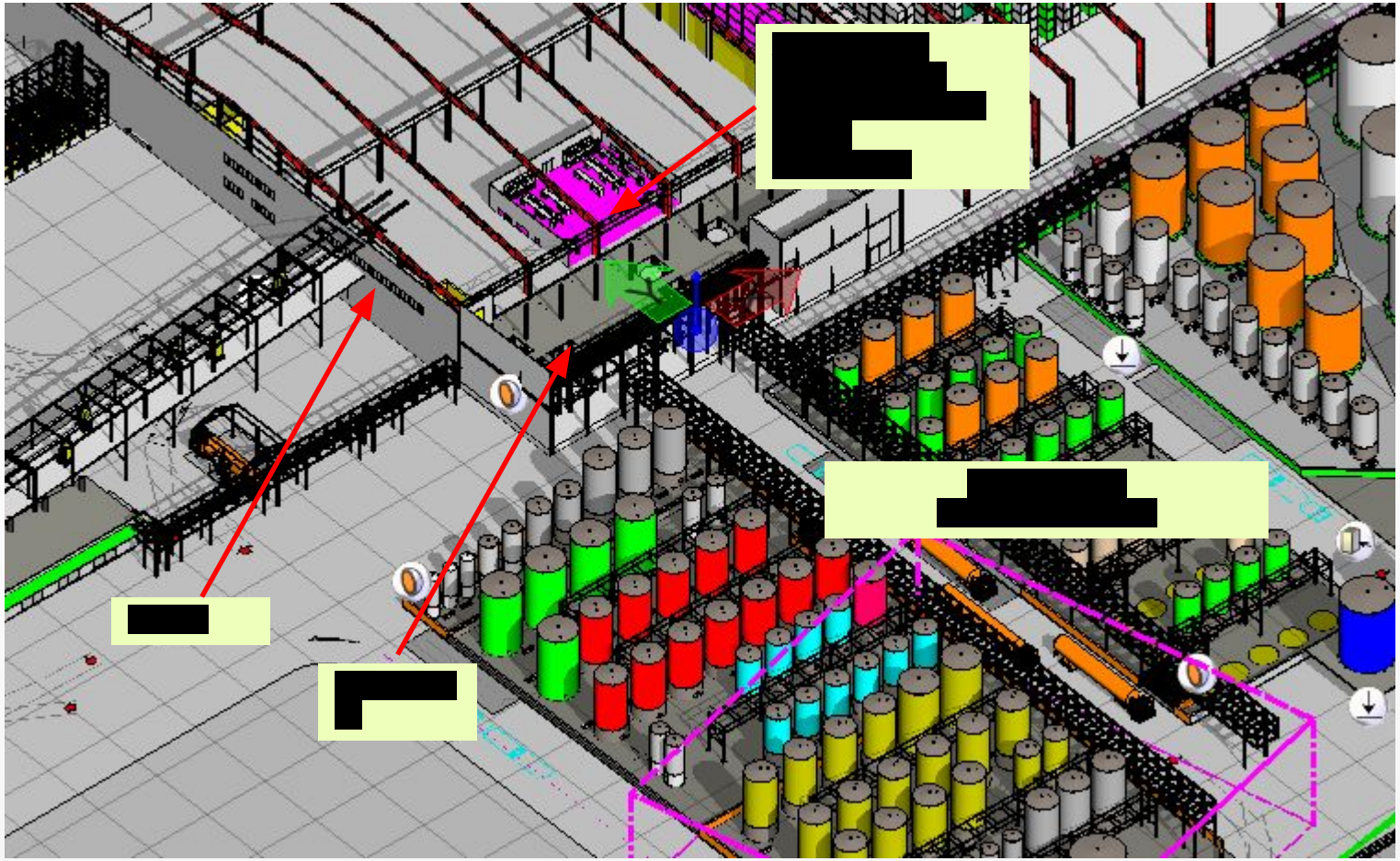
Указатель 2

Контроль качества

Принципы, рассмотренный вариант и выбранный результат

1.
2.
3.
   a.
   b.
   c.

