMLUBE - EP

Extreme- pressure water base lubricant

Effectively reduce the coefficient of friction on metal-to- metal contact area and reduces the possibility differential wall sticking.

AZMLUBE - XL

Low toxicity Lubricant

Effectively reduces torque, drag and the potential for differential sticking by reducing the coefficient of friction in all types of water- base mud and salinity. Will not affect the rheological properties, may lower fluid loss and has temperature stability up to 400°F (204°C).

AZMLUBE - G

AZM metal- wetting & water dispersible lubricant

Provides excellent metal-wetting characteristic which lowers the potential for bit & BHA balling and decreases the coefficient of friction which reduces torque and drag. Contains no hydrocarbons and can be used in all water-base fluids

AZMLUBE - SILIC

Lubricant for SILICATE system

Reduces torque, drag and the potential for differential sticking by reducing the coefficient of friction in silicate mud system.



AZMLUBE - SAFE

Water soluble brine lubricant

Provides exceptional reduction in metal-to-metal friction when added to seawater, sodium chloride, sodium bromide, calcium chloride and calcium bromide completion fluids. Reduce torque and drag in high-angle, extended-reach wells.

AZMDRILL - L

Extreme- pressure water base lubricant

Improves the ROP in water base mud system by removing buildup of drill solids below the bit and allowing the cutter to make continuous contact with new formation, improves bit life & lowers torque and drag.

PIPE FREE AGENTS & SURFACTANTS

AZM offer pipe-freeing compounds for use as spotting or soaking fluids for all types of drilling fluids. We have developed an extensive line of surfactants — also referred to as surface-active agents — that reduce inter facial tension between water/oil, water/solid, water/air, and other contacting surfaces

AZMDD

cuttings.

AZMDD is an aqueous blend of surface-active AZMDD has application in all drilling areas and can agents. It is designed to reduce the surface tension be used in virtually any water-base drilling fluid. It of all water-base mud systems and reduce the is used primarily in upper-hole drilling to minimize sticking tendency of water- sensitive shale bit and Bottom - Hole Assembly (BHA) balling, reduce surface tension, and aid in dropping sand and the removal of drill solids. It may be used as an emulsifier at any point in the drilling operation to improve emulsification of oil and reduce the viscosity of oil contaminated fluids



AZMDC

AZMDC (SURFACTANT) DUST CONTROL CONCENTRATE AZMDC is a nonionic water soluble surface tension reducer designed for a application in acidizing, well stimulation, and fracturing operations. When applied in acidizing applications the product disperses oils and sludge to provide maximum treatment penetration. AZMDC also functions to effectively break water blocks and prevent or remove crude oil in water or acid emulsions.

In acidizing treatments AZMDC is typically applied to the acid during loading operations at rates of 2 to 5 gallons per thousand gallons of acid. When applied in matrix squeeze treatments AZMDC is mixed in water brine or alcohol at a load rate of 1 to 2 gallons per barrel of fluid.

Specific load rates vary according to the type of treatment being performed. emulsifying characteristics of the oil encountered in the formation, the treating fluid, and the quantity of solids generated during acidizing. Pilot testing is recommended with the test fluids to determine the optimum usage rates for specific treatments.

AZMCLEAN

Surfactant cleaner AZMCLEAN is a blend of selected anionic and non-ionic surfactants with a variety of uses ranging from general rig and engine AZMCLEAN to specialized cuttings wash solutions for oil mud's.

AZMCLEAN detergent full-strength or slightly diluted as a rig and equipment wash when using oil-base mud. For use as a general rig and engine degreaser, regardless of mud type, apply fullstrength or dilute with water as needed. Detergent and degreaser for oil mud clean up and cuttings wash

AZMDD-TECH

sand & emulsify oil.

Surface tension reducer to prevent balling, drop Aqueous blend of surface-active agents can be used in any water base drilling fluid to reduce surface tension, reduce the sticking tendency of water-sensitive shale cuttings, minimize bit & BHA balling and reduce torque and drag.

PIPE-NW

Stuck pipe liberator, Unweighted.

PIPE-NW to free the differentially stuck pipe in a shorter period of time, by cracking and penetrating the filter cake

PIPE-W

Weighable stuck pipe liberator, Liquid One-drum spotting Fluid.

PIPE-W easy to mix and quickly prepare weighted oil base spotting fluid to free differently stuck pipe. Dehydrates and cracks the filter cakes, allowing the spotting fluid to penetrate between drill string and formation wets & lubricates the drill string and reduces the force required to free stuck pipe.

PIPE-ENV

Environmentally

Acceptable Low Toxicity Stuck pipe Liberator/ Spotting fluid. Low-toxicity spotting fluid used for environmental sensitive offshore and onshore wells, to free differently stuck pipe by penetrating between the wall and drill string, reduces torque & drag and provides metal wetting characteristics

BLACK-SPOT

Powder Spotting fluid, Stuck pipe liberator, sack Black-spot blend, easy to handle and store at rig concentrate.

Black-spot blend, easy to handle and store at rig sites, effective additive for freeing differently

Black-spot blend, easy to handle and store at rig sites, effective additive for freeing differently stuck pipe, can be mixed with diesel oil, mineral oil or synthetic fluids and Weighted to the desired density before spotting.

WORK OVER AND COMPLETION FLUIDS

AZM offers vide range of completion technologies comprising value-added completion and reservoir drill-in fluids, additives, cleanup tools, and filtration and associated engineering services. Together, we provide you a seamless and cost-effective solution for optimizing productivity throughout the drilling, workover, and completion processes.

AZM CBF

Work-over and completion Fluid Calcium Bromide Fluids.

AZM-CBF brine is used during work over and completion operations that require densities from 8.4 to 15.3 lb/gal (1007 to 1833 kg/m3). AZM-CBF brines can be formulated with various crystallization points and are available for special applications and winter use. AZM-CBF can be used with sacked calcium chloride to obtain densities up to 15.3 lb/gal (1833 kg/m3). When used with zinc bromide brine, densities to 19.2 lb/gal (2301 kg/m3) can be achieved. Use gentle agitation when mixing for thorough dispersion.

