

A Field Report

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MECHANICAL ENGINEERING FIELD REPORT

Field Report on _____

Introduction:
This report presents a field visit to _____
The purpose of this visit was to:
• _____
• _____
• _____

Background Information:
Location: _____
Date: _____
Time: _____
Type of Facility: _____
Supervisor/Engineer: _____

Equipment & Mechanical Systems:
• _____
• _____
• _____
• _____

Observations:
• Machine Operation: _____
• Maintenance Activities: _____
• Safety Procedures: _____
• Work Environment: _____

Technical Analysis:
• Efficiency & Performance: _____
• Mechanical Issues: _____
• Energy Consumption: _____
• Materials & Design: _____

Problems Identified:
• _____
• _____
• _____

Recommendations:
• _____
• _____
• _____

Conclusion:
• This field visit helped me to understand: _____
• It also improved my knowledge of: _____

1. **Site visit report** (تقرير زيارة ميدانية للموقع)
2. **Inspection report** (تقرير فحص المعدات / الأنظمة الميكانيكية)
3. **Safety observation report** (تقرير ملاحظات السلامة الميكانيكية)
4. **Environmental survey report** (تقرير دراسة البيئة العملية للمعدات)
5. **Training / internship field report** (تقرير تدريب / تدريب عملي ميداني في الهندسة الميكانيكية)

Standard Field Report Structure

1. Introduction (المقدمة)
2. Description of the Field Site (وصف موقع العمل الميداني)
3. Observations / Findings (الملاحظات)
4. Analysis / Discussion (التحليل)
5. Conclusions (الاستنتاج)
6. Recommendations (if required) (التوصيات)



Field Report

Report By: _____

Date: _____

Location: _____

Team: _____

1. Introduction

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2. Description of the Field Site

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3. Observations / Findings

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4. Analysis / Discussion

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5. Conclusions

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6. Recommendations (if required)

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1 المقدمة (Introduction)

- تحديد هدفك من الزيارة (التقرير) ويُفضل أن يكون هدف واحد.
- ذكر التاريخ والموقع الميداني.

2 وصف موقع العمل الميداني

- تحديد مكان موقع العمل الميداني.
- الأنشطة
- مسؤولون التشغيل

3 الملاحظات

- تدوين الملاحظات بدقة.
- استعمال مصطلحات فنية.
- استعمال لغة الماضي.
- كن دقيق عند التدوين خاصة الأرقام أو الوحدات.. الخ

4 التحليل

- شرح الآثار المترتبة كالمخاطر والتكلفة.
- تحديد المشكلات المتكررة.

5 الاستنتاج

- لخص النتائج الرئيسية
- اذكر الحالة/الوضع العام.
- حافظ على الاتساق مع الأدلة.

6 التوصيات

- يجب أن تكون التوصيات عملية، واضحة، وقابلة للتنفيذ.
- استخدم إجراءات محددة (تركيب / وضع ملصقات / إصلاح / تدريب).
- حدّد الأولويات (المخاطر العالية أولاً).

التقرير الميداني

اسم المشروع: _____
الحوقح: _____
التاريخ: _____

1. المقدمة

2. وصف موقع الصمل اليبداني:

3. التحليل / المتأشة:

3. لمآحطآ / التآآح.

5. الإمنتآح:

6. التوصيات (إن وؤدت):

A field Report

Field Report Template

1. Title:

Write the title of your report including the location or activity.

العنوان (Title)

- اسم التقرير + المكان أو النشاط
- يجب أن يكون واضح ويعكس الجانب الميكانيكي

2. Introduction:

Briefly explain the purpose of the field visit and what you aim to learn.