Лаборатория-Расположение



Лаборатория

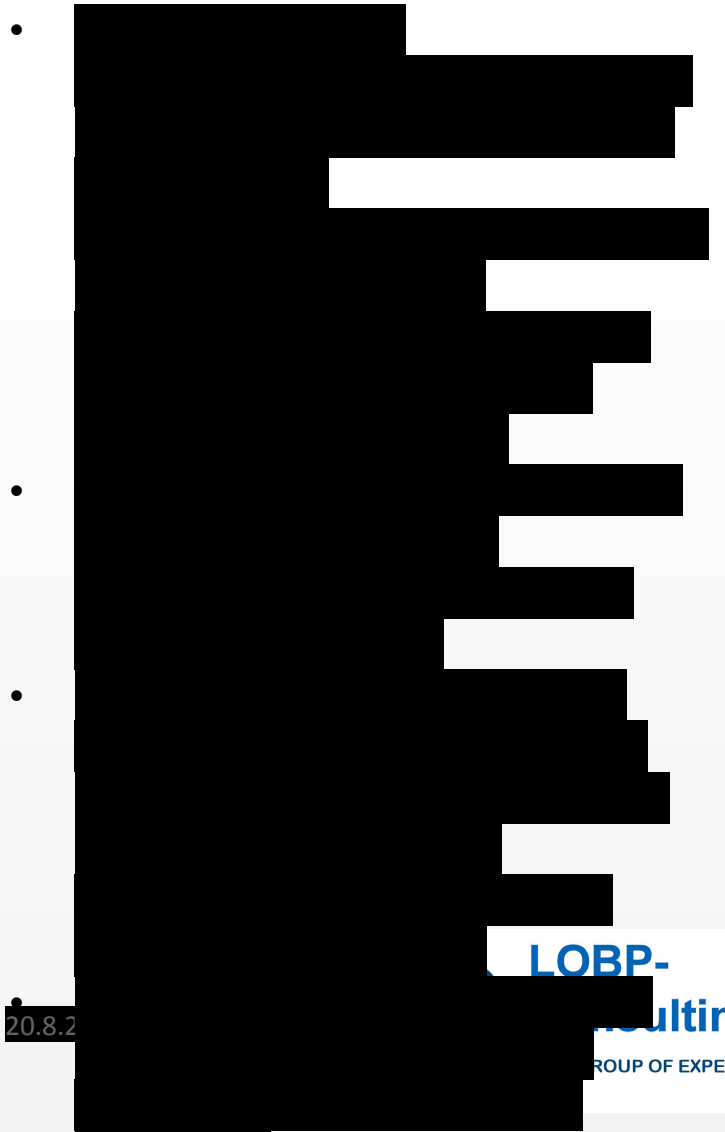
Система пневматической передачи – Транспортировка образцов по LOBP (Завод по смешиванию смазочных масел)

[redacted]

Лабораторная производственная необходимость

Важная информация – Количество пробных образцов

SN	Sample type	# samples / shift
1	Base Oil / MEG – Receipt (based on 1-2 shipment a week)- 20 samples per week = ~ 2 sample per shift	2
2	Additive (Oil, BF, Coolant) – ISO containers – 15 – 20 containers per day	10
3	Additive – Drums	2
4	Blending – Finished products and Intermediates (Oil, BF; Coolant)	20
5	Filling – Packs filling – round 11 filling lines operating – 2 samples per line per shift	22
6	Filling – Bulk filling – 2 bays – including production tank farm (Oil, BF; Coolant)– 10 trucks per day * 3 samples per truck	15
7	Train Truck loading – 1 Train per week – 5 products per Train @ 2 samples per product =30 samples week =3 sample per shift	3
8	Pilot samples for new products / raw materials	5
9	Miscellaneous testing	`10
	Total per shift	79
	Total samples per day *2,2)	174
	Margin – ~ 15%	27
	Total samples estimated per day	201
	Total samples per year – 350 days	70350



Обзор Лабораторного Оборудования

Список испытательного оборудования лаборатории–в соответствии с экспертом лаборатории ООС