Sodium Bromide - Powder

Sodium Bromide (NaBr) powder is a single salt used to brine workover and completion fluids.

Sodium Bromide is used in clear-brine completion or work over operations that require densities between 8.4 and 12.8lb/gal (1,007 to 1,534kg/m3). This system eliminates the potential of formation damage due to the precipitation of carbonate, bicarbonate or sulfate compounds associated with using calcium-base brines where formation waters contain high concentrations of bicarbonate and sulfate ions. Fluids can be formulated with various crystallization points and are available for special applications and winter use. Use gentle agitation for thorough dispersion

POTASSIUM FORMATE BRINE

Potassium Formate (HCOOK) Brine Systems are used to formulate solidfree workover and completion fluids.

Potassium Formate (HCOOK) Brine Systems are used for solid-free workover and completions operations which require densities have ranging from 8.4 to 13.1 lb/gal (1007 to 1570 kg/m3) and to reduce potential damage resulting from clay swelling or clay dispersion or migration. These brines eliminate the potential of formation damage due to precipitation of carbonate, bicarbonate or sulfate compounds associated with using calciumbased brines where formation waters contain high concentrations bicarbonate and sulfate ions. Potassium Formate Brine Systems can be together with sodium formate to give a more cost-effective brine system.

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ZINC BROMIDE LIQUID

Zinc Bromide Liquid, used for mixing high density, solids free completion brines.

Zinc bromide brine to formulate clear-brine workover and completion fluid which requires density to 19.2 lb/ gal. Inhibits hydration and migration of swelling clays.

POTASSIUM CHLORIDE (KCI)

POTASSIUM CHLORIDE (KCI)

is a soluble salt that is an extremely efficient shale stabilizer.

POTASSIUM CHLORIDE (KCl) is a soluble salt that is an extremely efficient shale stabilizer when drilling hydro sensitive clays and shales. Inhibition is provided through ion exchange; the potassium ion enters between the individual clay platelets in the shale so that they are held together, thus eliminating entry of water from the drilling fluid.

AZMDRIL - IN

Modified Starch derivative, cross linked Non-Ionic.

Non-ionic, starch derivative ining salts or ion sensitive additives for drilling, completion & work over application. Acts synergically with AZMVIS-BORE to increase LSRV. Can be used in most brines including seaintended to reduce HTHP filtrate loss in all water based mud contawater, NaCl, KCl, CaCl2, NaBr & formate salt systems.

AZMVIS - BORE

Premium grade clarified Xanthan gum.

AZMVIS-BORE used to provide superior hole cleaning and suspension, minimize filtrate invasion to formation and reduces torque and drag in reservoir drill in fluids. Provides better rheological profile with elevated low-shear-rate viscosity and highly shear-thinning characteristics

PAC - R - PREMIUM

High-quality polyanaionic cellulose Regular viscosity.

Filtration control agent is used in most water-based drilling fluids, can provide secondary viscosity and is effective even at low concentrations. It is suitable for use in fresh water, salt water and brine-based fluids & stable to 300°F (149°C). Effective in moderate to high pH systems.

AZMCOR - BRINE - 20

Amine corrosion inhibitor (15-20%) for clear completion/ Packer brine.

AZMCOR-BRINE 20 controls corrosion of tubing & casing strings when used in workover & packer brines including sodium chloride, calcium chloride, sodium bromide, calcium bromide & zinc bromide. Provide protection at bottomhole temperature upto 3000F.

AZMCOR - BRINE - 30

Amine corrosion inhibitor (30-35%) for clear completion/ Packer brines.

AZMCOR-BRINE 30- controls corrosion of tubing & casing strings when used in workover & packer brines including sodium chloride, calcium chloride, sodium bromide, calcium bromide & zinc bromide. Provide protection at bottomhole temperature upto 3500F.

CARB-M

Ground marble (calcium carbonate)

AZMLUBE-SAFE

Water soluble brine lubricant.

AZMCLEAN

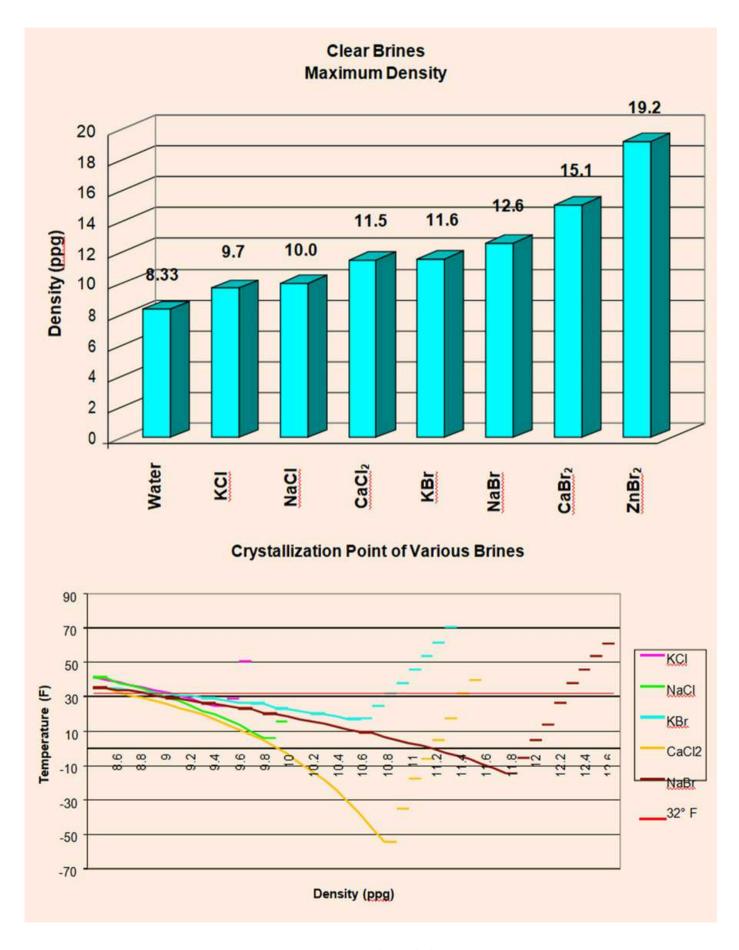
Mud cake clean up solvent

CARB-M is high purity ground marble, used as a bridging & weighting agent in drilling, work over & completion fluids. It is generally more pure with high hardness & provides better acid solubility. Available in different microns size.