المقدمة (Introduction)

- لماذا قمت بالزيارة؟
- ما الهدف من التقرير؟
- ✓ فهم الأنظمة الميكانيكية
- ✓ دراسة أداء الآلات
- ✓ تطبيق مفاهيم مثل الديناميكا الحرارية أو الميكانيكا

3. Background Information:

Provide relevant details:

- Location:
- Date:
- Time:
- Participants:

معلومات عامة (Background Information)


- المكان (ورشة / مصنع / محطة طاقة)
- التاريخ
- الوقت
- نوع النشاط الصناعي
- نوع المعدات المستخدمة
- الأشخاص المشاركون

الملاحظات (Observations)

- وصف دقيق لما يحدث فعليًا:
- ✓ كيف تعمل الآلة؟
- ✓ هل الأداء مستقر؟
- ✓ كيف تتم الصيانة؟
- ✓ هل يوجد احتكاك / حرارة / ضوضاء؟

4. Observations:

Describe what you saw and did in the field:

- رنجز على: 
- الأداء (Performance)
- الكفاءة (Efficiency)
- السلامة (Safety)
- Use clear and detailed descriptions.

5. Analysis:

Interpret your observations (strengths, weaknesses, impact).

التحليل (Analysis)

- ماذا تعني هذه الملاحظات؟
- ما نقاط القوة والضعف؟

6. Recommendations:

Suggest actions for improvement or solutions based on your analysis.

التوصيات (Recommendations)

- ماذا تقترح لتحسين الوضع؟

7. Conclusion:

Summarize the main findings of the field visit.

الخاتمة (Conclusion)

- ملخص سريع لأهم النقاط

Taking Effective Field Notes

Good field notes are clear, organized, objective, and time-stamped.

Avoid (too vague)

“The site was bad.”

Prefer (observable + specific)

“3 exposed cables crossed the main walkway near Bay 2 (10:40).”

1. العنوان (Title)

هنا يتم ذكر اسم التقرير بالإضافة إلى المكان أو النشاط مثال:

➔ **Field report on Visiting a Construction Site.**

تدريب:

During the field **visit to the mechanical workshop of Al-Faisal Factory**, I observed the operation of various machines and maintenance procedures. The purpose of the visit was to understand the practical working of hydraulic and pneumatic systems and their maintenance in an industrial environment.

➔ **Field report on Visiting a Construction Site.**

Exercise

You are a Mechanical Engineering student and you visited the “**Al-Mutakaddimah Metal Industries Factory**” to observe the operation of machines and heavy equipment. During the visit, you observed the use of hydraulic and electrical systems in production lines, as well as routine maintenance and safety procedures. The purpose of the visit was to understand the practical applications of mechanical systems in an industrial environment.

Task:

Based on this scenario, write a suitable title for a mechanical engineering field report that reflects the visit and its purpose.

➡ **Field report on visiting Al-Mutakaddimah Metal Industries Factory.**

➡ **Field report on observing the operation of machines and heavy equipment.**

2. المقدمة (Introduction)

- هنا تذكر غرضك (هدفك) من الزيارة، ويُفضل أن يكون هدف واحد حتي يكون التقرير مركز.
- ذكر التاريخ والموقع.
- اسم الشركة

- Evaluate safety conditions (تقييم ظروف السلامة)
- Observe workflow efficiency (ملاحظة كفاءة سير العمل)
- Inspect equipment performance (فحص أداء المعدات)
- Document site conditions (توثيق حالة الموقع)

تدريب:

During the field visit to the mechanical workshop of Al-Faisal Factory, I observed the operation of various machines and maintenance procedures. **The purpose of the visit was to understand the practical working of hydraulic and pneumatic systems.**

➔ **The purpose of the visit was to** understand the practical working of hydraulic and pneumatic systems.

➔ **This report documents a field visit conducted** on 12 March 2026 **to** understand the practical working of hydraulic and pneumatic systems.

1. Exercise: Writing a Field Report Introduction

Scenario:

You are a Mechanical Engineering student and you visited **Elite Mechanical Industries Factory**. During the visit:

You observed the operation of CNC machines and metal forming equipment.

You followed the routine maintenance procedures of the machines.

You noticed the use of hydraulic and electrical systems in production lines.

You monitored safety measures and workflow efficiency in the workshop.