1	D1500	ASTM Color of Petroleum products, comparator
2	D4052	Density and Relative Denisty by Digital Density Meter
3	D1298	Density , Relative Density by Hydrometer method
4a	D445, manual	Manual setup based on Cannon CT-500 baths, 2 pcs
		OR
4b	D445, Manual	Manual setup based on Cannon CT-1000 baths, 2 pcs
		OR
4c	D445, manual	Manual setup based on Tamson TV-4000 baths, 2 pcs
		OR
4d	D445, automatic	Automatic setup based on Cannon MiniAV, 2 baths
		OR
4e	D445, automatic	Automatic setup based on Cannon MiniAV-X, 2 baths
		OR
4f	D445, automatic	Automatic setup based on Tanaka AKV202, 2 units
5	D665	Rust Preventing Properties
6	D92	Cleveland Open Cup Tester, automatic
7	D93	Pensky Martens Open Cup Tester, automatic
8	D611	Automatic Aniline Point Tester
9	D4530	Micro Carbon Residue Tester, ACR-M3
10a	D974 + D2896	Combined TAN +TBN titrator, main unit plus two additional titrators
		OR
10b	D974 + D2896	GR Scientific setup, main system plus two additional titrators
11	D6304 method A/B	Coulometric KF Titrator, Gr Scientific
12	D6304 method C.	Determination of Water in Petroleum Products, coulometric KF
13a	D6749, correlates to D97	Pour Point of Petroleum products (Automatic Air Pressure Method)
		OR
13b	Correlates to D97	Pour Point of Petroleum products, automated D97
		OR
13c	D5985	Pour Point of Petroleum products (rotational method)

14a	D892	Foaming Characteristics of Lubricating Oil
		OR
14b	D892	Foaming Characteristics of Lubricating Oil, semi automatic
15	D1401	Water Separability of Petroleum Products
16	D6443	WDXRF method, Ca/Cl/Cu/Mg/P/S/Zn in unused Lubricating oils
17	D5293	Apparent Viscosity of Engine oils using the Cold Cranking Simulator
18	D4629	Nitrogen Content
19	D189	Manual Carbon residue
20	D482&D874	Ash and Sulfated Ash
21	E412, D7412 etc	Portable FTIR, Eraspec Oil
22	ISO-4406	Portable Twin Laser Particle Counter
23	D130	Copper Corrosion Test for lubes
24	D4294	EDXRF sulfur
25	Misc	Ductless Fume Hood and Storage Cabinet
26	Misc	Oven, Furnace, Stirrer and Stirrer Hotplate
27	IP308	Atomic Absorption, metal content (Ba/Ca/Mg/Zn)

No.	Description
1	Lab Ventilation System
2	Lab Furniture System
3	Lab Decoration System
4	Lab Gas System

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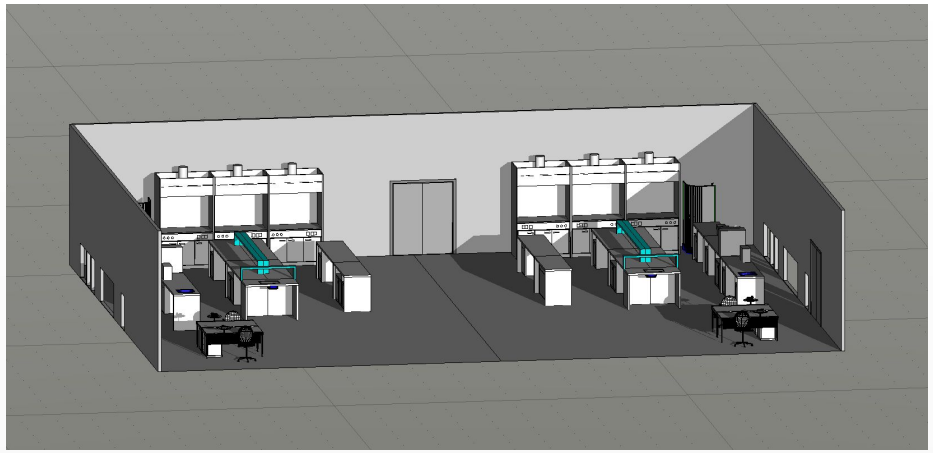
Лабораторное испытательное оборудование

ЛАБОРАТОРНАЯ МЕБЕЛЬ



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СПРАВОЧНЫЕ ДОКУМЕНТЫ