AZMLUBE SAFE provides exceptional reduction in metal-to-metal friction when added to seawater, sodium chloride, sodium bromide, calcium chloride and calcium bromide completion fluids. Reduce torque and drag in high-angle, extended-reach wells.

AZMCLEAN is a multi-functional surfactant additive, serves as a wetting agent, a demulsifier and an interfacial tension reducer. Soluble in oil, acid, and water to penetrate deep in the formation to dissolve oil films on fines leaving them waterwet thereby preventing particle plugging and minimizing loss of permeability.

Fluid		Density Range ppg	Usable Temperature (•F)	Stability (Static)	Clay Reactions	Corrosion
Gas						
r/Natura	l gas	0 to 8.3	all	unhmlted		minor
Mist	:	0 to 8.3	32 to 212	none	minor	variable
Foan	n	0 to B.3	32 to 212	limned	minor	variable
Methanol		6.6	-146 to 148	unlimned	minor	variable
Oil						
Diese	el	7.03	-12 to 660	verylong	-	
Crude (tre	ateo1	7 to 8		verylong	-	
Emulsio	ons	7 to 8.3		long	minor	minor
Weighte	d Oil	7 to 17		variable		
Emulsions		8.3 to 17		long	minor	minor
Water						
Fresh	n	8.3	32 to 212	unlimned	none to extreme	variable
(treated)		8.5	32 to 212	verylong	none to extreme	minor
Brine	s					
KCI		8.3 to 9.7	-29	verylong	none to minor	minor
NaCl	2	8.3 to 10.0	-29	verylong	none to minor	minor
CaCl	2	8.3 to 11.6	-51	verylong	none to minor	minor
CaBr2		8.3 to 15.2	-12	verylong	none to minor	moderat
ZnBr	2	8.3 to 19.2	-40	verylong	none to moderate	emaJor
Water/ B	Brine					
Salt		8.3 to 15		short to very long	none to major	minor
Cai	nates	8.3 to 17		short to very lonQ	variable	variable



VISCOFIERS

AZM's viscosifiers designed to increase the viscosity of water-, oil-, and synthetic-base drilling fluids. We provide a variety of clay, polymer, and biopolymer viscosifiers to improve the hole-cleaning and solids-suspension capabilities of drilling fluids

AZMTONE - PR

gelling agent

Premier grade Organophilic clay, Viscosifier and AZMTONE-PR is used to impart viscosity and suspension properties to oil-based drilling fluids. AZMTONE-PR is also used to gel oil drilling fluids for long-term suspension of weighting agents in drilling and packer fluids. AZMTONE-PR typically yields faster than AZMTONE-PR but will reach the same final viscosity. AZMTONE-PR is usually preferred in mineral oil based fluids, AZMTONE-PR is stable to 350°F (176°C). AZMTONE-PR should not be used in high performance clay-free oil based drilling fluids.

AZMTONE - SD

Standard grade Organophilic clay, Viscosifier and gelling agent.

AZMTONE-SD is high temperature filtration control agent, act synergistically with emulsifiers in conventional invert emulsion systems to enhance the overall emulsion and thermal stability. AZMTONE-SD typically yields faster AZMTONE-SD but will reach the same final viscosity. AZMTONE-SD is usually preferred in mineral oil based fluids. AZMTONE-SD is stable to 350°F (176° C). AZMTONE-SD should not be used in high performance clay- free oil based drilling fluids.

HEC - L

Hydroxy Ethyl Cellulose polymer- Liquid having active contain 35-40%.

HEC L is designed to viscosify single-salt CaCl2 brines and all monovalent-salt brines such as NaCl, NaBr. KCl. KBr and NH4Cl. It can also be used to provide viscosity for pills or spacers, fluid-loss control, hole cleaning while washing, milling or reaming, gravel-pack fluids, and non-damaging drill-in fluids. The amount of HEC L required to obtain a specific brine viscosity is dependent upon the composition and density of the brine

HEC

Hydroxy Ethyl Cellulose Polymer.

HEC is multi-purpose viscosifying agent for use in freshwater, sea-water and complex brine systems, its viscosifying characteristics are unaffected by common contaminants & dissolved salts.

MMO

MMO water-base drilling fluid system-delivers unequalled solids suspension that screens easily—even at high flow rates.

MMO when added with water, MMO viscosifier particles bond to the cation exchange side on bentonite, thereby by forming a strong complex that gives the fluids structure and provide viscosity and gel. Temperature stable up to 3000F.

AZMXTRA - GEL

Sodium Bentonite, meets API specifications 13A section 9

Premium grade sodium montmorillonite clay, used as primary filter-cake building, filtration-control and suspension agent in water-base mud systems.

AZMGUM

Guar Gum, Viscosity & Fluid loss control in low solids mud.

AZMGUM -rapid mixing high viscosity polymer for use in freshwater and seawater spud muds AZMGUM- high viscosity AZMGUM are used as drilling aids in oil well drilling, geological drilling and water drilling. AZMGUM used as viscosifiers to maintain drilling mud viscosities that enable drilling fluids to remove drill waste from deep holes.