Task:

Write an **introduction for your field report** that includes:

The **purpose of the visit**.

The **location and date of the visit**.

A **brief summary of the activities or main observations**.

➔ **The purpose of the report was to** observe the operation of CNC machines and metal forming equipment **at** Elite Mechanical Industries Factory. **During the visit**, I observed the maintenance procedures of the machines, the use of hydraulic and electrical systems in production lines and monitored safety measures and workflow efficiency in the workshop.

3. وصف موقع العمل الميداني (Describing the Field Site)

معلومات عامة عن الموقع الذي تقوم بزيارته، مكانه، الأنشطة التي يقوم بها، والمسؤول عن التشغيل، وتخطيط الموقع.

Where is the site?

- What activities take place?
- Who operates it?
- What is the layout (areas/zones)?

The field site is located at _____ . It is a _____ (type of facility, e.g., mechanical workshop, factory, plant).

The site is mainly used for _____ (main activities such as manufacturing, maintenance, inspection, etc.).

Various operations take place, including _____, _____, and _____.

The site is operated by _____ (e.g., engineers, technicians, supervisors), who are responsible for managing and monitoring the workflow and ensuring proper operation of the equipment.

The layout of the site consists of several areas, including _____ (e.g., machining area, maintenance section, storage area, safety zone). Each area is designed to support specific functions and improve overall efficiency and safety.

You visited a mechanical workshop at **Al-Nour Industrial Factory**, located in the industrial area of Jeddah. The workshop is responsible for **manufacturing metal parts using CNC machines and lathes**. Several **technicians and engineers** operate the machines and supervise the production process. The workshop is divided into different zones: **a machining area, a maintenance section, a storage area for raw materials, and a safety inspection zone**. **Daily activities** include **cutting, shaping, assembling metal components, and performing routine maintenance**.

- ➔ **The field site is located at** Al-Nour Industrial Factory in the industrial area of Jeddah. **It is a** factory (type of facility, e.g., mechanical workshop, factory, plant).
- The site is mainly used for** manufacturing metal parts using CNC machines and lathes (main activities such as manufacturing, maintenance, inspection, etc.). Various operations take place, including CNC machining, metal forming and routine maintenance of equipment.
- The site is operated by** technicians and engineers (e.g., engineers, technicians, supervisors), who are responsible for managing and monitoring the workflow and ensuring proper operation of the equipment.
- The layout of the site consists of several areas, including** a machining area, a maintenance section, a storage area for raw materials, and a safety inspection zone. (e.g., machining area, maintenance section, storage area, safety zone). Each area is designed to support specific functions and improve overall efficiency and safety.

1. Exercise: Describing The Field Site

Scenario:

You visited a **maintenance workshop at Al-Salam Power Plant**. The site is located on the outskirts of Riyadh. The workshop is responsible for maintaining turbines, pumps, and generators. During the visit, you observed technicians performing inspections, repairing equipment, and testing system performance. The site is operated by maintenance engineers, technicians, and safety supervisors. The workshop is divided into several areas: a turbine maintenance section, a pump repair area, a control room, and a safety monitoring zone. Daily activities include equipment inspection, fault diagnosis, repair work, and performance testing.

Task:

Write a paragraph describing the field site. Your paragraph should include:

Where is the site?

What activities take place?

Who operates it?

What is the layout (areas/zones)?

➔ The field site is located at **Al-Salam Power Plant on the outskirts of Riyadh**. It is a **maintenance workshop**. The site is mainly used for **maintaining turbines, pumps, and generators**. Various operations take place, including **equipment inspection, fault diagnosis, repair work, and performance testing**.

The site is operated by **maintenance engineers, technicians, and safety supervisors**, who are responsible for managing and monitoring the workflow and ensuring proper operation of the equipment.

The layout of the site consists of several areas, including **a turbine maintenance section, a pump repair area, a control room, and a safety monitoring zone**. Each area is designed to support specific functions and improve overall efficiency and safety.