AZMVIS - BORE

Primary viscosifying polymer. Highly dispersible bio polymer. Xanthan Gum.

Highly dispersible, high molecular weight linear polysaccharide, used to increase viscosity for cutting transport and weight-material suspension for all water-base mud. Provides better rheological profile with elevated low- shear-rate viscosity and highly shear-thinning characteristics. suspended in an ultra-clean mineral oil or Glycol used in most types of water-based fluids for rheology modification, improved hole cleaning and solids suspension.

AZMCLAY

Attapulgite clay, meets API specifications 13A AZMCLAY is used to provide viscosity and hole section 12.

cleaning capabilities in drilling fluids with high concentrations of salts.

AZMDRILL EA (HS)

Polymer of Sodium salt of 2- acrylamido-2methylpropane sulphonic acid ,2 propenamide and prop-2-enoic acid.

AZMDRILL EA (HS) is used in very small quantity to increase the viscosity of Bentonite suspension of very low concentration of bentonite in the system. It is essentially used as a Viscosifier for the Drilling Mud Systems.

BENTONITE EXTENDER

Bentonite Extender is a medium molecular weight, highly anionic,

Bentonite Extender with the capability of doubling bentonite yield, this bentonite extender is able to maintain a given viscosity with half the amount of conventional clay solids while causing drilled solids to agglomerate and settle out.

AZMTHIN

Oil mud thinner for reducing the viscosity & gel strength.

AZMTHIN reduces viscosity and gel strength in oil base mud caused by high content of colloidal solids, without the need for charging the oil/water ratio.

AZMVIS - OBM

Polymeric viscosifier for increasing yield point & gel strength with minimal plastic viscosity.

AZMVIS-OBM elevated yield point and gel strength with minimal increase in plastic viscosity there by minimize the amount of clay in formulation and improves LSRV to increase shear thinning, thixotropic characteristics oil base mud.

AZMMUL - NT

OBM-Viscosifier Non TOFA base multi purpose Emulsifier. OBM-Viscosifier.

AZMMUL-NT viscosifier is used in oil-base, synthetic- base, and paraffin-base drilling fluid systems with high-temperature requirements Temperature stable invert emulsions, secondary wetting, reduce HPHT filtration, improves thermal stability and resistance to contamination in oil mud systems.

WEIGHTING AGENTS

AZM provides barite, hematite, and calcium carbonate materials to impart density to all water-base and invert-emulsion drilling fluids. Weighting agents are used to control formation pressures, prevent formation caving, and facilitate the pulling of dry pipe.

BARITE

Barite BaSO4, meets API 13A section 7.

Barite AZMly used as weighting agent.

CARB-M

Ground marble (calcium carbonate).

High purity ground marble, used as a bridging & weighting agent in drilling, work over & completion fluids. It is generally purer with high hardness & provides better acid solubility. Available in different µ size

CARB-L

Ground Limestone (calcium carbonate).

Ground Limestone based Calcium carbonate used to increase the density of the drilling fluids & serve as LCM & Bridging agent. It can be used in both water based & Oil based drilling fluids. Available in various particle sizes.

AZMCHS

Poly amino acid hydration suppressant.

Water soluble hydration suppressant, environmentally acceptable, organic compound designed to reduce the dispersion & swelling of reactive clay formation & minimizes the potential for bit balling.

BARITE

Hematite, meets API specifications 13A section 8.

AZMDENSE used as a weighting agent It helps control high formation pressures. It increases slurry densities and improve mud displacement. It reduces thermal-thinning effects. Rheological value in muds improve; generally plastic viscosities are 2-30%less than barite muds.

THINNERS & DISPERSANTS

AZM offers a line of thinners and dispersants that are specially designed to modify the relationship between the viscosity and percentage of solids in drilling fluids.

AZM provide thinners for most water-, oil-, and synthetic-base drilling fluids.

AZMTHIN

Thinner

AZMTHIN used with synthetic-base mud systems, this thinner system reduces viscosity and gel strengths in the mud without the need for dilution or changing the synthetic/water ratio.

AZMTONE

Thinner and conditioner dispersant.

AZMTONE is used in the thermally stable, flatrheology invert- emulsion drilling fluid system to reduce overall viscosity and gel strengths.

AZMPPD

Pour Point Depressant
- Flow Improver/ Wax
Dispersant /Inhibitor

AZMPPD will be dependent on the system to which they are to be applied and on the hydrocarbon profile of the crude. Field experience shows typical dose rates when applied to main export pipelines and topsides process streams to be in the region of 100-1000ppm. An effective dosing level from a laboratory test rarely correlates well with dose rates observed

in the field and it is therefore recommended that the actual dose rate for products be substantially reduced during field application. It would be recommended that optimum dose levels be assessed in the field.

AZMCL

Caustisized lignite.

AZMCL controls rheology and reduce fluid loss for higher temperature muds, emulsifies oil, reduces flocculation and stabilizes water-base drilling fluids

AZMK - LIG

Potassium Lignite Potassium lignite is an organic potassium source containing 40% potassium by weight.

AZMKLIG is used to increase soluble potassium for shale inhibition when chlorides from potassium chloride are undesirable. While it can be the sole source of potassium, AZMKLIG is more often used in combination with other potassium-base products such as causticized potassium lignite, chrome lignite and KOH.

AZMFC Deflocculant

Ferrochrome lignosulfonate, Chrome lignosulfonate. AZMFC-DEFLOCCULANT is specially formulated to improve rheology control.

AZMFC Deflocculant is multi-purpose deflocculant and gel-strength reducer, temperature stabilizer and filtration-control additive for use in all water-base systems. Exhibits superior deflocculating ability, even in the presence of contaminants and elevated temperatures.

AZMPPD 8

Pour Point Depressant (Primary Molybdenum Operations).

AZMPPD 8 is a water soluble material that provides efficient depression of iron, copper and lead containing sulfide minerals in flotation processes. This product is the preferred depressant in primary molybdenum flotation operations for copper and iron sulfides. AZMPPD8 performance in coppermolybdenum separation circuits to depress copper from molybdenum in rougher and/or cleaner circuits

AZMPPD 50

ASPHALTENE DISPERSANT.

AZMPPD 50 is a high activity asphaltene dispersant. AZMPPD 50 keeps asphaltene ssolublised and dispersed to avoid reflocculation and reduce the size of particles. AZMPPD 50 is formulated to allow increase contact between solvent and deposit even in the presence of water.

AZMPPD 100

ANTISCALE AND DISPERSANT POLYMER

AZMPPD 100 is a carboxylic co-polymer used for various water treatment and industrial applications. It is highly effective as Dispersant and Scale Inhibitor in Industrial Water Treatment and Cooling Water Treatment as well as in all types of water based formulations. It's a low molecular weight polymer has good anti-gelling capacity and so has best calcium trapping ability working over wide range of pH, high hardness and temperature without precipitation. AZMPPD 100 is non phosphorus; non-foaming dispersant and has good environmental acceptability

AZMDET DRS

Drilling Mud Detergent Foaming Tendency Test: Increase in volume due to foaming: 5% max.

AZMDET DRS is a concentrated Liquid blend of several highly active formulated chemicals which is used as a drilling mud detergent. The product finds application in all water based drilling fluid systems. AZMDET DRS reduces the surface tension and it is a powerful wetting agent. The reduction in surface tension promotes the setting of the mud pH and reduced the balling of shale cutting resulting in increase in the penetration rate. AZMDET DRS acts as a good emulsifier and lowers the torque and drag.

AZMPURE

Bio Dispersant.

AZMPURE is a non-ionic bio dispersant for use in open recirculating systems. It improves penetration of chlorine and non-oxidizing biocides to better microbial control. AZMPURE has a slight foaming characteristic. AZMPURE non-toxic and non-polluting at use levels. AZMPURE helps to increase the effectiveness of chlorination and non-oxidizing biocides.

SCAVENGER

AZM offer highly effective oxide scavengers are effective at the pH levels found in most drilling fluids.

AZMSCAV - HS

Organic H2S scavenger, Triazine base.

Provides solid free H2S scrubbing for brine based drilling fluid in neutral-high pH conditions.

AZMOXAL - HS

H2S scavenger Glyoxal base.

Displays a continuous H2S scavenging activity over longer time. Exhibits good temperature stability upto 150°C and intended for use in low pH conditions

AZMOS

BiSulfite-base oxygen scavenger.

Removes dissolved oxygen from drilling and completion fluids, eliminating a potential source of corrosion. Suitable for use in freshwater and monovalent brines, incompatible with AZMCIDE G.

AZMZNO

ZINC OXIDE material reacts with sulfides to form ZnS.

Efficient H2S scavenger, Zinc oxide reacts with sulfides to form ZnS precipitate, which is an insoluble, inert, fine solid remain harmlessly in the drilling fluid and removed through the solidscontrol equipment

AZMZNC03

Sulphide Scavenger Zinc Carbonate- sulfide scavenger contains a high- quality zinc carbonate. The fine particle-size- distribution of zinc carbonate results in a maximum amount of surface area for fast, efficient sulfide scavenging and is effective in water base and oil- or synthetic-base fluids.

Under operating conditions, zinc carbonate reacts with sulfides to form zinc sulfide (ZnS), which has an extremely low solubility in water (0.0096 g/mL). Drilling fluids should not be acidified; otherwise, hydrogen sulfide could be liberated. Zinc carbonate is effective as a scavenger at the pH levels found in drilling fluids. It is recommended that a pH above 10 be maintained whenever H2S is expected.

This high alkalinity converts the dangerous H2S gas to less toxic bisulfide (HS-) and sulfide (S2-) ions. The alkaline pH (>10) allows an extra margin of safety.

TEMPERATURE STABILIZERS

AZM's temperature stabilizer provide to increase the rheological and filtration stability of drilling fluids and to improve the thermal stability in higher-temperature environments.

AZM temperature stabilizers include synthetic polymers that are thermally stable up to 2040C

PTS

Polymeric temperature stabilizer.

PTS effectively reduces the degradation of polymers at higher thermal conditions, thereby allowing polymer fluids to be used effectively in wellbores with higher bottomhole temperature gradients. Polymeric alkaline material, improves the temperature stability of polymer fluid by a margin of 70°F (39°C) by effectively reducing the degradation of polymers at higher thermal condition.

AZMTEMP

Resignate Lignite Complex.

AZMTEMP is most effective HTHP filtration control additive provides rheological stability over a wide range of temperatures, suitable for use in freshwater, seawater & brackish water.

AZMLIG

Ground lignite.

AZMLIG effectively reduce fluid loss in high temperature application and deflocculate water-base muds. Provides thin, low-permeability filter cakes, performs exceptionally well in dispersed systems as a synergistic additive with lignosulfonates.

AZMCL

Caustisized lignite

AZMCL Controls rheology and reduce fluid loss for higher temperature muds, emulsifies oil, reduces flocculation and stabilizes water-base drilling fluids.

AZMCHROLIG

Chrome lignite, sodium hydroxide, neutralized.

AZMCHROLIG is high-temperature thinner, excellent additive for HTHP filtration control and rheological stabilization for muds subjected to high temperatures.

SAPP

Sodium Acid Pyrophosphate (Na2H2P2O7) is an effective dispersant and protect.

SAPP is efficient dispersant in low-weight fresh water muds used in up hole drilling and effective additive for treating cement contamination and reduce viscosity

AZMFC Deflocculant

Ferrochrome lignosulfonate, Chrome lignosulfonate AZMFC - DEFLOCCULAND is specially formulated to improve rheology control

AZMFC Deflocculant is multi-purpose deflocculant and gel-strength reducer, temperature stabilizer and filtration-control additive for use in all waterbase systems. Exhibits superior deflocculating ability, even in the presence of contaminants and elevated temperatures.

AZMCF DEFLOCCULANT

Chrome-free lignosulfonate, Environmentally acceptable thinner AZMCF-DEFLOCCULANT is specially formulated to improve rheology control.

AZMCF Deflocculant is environmentally acceptable deflocculant and fluid loss additive in all types of water-base systems. Exhibits superior deflocculating ability, even in the presence of contaminants and elevated temperatures.

SCALE INHIBITORS

AZM offer formulated to inhibit the deposition of calcium carbonate, calcium sulfate, and other mineral scales on downhole tubulars and associated surface equipment.

AZMSCALE SAFE

Scale Inhibitor is a concentrated blend of polymers that provide optimal anti-scale/dispersant efficiency through following different mechanisms. It is used for water where high scale forming tendency of salts like a) Calcium Carbonate b) Calcium Sulfate c) Barium Sulfate d) Strontium Sulfate is more than 500 ppm.

AZMSCALE SAFE is designed to provide superior stabilization of

- 1) Calcium Carbonate
- 2) Calcium Sulfate
- 3) Barium Sulfate
- 4) Strontium Sulfate like scales. In addition Scale Inhibitor is a strong dispersant in keeping the silt and commonly encountered inorganic particles suspended and in preventing their settling out onto heat transfer surfaces.

AZMDET DRS

Drilling Mud Detergent Foaming Tendency Test: Increase in volume due to foaming: 5% max.

AZMDET DRS is a concentrated Liquid blend of several highly active formulated chemicals which is used as a drilling mud detergent. The product finds application in all water based drilling fluid systems. AZMDET DRS reduces the surface tension and it is a powerful wetting agent. The reduction in surface tension promotes the setting of the mud pH and reduced the balling of shale cutting resulting in increase in the penetration rate. AZMDET DRS acts as a good emulsifier and lowers the torque and drag.

AZMBRINE SI

AZMBRINE SI (scale inhibitor) is designed to prevent alkaline earth metal scale deposition in calcium and zinc brines. Scale prevention helps permit higher reservoir productivity, minimize production downtime and reduce the risk of localized corrosion.

AZMBRINE SI is designed to work in all brines that contain zinc to help prevent the deposition of scale AZMBRINE SI is specifically formulated to work with AZMCORE 45 corrosion inhibitor to prevent corrosion cell formation on unprotected metal exposed to high density brines. AZMBRINE SI exhibits the threshold effect in which large numbers of multivalent cations are kept in solution by a small concentration of an inhibitor. The threshold effect exhibited by AZMBRINE SI scale inhibitor helps prevent the initial scale deposition on unprotected metal remains effective long enough to allow a companion product, AZMCORE 45 corrosion inhibitor, to fully coat the clean metal surface and helps prevent long term corrosion.

AZMPPD 100

ANTISCALE AND POLYMERPOLYMER.

DISPERSANT

AZMPPD 100 is a carboxylic co-polymer used for various water treatment and industrial applications. It is highly effective as Dispersant and Scale Inhibitor in Industrial Water Treatment and Cooling Water Treatment as well as in all types of water based formulations. It's a low molecular weight polymer has good anti-gelling capacity and so has best calcium trapping ability working over wide range of pH, high hardness and temperature without precipitation. The product is non phosphorus; non-foaming dispersant and has good environmental acceptability

AZMPPD 100

AZM's flocculants used to increase the viscosity of water-base drilling fluids to enhance hole cleaning. Our flocculants are also used to increase bentonite yield and to clarify or dewater low-solids fluids.

AZMFLOC

FLOCCULANT.

AZMGEL - EXT

AZMGEL-EXT is a

bentonite extender and as a bentonite extender in low-solids, non-dispersed drilling fluids.

AZMFLOC flocculate and settle out dispersed formation solids in clear fluids and conventional drilling fluids. AZMFLOC helps inhibit the dispersion of formation clays and cuttings. AZMFLOC Helps reduce the build-up of formation

solids in mud systems. AZMFLOC reduce dilution rates required to maintain properties.

AZMGEL-EXT is used to increase viscosity of bentonite at the job sit. The amount of viscosity generated will depend on the amount of bentonite and drill solids contain in the drilling fluid.

EMULSIFIERS AND WETTING QAGENTS

AZM offer a number of emulsifiers to create an emulsion of two insoluble liquids. We also offer wetting agents that lower the surface tension of a liquid and enable it to spread more quickly and easily. AZM products are designed specifically for invert-emulsion and water-base drilling fluids for improved operational flexibility

AZMTONE

Organophilic clay,

Viscosifier and gelling agent alcohol-base defoamer.

Impart viscosity and suspension properties to oil base drilling fluids, for improving cutting-carrying capacity and to provide long-term suspension of weighting agents being workover fluids

AZMTONE - PR

Premier grade Organophilic clay, Viscosifier and gelling agents-base defoamer.

AZMTONE-PR is used to impart viscosity and suspension properties to oil-based drilling fluids. AZMTONE-PR is also used to gel oil drilling fluids for long-term suspension of weighting agents in drilling and packer fluids.

AZMTONE-PR typically yields faster AZMTONE-PR but will reach the same final viscosity. AZMTONE-PR is usually preferred in mineral oil based fluids. AZMTONE-PR is stable to 350°F (176°C)

AZMWELLTONE

Amine-treated lignite, HT filtration control Additive

High temperature filtration control agent, act synergistically with emulsifiers in conventional invert emulsion systems to enhance the overall emulsion and thermal stability.

AZMPHALT

ASPHALT-Asphaltic resin, Filtration Additive.

control AZMPHALT provide filtration control, seal lowpressure and depleted formations, also improves overall emulsion stability, thermal stability and suspension characteristics of oil base mud.

AZMMUL - S - HT

secondary emulsifier.

Highly concentrated high temperature stable Multi- functional additive serves as secondary emulsifier, wetting agent and HTHP filtration control agent with improved thermal stability in oil mud system.

AZMTHIN

Oil mud thinner for reducing the viscosity & gel strength.

Reduces viscosity and gel strength in oil base mud caused by high content of colloidal solids, without the need for charging the oil/water ratio.



AZMMOD

Rheological modifier to increase LSRV, yield point, gel strength & carrying capacity.

Enhance LSRV and gel strength for improved cutting-carrying capacity in large- diameter highangle, horizontal and extended-reach wells. Improved shear thinning, thixotropic characteristics without using additional clay-base additive and reduce fluid loss in oil base mud. AZMMOD is used to improve cuttings transport in large- diameter or directional wells, especially wells with diameters greater than 8 ½ in. or deviations greater than 25°. It modifies the rheological profile of oil-base muds, increasing their shear-thinning and thixotropic characteristics without using additional clay-base additives. AZMMOD can be used in the existing oil-base mud systems, as well as in freshly prepared mud, to prepare a system with increased LSRV and gel strengths. Sufficient shear is required to develop this increase in rheology, especially in freshly prepared muds.

AZMVIS-OBM

Polymeric viscosifier for increasing yield point & gel strength with minimal plastic viscosity.

Provides elevated yield point and gel strength with minimal increase in plastic viscosity there by minimize the amount of clay in formulation and improves LSRV to increase shear thinning, thixotropic characteristics oil base mud.

AZMWET-OBM

Oil wetting agent for improving oil wetting of solids & emulsion stability.

Power oil wetting product used to oil wet drill solids and weighting agents in oil-based drilling fluids.

LOST CIRCULATING MATERIALS

AZM offers most extensive line of lost circulation materials specifically designed to seal costly loss zones. Our lost circulation technologies include proprietary engineering software to determine the optimal particle size distribution of bridging materials.

We provide basic LCM ranging from flakes and fibers to specially engineered families of cross linking polymers designed to plug large fractures. Additionally, our thermally activated gelling agents generate viscosity and develop a gel structure once bottom hole temperature exceeds 1400F [600C].

LOSS-PLUS

Micronized Cellulose fiber.

Bridging and sealing permeable formations in water/oil/synthetic base fluids. It is particularly useful for preventing differentially pipe when drilling depleted zones where high differential pressures exist. Available in Fine, Medium & coarse grades.

MICA

Sized Grade of Mica.

Flake LCM for seepage losses and prevention. It is used for preventing or curing formation losses while drilling fractured or porous zones. Available in Fine, Medium & coarse grades.

USEAL-90 is a highly effective, high-solids, high-fluid-loss lost circulation squeeze material. A solid

USEAL - 90

High fluid loss squeeze material.

plug is formed in the thief formation when water or oil is squeezed from the slurry. USEAL-90 creates a seal in the loss zone, not in the wellbore like conventional LCM. The seal cannot be easily disrupted by circulation or drill pipe movement

AZMCLEAN

Soft plug reactant pill (WBM/SBM).

AZMCLEAN surfactant-based well cleaners perform wellbore displacement, casing cleaning and water-wetting operations. With AZMCLEAN well cleaner, removal of drilling fluid, oil and solid residues is fast, which can result in reduced cleanup time and filtration costs. AZMCLEAN well cleaners are imperative to helping ensure that operations are not extended when transitioning from drilling to completion operations

UACTIVATOR

Polymer plug – Cross linked - Activator.

excellent protection from Calcium Carbonate, Calcium Sulfate, Barium Sulfate and Strontium Sulfate types of Scale Deposition in Brines during Oil Well Drilling. It is compatible with Drilling Brines and other Mud Chemicals.

BRIDGE

Granular Graphite.

Chemicallyinertandthermallystable,effectivebridgi ngandsealingagent used in water, oil or synthetic based drilling fluid. Can lowerthe potential for stuck pipe, control lost circulation and reducetorqueanddrag.

BRIDGE - PLUS

Granular Graphite/ Coke blend.

Chemically inert, sized plugging agent used to bridge and seal porous and fractured formations in water, oil or synthetic based drilling fluid. Can lower the potential for stuck pipe, control seepage, partial and severe lost circulation and reduce torque and drag.

SEAL

Blend of fibrous, flaky & granular LCM

URETARDER

Polymer plug – Cross linked - Retarder.

Mixture of selected non-abrasive granular, flake and fibrous material with a unique physical structure and an extensive range of particle size that enhances its bridging properties. It very effective to combat severe lost circulation for water base mud. Will function at all temperatures.

Provide suspension, fluid- loss and cross linking. It is form a rigid gelstructure.

DIATOMACEOUS - EARTH

Diatomaceous earth blend for preparing soft plugs for severe lost circulation.

Highly effective, high-fluid-loss lost circulation squeeze material. Creates a seal in the loss zone, effective in both water-based and oil-based mud applications.

AZMDUST

Shredded Cedar Fibre (SAW DUST).

AZMDUST - used to prevent and/or regain lost circulation. SAW DUST additive has a fibrous shape, and is an effective material for regaining circulation when seepage or major loss zones are encountered. It may be used as a preventative additive if losses are anticipated. SAW DUSTmaterial can be used to treat the entire system or used in concentrated slugs or batches.

FILTRATION REDUCERS

AZM offers a complete line of chemicals used to reduce fluid loss to the formation caused by the liquid phase of the drilling fluid. Our filtration reducers can be formulated to work effectively in bottom hole temperatures as high as 5000F [2600C].

AZMTEMP

Resinated Lignite- high- temperature stabilizer and fluid loss control resonated lignite. This lignite is effective in high-temperature reservoirs.

AZMTEMP is a broad-application fluid-loss-control agent that can be used in virtually any water-base mud. In field applications, excellent results have been obtained in freshwater, brackish water, seawater, saltwater, lime, gyp, ligno sulfonate, polymer and non-dispersed systems. It also stabilizes and extends the temperature limitations and contamination- resistance of water-base mud systems to above 400°F (204°C). It is notably effective in high-density muds where fluid-loss control can be achieved without increases in viscosity

AZMFLC

modified Preserved starch. Starcher Poyol bae.

Pre-gelatinized Non fermenting starch for Fluid loss control & rheology stabilizer in fresh water & saturated salt water mud.

AZMFLC - HT

high temperature.

Preserved modified starch, Pre-gelatinized Starch- High temperature stable, Non fermenting starch for Fluid loss control & rheology stabilizer in fresh water & saturated salt water mud.

AZMCHEK

Modified Natural Polymer, Carboxy methyl starch

Fluid loss controller in most water base drilling & drill-in fluids at high temperature environment, does not significantly increase viscosity. Can be used to encapsulate drill cuttings & exposed wellbore formations to reduce particle dispersion & reactive clay/shale formation swelling. It does not require a biocide to prevent fermentation.

TROL HT

Starch for Non ionic. cross-linked applications.

HTHP A special starch derivative to reduce HTHP filtrate loss for all water based muds including drilling, completion & work over. It is non ionic in nature suitable for muds containing salts or ion sensitive additives. Acts synergically with Xanthan gum polymer to increase LSRV. It can be used in most brines including seawater, NaCl, KCl, CaCl2, NaBr and formate salt systems.

AZMFC

Polysaccharide derivative to control filtration in FC fluid-loss-control agent is a polysaccharide Mixed Metal Oxide system.

derivative used to control filtration in Mixed-Metal Oxide system. It will not destroy the low-end rheology of the Mixed Metal Oxide system. It is effective in seawater fluids, but all hardness should be treated out before the product is added. It is resistant to bacterial degradation. It can beused in any other type of fluid where starch & cellulose additives are permitted.

AZMCMC-HVT

Sodium Carboxy methyl cellulose High viscosity

Technical grade High viscosity, Fluid loss additive used in fresh water & sea water muds. It is used in Low viscosity or low solids fluids & increase viscosity in addition to controlling fluid loss.

AZMPAC-LV

Polyanionic cellulose-Low viscosity.

Low viscosity grade fluid loss control polymer with minimal viscosity increase. It will perform well in all brine applications, especially saltwater-base fluids. It can be used at all densities in either dispersed or non-dispersed systems. It will encapsulate solids to control dispersion of active shale.

AZMPAC-RGT

Poly anionic cellulose Regular Viscosity grade.

Regular grade viscosity PAC useful in controlling fluid loss & increasing rheology in all types of water. It will aid in dispersion control by attaching & encapsulating the dispersion solid. It may be used in all density ranges and functions effectively in dispersed & non dispersed system.

AZMPAC-RGT

Poly anionic cellulose Regular Viscosity grade.

Regular grade viscosity PAC useful in controlling fluid loss & increasing rheology in all types of water. It will aid in dispersion control by attaching & encapsulating the dispersion solid. It may be used in all density ranges and functions effectively in dispersed & non dispersed system.

PAC-LV-PREMIUM

High-quality, Medium Purity Polyanaionic cellulose, High Quality, Medium Purity, low-viscosity grade Low viscosity.

High Quality, Medium Purity, low-viscosity grade fluid-loss-control polymer. It is designed for

fluid-loss-control polymer. It is designed for situations where filtration control is needed with only minimal increases in rheology. It performs well in all brine applications, especially saltwater-base fluids. Can be used at all densities in either dispersed or non-dispersed systems. Functions at all pH range. Temperature stability is up to 300° F.

TROL-DI

applications.

Modified Starch for divalent drilling fluid system High-molecular weight, branched-chain starch derivative, used to provide elevated low-shear-rate viscosity (LSRV) and fluid loss in the divalent drilling fluid system such as Calcium Chloride, Magnesium Chloride, Calcium Bromide and Zinc Bromide brines

PAC-LV-PLUS

Specially processes blend of Polysaccharide PAC LV PLUS is a specially processed blend of derivative.

polysaccharide derivatives to control filtrate loss. which gives higher temperature stability than regular PAC LV grade. It is designed for situations where filtration control needed with only minimal increases in rheology. PAC LV PLUS polymer will perform well in all brine applications, especially salt water-base fluids.

BACTERICIDES

AZM provides a suite of additives designed to control the degree of acidity or alkalinity in drilling fluids.

AZMCIDE

active content.

Biocide Triazine base, Available in 50% & 78% Biocide Triazine base, Available in 50% & 78% active content AZMCIDE T Prevent bacterial growth in water base mud sand low-salinity clear brine fluids. Effective H2S scavenger. Preservative for cutting oil, chemicals coolants, drilling muds, completion fluids and hydraulic fracturing fluids and recovering system.

SODA ASH

water and to remove Calcium Contamination water and to remove Calcium Contamination particularly due to Anhydrite.

Sodium carbonate to treat Ca ion out in makeup Sodium carbonate to treat Ca ion out in makeup particularly due to Anhydrite Soda Ash Sodium carbonate as a source of carbonate ions to precipitate & remove soluble calcium from water base fluids and makeup waters. Provide effective treatment for Calcium Contamination particularly due to Anhydrite, increases pH and flocculates spud mud.

AZMCC

AZMCCR

This organic acid is used to reduce the pH of drilling fluids as well as to remove calcium

Reduce pH and removes calcium to pre-treat or remedy cement contamination, sequesters soluble iron to prevent polymer cross linking in the drilling fluid system.

AZMBUF

Magnesium Oxide, Anhydrous.

AZMBUF as a pH buffering agent promotes temperature stability and enhances the rheological and filtration properties of water base drilling fluid at high temperature.



Our Certificates

AZM is An ISO 9001 CERTIFIED ORGANISATION

ISO 9001:2015





ISO 45001:2018





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